

OCCUPATIONAL HAZARD

The Jammu and Kashmir Floods of September 2014



Jammu Kashmir Coalition of Civil Society

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The System

Extermination plan: destroy the grass, pull up every last little living thing by the roots, sprinkle the earth with salt. Afterward, kill all memory of the grass. To colonize consciences, suppress them; to suppress them, empty them of the past. Wipe out all testimony to the fact that in this land there ever existed anything other than silence, jails and tombs.

It is forbidden to remember.

Prisoners are organized into work gangs. At night they are forced to whitewash the phrases of protest that in other times covered the walls of the city.

The steady pelting of rain on the walls begins to dissolve the white paint. And little by little the stubborn words reappear.

[Eduardo Galeano, Days and Nights of Love and War]

Acknowledgment and Dedication

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We specially thank those volunteers who accompanied JKCCS researchers to communities in flood ravaged areas, and the residents of Sutrashahi, Dal Lake, Bemina, Qamarwari, Indiranagar, Lal Chowk (in Srinagar), Beighpora, Gulzarpora, Lelhara and Kakapora (in Pulwama), Narbal, (in Budgam), Manasbal, Sumbul, Nowgam and Nowgam Payeen (in Bandipora) Gund Ibrahim, Harinara, Methipora and Pattan (in Baramulla) and Bijbehera and Anantnag .

A collective endeavour at every stage, this is truly a people's history of the Kashmir floods. It is therefore only fitting that it be dedicated to the occupied people of Jammu and Kashmir, whose resistance and resilience inspires and informs every word.

Contents

CHRONOLOGY OF EVENTS	1
INTRODUCTION	3
The Indian Occupation Of Jammu And Kashmir	4
Military Occupations And International Environmental Law	8
Disasters And Social Marginality	8
Introducing This Report	11
Chapters And Scope	13
CHAPTER 1 THE FLOODING OF KASHMIR A BRIEF HISTORY	15
The River And The Valley	15
The Political Economy Of Flood Management In Kashmir	16
The Dogra Period	17
The Grow More Food Campaign Of 1949	19
Bakshi Ghulam Mohammad And The Wullar Embankments	19
The Uppal Committee, 1976	21
The Last Two Decades	21
The Floods Of 2014	24
The Natural Hazard	24
Gauge Readings And Breaches	25
Warnings	28
CHAPTER 2 LANDSCAPES OF OCCUPATION	32
Militarisation, Ecology, Disasters	32
Massive Military Deployment And The Occupation Of Land	35
Extent Of Land Occupation	37
The Occupation Of Civic And Flood Control Infrastructure	42
City Highlands, Karewas	43
Water Bodies	49
Forests	53
Alpine Pastures	56
Glaciers	58
Militarised Development	61
The Jammu – Baramulla Railway Line: The Infrastructure Of An Occupation	61
Hydropolitics And Water Resource Sovereignty	69
Operation Sadbhavna And Micro Power Projects	72
CHAPTER 3 THE CHRONICLE OF A FLOOD FORETOLD MILITARISED GOVERNANCE AND THE FLOODS	74
Disaster Management	75
The Political Economy Of Disaster Management	75
The Policy Framework	76
The Flood Control Department	80
Unimplemented Plans And Laws Relating To Flood Prevention And Wetland Conservation	80

Encroachments On Bunds, Flood Channels And Riverbeds	84
Operational Procedures	85
The Departmental Response	90
Urban Planning And Development	91
A Brief History Of A City Under Occupation.....	92
City Waterways	95
The Srinagar Development Authority	97
Reconstruction And Infrastructure	100
Laying Of Water Pipe Lines In The Jhelum Bund	101
Jehangir Chowk-Rambagh Flyover And The Mehjoor Nagar Bridge.....	103
CHAPTER 4 FLOODED LIVES: EVALUATING THE IMPACT OF THE KASHMIR FLOODS	106
The Impact Of Flooding An Overview	107
South Kashmir.....	107
Central Kashmir	110
North Kashmir.....	112
Sector-wise Impact Assessment.....	116
The Health Care Deluge	120
SMHS Hospital, Srinagar	122
Lala Ded Hospital, Srinagar	127
Ahmed Hospital, Srinagar	129
District Hospital, Budgam.....	130
The 'normalcy' Narrative	132
CHAPTER 5 RESCUE, RELIEF, RESISTANCE	134
Civil Administration In Disarray	134
Survival And Rescues	137
Militarised Rescues.....	147
Embedded Disaster Journalism.....	149
Relief	153
State Interference In Community Relief Efforts.....	156
Resistance	158
CONCLUSION	160
Annexures	163

CHRONOLOGY OF EVENTS

DATE	EVENT
2nd September	<ul style="list-style-type: none"> · Rainfall started · Meterology Dept. Warning: Moderate rain along with thunder showers would occur at most places across Jammu and Kashmir for next four days.
3rd September	<ul style="list-style-type: none"> · Water levels in Chenab, Jhelum, Tawi and Sind rivers rose. · Flood alert declared in southern districts of Kashmir like Anantnag, Kulgam and Pulwama as water level at Sangam Gauge crossed the flood level (21 feet). · Chief Secretary Iqbal Khanday held a video conference with Deputy Commissioners of various districts. · Control Room was setup at PCR, Batamaloo. · Meterology Dept. (Srinagar) Forecast 1: Rather moderate to heavy rain/thundershower would occur at most places with very heavy rainfall at few places. · Meterology Dept. (Srinagar) Forecast 2: Heavy to very heavy rain/thundershower would occur at few places for next 48 hours.
4th September	<ul style="list-style-type: none"> · Flood Alert declared all across Jammu and Kashmir. · Major Nallahs Lidder, Vaishav, Rambhara, Ferozepur flowed above danger level affecting about 70 villages. · Director Meteorological Dept. Sonam Lotus said Kashmir will receive more rains on Friday. "Rainfall will continue till Friday but with significant decrease in its intensity from tomorrow," he said. · Gauge at Sangam got submerged (32.6 feet of water). · Kulgam completely submerged. · Evacuation order issued by the Chief Engineer Irrigation and Flood Control for people residing along the riverbanks. · Reports of Kandizal having breached. · NDRF (National Disaster Relief Force) approached for help. · The Chief Minister reviewed the prevailing flood situation in the State at a high level meeting at Police Control Room. · Meterology Dept, (Srinagar) Forecast: Rather heavy to very heavy rains will occur at most places.
5th September	<ul style="list-style-type: none"> · Bus carrying a marriage party (44 people) was swept away on the Lam-Darhal Road in Nowshehra, Rajouri (Jammu). · Almost 70 villages submerged in Anantnag District · Reports of breaches at Shopian and Pulwama. · Overflows at Lasjan, Pandrethan, Pantha Chowk (South Srinagar) · Breach at Drangbal, Pampore. · Breach at Kandizal, Pampore. · Rambhara Nallah breached at Shopian. · Home Minister Rajnath Singh, conducts aerial survey of the flood affected areas of the State, accompanied by Minister of State for PMO, Jitendra Singh., and directs the State to use Rs 1100 Crore of the State Disaster Relief Fund to deal with the calamity. · Meteorology Dept Forecast: Vigorous monsoon conditions are prevailing over the state, associated with strong westerlies.

DATE	EVENT
6th September	<ul style="list-style-type: none"> · Gauge at Ram Munshi Bagh, Srinagar submerged (26.25 feet). · Breach at Athwajan Bund, south of Srinagar. · Breach reported from Galandar, Srinagar. · Breach reported from Shivpora, Srinagar. · Breach reported from Hanuman Temple, Amira Kadal, Srinagar. · Evacuation order issued by the Chief Engineer Irrigation and Flood Control for people residing along the river banks. · Indira Gandhi Road, connecting Srinagar city to the city Airport submerged.
7th September	<ul style="list-style-type: none"> · Breach at Rajbagh bund, Lal Chowk, Srinagar. · Reports from different parts of Srinagar of about 15 feet of inundation (including Shaheed Gunj, Amira Kadal, Sonwar, Rajbagh, Nowgam, Lasjan, Shivpora, Jawahar Nagar, Mahjoor Nagar, Bemina, Batamaloo, Tengpora). · Red alert declared in North Kashmir, in Baramulla and Bandipora. · Water overflows the locks at Dalgate. · Prime Minister, Narendra Modi takes an aerial survey of the flood affected areas of Jammu and Kashmir, and announces Rs 11000 Crores in disaster relief payments, as well as compensation to victims and their relatives. Also announces that 100,000 blankets, 5,000 tents, and 50 tonnes of milk powder will be distributed to those who have been forced to leave their homes. Prime Minister Modi calls the floods a National Disaster.
11th September	<ul style="list-style-type: none"> · The Army distributes nine satellite phones and 100 Mobile Cell Communication Sets to civil officials for coordinating the relief efforts.
14th September	<ul style="list-style-type: none"> · Supreme Court of India asks the Govt. of India to spell out steps undertaken to accelerate rescue, relief, and rehabilitation operations for the flood victims. Supreme Court also asked the Centre to consider setting up a unified agency to coordinate rescue and relief work.
19th September	<ul style="list-style-type: none"> · Army calls off its 'Operation Megh Rahat' to rescue people in Jammu and Kashmir. · Supreme Court directs the government of India to ensure that the flood affected people of Jammu and Kashmir get food, fuel, drinking water and medicines, & that their damaged houses are restored as it concerned their right to life under Article 21 of the constitution.
30th September	<ul style="list-style-type: none"> · The Central Water Commission (CWC) states that the clearance to a multi-crore flood management project for river Jhelum was held up since 2010 due to the failure of the Jammu and Kashmir State Govt. to furnish the requisite information. · The Jammu and Kashmir High Court orders insurance companies operating in the State to pay 50 percent of insured amount for policies above Rs 25 lakh and 95 percent for policies below Rs 25 lakh as interim relief to the flood-affected people. The Court said an earlier order on the subject cannot be modified and directed insurance companies to comply with it or face action.
1st October	<ul style="list-style-type: none"> · State Government releases a reply to the CWC stating that the organization "raised queries of cumbersome nature", which led to the delay.
22nd October	<ul style="list-style-type: none"> · Indian Prime Minister Modi arrives in Kashmir. · Prime Minister Modi announces Rs 175 Crores for renovation of six major hospitals and Rs 570 Crores for rebuilding homes damaged in the floods.

Introduction

*Disasters don't simply flatten landscapes, washing them smooth. Rather they deepen and erode the ruts of social difference they encounter.*¹

The flooding of the river Jhelum and its tributaries in Indian Administered Jammu & Kashmir (J and K) in early September 2014, was a 'man-made', an unnatural, rather than a 'natural' calamity. This is a sentiment so often repeated, that it has taken on the shades of a cliché, with every one from civil society activists to politicians being in seeming agreement that the J and K government's administrative negligence and its peoples' irresponsible development practices were the cause of the floods.² Recent understandings of disasters and development, including that of the United Nations, emphasise that human actions and socio-economic inequalities influence the causes of, and vulnerabilities to natural events, and often determine whether a particular 'hazard' takes on disastrous proportions or not.³ Natural disasters wherever they occur, are a product of wider historical and political forces, inseparable from the proximate environmental or physical factors that are identified as their cause. This is not a phenomenon unique to this particular flood. Whether it is a drought, a famine, an epidemic, earthquake or tsunami, studies have revealed that the social and political context has much to do with how a particular natural event is defined, perceived and responded to.⁴ Understanding the ways in which a particular 'humanitarian disaster' is manufactured and experienced can therefore tell us much about the society and the polity which produced and suffered it. This report unravels some of the ways in which the political economy and ecology of J and K's militarised governance enabled the conditions that made the disastrous proportions of the floods of 2014 an inevitability.

On 3rd September 2014, after about 24 hours of incessant rainfall, rivers such as the Sindh, Chenab, Tawi and Jhelum, on both sides of the Pir Panjal Mountains that divide the region into the Jammu region and the Kashmir Valley, began to flow at flood levels. Because of the very different topographies of the two areas, the nature of the floods in the two regions differed significantly. The Jammu region, particularly the mountainous districts of Rajouri, Poonch and Reasi, experienced sudden and devastating flash floods accompanied by land and mud slides, with the debris-laden waters carrying away everything in their path. 159 bodies were eventually recovered from flood-hit areas in Jammu division, even as the bodies of 44 people, a marriage party traveling in a bus that was washed away by the waters of the Tawi, were not recovered.⁵ The progress of the floods along the Jhelum and its tributaries in Kashmir valley, was less rapid but no less devastating, as torrential waters flowing down the mountainsides began to breach embankments and inundate low-lying areas, refusing to drain away, causing prolonged water logging and destruction.⁶

By 5th September Indian and Kashmiri newspapers were reporting on the unprecedented and devastating flooding in the region, as the situation acquired the proportions of a state-wide emergency. News reports stated that information from all the 10 districts of the Kashmir valley indicated that hundreds had abandoned their homes in inundated areas to shift to safer places, and that many areas were already cut off, with the administration finding it difficult to reach them. The electric supply in most areas of south Kashmir districts was suspended because of uprooted electric poles and apprehensions of accidents due to electric short circuits in water logged villages and towns. Drinking water facilities in more than 500 water supply schemes were also disabled because of water logging and electricity failures across the valley. In Srinagar district alone, over 70,000 residents in low-lying areas were already being reported as having been affected as flood waters entered their homes and agricultural fields. All educational institutions were closed, and international Hajj flights cancelled. The Srinagar-Jammu national highway, Srinagar-Leh national highway and the Srinagar-Muzaffarabad road were closed to traffic. On the

1 Neil Smith, There is no such thing as a Natural Disaster, SSRC, 11 Jun 2006, <http://understandingkatrina.ssrc.org/Smith/>

2 Articles calling the flooding of 2014 'man made' calamity include: GK News Network, Valley floods a manmade disaster: BJP, Greater Kashmir, 27 Sept 2014, <http://jammu.greaterkashmir.com/news/2014/Sep/27/valley-floods-a-manmade-disaster-bjp-47.asp> Gautam Naviakha, Kashmir Deluge, Natural Disaster made worse, EPW, 18 Oct 2014, <http://www.epw.in/commentary/kashmir-deluge.html>.

3 O'Keefe, Phil; Westgate, Ken; Wisner, Ben, Taking the naturalness out of natural disasters, Research Gate, http://www.researchgate.net/publication/32017547_Taking_the_naturalness_out_of_natural_disasters. Disaster Management in India, UNDP, http://www.undp.org/content/dam/india/docs/disaster_management_in_india.pdf

4 For studies on the political economy of natural disasters see P Sainath, Everybody loves a good drought, (1996); Keys, A., Masterman-Smith, H. and Cottle, D. (2006), The Political Economy of a Natural Disaster: The Boxing Day Tsunami, 2004.

5 For a description of the devastation in the Jammu Region, particularly in Rajouri District, see EFICOR, (Sep 2014) Updates from Jammu and Srinagar, Update 3, <http://eficor.org/wp-content/uploads/2014/09/EFICOR-JK-Flood-Relief-Update-3-Download-full-articlepdf-1.54-MB.pdf>

6 For a detailed overview of the impact of the floods in the valley, see chapter 4 of this report.

intervening night of 6th and 7th September, while South Kashmir remained inundated and cut off, the Jhelum, and its tributaries, breached their embankments all along Srinagar causing flash floods and inundation throughout the city.

The J and K floods rendered the familiar unrecognisable, as solid land became indistinguishable from lake, marsh and river, in many parts of the Kashmir valley, and torrential streams flowed down city streets, recreating long forgotten water courses. The barricades and fences that are an integral part of the capital Srinagar's garrisoned cityscape were washed away by the waters for a brief interlude, and though quickly resurrected, allowed for example, astonishing views of the river Jhelum, flowing just behind the normally impermeable concertina wire-topped walls of the Badamibagh Cantonment. When the waters receded the people of Srinagar found that amidst the debris, beyond the broken walls and uprooted fences, was a secret city that had lain hidden from view for years. The residents of Shutrashahi in Central Srinagar, for instance, suddenly discovered that what they had always thought was a single empty plot of land belonging to the paramilitary Central Reserve Police Force (CRPF) in one high-walled corner of their congested neighbourhood was in reality a field measuring about 2 kanals (1/4 of an acre) containing several sheds and temporary structures, including a dilapidated bunker.

Like the collapsed walls of the flooded city, this report hopes to act as a critical window, allowing us to access the normalised and embedded factors that shape life, land, livelihoods—and calamities—in Indian Administered J and K, the most densely militarised occupied territory in the world, located in one of its most ecologically fragile.

The Indian Occupation of Jammu and Kashmir



Political Geography of the erstwhile Princely State of Jammu and Kashmir
'Source: siachengalcier.com'

The beginnings of the Indian occupation of J and K are complicated by the disputed circumstances of its accession to India, which was conditional upon a plebiscite, and preceded by widespread rebellion, political unrest and communal pogroms, in the princely state of Kashmir and Jammu, ruled by the Dogra Maharaja Hari Singh, under the paramountcy of the British crown until 1947.⁷ In January 1948, after the first Indo–Pakistan war over Kashmir, India

⁷ See generally, Christopher Snedden, *Kashmir – The Unwritten History*. Harper Collins Publishers India. See also, Whitehead, A. (2007). *A mission in Kashmir*. Penguin, pages 232-240. In August of 1947, when India and Pakistan became sovereign nations, much of the popular political leadership of Jammu and Kashmir, was in jail for their participation in anti-Dogra protests. In October of 1947, the proclamation of independence of the Northern and North Western part of the Maharaja's kingdom and the declaration of their allegiance to Pakistan (Gilgit Baltistan, and Azad Kashmir including parts of erstwhile Poonch and Muzaffarabad which constitute the autonomous areas of present day Pakistan Administered Kashmir). There was simultaneous invasion in the Northern areas of Baramulla, by Pakistan state supported armed 'irregulars'. This compelled the Maharaja to appeal to India for military help to quell the internal rebellion, and repel external aggression. India's military support was made contingent on the Maharaja acceding to India, and accepting its temporary sovereignty in matters of 'defense, foreign affairs and communication', though it is in doubt whether the Maharajah was in sovereign control at all, given that he had fled his state capital Srinagar. There is also contemporaneous evidence of Indian and British assurances that the ultimate status of Jammu and Kashmir would be decided in accordance with the wishes of its people, through a plebiscite. The Indian armed forces it has been contended left Delhi for Srinagar before the Instrument of Accession was signed, thus making the legal basis of India's initial foray into Kashmiri land and airspace highly suspect.

and Pakistan mutually agreed to the disputed nature of the region's territorial and political status, and the final determination of the dispute through a plebiscite, before the United Nations Security Council, through the establishment of the UN Commission on India and Pakistan.⁸ The plebiscite was not held, as terms of the resolutions were violated by both sides, though more egregiously by India which now denies Kashmir's internationally disputed status, and sees popular resistance and armed rebellions, as internal 'law and order' issues, fuelled by Pakistani 'interference'. Three further wars took place in the region, two between India and Pakistan (in 1965 along the Line of Control, and 1999 in Kargil); and between India and China over Ladakh and Tibet (in 1962), further militarizing the region, and redrawing its disputed boundaries.

The international law of occupation has developed as part of the law of war (*jus ad bellum*).⁹ Traditionally occupation was viewed as necessarily a by-product of military actions during war, and therefore it was referred to in International Law literature as 'belligerent occupation'. But the history of the twentieth century has shown that occupation need not necessarily be the outcome of actual invasion, but can be the result of numerous other factors, such as a threat to use force that prompted the threatened government, or disputed territory, to concede effective control over its territory to a foreign power. (The German occupations of Bohemia and Moravia in March 1939 for instance, and the German occupation of Denmark during World War II)¹⁰ Today the more inclusive term 'occupation', without the qualification of belligerency, is generally used. The movement towards a more encompassing definition is also reflected in the 1949 Fourth Geneva Convention, Article 2, which provides that the convention will apply even to an occupation that 'meets with no armed resistance'.¹¹ The emphasis is not on the course through which a territory came under the foreign State's control, but on 'the phenomenon of occupation', which authors have described 'as the effective control of a power over a territory over which it has no sovereign title, without the volition of the sovereign of that territory'.¹² When the sovereignty of the territory is itself disputed, as in the case of Indonesia's occupation of East Timor, the international community has recognised the inalienable right to self-determination of the people in the occupied territory to decide their political future.¹³ The UN resolutions on Kashmir, and the United Nations Commission on India and Pakistan too, initially accepted by both India and Pakistan, are premised on this principle.

Article 42 of The Hague Regulations Respecting the Laws and Customs of War on Land, (1907), which imposes international obligations on occupying powers, states that 'Territory is considered occupied when it is actually placed under the authority of a hostile army. The occupation extends only to the territory where such authority has been established and can be exercised.' One necessary element of 'belligerent occupation' is therefore the establishment of 'authority' or effective control, by the invading army over the occupied territory.¹⁴ Commentators have noted that modern occupying powers prefer not to establish such a direct administration, which would render them liable as an occupying power under Hague conventions. Instead they try to avoid International Law liability by purporting to annex existing administrative structures, establish puppet states or governments, or simply refrain from establishing any form of administration. It should be noted that civilian authorities (domestic or external) may be responsible for governance in occupations, but only under the supervision of the occupying authority. In such cases, the occupying powers tend not to acknowledge the applicability of the law of occupation to their own – or surrogates' – activities, allowing them deniability of responsibility, especially for their surrogate's actions.¹⁵ This has been the case, in the September 2014 floods in J and K, where India has sought to exclusively and repeatedly blame its surrogate, the State Government of Jammu and Kashmir, for acts of criminal negligence that as an occupying power, it is liable for under international humanitarian law.¹⁶ Given these standards of international

8 For the background to the UNMOGIP see, <http://www.un.org/en/peacekeeping/missions/unmogip/background.shtml>

9 See International Committee of Red Cross, Resource Centre, Occupation and International Humanitarian Law: Questions and Answers. <https://www.icrc.org/eng/resources/documents/misc/634kfc.htm> for basic principles

10 For the classification of occupations, see: Roberts, A. (2006). Transformative military occupation: applying the laws of war and human rights. *American Journal of International Law*, 580-622.

11 See Roberts, A. (2006). Transformative military occupation: applying the laws of war and human rights. *American Journal of International Law*, 580-622.

12 See generally, Benvenisti, E. (2012). *The international law of occupation*. Oxford University Press.

13 Benvenisti, E. (2012). *The international law of occupation*. Oxford University Press, page 4-5

14 For Belligerent Occupations with particular reference to International environmental law, See Mason, M. (2011). *The application of warfare ecology to belligerent occupations*. In *Warfare Ecology* (pp. 155-173). Springer Netherlands.

15 Benvenisti, E. (2012). *The international law of occupation*. Oxford University Press, Page 5.

16 See for instance Parliamentary Committee Report.

<http://www.dnaindia.com/india/report-parliamentary-panel-raps-jammu-and-kashmir-government-for-inadequate-steps-on-flood-warning-2046151>

humanitarian law, Indian Administered J and K is indisputably an occupied territory whose people have a right to self determination.¹⁷ This description is vigorously contested by India, which is not unusual for the state in military control, as seen in the Israeli position on East Jerusalem and Gaza, and Morocco's stance on the Western Sahara.¹⁸ There is an onus on the occupying power under international humanitarian law, not to make fundamental changes in the constitutional, social, economic and political order of an occupied territory.¹⁹ India has repeatedly violated this principle first through the enactment of Article 370 of the Indian constitution (incorporating J and K as an autonomous and temporary state in the Indian federation), and thereafter by repeated legal and extra-legal erosions of J and K's autonomy, seeking to legalize and politically consolidate India's highly contested sovereignty over the region.²⁰ India considers J and K's participation in the electoral process as a referendum legitimizing its political sovereignty, whereas most Kashmiris view elections as means of choosing local administrative representatives, who function under the supervision and control of India and its military.²¹ The present leadership and cadre of the popular 'pro freedom' parties (referred in the Indian media as 'separatists') remains under surveillance, long term house arrest and political imprisonment, and is subject to routine and arbitrary preventive detentions, as was the case with their political fore-bearers. The intensified and overwhelming militarization of Indian Administered J and K, in response to an armed insurgency which arose in the region after elections were rigged by the Indian state in 1987, to prevent a 'pro freedom' coalition, the Muslim United Front, from coming to power, is an essential contemporary feature of India's occupation.²²

Besides widely acknowledged and documented human rights abuses and war crimes, fostered by legalized and extra legal impunity,²³ the military occupation of J and K has included the expropriation, illegal occupation²⁴ and weaponization of huge areas of land,²⁵ the building of large scale permanent military installations including encampments, air force and naval bases, and the creation of militarised infrastructure including roads and railways, helipads, ammunition depots,²⁶ firing ranges,²⁷ and military bases in ecologically fragile glaciers,²⁸ areas of permafrost,²⁹ mountain high-lands and forests,³⁰ alpine meadows,³¹ karewas (plateaus composed of Pleistocene

17 Goodhart W. et al, 1995. Human Rights in Kashmir: Report of a Mission, International Commission of Jurists: Geneva, at 63.

18 Benvenisti, E. (2012). The international law of occupation. Oxford University Press.

19 Roberts, A. (2006). Transformative military occupation: applying the laws of war and human rights. American Journal of International Law, 580-622. The principle derives from the Customary International Law of War which prohibits annexation, The Geneva Convention IV, which places the notion of 'trusteeship' at the core of an occupying power's responsibilities, Article 43 of the Hague Regulation 1907 which prohibits changes to the laws of an occupied territory, and international human rights law.

20 A.G. Noorani, Article 370, A constitutional history of Jammu & Kashmir, Oxford University Press, New Delhi.

21 Ayesha Pervez, Interpreting the Kashmiri Vote, The Hindu, 13 Dec 2014 <http://www.thehindu.com/opinion/lead/interpreting-the-kashmirivote/article6686791.ece>, Zahir ud din, Why should I vote? Kashmir reader, 25 Nov 2014 <http://www.kashmirreader.com/why-should-i-vote-2/>. See also Sanjay Kak, Ballot Bullet Stone, What will the coming elections mean for Kashmir? The Caravan <http://www.caravanmagazine.in/reportage/ballot-bullet-stone>, for an account of the militarized 2014 December Indian parliamentary elections. The political history of post 1947 Jammu and Kashmir, including the political imprisonment of its first Prime Minister Sheikh Abdullah, the installation of various India friendly surrogate governments, the rigging of elections, the declaration of direct Indian rule through federally appointed Governors, and revelations of Indian military interference in the region's political processes as part of its counter insurgency strategy add considerable credence to this view. For the leak of details of the militarisation of democratic processes by a retired Army General, See Naseer Ganai, Northern command boss backs army chief V.K. Singh, Mail Online India <http://www.dailymail.co.uk/indiahome/indianews/article-2123032/Northern-command-boss-backs-army-chief.html>. See also Parvaiz Bukhari, Barriers of Militarization, India International Centre

22 For the extensive use of preventive detention laws against political activists in Kashmir, see Amnesty International (2011) A 'Lawless Law': Detentions under the Jammu and Kashmir Public Safety Act. Index number: ASA 20/001/2011. <https://www.amnesty.org/download/Documents/.../asa200012011en.pdf>

23 International Peoples' Tribunal on Human Rights and Justice in Indian-Administered Kashmir and Association of Parents of Disappeared Persons (APDP), Alleged Perpetrators: Stories of Impunity in Jammu and Kashmir, December 2012. For an account of the lived experience and the contradictory political logic of India's integrationist 'democratic' occupation of Kashmir see also, Mohamad Junaid, Death and Life under Occupation: Space, Memory, and Violence in Kashmir in Visweswaran, K. (Ed.). (2013). Everyday occupations: experiencing militarism in South Asia and the Middle East. University of Pennsylvania Press.

24 For details of the disputed numbers in relation to the extensive occupation of land by the armed forces in Jammu and Kashmir, see Chapter 2 of this report.

25 See for instance Yasir Ashraf, Army laid landmines on 28,000 kanals during Kargil war, News Report dated 03 April 2013, available at https://www.facebook.com/permalink.php?story_fbid=440926992655776&id=225083110906833. See also Chapter 2 of this report for details of the impacts of such weaponization, including Khundru Ammunition Depot explosion (2007), the laying of land mines along the Line of Control and the use of Alpine meadows as Artillery Firing Ranges.

26 See for instance, Mudasi Ali, 54,000 kanals of agriculture, horticulture land affected around Khundru, Greater Kashmir 17 Aug, 2007, <http://www.greaterkashmir.com/news/2007/Aug/17/54-000-kanals-of-agriculture-horticulture-land-affected-around-khundru-44.asp>

27 See for instance, Asem Mohiuddin, J&K only state in India to have 12 firing ranges, Rising Kashmir, 18 Apr 2014. <http://www.risingkashmir.com/jk-only-state-in-india-to-have-12-firing-ranges/>

28 See for example, Arjmand Hussain Talib, Degradation of Indus Basin: how secure is South Asia's future? <http://www.indowindow.com/akhbar/article.php?article=100&category=3&issue=17>

29 See for instance Peerzada Arshad Hamid, Connecting Ladakh, Himal South Asian, Jun 2009. <http://old.himalmag.com/himal-feed/48/525-connecting-ladakh.html>

30 See for instance, GK News Network, Army illegally occupies 175 acres in Gulmarg: Govt, Greater Kashmir, 18 Feb 2014, <http://www.greaterkashmir.com/news/2014/Feb/18/army-illegally-occupies-175-acres-in-gulmarg-govt-11.asp>

31 See for instance, Reader Correspondent, Govt clueless about noise, water pollution caused by army shelling at Tosmaidan, Kashmir Reader, 16 Jul, 2014, <http://www.kashmirreader.com/govt-clueless-about-noise-water-pollution-caused-by-army-shelling-at-tosmaidan-16758>. P G Rasool, Tosmaidan: Devil in the Details, Kashmir Reader, 17 Apr 2014, <http://www.kashmirreader.com/tosmaidan-devil-in-the-details-8316>

era glacial deposits),³² water bodies and river beds,³³ all of which have contributed directly to the region's disaster vulnerability. The occupation of civic amenities, public buildings and community spaces, such as administrative offices (including those of the J and K State Irrigation and Flood Control Department),³⁴ hospitals,³⁵ health centres,³⁶ schools,³⁷ community halls,³⁸ funeral grounds, mosques and shrines,³⁹ and community drinking water sources,⁴⁰ has a direct impact on emergency preparedness, evacuation and humanitarian response, as such community spaces are usually first responders in terms of evacuation, shelter, and essential and medical services in an emergency. Large public spaces of evacuation and shelter such as cinema halls, stadiums, college and university buildings, parks, and hotels are rendered inaccessible in cities,⁴¹ even as agricultural lands, local higher grounds, hillocks, pastures and karewas, are enclosed by barbed wire, mined and manned by gun yielding soldiers in the countryside.⁴² As with armed conflict more generally, militarised occupational practices can indirectly affect natural resources and ecosystems, and ultimately disaster vulnerability, by constraining adaptive coping strategies, livelihood and residential choices of local populations and displaced people.⁴³ Public finances, civic infrastructure, environmental and development policy, control over natural resources, and disaster management systems in J and K, are determined by Indian 'national security' priorities of controlling territory at any cost, in ways that are deeply inimical to the region's ecological, political and economic needs, interests and sovereignty.⁴⁴

32 See for example Manzoor-ul-hassan, Defence Ministry to acquire 3800 kanals of land in Budgam, Greater Kashmir, 16 Jun 2013, <http://www.greaterkashmir.com/news/2013/Jun/17/defence-ministry-to-acquire-3800-kanals-of-land-in-budgam-63.asp>

33 Mudasir Ahmed, 2 decades on, Sonerwani canal still under Army occupation, 4 Jul 2013, Kashmir Breaking News.

34 Despite repeated public assurances, electoral promises, comprehensive plans' and several official commissions on demilitarisation, public buildings continue to be under the extensive occupation of the armed forces. See for example, Special Correspondent, Panel finalises report on troop reduction in J&K, The Hindu, 25 Jul 2007. <http://www.thehindu.com/todays-paper/panel-finalises-report-on-troop-reduction-in-jk/article1879462.ece> See also, Umer Maqbool Dar, New Panels on AFSPA and DAA, Outcome of earlier initiatives gathers dust, Greater Kashmir, 6 Oct 2010, <http://www.greaterkashmir.com/news/2010/oct/6/new-panels-on-afspa-daa-19.asp>. For the latest official figures on the occupation of civilian infrastructure: including government buildings, educational institutions, industrial units, cinemas and hotels, see Ravi Khajuria Khan, Security forces occupying 1,307 Pvt houses, 278 Govt buildings, The Tribune, 24 Mar 2015. <http://www.tribuneindia.com/news/jammu-kashmir/security-forces-occupying-1-307-pvt-houses-278-govt-buildings/57595.html>

35 Manzoor-ul-Hassan, CRPF occupies Valley Hospitals, Greater Kashmir, 25 Feb 2013 <http://jammu.greaterkashmir.com/news/2013/Feb/25/crpf-occupies-valley-hospitals-65.asp>

36 See Umer Maqbool Dar, Demilitarization, remilitarization, Greater Kashmir, 7 Jan 2009 <http://www.greaterkashmir.com/news/2009/Jan/7/demilitarization-remilitarization-43.asp>

37 In 2010, the Army claimed that it had vacated all schools and hospitals, see BBC, India troops vacate Kashmir schools and hospitals, BBC News, 13 Jan 2010, http://news.bbc.co.uk/2/hi/south_asia/8457345.stm. However, many such establishments continue to be occupied. See for instance, Arif Shafi Wani and Zulfikar Majid, Army still occupies this Ganderbal School, Greater Kashmir, 13 Mar 2015. <http://beta.greaterkashmir.com/news/career-and-counseling/army-still-occupies-this-ganderbal-school/25841.html>. See also Manzoor-ul-Hassan, Tangmarg residents demand relocation of army camp, Rising Kashmir, 2 Mar, 2015. [http://www.risingkashmir.com/tangmarg-residents-demand-relocation-of-army-camp/The Citizens' Council for Justice, Atrocity and Suffering, A report on fifty villages in Baramulla & Kupwara, Districts of Jammu and Kashmir, September 2012.](http://www.risingkashmir.com/tangmarg-residents-demand-relocation-of-army-camp/The%20Citizens%20Council%20for%20Justice,%20Atrocity%20and%20Suffering,%20A%20report%20on%20fifty%20villages%20in%20Baramulla%20&%20Kupwara,%20Districts%20of%20Jammu%20and%20Kashmir,%20September%202012)

38 Umer Maqbool Dar, CRPF occupies 3 buildings in one month, 12 Feb, 2009 <http://www.greaterkashmir.com/news/2009/Feb/12/crpf-occupies-3-buildings-in-one-month-32.asp>

39 Umer Maqbool, 3500 kanals of Waqf land under illegal occupation: Government, Greater Kashmir, 4 March 2014, <http://www.greaterkashmir.com/news/2014/Mar/4/3500-kanals-of-waqf-land-under-illegal-occupation-government-7.asp>. Manzoor-ul-Hassan, Occupation of religious, heritage sites in J&K, 11 Jun, n.d., <http://www.risingkashmir.com/occupation-of-religious-heritage-sites-in-jk/> See also, Hameed Hamid, Army occupies shrine, graveyard on LoC, Greater Kashmir, 06 May 2008 <http://greaterkashmir.com/news/2008/may/6/army-occupies-shrine-graveyard-on-loc-51.asp> See also, Troops occupy village graveyard mosque, Greater Kashmir 2 Feb 2007, Anti-army protests rock Baramulla village, Rising Kashmir, 20 April 2008. For a list of desecrated and destroyed religious shrines, see Kashmir Media Service, Sacrilege of Mosques and Shrines, <http://www.kmsnews.org/news/2012/07/31/sacrilege-of-mosques-shrines.html>

40 Anti-army protests rock Baramulla village, Rising Kashmir, 20 April 2008. See also Shahid Rafiq, Army restores water supply to Kupwara village, 13 Mar 2015, [first published in Aug 2009] <http://beta.greaterkashmir.com/news/career-and-counseling/army-restores-water-supply-to-kupwara-village/59323.html>.

41 Five out of eight cinema halls in Srinagar, including the former Palladium Cinema, the Neelam Cinema and Shiraz Cinema continue to be under occupation. The remaining, are in a dilapidated state from their former use as army barracks. Cinema halls outside Srinagar are also occupied. See for instance, Shah Cinema awaits demilitarisation Residents allege harassment, Rising Kashmir, 10 Mar 2008. Stadiums under former occupation include Maulana Azad Memorial Stadium at Jammu and presently the Indoor Sports Stadium at Srinagar. M. Hyderi, 20 years on Indoor Stadium awaits vacation by troops, Greater Kashmir, 13 Mar 2015. Part of the University of South Kashmir campus in Islamabad, various campuses and research facilities of the Sher-e-Kashmir University of Agricultural Sciences and Technology, the Indian Institute of Hotel Management at Rajbagh Srinagar, Kashmir University Guest House at Hazratbal, Srinagar and National Institute of Technology hostels. See for instance, See also Zulfikar Majid, CRPF occupies NIT hostels, Greater Kashmir, 07 February 2009, <http://www.greaterkashmir.com/news/2009/Feb/7/crpf-occupies-nit-hostels-12.asp>. See generally, Afzal Sofi, Over 1800 buildings under forces' occupation, Kashmir Reader, 27 Feb 2014. For more details, including case studies of impacts of such militarisation see Chapter 2, and with reference to hospitals, Chapter 4.

42 For further details of such occupations see Chapter 2 of this report.

43 See for instance Shahid Rafiq, 200 Kanal under troops' occupation since 1990. 50 families migrated to AJK, 30 living under avalanche threat, Greater Kashmir, 20 Jan 2009, <http://www.greaterkashmir.com/news/2009/Jan/20/200-kanal-land-under-troops-occupation-since-1990-36.asp>

44 For details of the impact of such militarised governance on Jammu and Kashmir's disaster vulnerability, see Chapter 3 of this report.

Military Occupations and International Environmental Law

International humanitarian law prohibits extreme and disproportionate damage to the environment during warfare and armed interventions. Along with customary international law, the key treaties of relevance are the Hague Regulations, the Fourth Geneva Convention, Protocol I, and the Convention on the Prohibition of Military and Hostile Use of Environmental Modification Techniques (1977). In recent years environmental considerations have seriously been treated as a legitimate constraint on warfare, through precedents created by UN Security Council Resolution 687 (1991) establishing Iraqi liability for environmental (and other) damage during the First Gulf War, and Article 8(2)(b)(iv) of the Rome Statute of the International Criminal Court (2002), which states that the 'intentional infliction' of 'widespread, long-term and severe damage to the natural environment' is a war crime. Principle 21 of the 1972 Stockholm Declaration on the Human Environment enjoins states not to cause damage to the environment of other states or of areas beyond the limits of national jurisdiction. Though these precedents explicitly apply to cases of warfare, prolonged occupations accompanied by techniques of 'sub conventional warfare' as is the case of Kashmir, also fall within their ambit.⁴⁵

In its overriding responsibility to meet the needs of the civilian population, occupying powers are obliged to exercise guardianship of natural resources (Hague IV: Article 55) and to not undertake extensive destruction and appropriation of property (Fourth Geneva Convention: Article 147). In addition, Article 54(2) of Protocol I prohibits the destruction, removal and disablement of civilian objects indispensable to the survival of the civilian population, including agricultural areas, drinking water installations and irrigation works. Despite, the role accorded to the Occupying Power as a 'trustee', it should be noted that according to UN General Assembly Resolution 305 (1972), an occupied population retains permanent sovereignty over its natural wealth and resources.⁴⁶

Disasters and Social Marginality

Responses to natural disasters are getting increasingly militarised, across the world. Studies show that natural disasters have provided an opportunity for military penetration and consolidation in politically marginalised regions, such as Tsunami hit Tamil controlled Northern Sri Lanka (2004) and Aceh (Indonesia), and post-earthquake Pakistan Administered Kashmir, and border areas of Indian Administered Kashmir, (2005) through the militarisation of humanitarian rescue, relief and rebuilding efforts.⁴⁷ The flooding of J and K in 2014 provokes comparison to other natural disasters in militarised landscapes, and socially and politically marginalised, ecologically fragile borderlands. This comparative analysis is not intended to create a calculus of suffering, based on the relative scale of various disasters, but to flag some similarities and differences, as possible avenues for further research.

A commentator recently compared the Kashmir floods to the flooding of the Mississippi delta in 1927, in the racially segregated United States, where it was popularly believed that the Government had broken levees on purpose and allowed the predominantly black population to drown, forcing huge migrations to cities like Chicago.⁴⁸ Studies of the caste and ethnic dimensions of relief and rebuilding efforts of the Indian state after the Indian Ocean Tsunami (2004),⁴⁹ or the racialized nature of the US government response after Hurricane Katrina (2005), have powerfully high-lighted how social inequalities, militarisation, and political marginality play a role in creating ecologically vulnerable populations.⁵⁰ In the aftermath of Hurricane Katrina official investigations revealed that the strong

45 See generally, Mason, M. (2011). The application of warfare ecology to belligerent occupations. In *Warfare Ecology* (pp. 155-173). Springer Netherlands.

46 Mason, M. (2011). The application of warfare ecology to belligerent occupations. In *Warfare Ecology* (pp. 155-173). Springer Netherlands.

47 Sudha Ramachandran, Deaths put Siachen standoff into sharp relief, *Asia Times*, 21 April 2012

http://www.atimes.com/atimes/South_Asia/ND21Df03.html

48 Ajaz Ashraf, When a flood is not a flood, *Firstpost*, 14 Sep 2014,

<http://www.firstpost.com/india/when-a-flood-is-not-a-flood-why-kashmir-is-not-uttarakhand-1711785.html>

49 Timothy Gill, Making things worse—How 'caste blindness' in Indian Post Tsunami Disaster Recovery has exacerbated vulnerability and exclusion, *Dalit Network Netherlands*, February 2007. http://idsn.org/uploads/media/Making_Things_Worse_report.pdf. See also, Human Rights Watch, *After the Deluge: India's Reconstruction Following the 2004 Tsunami*, Human Rights Watch May 2005 Vol. 17, No. 3 (C), <http://www.hrw.org/sites/default/files/reports/india0505.pdf>; See also Venkat R. Ramani, *Gifts without Dignity? Gift-giving and the tsunami response in the Andaman and Nicobar Islands India*, University of Cambridge M.Phil Dissertation, 2010.

https://www.academia.edu/3515035/Gifts_without_dignity_Gift_giving_reciprocity_and_the_tsunami_response_in_the_Andaman_and_Nicobar_Islands_India

50 Giroux, H. A. (2006). Reading Hurricane Katrina: Race, class, and the biopolitics of disposability. *College Literature*, 33(3), 171-196.

institutional focus on responses to 'terrorist threats' (rather than natural hazards) after the attacks on the World Trade Centre, and the consequent restructuring of the Department of Homeland Security to assimilate the Federal Emergency Management Authority, were in part responsible for the absolute lack of readiness in dealing with the disaster.⁵¹ The militarised nature of a disaster zone, may exacerbate vulnerabilities as military and security priorities delay and determine the humanitarian response to a disaster. In the case of the Andaman and Nicobar Islands, a small and militarised Indian archipelago outpost, Indian naval forces prioritised the safety of their equipment and personnel, over that of the local, largely indigenous, population during the 2004 Tsunami.⁵² According to a report by Human Rights Watch, in the aftermath of the 2005 earthquake affecting areas across the Line of Control in Kashmir, 'the Indian and Pakistani militaries simply did not make the saving of Kashmiri lives a top priority. As India and Pakistan engaged in diplomatic one-upmanship—making and refusing offers of help based on political opportunism rather than humanitarian concerns—the death toll mounted.' The Report, which focuses on Pakistan Administered Kashmir, stated 'In the first seventy-two hours after the earthquake, thousands of Pakistani troops stationed in [Pakistan Administered] Azad Kashmir prioritized the evacuation of their own personnel over providing relief to desperate civilians'.⁵³ Assam, Arunachal Pradesh and Meghalaya, in India's economically and politically marginalized; ethnically and racially 'different' North Eastern Himalayas, were hit by floods, almost at the same time as the Kashmir valley, drawing attention once again to the increasing ecological instability of the entire Himalayan region, which had previously suffered devastating floods in 2009 (Nepal), 2010 (Ladakh) and 2013 (Uttarakhand).⁵⁴ Commentators comparing the floods of Kashmir and the North East spoke of them as both occurring in India's 'peripheries'.⁵⁵ Comparisons were made about the considerably greater media coverage of the Kashmir floods,⁵⁶ because of its internationally disputed 'conflict zone' status, and the North East's relative invisibility in this national imagination, but little was said about the highly militarised ecologies, and the history of political insurgencies in both areas.

As in the case of the J and K floods, in the 2010 Uttarakhand floods too the lack of disaster preparedness of the local and state government authorities,⁵⁷ absence of monitoring and warnings by the Indian Central Water Commission,⁵⁸ degradation of Himalayan mountain and river ecology by unsustainable tourism and 'development' practices,⁵⁹ as well as unprecedented rainfall attributable to climate change, were seen as primarily responsible for the devastation caused. The Uttarakhand flood provided the first instance of sustained real-time televised

51 Following the 11 September 2001, World Trade Centre attacks, the United States Congress passed the Homeland Security Act of 2002, which created the Department of Homeland Security (DHS) to better coordinate among the different federal agencies that deal with law enforcement, disaster preparedness and recovery, border protection and civil defense. The Federal Emergency Management Agency (FEMA) was absorbed into DHS effective March 1, 2003. The 'Final Report of the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina', released on February 15, 2006, by the U.S. Government Printing Office, revealed that federal funding to states for 'all hazards' disaster preparedness needs was not awarded unless the local agencies made the purposes for the funding a counter terrorism function. Emergency management professionals testified that funding for natural hazards were given less priority than preparations for a potential terrorist attack, leading to a debilitating lack of preparedness on the ground. See United States. Congress. Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, & Davis, T. (2006). A failure of initiative: Final report of the select bipartisan committee to investigate the preparation for and response to Hurricane Katrina. US Government Printing Office.

52 Keys, A., Masterson-Smith, H., & Cottle, D. (2006). The political economy of a natural disaster: The Boxing Day tsunami, 2004. *Antipode*, 38(2), 195-204. See also, Ariyabandu, M. M., & Fonseka, D. (2009). Do disasters discriminate? A human security analysis of the impact of the Tsunami in India, Sri Lanka and of the Kashmir earthquake in Pakistan. in *Facing Global Environmental Change* (pp. 1215-1226). Springer Berlin Heidelberg.

53 Human Rights Watch, "With Friends Like These..." Human Rights Violations in Azad Kashmir, Human Rights Watch, 2006, <http://www.hrw.org/reports/2006/pakistan0906/>

54 See for instance, Joydeep Gupta, Climate change, poor policies multiply Himalayan flood effects, 27 Jun 2013, <http://www.thethirdpole.net/climate-change-poor-policies-multiply-himalayan-flood-effects/>

55 Mukhim, Patricia. (2014) Floods in the North-East: Lack of Planning and Red Tape Economic and Political Weekly, XLIX(42),

56 Rumani Saikia Phukan Media Ignored Assam, Meghalaya Floods, Maps of India, October 3, 2014, <http://www.mapsofindia.com/my-india/society/media-ignored-assam-meghalaya-floods>. See also Digambar Patowary, Falling off the map: did India notice floods in northeast? *Hindustan Times*, 5 Oct 2014, <http://www.hindustantimes.com/india-news/northeast-fighting-a-lone-battle-in-times-of-need/article1-1271770.aspx>.

57 Kavita Upadhyay, Uttarakhand floods: Disaster management in disarray, *The Hindu*, 26 Jun 2013 <http://www.thehindu.com/news/national/uttarakhand-floods-disaster-management-in-disarray/article4840973.ece>; Monish Gulati, Uttarakhand: Falling woefully short of disaster management standards, *Daily News and Analysis*, 24 Jun 2013. See also, Beyond Copenhagen Collective, Investigating a Climate Disaster: When climate chaos combines with insane 'develop mentalism' and state apathy, New Delhi: September 2013.

58 South Asia Network on Dams, Rivers and People, Central Water Commission's Flood Forecasting – Pathetic performance in Uttarkhand disaster, 25 Jun , 2013, <https://sandrp.wordpress.com/2013/06/25/central-water-commissions-flood-forecasting-pathetic-performance-in-uttarkhand-disaster/>

59 South Asia Network on Dams, Rivers and People, Uttarakhand Floods disaster: Lessons for Himalayan states, <https://sandrp.wordpress.com/2013/06/23/uttarakhand-floods-disaster-lessons-for-himalayan-states/> ; See also, Beyond Copenhagen Collective, Investigating a Climate Disaster: When climate chaos combines with insane 'develop mentalism' and state apathy, New Delhi: September 2013.

coverage of militarised relief and rescue by embedded journalists accompanying military rescue missions. The coverage was framed within hyper-nationalistic narratives of Indian military heroism, patriotism, and humanitarianism. This form of reportage was also a dominating feature of the coverage during the Kashmir floods, where embedded disaster journalists, flying directly into the military airbase that doubles up as Srinagar's civilian airport, accessed the flood 'story' almost exclusively through Indian air force helicopter sorties on televised relief and rescue missions over parts of Srinagar city. However, the added layer of Kashmir's historical 'anti-national' hostility to the occupying Indian armed forces amplified the jingoistic pitch of the coverage. The news was overwhelmingly reported and editorialised in languages of national vindication at the televised spectacle of 'grateful' Kashmiris being 'saved' by the very occupying forces they otherwise oppose.⁶⁰ Community protests against discriminatory aid and relief in Uttarakhand⁶¹ did not receive the intensive media coverage accorded to similar incidents during the Kashmir floods, which were enfolded into sensationalist story lines of 'separatist incitement', and 'disruptive elements'.⁶² Shortly after the floods in Kashmir, India's South Eastern coastline was hit by a massive Hurricane, Hudhud. Accurate forecasts were made, and warnings were widely broadcast 24 hours in advance of it making land-fall, including by the Indian Meteorological Department, which in the J and K case, had stated that it was not in the business of issuing warnings, merely making forecasts.⁶³ The National Disaster Management Force was deployed in advance, and large-scale evacuations of vulnerable villages took place, thus minimising human losses.⁶⁴ News reports stated that 24 hours before the cyclone hit the coast, 44 disaster management teams were operational and 175,000 residents had been evacuated to safer areas, with a total of 400,000 of the vulnerable population identified for evacuation.⁶⁵ India received glowing international commendations from the United Nations Office for Disaster Risk Reduction (UNISDR) for its timely and beneficial intervention.⁶⁶ While India denied the need for international humanitarian aid in the aftermath of the Kashmir floods, restricting the entry of humanitarian supplies and relief workers, and minimising the scale of the humanitarian crisis,⁶⁷ after the earth quake in Gujarat (2001), India welcomed international aid, including from the UNDP, and three hundred international organisations were based out of the devastated town of Bhuj alone.⁶⁸ The dramatic differences in the Indian state and media responses to these disasters begs the questions of why disaster hazards in some parts of its territory are treated with greater seriousness and concern than others, and the ways in which the lives and human rights of politically insurgent subjects are further marginalised within the nation centric political imagination.

60 See for a critique, Seema Kazi, Kashmir Floods: Letter to Barkha Dutt, Kashmir Dispatch, 18 Sep 2014

<http://www.kashmirdispatch.com/blog/180926389-kashmir-floods-protest-letter-to-barkha-dutt.htm>

61 For instance, angry flood affected villagers at a protest rally in Uttarkashi, after the flooding shouted slogans such as, 'Nahi chahiye, yeh rahat ke saman, hum do sadak, suraksha, aur samman' (We don't want relief materials, give us roads, safety and respect) Quoted in Beyond Copenhagen Collective, Investigating a Climate Disaster: When climate chaos combines with insance 'developmentalism' and state apathy, New Delhi: September 2013 page 20.

62 See for examples, Press Trust of India, Stone pelters target choppers, planes, boats in J&K relief operations, Times of India, 13 Sep 2014, <http://timesofindia.indiatimes.com/india/Stone-pelters-target-choppers-planes-boats-in-JK-relief-operations/articleshow/42395816.cms>; Separatists hamper rescue operations in flood-hit Jammu and Kashmir, Headlines Today, <http://indiatoday.intoday.in/video/jammu-and-kashmir-floods-j-k-rescue-operations-army-iaf-omar-abdullah-stone-pelters-separatists/1/382701.html>

63 R. Ramachandran, A tragedy that was waiting to happen, Frontline Magazine, 17 Oct 2014, <http://www.frontline.in/the-nation/a-tragedy-that-was-waiting-to-happen/article6461161.ece>

64 Press Trust of India Andhra braces for Cyclone Hudhud, NDRF, Army deployed, Times of India, 10 Oct 2014 <http://timesofindia.indiatimes.com/india/Andhra-braces-for-Cyclone-Hudhud-NDRF-Army-deployed/articleshow/44773091.cms>

65 IANS, Armed forces, NDRF ready to tackle cyclone Hudhud, Firstpost, 11 Oct 2014, <http://www.firstpost.com/fwire/armed-forces-ndrf-ready-to-tacklecyclone-hudhud-1751921.html>

66 TNN, UN praises Hudhud management in Odisha, Andhra Pradesh, Times of India, 16 Oct 2014, <http://timesofindia.indiatimes.com/india/UN-praises-Hudhud-management-in-Odisha-Andhra-Pradesh/articleshow/44832767.cms>

67 Mumtaz Muskan. (2014) Why India is legally prohibiting International Relief in Kashmir, Penn Undergraduate Law Journal, <http://www.pulj.org/the-roundtable/neo-occupation-why-india-is-legally-prohibiting-international-relief-in-kashmir>

68 The Gujarat Earthquake: National volunteers rekindle hopes in communities to rebuild lives, 8 March 2001, <http://www.unv.org/en/news-resources/news/doc/the-gujarat-earthquake-national.html>

Introducing this Report

In the after-math of the J and K floods there have been several useful studies assessing causes, impacts and the humanitarian needs, including studies authored by the Government of J and K's Department of Environment, Ecology and Remote Sensing,⁶⁹ scientists,⁷⁰ disaster management experts,⁷¹ India based NGOs/ civil society activists⁷² International Aid organisations,⁷³ and Kashmiri civil society activists and researchers.⁷⁴ These have either had a largely techno-scientific or humanitarian relief oriented focus. This report seeks to respond to a different, yet equally important set of issues that are at stake in this crisis from a civil, ecological and political rights perspective. There has been trenchant local and international criticism of the lack of disaster preparedness and the absence of administrative authority during the flood crisis, and the prioritisation of official and military lives and property, over that of the civilian, particularly the Kashmiri Muslim population.⁷⁵ A recent fact finding report by members of an Indian civil society group,⁷⁶ and two fairly detailed reports prepared by members of a committee constituted by the Supreme Court of India, in a Public Interest Litigation relating to the floods, have also drawn attention to serious administrative lapses amounting to criminal negligence, lack of adequate warning, preparedness or planning, selective rescues, and ad hoc relief distribution.⁷⁷ The Indian Parliamentary Standing Committee on Home Affairs has also similarly criticised the local civilian administration for serious shortcomings and failures.⁷⁸

These responses were not born overnight but conditioned by longer histories, and complex structures of ruling Kashmir against the wishes and interests of its people. They raise questions of accountability, governance, media representation, political participation and democracy in the backdrop of militarised occupation, at the disputed borders of a security state. The floods of 2014 must be seen against the backdrop of widely reported deforestation, climatic variation, glacial melt and wetlands destruction in the fragile Himalayan eco system, particularly in the Western Himalayas.⁷⁹ Armed conflicts and military occupations are widely acknowledged to have devastating ecological consequences.⁸⁰ However, the militarisation of Jammu Kashmir's rivers, meadows, forests and

69 National Remote Sensing Centre, ISRO and Department of Ecology and Environment and Remote Sensing. (2014) A Satellite Based Rapid Assessment of Floods in Jammu and Kashmir, September 2014. http://www.jkenvis.nic.in/pdf/jkenvis_floodreport.pdf

70 Shakeel Romshu (2014) Extreme floods in Kashmir: Genesis, Magnitude and Correctives, as quoted in Arif Shafi Wani, Government's delay to breach Kandzaal submerged Srinagar: Survey, Greater Kashmir 14 Oct 2014

71 Dar, M.A and Qadri, N.S, Disaster Risk Governance: A Study of Kashmir Floods 2014, South Asia Journal Issue 12, Winter 2015. <http://southasiajournal.net/disaster-risk-governance-a-study-of-kashmir-floods-2014-2/>

72 Sphere India, (Sep 2014) Joint Need Assessment: Jammu and Kashmir Floods Preliminary Report <http://www.sphereindia.org.in/Download/23.09.2014%20J&K%20Floods%20Assessment%20Report%20Version%20II.pdf>; United Way Disaster Response Fund. (22 Sep 2014) Jammu- Kashmir Floods, Situation Report 3, <http://www.unitedwaymumbai.org/docs/UW-India-J&K-Situation-Report-3-22-sep-2014.pdf>; Centre for Policy Analysis. (2014) Natural Calamity, Man Made Disasters: Fact Finding Report on the Kashmir Floods. <http://cpadelhi.org/papersreports/Fact-Finding%20Report%20on%20Kashmir%20floods.pdf>

73 CARITAS (28 Sep 2014), Rapid Assessment: Kashmir Floods, 2014, <http://www.caritasindia.org/index.php/component/content/article/78-national-news/187-rapid-assessment-jammu-kashmir-floods-2014>. See also, Action Aid and Centre for Research and development Policy. (2015) Report of a State level seminar Kashmir Floods: Genesis, Responses and Way Forward,

74 Kashmir Volunteers in Delhi: Flood Relief and CSA. (2014) Kashmir Floods: Rapid Assessment Peoples' Report <http://www.scribd.com/doc/241324957/Kashmir-Floods-Rapid-Assessment-Peoples-Report-1#scribd>

75 See for instance R.S Gull, Do not Blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirlife.net/do-not-blame-jhelum-66544/>; Betwa Sharma and Nida Najjar, Kashmiris cope with floods and resentment of India, New York Times, 15 Sep 2014 http://www.nytimes.com/2014/09/16/world/asia/kashmiris-cope-with-flooding-and-resentment-of-india.html?_r=0; Krista Mahr and Fayaz Bukhari, Anger mounts in Kashmir after worst flood in over century, Reuters, 13 Sep 2014 <http://in.reuters.com/article/2014/09/13/kashmir-south-asia-flood-idINKBN0H805H20140913>

76 Centre for Policy Analysis. (2014) Natural Calamity, Man Made Disasters: Fact Finding Report on the Kashmir Floods. <http://cpadelhi.org/papersreports/Fact-Finding%20Report%20on%20Kashmir%20floods.pdf>

77 Interim Report of the Committee Constituted by the Supreme Court of India, by order dated 24 September 2014, in Vasundhara Pathak Masoodi vs Union of India WP (C) 826 of 2014 and Separate Report of Mr. Mian Qayoom, President High Court Bar Association, Srinagar, Member of the Committee. The five member Committee constituted by the Supreme Court, originally consisted of the (i) Registrar- General of High Court of Jammu and Kashmir, (ii) President of Bar Association, Srinagar, (iii) President of the Bar Association, Jammu, (iv) Director, Disaster Management, Ministry of Home Affairs, Government of India and (v) Secretary, Revenue, Relief and Rehabilitation, Government of Jammu and Kashmir and was asked to submit its report to the High Court of Jammu and Kashmir on 10 October 2014. Mr. Vinod Kaul, (Secretary, Revenue, Relief and Rehabilitation, Government of Jammu and Kashmir) wrote to the committee on 9 September 2014 (one day before the Report was due to be submitted) stating that since 'out of 21 affected districts, five districts comprising only 10 villages have been covered' an adjournment should be sought from the Court. The remaining members however disagreed, stating that they had visited several of the severely affected districts and submitted their 23 page Interim Report, based on its investigations in Srinagar, Pulwama, Kulgam, Anantnag, (Kashmir division) and Jammu, Rajouri and Poonch (Jammu Division) on 10 October 2014. The Interim Report was not signed by Mr. Vinod Kaul. In addition, the President of the High Court Bar Association, Srinagar Mr. Mian Qayoom also submitted a separate more comprehensive 73 page report, with more detailed recommendations.

78 Zeenat Zeeshan Fazil, Parliamentary panel regrets former JK govt was in slumber during floods, Kashmir Images, 26 Jan 2015, <http://www.dailykashmirimages.com/news-parliamentary-panel-regrets-former-jk-govt-was-in-slumber-during-floods-71676.aspx>

79 Negi, G. C. S., Samal, P. K., Kuniyal, J. C., Kothiyari, B. P., Sharma, R. K., & Dhyani, P. P. (2012). Impact of climate change on the western Himalayan mountain ecosystems: An overview. *Tropical Ecology*, 53(3), 345-356.

80 Marler, T. E. (2013). Military ecology more fitting than warfare ecology. *Environmental Conservation*, 40(03), 207-208.

mountains, and its impacts on the everyday life and ecological vulnerability of its people, has received little attention in the environmental or human rights scholarship about the region.⁸¹ This report places the floods of 2014 at the heart of Indian state policies of massive military deployment,⁸² 'development' and 'reconstruction' oriented counter insurgency strategies, and its occupational politics of governing without legitimacy. What are the predicaments—ecological, institutional, economic and political which preceded and underlie this 'man-made' humanitarian disaster? How can we contextualize these floods in light of other recent natural disasters in the sub-continent, or elsewhere in the world, especially in economically or ethnically marginalised, militarised, or politically insurgent communities? What were the legal and governance frameworks that structured the civilian state response, and predicated its self admitted paralysis?⁸³ What role did the Indian armed forces, who are always 'on duty' in the 'disturbed area' of J and K,⁸⁴ and who view humanitarianism and development as central to their counter insurgency strategy, play in preparedness, rescue and relief? How did the infrastructures of militarised development such as the Jammu-Baramulla railway line, the hydro-electric projects on the Chenab and Jhelum valleys, and working of agencies of 'post-conflict reconstruction' like the Economic Reconstruction Agency contribute to the vulnerability of communities, and the magnitude of the flooding? Why did scientific and geo-spatial security institutions, such as Indian Space Research Organization (ISRO) and the J and K Department of Ecology, Environment and Remote Sensing which made public a huge amount of remote sensing and satellite data after the floods, including comparative real-time video surveillance footage of specific locations before and after the flooding, not use its capability to warn people of the impending disaster when water levels were rising?⁸⁵ How were militarised and media-tized efforts at rescue and aid perceived and resisted by communities? How did community networks, resources and popular imaginations of governance and humanitarianism, influence and shape widespread local efforts at warning, flood control, rescue and relief in the absence of government? How did the floods distort, disrupt or reinforce the dominant discourses of 'normalcy', the Indian army's militarised humanitarianism and the integral nature of Kashmir to Indian nationhood? These are some of the larger questions that this study hopes to raise and address.

81 See however, Bhan, M. (2014). Morality and Martyrdom: Dams, Dharma, and the Cultural Politics of Work in Indian-Occupied Kashmir. *Biography*, 37(1), 191-224. See also ActionAid. (2007) On the Brink? A Report on Climate Change and Its Impact in Kashmir. available at http://awaazekashmir.in/live/wp-content/uploads/2013/06/31_1990362411_ActionAidClimateChange.pdf. A series of articles written by Hilal Ahmed on land, livelihoods and militarisation also provides insights on ecological change from across Kashmir. See for example, Mala Begum, a dispossessed widow, Greater Kashmir, 12 Dec 2007, <http://www.greaterkashmir.com/news/2007/Dec/12/mala-begum-a-dispossessed-widow-4.asp>. Dispossessed people fighting hard for survival, Greater Kashmir, 7 Dec 2007, <http://www.greaterkashmir.com/news/2007/Dec/7/dispossessed-people-fighting-hard-for-survival-5.asp>. A long legal battle for their land, Greater Kashmir, 24 Dec 2007 <http://www.greaterkashmir.com/news/2007/Dec/24/a-long-legal-battle-for-their-land-7.asp>

82 For an overview of India's Counter Insurgency Doctrine, see Rajagopalan, R. (2000). 'Restoring normalcy': The evolution of the Indian army's counterinsurgency doctrine. *Small Wars & Insurgencies*, 11(1), 44-68. Ganguly, R. (2001). India, Pakistan and the Kashmir insurgency: causes, dynamics and prospects for resolution. *Asian Studies Review*, 25(3), 309-334. For an analysis of the Indian Army's Community Development oriented Counter Insurgency tactics under 'Operation Sadbhavna' see Anant, A. (2011). Counterinsurgency and "Op Sadhbhavna" in Jammu and Kashmir. Institute for Defence Studies and Analyses. See also Chadha, V. (2011). 'Heart as a Weapon': A Fresh Approach to the Concept of Hearts and Minds. Institute for Defence Studies and Analyses Policy Brief. For critiques see, Sundar, N. (2012). 'Winning Hearts and Minds': emotional wars and the construction of difference. *Third World Quarterly*, 33(4), 705-720. Navlakha, G. (2007). Doctrine for sub-conventional operations: a critique. *Economic and Political Weekly*, 1242-1246. Bhan, M. (2013). Counterinsurgency, Democracy, and the Politics of Identity in India: From Warfare to Welfare? Routledge.

83 Chief Minister Omar Abdullah is quoted as saying, 'I can't remember a single natural disaster in the country where the government tasked with responding was so completely paralyzed. Betwa Sharma and Nida Najar, Kashmiris Cope With Flooding, and Resentment of India, New York Times, 15 Sep 2014, http://www.nytimes.com/2014/09/16/world/asia/kashmiris-cope-with-flooding-and-resentment-of-india.html?_r=0

84 Under the J & K Armed Forces Special Powers Act, the entirety of Jammu and Kashmir except two districts in Ladakh are notified as 'Disturbed areas'. The Act empowers, the army with several extra ordinary powers, including to make arrests and searches without warrant and fire upon and use lethal force, against any person for maintenance of law and order. Under the Army Act, and analogous legislations applicable to other military and paramilitary forces the Central Government has issued blanket notifications stating that armed personnel are on 'active duty' at all times when deployed in Jammu and Kashmir. This position has been upheld by the Indian Supreme a case which involved the use of lethal force against a teenager, Zahid Farooq, by off duty BSF soldiers returning from a medical checkup. [State of J & K vs Lakhwinder Kumar & Ors Criminal Appeal no. 624 of 2013 and Special leave petition No. 5910 of 2012]

85 See National Remote Sensing Centre, ISRO and Department of Ecology and Environment and Remote Sensing. (2014) A Satellite Based Rapid Assessment of Floods in Jammu and Kashmir, September 2014. http://www.jkenvis.nic.in/pdf/jkenvis_floodreport.pdf For a brief description of the State of Jammu and Kashmir's environmental Remote Sensing capabilities, see generally <http://www.jkdears.com/eers/files/remDraftote.asp>

Chapters and Scope

The report is based on field research conducted over a period of two months (from 15 September 2014 to early December 2014), in flood affected regions in the districts of Budgam, Bandipora, Baramulla, Anantnag, Pulwama and Srinagar, involving over seventy extensive interviews with survivors, community camp organisers, rescue volunteers, political and social activists, researchers, health professionals, relief and aid workers, journalists, teachers, urban planners, engineers, and environmental and disaster management experts, including former and serving government officials involved in flood control, civil administration, water resources management, town planning, and development. In the initial phase of the study, when many community based relief camps were still functioning across the city of Srinagar, a group of volunteers affiliated to JKCCS (The Downtown volunteers) visited around fifty organisations and camps across downtown Srinagar accompanying researchers and independently video documenting interviews with organisers, rescuers and survivors and the then still on going community relief efforts. Visits were also made to premises of community/ religious relief organisations in South Srinagar (along the Hyderpora-Sanatnagar stretch of the bypass), Budgam (Humhama, Ompora), and in Anantnag and Bijbehara towns, and to affected hospitals, schools and court premises in some of these areas.

Though the Jammu, Udhampur, Poonch, Reasi and Rajouri districts in the Chenab and Tawi valleys in the Indian Jammu region, and the entire length of the Jhelum basin in Pakistan, were equally devastated by the flooding in early September 2014, due to constraints of time and resources, the field work component of the study was confined to Indian Administered Kashmir valley alone. The report therefore concentrates largely on the causes, impacts and responses to the flooding of Jhelum valley in Indian Administered Kashmir, though many of its findings especially with reference to the intensive militarisation of the region are equally applicable to the Jammu region.

Chapter 1, The Flooding of Kashmir A Brief History provides an over all historical and geographical background to the Jhelum river system, and floods and flood management works in the Kashmir valley. It delineates the progress of the September 2014 floods in Kashmir accompanied by an analysis of official warnings and gauge readings.

Chapter 2, Landscapes of Occupation describes the features and consequences of the militarised warfare ecology of J and K, where the landscape is littered with permanent military installations, and militarised development infrastructure is seen as a crucial aspect of political and territorial control. This chapter provides a taxonomy of the extent and kinds of land under military occupation, and an account of the effects of militarised land occupation, tourism projects and development infrastructure during the recent floods. Through illustrative case studies from rural Pulwama, and an urban Srinagar neighbourhood, the chapter provides insights into the nature of devastation suffered in the floods of 2014, especially by highly militarised and vulnerable communities, and throws light on micro- ecologies and local land use patterns and their effect on the inundation.

Chapter 3, Chronicle of a Flood Foretold-- Militarised Governance and the Floods, documents the legal, and regulatory frameworks, plans and institutions of disaster risk reduction, flood control and water resources conservation and management, land use and infrastructure building in Indian Administered Jammu and Kashmir. These agencies and regulations have an official role to play in development, disaster preparedness and prevention, but failed abysmally in their responsibilities. The Chapter attempts to unravel the structural causes for the J and K state government's endemic negligence, and apparent apathy. It argues that these governance structures exist within the political economy, and militarised strategies of an occupying power that influence and inform their organisation, purpose and day-to-day functioning in Kashmir.

Chapter 4, Flooded Lives - Evaluating the Impact of the Kashmir Floods, describes the effect of the September 2014 floods, on the lives, public infrastructure and economy of the Kashmir valley, The initial section presents the overall impact in various regions and sectors of socio-economic life of the valley, supplemented by field work based case studies and photographs. Thereafter the chapter focuses more closely on the public health sector, and medical facilities in Srinagar and neighbouring Budgam. Through four analytical and descriptive case studies of differently located hospitals, it offers an insight into how doctors, patients and medical staff survived the flooding.

Chapter 5, Rescue Relief and Resistance describes events and responses in the aftermath of the floods. The dominant Indian media and official narrative in relation to the Kashmir floods has been that of local administrative

failure and the heroic humanitarianism of the Indian defence forces.⁸⁶ This chapter aims to retrieve critiques of and resistance to militarised rescue and aid, and document local histories of community volunteerism, courage, generosity and solidarity, before they get further subsumed.⁸⁷ It first describes the state of widespread administrative failure, and thereafter focuses on community rescue and evacuation efforts. In this context it analyses the militarised priorities, and the often discriminatory and selective role played by Indian paramilitary, military forces. It describes a variety of localized relief efforts, including community kitchens, and relief camps, undertaken by civil society groups, neighbourhood committees and religious bodies. It also analyses the role played by the non-resident Kashmiri diaspora, and state blockades of non-state relief and humanitarian aid. It studies the role of the media, including television, print and social media in three different spheres, the local, the Indian and the International.

The Conclusion summarises the important substantive findings and inferences from the report, and proposes an agenda for future inquiry, research and action.

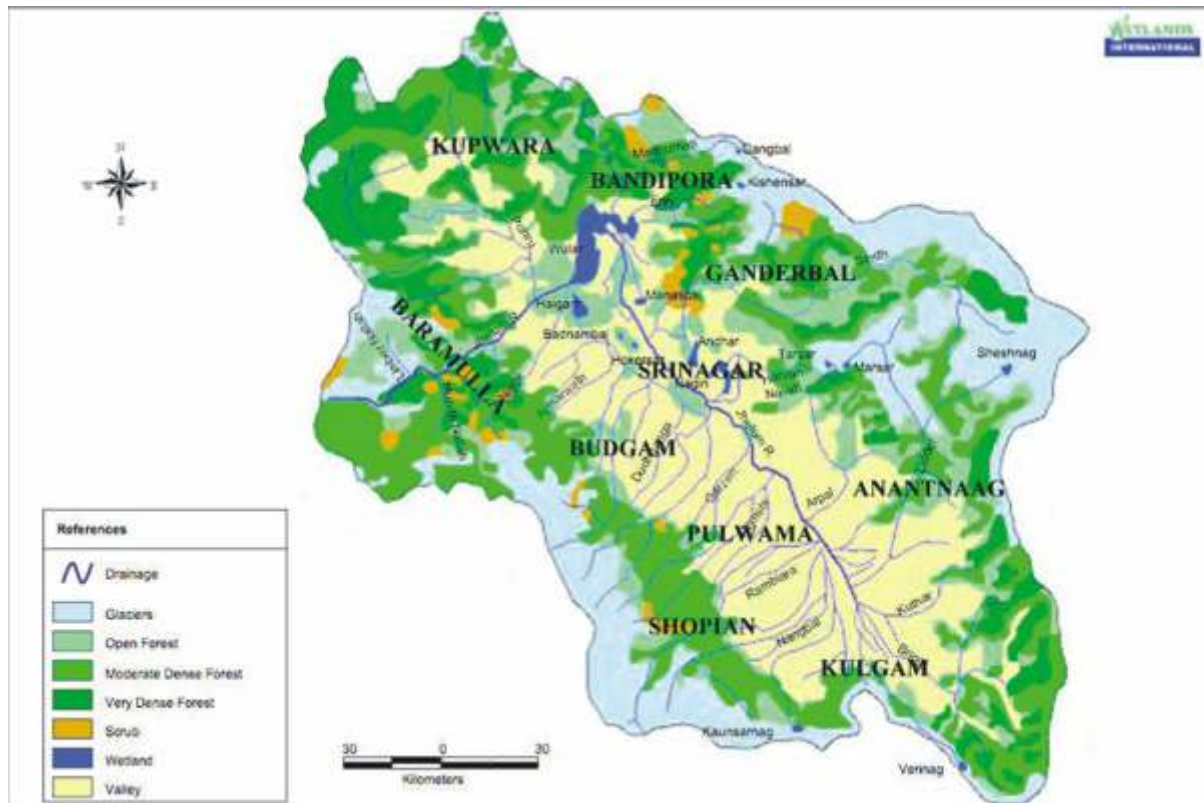
⁸⁶ For an overview of the India armed forces role in the rescue according to official press releases and briefings, see the Indian Army's Wikipedia page, http://en.wikipedia.org/wiki/Indian_Armed_Forces_and_the_Jammu_and_Kashmir_Floods,_2014.

⁸⁷ The J & K State Draft Disaster Management Policy, (2012: page 8) states in the context of the 2005 Earthquake that 'The presence of Army in the affected areas proved to be a great healer for the people, as Army was among the first responders who, with the help of IAF, managed to airlift hundreds of injured people to different hospitals in Srinagar and Baramulla.' http://kashmirdivision.nic.in/Policy_on_Disaster_Management_13022012.pdf

Chapter I The Flooding of Kashmir A brief History

This Chapter provides a geographical, and historical background to the Kashmir valley, and the river Jhelum. It also summarises some of the available factual details about the natural hazard which caused the floods of 2014, its extent and impact.

The River and the Valley



The Jhelum Drainage Basin (Source: Wetlands International, Comprehensive Management Action Plan for Wular Lake, Kashmir, page 9.)

The river Jhelum, and its tributaries lie at the geographical and historical heart of life, land and livelihood in the Kashmir valley, the oval shaped and densely populated flood plain, described by Lieutenant Colonel A. J. de Lotbiniere, State Engineer of the Kashmir Darbar, as 'a great sponge at the head of Jhelum which h[olds] up the floodwaters and gradually ooze[s] dry during the winter months'.¹ The valley is geographically bounded by the peaks of the Great Himalayas (5500 metres above mean sea level, MSL) in the north east, and the Pir Panjal (5300 metres above MSL) in the south west, and is now politically divided into the territories of Indian Administered Kashmir and Pakistan Administered Kashmir by the Line of Control. While the river head and upper reaches, including almost the entirety of the Kashmir valley, lie in India, the largest portion of the Jhelum basin lies in Pakistani territory.² Here the river meanders through the fertile alluvial plains of Western Punjab, ending its journey at the Arabian sea near the town of Jhelum, after braiding and forming the vast mangroves of the Indus Delta. Indian Administered Kashmir is divided into three separate administrative and geographical 'divisions', the Kashmir valley, the Jammu region, and Ladakh. In its upper reaches, at the highest fringe of the Jhelum basin, are the

1 In a memo dated 6th May 1902, quoted in Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir, at page 53. http://sites.wetlands.org/reports/ris/2IN003_mgtplan.pdf

2 For a discussion of the implication of cross border water flows, and the relative riparian rights of India and Pakistan under the Indus Water Treaty, see Dar. Z.A. (2012) Power Projects in Jammu and Kashmir Controversy, Law and Justice, LIDS Working Paper 2011-2012, Harvard Law and International Development Society. <http://orgs.law.harvard.edu/lids/files/2011/11/LIDS-WP-1112-Dar.pdf>. See also Romshu, S. (2012) Indus River Basin: Common Concerns and the Roadmap to Resolution. Centre for Dialogue and Reconciliation. http://www.researchgate.net/publication/236001988_Indus_River_Basin_Common_Concerns_and_the_Roadmap_to_Resolution

glaciers which serve as its main source of water, followed by high altitude lakes and wetlands, alpine meadows and fir and birch forests, (3500 metres – 1500 metres above MSL), home to the scattered hamlets, hereditary grazing lands and migratory routes of nomadic Gujjar and Bakherwal pastoralists. Travelling downwards, one reaches the vast relatively low lying and inter connected lakes, marshes, urban habitations, paddy fields and orchards of the fertile Kashmir valley, and its sub- valleys of the Lidder, Lolab, Sindh and Kishen Ganga (Neelam). On the Indian side, the Jhelum basin comprises of 24 enumerated tributaries, and countless nallahs, kuls (rivulets, water channels) and streams, some of which drain into the Jhelum from the slopes of the Pirpanjal, on the left bank of the river; and others which flow from the Great Himalayas onto its right.

The banks of the river Jhelum, are home to several historic cities and towns, including Awantipora, Anantnag, Srinagar, Parihaspura, and Varmul (Baramulla). The Jhelum Basin as a whole, is inhabited by 5.4 million people living in 34 towns and 2846 villages. According to statistics provided in a JK Envis (JK Environmental Information Sensing Centre) Environmental Report, based on the census estimates of 2001, 91% of the urban population lives on the banks of the River Jhelum.³ After flowing through the valley, towards its North–West, for about 45 kilometres, the river winds its way into the Wular Lake and its surrounding marshes, the largest in the lake-filled Jhelum Basin, once a majestic 154.74 sq. km, (1911) and now shrunk to 86.71 sq km (2007). Then the river takes a sudden south westerly turn, and flows through the district of Baramulla, and onwards into Pakistan Administered Kashmir, through the Khandiyar gorge.

The flat alluvial plains of the Kashmir valley are about 150 kms long and 42 kms wide, and slope gently from south-east to north-west. In the 113 kilometers it traverses in Indian territory, from its head near Verinag in the Pir Panjal range, to the steep gorge near Khandiyar where it rushes head long across the border, the fall of the Jhelum is a mere 18 metres, the cause of its meandering course, high navigability, unhurried pace, and propensity to over-spill its low banks once it reaches the plains. Flanking both banks of the river, though denser and flatter topped on the right bank, and accounting for about fifty percent of the total valley area, are low lying plateaus, wudars or karewas, (about 380 metres above the height of the river) the morainic remnants of a pre historic glacier. These are relatively arid, rain-fed flat topped hillocks, ideal for the cultivation of terraced orchards of apple, almond and walnut, and fields of saffron, the use to which they have been historically put.⁴

The Political Economy of flood management in Kashmir

The Kashmir valley was once considered a lively hydraulic society, with a highly efficient system of water transportation, and community managed irrigation canals.⁵ The River Jhelum has a well-documented history of modern, state controlled hydraulic interventions, and since the late nineteenth century these have altered people's relationship to the river. The popular myth has been that these interventions, such as embankments, barrages and flood channels, were made solely because of benevolent and welfarist motivations, but it should be remembered these were colonial engineering projects, aimed largely at harnessing the river, to prevent losses to the exchequer in floods and droughts because of its ebbs and flows; and at increasing revenue by draining its wetlands, and bringing more lands under irrigated and permanent cultivation. The river's use as a means of transportation, and the main thoroughfare through the valley, also led to interventions aimed at increasing its navigability, and connecting growing urban habitations and inner cities to its riverbanks, through canals, which could also be taxed. Understanding this political economy enables us to see that the destruction of the Jhelum's River ecology, is not a

3 According to 2011 census data, 27.38 % of Jammu and Kashmir's total population of 1.25 crores, i.e. 3,433,242 persons is urban.

4 For details of the geo and hydro morphology of the catchments of Jhelum and its tributaries see National Remote Sensing Centre, ISRO and Department of Ecology and Environment and Remote Sensing, (2014) A Satellite Based Rapid Assessment of Floods in Jammu and Kashmir, September 2014. http://www.jkenvis.nic.in/pdf/jkenvis_floodreport.pdf, pages 2-12. See also Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir, page 12-13, http://sites.wetlands.org/reports/ris/21N003_mgtplan.pdf. For a description of the Jhelum basin, with specific regard to floods, see Shakil Romshu, The 2014 Kashmir Flood The extreme of the extremes, Greater Kashmir, 22 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/22/the-2014-kashmir-flood-the-extreme-of-the-extremes-30.asp>

5 A report on the comparison of Kashmir's community based irrigation systems to state run systems states, 'Kashmir which was famous for its lively hydraulic society with large and ancient network of Zamindari Kuhls (farmer managed irrigation canals) lies now in a decrepit state. area irrigated by the farmer managed irrigation canals (Zamindari Kuhls) was more than 85 per cent during fifties (1950s) whose command has now reduced to about 53 Per cent of the total irrigated area.' Shaheen F.A.(n.d) Comparative Management Performance Of Government And Farmer Managed Irrigation Systems In Kashmir Case Studies Of Twentyone Irrigation Schemes, International Water Management Institute (IWMI) http://www.indiawaterportal.org/sites/indiawaterportal.org/files/Comparative_mgt_performance_government_farmer_managed_irrigation_systems_kashmir.pdf

recent phenomenon, but is a symptom of a longer history, of state-centric exploitation of Kashmir's commons, its forests, water and land, for the benefit of its rulers rather than its people.⁶

There have been more than 30 major floods in the archived history of Kashmir valley, as the hydrographic features and drainage characteristics of the Jhelum river system make it highly susceptible to flooding.⁷ The river has displayed a periodic hydraulic cycle of about fifty years through the nineteenth and twentieth century, with flood levels being recorded in 1841, 1893, 1900-1902, 1957-59, 1971-73, 1992-95-96 and 2006.⁸ The river usually comes into spate for several consecutive or closely clustered years, causing high levels of flooding approximately every fifty years. As with the rest of the Himalayan region, flooding has shown a marked increase in the last five to six decades. Each of the valley's major floods has brought on a spate of new technological and engineering interventions, and legislative changes designed to better regulate and govern its waters.

The Dogra Period

The first major flood to affect the valley after the establishment of Dogra rule was in 1841, which W.E Lawrence, a colonial revenue official and avid historian and naturalist of Kashmir, notes, 'caused much damage to life and property'.⁹ At that time, flooding was endemic and almost annual. The Maharaja's revenue settlement of the 1890s, produced under the supervision of British administrators, besides well and rain-irrigated lands, included the classification of sailaba lands, or fields annually irrigated by floods, providing some indication of the regularity of periodic inundation in the high flow years. The colonial apparatus saw the vast marshy wetlands of the valley, seen today as critical to river ecology and flood prevention, as unproductive impediments to agricultural productivity. The largest area under the revenue settlement, is thus demarcated as 'uncultivable', as 'wastelands', consisting of swamps, grassy wetlands and marshes (rakhs, nambal, sar and khacharai or grazing commons) part of the traditional village common property, large parts of which were enclosed and appropriated as state lands (khalsa) through the revenue settlement, though villages continued to have limited usufruct rights to grazing, fishing, and fruit, firewood and forest produce.¹⁰ In some cases, these lands were brought under cultivation and militarised under the Jammu and Kashmir State Forces' Department of Military Farms and Rakhs' for growing food and fodder for the Maharaja's forces, thus consolidating the territorial and revenue rights of the colonial Dogra state.

After two further devastating floods, followed by epidemic outbreaks in 1893, and 1902-03 which particularly affected the city of Srinagar,¹¹ the Dogra regime, with technical help from British engineers began work on an ambitious flood and irrigation management plan. Several engineering solutions were executed, which permanently altered the river's hydrology and ecology. The manipulation of water levels in the Jhelum river and wetland system were identified as a central means to achieve the flood prevention objectives of the 'Maharaja's Action Plan' of 1902; Bunds (embankments) were built and marshes drained to bring larger areas of the valley under regular canal irrigated cultivation;¹² the hydraulic gradient of the river was raised by dredging the river north of Srinagar between Sopore and Baramulla to increase water velocity; and most drastic of all, a 42 kilometre long flood channel was constructed from Padshahi Bagh (south of Srinagar) to the Wullar Lake, to channelize the

6 For an excellent historical contextualization of the political economy of Dogra Rule, see Rai, M. (2004). *Hindu Rulers, Muslim Subjects: Islam, Rights, and the History of Kashmir*. Princeton University Press.

7 Shakil Romshu, 'The 2014 Kashmir Flood The extreme of the extremes', Greater Kashmir, 22 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/22/the-2014-kashmir-flood-the-extreme-of-the-extremes-30.asp>

8 As told to JKCCS by retired officials, and corroborated by news reports and documentation. See Er. GN Mir Lasjan, *Legacy of floods in Kashmir-I, Rising Kashmir*, (n.d) <http://www.risingkashmir.com/legacy-of-floods-in-kashmir-i>

9 Lawrence characterises this as "greatest flood ever known", inundating Srinagar on 23 July 1903, converting the city into "a whole lake". An estimated 100,000 cusecs of water flowed down the river Sangam. Walter, L. (1992). *The Valley of Kashmir*. Chinara Publishing House. Quoted in the Report prepared by the JK Environmental Information Sensing Centre, (JK-ENVIS) National Remote Sensing Centre, ISRO and Department of Ecology and Environment and Remote Sensing. (2014) *A Satellite Based Rapid Assessment of Floods in Jammu and Kashmir*, September 2014. http://www.jkenvis.nic.in/pdf/jkenvis_floodreport.pdf, page 13

10 See generally, Walter, L. (1992). *The Valley of Kashmir*. Chinara Publishing House, pages 454-458.

See also, Imtiyaz H., (2007) *Revenue Manual Land Laws in J & K*, Srinagar Law Journal Publications.

11 Er. S.R. S Madni, *Kashmir Floods: Forgotten lessons*, Greater Kashmir, 23 Feb 2014. <http://www.greaterkashmir.com/news/2014/Sep/23/kashmir-floods-forgotten-lessons-14.asp>.

12 These included providing of narrow and deep drainage cuts from Baranagara Swamp into River Jhelum above Baramulla to drain the 'pestilential marshes' leading to availability of 1,00,000 acres of agricultural land at southern shores of Wular, construction of light wooden barrages wherever necessary to ensure river navigation. Wetlands International. (2007) *Comprehensive Management Action Plan for Wular Lake, Kashmir* at page 53

floodwater upstream, bypassing the city of Srinagar.¹³ During the last of these operations, it was realized that lowering water levels in Jhelum would require cutting through the rocky spur across the river bed below Baramulla. In 1906-07 high powered American dredging machines were imported, and their power requirements led to the setting up of Mohra hydro-power station – making Kashmir the second place in the subcontinent (after Mysore) to have hydropower.¹⁴ According to Taj Mohiudeen, former Minister in the Jammu and Kashmir Government, 'after 6100 acres of silt was dredged out and river velocity improved, all the equipment was sold as junk in 1917.'¹⁵

The first two decades of the twentieth century was also a period of protracted contestation and negotiation between the Maharaja's Darbar and the British Government of undivided Punjab, relating to the changes in the Jhelum flows brought on by the engineering works, and drastic lowering of the water flows in winter months. The debate over the construction of the Wular Barrage, brought out the contradictions between Kashmir's flood control motivations and Punjab's winter irrigation needs, which presage contemporary disputes about the nature of sovereign political control over the waters of the river Jhelum, and the riparian rights of India and Pakistan.¹⁶ The final decision of the Government of India was conveyed to the Kashmir Darbar asking that it might consider the 'storage scheme as definitely abandoned and may therefore proceed with their scheme of reclaiming marsh and waterlogged lands in the Kashmir Valley'¹⁷. However the ambitious scheme of dredging, bunding and drainage embarked upon produced its own set of conflicts, as water levels in the Wular lake fell, and the Maharaja's state tried to ensure the surrounding embankments were kept low to allow floods to silt up larger tracts of marshy 'wastelands' to enable increased cultivation, while farmers raised and strengthened the bunds to protect their lands.

In 1929, the valley faced another major flood, which mainly affected parts of what is today known as Pakistan Administered Kashmir. The Forest Act enacted in 1930 consolidated the regime's suzerainty of territory, timber produce and waterways, in officially demarcated forest areas, allowing for further revenue extraction, and the curtailment of rights that had customarily been held by the community. Up to middle of the 19th century, intricately networked and community managed and shared zamindari khuls and their associated water mills, were the main source of irrigation of fields. Under the Maharaja's regime, these waterways came under official scrutiny and dispute resolution mechanisms, through the codification of Rivaz Apshahi, the basis on which all the water disputes were settled by the Maharaja's Revenue Tehsildars. Locally run water mills and irrigation schemes (Jandar and Gharat) came to be taxed and regulated under the Water Mills Act of 1932. In 1935, the Kashmir Valley Embankments Act was enacted, to assert sovereign control and the state's exclusive proprietary rights over river and waters of the Jhelum. Under section 5, of the Kashmir Valley Embankments Act the control of the beds and banks of the river, and city channels including Doodh Ganga Nallah, and flood spill channel, along with all works that effect hydraulic conditions, were to be vested in the Maharaja's revenue/ irrigation administration.

13 According to flood control officials, the flood spill channel has a capacity of carrying 17500 cusecs of discharge from river. Thus, it can carry 33% of the Jhelum capacity as automatic spill over, technically raising the river's water bearing capacity to 52,000 cusecs. In addition there is a 'free board allowance' which is not included in the calculations, raising the actual capacity of the river to about 65,000 cusecs. When the water level is about 12.06 feet over the gauge level at Srinagar, the excess flows into the flood spill channel, automatically. During the 1996 floods, the Spill Channel carried away about 23,000 cusecs, of flood waters, thus preventing large scale flooding. But due to a lack of maintenance/ regular dredging and the encroachments and obstructions the reduced capacity before the September floods was estimated by officials to be less than 10,000 cusecs. See also R.S Gull, Do not Blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirilife.net/do-not-blame-jhelum-66544/>

14 The changes in the natural water course accomplished through the dredging and other engineering operations, and the results of the change in the river regime became apparent 1912 – 13 onwards when the increasing drainability led to lowering of the lake levels. The lean seasons flows reportedly declined by 1,000 – 1,500 cusecs in the period. Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir at page 53-54.

15 R.S Gull, Do not Blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirilife.net/do-not-blame-jhelum-66544/>

16 Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir. For the contemporary controversy over the Wular Barrage, see Baqar Sajjad, Talks with India on Wular Barrage put off, The Dawn, <http://www.dawn.com/news/781633/talks-with-india-on-wular-barrage-put-off>, 27 Jan 2013

17 Residency letter no. 3899 dated 15 December 1905 quoted in Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir at page 54.

The Grow More Food Campaign of 1949

Floods hit Kashmir in the year following its controversial accession to India in 1948, leading to a renewed programme of desiltation and dredging, with an imported dredger personally commissioned by Indian Prime Minister Nehru in Srinagar.¹⁸ The post-partition food shortages, with the loss of supply routes to the valley from (undivided) Punjab, led to an aggressive programme of reclamation and irrigation of previously fallow and marshy lands under the 'Grow more Food Programme'. In September 1950, another major flood hit Jammu and Kashmir, with nearly 100 people losing their lives, and a further exacerbation of the food shortage crisis. Mechanised lift irrigation schemes were first built in 1953-54, in the wake of the 'Grow More Food Campaign' and the complex and extensive networks of local community based water works and channels came to be increasingly managed and maintained under the State Irrigation Department.¹⁹ Coupled with extensive land reforms which gave 'land to the tiller', it further consolidated the regime of individual ownership proprietary lands, and default state holdings replacing older common property regimes almost entirely. The department of Military Farms and Rakhs was brought under the State Agriculture Department in April 1949 as a part of this campaign, though the military continued to exercise rights over the hay and other fodder and fuel resources.²⁰ Huge 'wastelands', including wetlands such as Rakh-e-Gundak Shah and Rakh-e-Harath in the peripheries of Srinagar, were parceled out to 'kamas' (lessee cultivators), who reclaimed and land-filled the marshes for paddy cultivation. Other than lands under this department, which were transferred to the Jammu and Kashmir government's Agricultural department, the vast tracts of land held by the Maharaja's forces including the cantonment at Badamibagh on the banks of the Jhelum in Srinagar, was ceded to the Indian Ministry of Defence.

Bakshi Ghulam Mohammad and the Wullar Embankments

There were two severe floods in 1957 and 1959, which inundated the entire valley and caused massive and prolonged water logging. There are no authentic discharge figures available for the 1959 floods though some reports suggest that the discharge at Sangam was almost 100,000 cusecs. After the floods of 1959, Bakshi Ghulam Mohammad, the then Prime Minister of Kashmir embarked on an elaborate plan of dredging the Jhelum from Wullar to the Khandyar gorge, and the construction and strengthening of an elaborate system of embankments, under the technical guidance of H.S Uppal, of India's Central Water Commission.²¹ Land was to be 'donated' for this

18 The state government, of Jammu and Kashmir, headed by Sheikh Muhammad Abdullah, in 1948 requested the then Indian Prime Minister Jawahar Lal Nehru for a dredger. A 2010 news report [republished and widely recirculated after the recent floods] quoted a Minister for Flood control as stating 'A dredger was imported by the government of India and handed over to the state in 1950 [...] The importance of the machine for the then state government could be gauged from the fact that it was commissioned by Nehru himself in Srinagar', Firdous Tak, Srinagar awaits catastrophe, Greater Kashmir, 11 Feb 2010 <http://www.greaterkashmir.com/news/2010/feb/12/srinagar-awaits-catastrophe-57.asp>

19 Er. GN Mir Lasjan, Legacy of floods in Kashmir-I, Rising Kashmir, (n.d) <http://www.risingkashmir.com/legacy-of-floods-in-kashmir-i>.

Though Khuls continue to surpass the government canal system in term of area covered as well as length of channels, covering as much as 16 times that of government canals, in the view of modern scientists, engineers and geographers they continue to be seen as 'primitive' examples of gradient or gravity based irrigation. See for instance, Mohammad A., and Iqar B., Measurement of water scarcity in plenty in the Himalayan region of India, http://www.inbo-news.org/IMG/pdf/HIMALAYAN_REGION_Mohammad_Ali.pdf

20 J and K Army Command Order No 376 dated 4.4. 1949, as reproduced in Imtiyaz H., (2007) Revenue Manual Land Laws in J & K, (Volume II). Srinagar Law Journal Publications. (Chapter 14, 'Rakhs and Farms', page 282.)

21 An article, by an eminent retired flood department engineer, described the working of the plan in some detail. 'The following short term and long term measures were recommended and approved under the plan. A: Strengthening and raising of Jhelum bunds from Khanbal to Banyari. B: Dredging of Jhelum from Wullar to Khadanyar and removal of rocky bed bar at Khadanyar for quick drain ability. Works related to A were taken up by the state both on Jhelum and Sonawari, the latter being the most affected area even during minor floods. Kashav Bando was appointed as the chief project officer of Sonawari having control on every department. A network of pump stations was laid, bunds strengthened and road connectivity put in place. Sonawari, hitherto producing a chance crop of wheat and maize, became the rice bowl of North Kashmir. Project related to B was funded by the Gol and a separate department of Flood control created. The chief engineer, financial advisor, a dredge master and two mechanical engineers were sent on deputation by the Gol to implement the project. The civil engineers and the supporting staff was provided by the state. Two suction cutters, one dipper dredger, and the requisite heavy earth moving machinery was imported and the work started. The two suction cutter dredgers were named Budshah and Souya, the great king and an illustrious engineer of Kashmir having sonawae the first contribution in the field of flood control –Nallah Mar and removal of bed bar in Jhelum at Sopore. The target of dredging and deepening and widening of river at Khadanyar was achieved around 1966 improving the carrying capacity of Jhelum at Baramulla from 17,000 cusecs to 45,000 cusecs. This resulted in the fast drain ability of Wullar lake and increase in its capacity for flood detention and hence the safety of Srinagar city. The dredging operation was slowed down and finally stopped for lack of funds. The department of flood control was wound up and merged with the irrigation department. The dredgers and most of the heavy earth moving equipment became dysfunctional for want of maintenance. Thousands of acres of land acquired by the department in 60s on either banks of Jhelum from Sopore to Baramulla for construction of dykes have been encroached upon. ER S.R.S. Madni, Kashmir Floods Forgotten Lessons, Greater Kashmir, 23 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/23/kashmir-floods-forgotten-lessons-14.asp>

purpose, without compensation to their owners. A network of pump stations was laid allowing for 'lift irrigation', bunds strengthened, and road connectivity to newly reclaimed areas was created. The scheme is credited for converting Sienwari – low lying gardens – of the marshy low-lands to the South of the Wullar Lake in present day Bandipora District, into the fertile and agriculturally productive rice bowl of Sonawari – golden garden.²² The Bakhshi Bund, known rather militaristically as the 'Third line of defence' is the highest of three roughly concentric bunds, around the Wullar Lake, the main component of a triple tiered flood control system, a labyrinth of dykes, sluice gates, and channels.²³ A series of 'River Protection Orders' were passed in the Bakshi period, which stated that whatever lay between the river-banks, was government land. But the river channels and its peripheries were never officially demarcated, and no mutation took place. Settlements were never formalized, and proprietary claims over so called government lands persisted in shoals and river banks, leading to complicated litigation when these 'impediments' to the river's flow were sought to be removed for flood control purposes. While the construction of embankments, and the draining of the wetlands, increased agricultural productivity, they have proved disastrous in the long run for the River's hydrological and ecological regimes, as the flood absorption capacity and water levels in the Wular Lake and its surrounding wetlands was reduced dramatically by the new engineering and earth filling works.²⁴ In the same period, a new policy of awarding forest leases to private contractors for timber felling and logging was begun. The timber of deodar trees (*Cedrus Deodara*), was particularly valued for building railway sleepers for the Indian Railways network, an environmental expert told JKCCS. In the absence of any afforestation measures, large tracts of forests became denuded in the period. The removal of dead-wood from the forest floor by these contractors, as well as illegal felling in connivance with forest officials, lessened the forests' capacity to retain water. The roots of the present state of denudation of Kashmir's forested tracts, and the entrenched network of co dependence between forest timber 'mafias' and forest (and later military) authorities lies in this policy of forest leases, the expert stated.

A new 'Flood Mechanical Division' (FMD) headquartered in Khwajabagh in Baramulla, was also set up after the 1959 floods using funds from the Government of India. Large scale mechanised dredging of the out-flow channel, from the Wular to the Khandiyar gorge near the border with Pakistan, was begun. The Division acquired the then state-of-the art Ellicot 'dipper' dredges which were named Budshah and Suyra, after the legendary Kashmiri ruler and his wazir, credited with the first dredging and flood control works, including the building of the Nallemar, a water channel in Srinagar, that drained the Dal Lake and the city. Three or four smaller suction dredges, were also procured in the 1960s.

The stretch of the river from the mouth of the Ningli to Baramulla town was dredged annually. By 1966 the dredging works had led to an increase in the carrying capacity of the Jhelum at Baramulla from 17,000 cusecs to 45,000 cusecs. The machines however fell into gradual disrepair, partly due to the lack of funds for proper maintenance. Annual dredging stopped in 1984 when 1255 lakh cubic feet (CFT) of the total deposits of 1438 lakh CFT were removed from the river. By the early 1990s, as with many government buildings in Jammu and Kashmir, the FMD's campuses and buildings came to be occupied by the CRPF, a part of the massive deployment of counter insurgency forces, leading to a halt in its operations until 2010, following the acquisition of new dredging machines.²⁵

22 See Er. GN Mir Lasjan, Legacy of floods in Kashmir-I, Rising Kashmir, (n.d) <http://www.risingkashmir.com/legacy-of-floods-in-kashmir-i>, See also R.S Gull, Do not Blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirilife.net/do-not-blame-jhelum-66544/>

23 Naeem Akhtar, Twig house, carpet loom and flood vultures, Greater Kashmir, 26 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/27/twig-house-carpet-loom-and-flood-vultures-47.asp>

24 For a history of Srinagar city's embankments, see Arif Shafi Wani, Rise and Fall of the Bund, <http://www.greaterkashmir.com/news/2013/Jan/13/rise-and-fall-of-the-bund-16.asp>. For a historical account of the impact of building of Bunds on the Wular lake, see Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir at page 53- 54. See also, Naeem Akhtar, Twig house, carpet loom and flood vultures, Greater Kashmir, 26 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/27/twig-house-carpet-loom-and-flood-vultures-47.asp>; Er. GN Mir Lasjan, Legacy of floods in Kashmir-I, Rising Kashmir, (n.d) <http://www.risingkashmir.com/legacy-of-floods-in-kashmir-i>,

25 For a history of recent flooding and flood control including the Uppal Committee Kashmir see in general ER S.R.S. Madni, Kashmir Floods Forgotten Lessons, Greater Kashmir, 23 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/23/kashmir-floods-forgotten-lessons-14.asp>

The Uppal Committee, 1976

In 1972, the Irrigation Commission appointed by the Government of India to do an 'all India study', echoed the modern, engineering-oriented view that wetlands and flood absorption basins were a hindrance to India's development, and recommended a proposal involving dredging, bund strengthening and the building of an alternate flood spill channel from Wular to Dogripora (in South Kashmir). They hoped that this would help in silting up the Wular Lake and its wetlands in its entirety, thus allowing it to be used solely for cultivation, plans similar to those of the Dogra state. There was another series of floods in 1971, 1973, 1975 and 1976, immediately after the imprisoned Sheikh Abdullah, the deposed Prime Minister of Kashmir, came back to power, causing huge losses to public infrastructure. An expert committee of hydrological engineers was formed under Dr. H.S. Uppal, a former member of India's Central Water Commission. Dr Uppal had supervised the building of flood control measures initiated during Bakshi Ghulam Mohammad's Prime Ministership, and the 'Uppal Committee' was constituted to examine possible solutions to the Jhelum's persisting flood 'problems'.²⁶

The Committee recommended that the flood basin to the South of the city, on the left bank of the river, from Nowgam to Kandizaal, which was beginning to get urbanised, should be retained as a flood plain, and its peripheral bunds should be raised. It was felt that the wetlands near Nowgam could be used to cultivate vegetable, and for pisciculture. Alternatively, a second flood spill channel with a carrying capacity of 20,000 cusecs should be constructed from Dogripora, further south of the existing canal, to Wular. The first solution was preferred, as the building of a second flood channel would lead to the loss of a lot of valuable cultivable land. Successive governments however acted contrary to these recommendations.

The State Irrigation Act, 1978 and various schemes of rural development and water-shed management furthered the process of state control over traditional kuls and waterways. Kuls have ceased to be community resources, and are entirely under the management of the State Water Resources Management Authority created by a legislation in 2010, which superseded the previous laws relating to water management.²⁷ In 1986, in order to settle disputes about proprietary lands taken over by government where compensation had not been paid, a Statutory Rules and Orders (SRO) 154, dated 7 March 1986, was passed which allowed a committee of government officials to enter into private negotiations for payment of compensation for lands already in the government's possession, without invoking the provisions of the Jammu and Kashmir Land Acquisition Act. The provisions came with an important rider, that lands 'donated' for the purpose of bunds and canals were not entitled to any compensation.

The Last Two Decades

A commonly reported consequence of extended armed occupations, and conflict has been their effect on civic and public infrastructure of the occupied territory.²⁸ The integrationist political co-option of Jammu and Kashmir's governing structures and day to day administration, for instance through the 6th constitutional amendment of the Jammu and Kashmir Constitution (1963)²⁹ and the introduction of 'single line administration' (1976)³⁰ has led to a situation where everyday executive decisions affecting Kashmiri lives are framed by the 'national interest', to consolidate and perform Indian sovereignty, 'normalcy' and the absence of dissent. The intensification of militarization, and the militarised development in Kashmir Valley over the last two decades, has led to the water

26 A retired flood control official recalled the process to JKCCS, 'We hired an air force plane and camera, and took aerial photographs of the terrain for four hours. I remember Rs 47,000, or some similar amount was paid to them. There was no satellite imagery or photo editing systems then, and the hundreds of photographs had to be manually edited and cropped and then put together to form a single image. It took almost 2 – 3 months of painstaking work, to get it right.'

27 F.A. Shaheen. (n.d) Comparative Management Performance Of Government And Farmer Managed Irrigation Systems In Kashmir Case Studies Of Twentyone Irrigation Schemes, International Water Management Institute (IWMI): Sri Lanka.

http://www.indiawaterportal.org/sites/indiawaterportal.org/files/Comparative_mgt_performance_government_farmer_managed_irrigation_systems_kashmir.pdf

28 Mason, M. (2011). The application of warfare ecology to belligerent occupations. In *Warfare Ecology* (pp. 155-173). Springer Netherlands. http://eprints.lse.ac.uk/36658/1/The_application_of_warfare_ecology_to_belligerent_occupations_%28LSE_RO%29.pdf

29 Prior to the Constitution of Jammu and Kashmir (Sixth Amendment) Act, 1965 the Head of the State was designated as the Sadar-i-Riyasat and the requirement of law was that he should be a person who for the time being is recognized by the President as such and no person could be so recognized unless he is a permanent resident of the State of Jammu and Kashmir and has been elected as Sadar-i-Riyasat by a majority of the total membership of the State Legislative Assembly. After the Constitution of Jammu and Kashmir (Sixth Amendment) Act, 1965 the nomenclature of the head of the State has been changed to 'Governor' and he is appointed by the president by warrant under his hand and seal after the Constitution of Jammu and Kashmir (Sixth Amendment) Act, 1965 the requirement of to be a permanent resident of State for being eligible for appointment as Governor has been removed and now qualification for appointment of Governor is that he should be a citizen of India and has completed the age of thirty years

30 See Chapter 3, of this report for details.

infrastructure of the valley falling into disrepair, with the flood control department often being described as 'defunct' by officials speaking to JKCCS; and the community managed irrigation of nallahs and kuls, being seen by experts as 'decrepit'³¹. A large number of public buildings, and departmental campuses, including those belonging to the Irrigation and flood control department came to be physically occupied, and military priorities, and 'security considerations', sidelined everyday governance and accountability, and created conditions conducive to lack of accountability and corruption.

The largest Flood Control Sub-Division, the head quarters of the Flood Mechanical Division in Khwajabagh, Baramulla, where large earth moving equipment is located, was occupied by armed forces, and the flood control operations relegated to one small room, in an out building in the early nineties. Maintenance and repair of the buildings was neglected. The buildings were severely damaged in the 2005 earthquake, and eventually became derelict. The CRPF occupied the campus prior to the 2008 elections, and remained there until 2009-2010.³² A retired engineer told JKCCS that when the Ellicot Company was approached around 2010 for spare parts to renew its operations, its representatives expressed shocked disbelief at the fact that these ancient machines were still in existence at all.

Against this backdrop, the floods that occurred in the valley, in 1992 were unprecedented, resulting from the heaviest recorded rainfall since 1959. According to newspaper reports from 1992, over 200 people lost their lives and the floods left over 60,000 people marooned in several north-western border districts. The discharge of the river Jhelum in the city was 65,000 cusec and 23,000 cusecs were carried by the flood spill channel. Extreme flooding was witnessed in 1996, 2002 and more recently in 2006. In 2005, after widespread concerns over illegal and dangerous encroachments on the embankments, the state government launched 'a beautification drive' of Jhelum banks on the three-km stretch, from Shivpora to Dubji Ghat (Maisuma), but these were abandoned, after a year.³³ There were alarms that these 'beautification efforts', including building gardens on the bund, would cause flooding, and a meeting between civil society representatives and the flood control department was held at the Institute of Engineers.³⁴ A renewed attempt was made by the flood control department, for eliminating shoals in the river banks, but these soon came to be embroiled in litigation³⁵ as the river peripheries and proprietary rights had never been properly demarcated, despite legislative requirements. The 2005 Flood Zoning Act, remains completely unknown and unenforced, and several senior officials in flood control and management interviewed by JKCCS had no knowledge of its existence. In 2010, under the aegis of Taj MohiudDin, then Minister of Agriculture, an ambitious plan for urgent flood control works was drafted, based on studies of the River Jhelum's hydraulic cycle, and the likelihood of floods occurring over the next five years. It required an outlay of Rs 2200 Crores of the Indian Government, of which Rs 500 crores were immediately required for the most urgent works. An amount of only Rs 97 crores was sanctioned by the Prime Minister's Office, as higher amounts would require the sanction of the Planning Commission. The proposal thereafter became lost in bureaucratic back and forth between the Indian Central water

31 F.A.Shaheen.(n.d) Comparative Management Performance Of Government And Farmer Managed Irrigation Systems In Kashmir Case Studies Of Twentyone Irrigation Schemes, International Water Management Institute (IWMI): Sri Lanka.

http://www.indiawaterportal.org/sites/indiawaterportal.org/files/Comparative_mgt_performance_government_farmer_managed_irrigation_systems_kashmir.pdf. See also, Mohammad A., and Iqar B., Measurement of water scarcity in plenty in the Himalayan region of India, http://www.inbo-news.org/IMG/pdf/HIMALAYAN_REGION_Mohammad_Ali.pdf

32 CRPF Continues to Occupy Govt Dept Building: Helpless Employees Forced To Work In Tin Sheds, News report dated 12 Jan 2009, on file with JKCCS. While the report states that the troops occupied the buildings in preparation for the elections of November 2008, residents of the locality stated that the campus had been occupied since the 1990s. It had become dilapidated after the 2005 Earthquake, and some buildings were vacated. These were reoccupied in 2008 before the elections as a large troop contingent of troops were deployed. They remained in place until late 2009 or 2010 according to locals.

33 R.S Gull, Do not Blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirilife.net/do-not-blame-jhelum-66544/>

34 As told to JKCCS by a retired hydraulic engineers. See also, Arif Shafi Wani, Govt closed eyes to Jhelum Deterioration, Greater Kashmir, 1 Oct 2014. <http://www.greaterkashmir.com/news/2014/Oct/1/govt-closed-eyes-to-jhelum-deterioration-29.asp>

35 See for instance the Jammu and Kashmir High Court order in writ petition OWP 831/07 (Ghulam Hassan Bhat and another versus State) where the plaintiff, a private individual claimed proprietary rights over a shoal that had accumulated, obstructing the river at Athwajan bye pass near Pantha chowk. The lower court passed status quo orders. In the high court Additional District Commissioner was asked to make a report, and he acknowledged that according to official records proprietary rights had been granted on the shoal as proper demarcation of the land had never been completed under the Embankments Act. Flood Control officials blamed the complicated legal terrain, and the lack of judicial appreciation of the danger of such obstructions, as well as apathy in their own department for the deterioration of the river banks, and proliferation of illegal and dangerous structures along embankments and water bodies. For instance, in this particular case, the flood control department went unrepresented in the litigation, and adverse orders contrary to the Embankments Act were passed, as the judge was not apprised of the correct legal position, whereby the flood control department had jurisdiction over all lands within the river channel, and no proprietary lands could exist within it. After the recent flooding however the judiciary has taken a stand against encroachments on ecologically fragile areas, such as river banks, water bodies and village commons grazing lands. See for instance, HC directs removal of constructions from Jhelum, its tributary banks, Daily Excelsior, 3 Oct 2014. <http://www.dailyexcelsior.com/hc-directs-removal-constructions-jhelum-tributary-banks/> and D.A. Rashid, HC to Govt: Remove encroachments on kahcharai lands, Greater Kashmir, 1 March 2015, <http://www.greaterkashmir.com/news/2015/Mar/1/hc-to-govt-remove-encroachments-on-kahcharai-land-56.asp> But ad hoc judicial orders cannot be a replacement for regular executive oversight and implementation of laws.

Commission, (CWC, the Central nodal agency) and the J & K state government, as the CWC sought further details, including several which according to local flood control officials would require the commission of extensive 'cumbersome' new scientific studies and surveys, that the department was not in a position to conduct.³⁶ The sanctioned outlay of Rs 97 crores was utilised for several dredging and embankment related works, primarily in the 'out-fall channel', beyond the Wular Lake, in Baramulla.³⁷ In 2012, under the stewardship of the Chief Minister, the Jhelum Conservation Project was launched from North Kashmir's Baramulla district, with dredging works in Baramulla, but absence of funds delayed the execution of other recommended conservation measures.³⁸ Like many other ecological plans and proposals for river, lake and water-way conservation in the valley the plan was unofficially 'shelved'.³⁹

The Jammu and Kashmir Water Resources Regulation and Management Act, came into force in 2010, enacting an over arching framework aimed at 'consolidat[ing] the law relating to use of water, the measurement, construction control and management of works with respect to water storage conservation and protection, the irrigation, water supply, drainage, flood control and prevention, the improvement in the flow of water the protection and improvement in the physical integrity of water courses, lakes and springs, the safety and surveillance of dams, the establishment of the State Water Resources Regulatory Authority for regulating water resources, ensuring judicious, equitable and sustainable management, allocation and utilization of water resources, fixing the rates for use of water [...]'. It has been seen by political analysts as restoring a modicum of autonomy to the J & K State Government in the control of its own water resources.⁴⁰ But this optimism seems misplaced, when one considers the state of non – enforcement, and lack of political will that existed on the ground, officials told JKCSS. A State Water Resources Policy under the Act is yet to be framed, despite a lapse of five years since its enactment.

The Jammu and Kashmir state government has recently launched a comprehensive scheme to expedite the restoration and renovation of local community based kuls and nallahs. Initially the scheme was designed to cover only 2046 kuls, though it envisaged an eventual takeover of all the remaining kuls, with a command area of 1012 hectares (2500 acres).⁴¹ Various other 'nallah training' and 'erosion prevention' schemes under Indian Government's MNREGA scheme, NABARD, the Jammu and Kashmir State Forest Department, Rural Development Department, and Irrigation department, have also been executed. These schemes and works usually involving the lining of the permeable mud walls of the nallahs and kuls with impermeable concrete or boulders. According to experts who spoke to JKCSS, these impermeable walls have been a cause of the nallahs turning 'flashy', and expediting the rush of water into the main body of the river at an uncontrollable rate during floods. Experts also pointed to the possible role played by the various abandoned and unsuccessful projects under the Indian Army's Sadbhavna, where renovating and concretising traditional water works along community kuls played a part in degrading the existing network (See Chapter 2). The long history of engineering, militarised and agriculture oriented solutions, all devastating to Kashmir's community hydraulic practices and the Jhelum's hydrology, thus continues. The present institutional frameworks of water management and flood control, and the role they played in the floods of 2014, are explored in greater detail in Chapter 3.

36 This episode is analysed further in Chapter 3, of this report.. See also GK News Network, JK, CWC pass the buck over Jhelum flood project, Greater Kashmir, 1 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/2/jk-cwc-pass-the-buck-over-jhelum-flood-project-61.asp>

37 Document on file with JKCSS, provided by former flood control official.

38 Arif Shafi Wani, Jhelum conservation saved Valley from floods: Govt, Greater Kashmir, 16 Sep 2012.

<http://www.greaterkashmir.com/news/2012/Sep/17/jhelum-conservation-saved-valley-from-floods-govt-31.asp>; GK News Network, JK, CWC pass the buck over Jhelum flood project, Greater Kashmir, 1 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/2/jk-cwc-pass-the-buck-over-jhelum-flood-project-61.asp>

39 Arif Shafi Wani, Jhelum gasps for breath: Govt sits on Rupees 2200-crore conservation plan, Greater Kashmir, 29 March 2014, <http://www.greaterkashmir.com/news/2014/Mar/29/jhelum-gasps-for-breath-12.asp>

40 Dar. Z.A. (2012) Power Projects in Jammu and Kashmir Controversy, Law and Justice, LIDS Working Paper 2011-2012, Harvard Law and International Development Society. <http://orgs.law.harvard.edu/lids/files/2011/11/LIDS-WP-1112-Dar.pdf>.

41 Shaheen F.A. (n.d) Comparative Management Performance Of Government And Farmer Managed Irrigation Systems In Kashmir Case Studies Of Twenty one Irrigation Schemes, International Water Management Institute (IWMI) http://www.indiawaterportal.org/sites/indiawaterportal.org/files/Comparative_mgt_performance_government_farmer_managed_irrigation_systems_kashmir.pdf

The Floods of 2014

The Natural Hazard

There was some initial disagreement over the nature of the hazard which caused the Kashmir Valley's extreme flooding in September 2014. The official position of the J & K Irrigation and Flood Control establishment, proposed at the first press conference addressed by the department on 26th September 2014 concentrated around a theory of 'cloud burst', or 'flash floods' in South Kashmir, in the area around Kousernag/Vaishav, causing an 'abrupt' rise in water level, and the 'unprecedented' discharge in the Jhelum on the night of September 6th-7th.⁴² This view was unsubstantiated by meteorological and satellite evidence, but it bolstered the perception of the 'natural inevitability' of the flooding, emphasizing official helplessness, since the 'water was beyond anybody's control'. It sought to minimise and justify what were obvious lapses, amounting to criminal negligence, on the part of the authorities.

A consensus has emerged that the unseasonal and incessant heavy rainfall for about three and a half days, beginning on September 2nd-3rd, as well as unusually heavy and late snow in the past few winters, and a possible high degree of snow melt, were the cause of the flooding rather than a cloud burst.⁴³ The Indian Meteorological department (IMD) data for Jammu and Kashmir shows that from 28th August to 10th September 2014 actual rainfall received (1645mm) in South Kashmir area was well above normal (124.9mm), with the week ending September 10th seeing rainfall in excess over the weekly normal by as much as 792 per cent.⁴⁴ The extended period of unusually heavy rain, indicates that the disaster management and weather monitoring mechanisms, both at the federal and state levels had enough time (at least 24 hours) to issue widespread warnings, take precautionary measures, and put into place an evacuation plan, even prior to the waters crossing the danger mark at the Sangam gauge in South Kashmir.

The JK Envis Report, by the government of Jammu and Kashmir's Department of Environment, Ecology and Remote Sensing (JK-DEERS) states, that 'the floods in Jammu and Kashmir are a result of High rainfall in the catchments over short period of time, whose effects were "not less than cloud bursts"'. In keeping with Indian Meteorological Department (IMD) findings, it attributes the heavy rainfall to confluence of three main rain bearing systems over Punjab that led to heavy rains in Jammu and Kashmir.⁴⁵ IMD scientists however, have sought to understate the anthropogenic causes of the disaster. They have exclusively blamed the interacting 'Monsoon fronts' and 'Western disturbances' and 'instability' caused by 'mountain orography', arguing that 'such floods and droughts have always occurred in the past with no link to human activity'.⁴⁶ This is in keeping with India's recalcitrant position on the reduction of Carbon dioxide emissions in global climate change negotiations.⁴⁷ Meteorologists, affiliated to the

42 Muddasir Ali, Clueless on how Srinagar sank, says Govt, Greater Kashmir, 30 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/30/clueless-on-how-srinagar-sank-says-govt-33.asp>

43 See for instance, Arif Shafi Wani, Survey trashes government's cloud burst theory, Greater Kashmir, 19 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/20/survey-trashes-government-s-cloudburst-theory-55.asp>

44 The IMD, New Delhi, on August 29 said in its release: 'Northwest India [which includes Jammu & Kashmir] is likely to receive scattered rainfall [meaning, in a few places] with the possibility of increase in spatial distribution in the second half of the week,' quoted in R. Ramachandran, A Tragedy that was waiting to happen, Frontline, 17 Oct 2014 <http://www.frontline.in/the-nation/a-tragedy-that-was-waiting-to-happen/article6461161.ece>

45 National Remote Sensing Centre, ISRO and Department of Ecology and Environment and Remote Sensing. (2014) A Satellite Based Rapid Assessment of Floods in Jammu and Kashmir, September 2014. http://www.jkenvis.nic.in/pdf/jkenvis_floodreport.pdf. At a conference organized at the Kashmir University, by Action Aid and the Centre for Research and Development Policy (CRDP) in November 2014, at which JKCCS was present Dr Shakeel Romshu, an eminent environmental expert presented his findings and photographs of a field study in the higher reaches near Sonamarg where the 'cloud burst' is stated to have occurred. He stated that he saw no evidence of cloud bursts, such as fallen trees or washed away land. He attributed to the rise in waters to melting of snow packs, and unusual heavy snow fall since 2010, and the extensive rains in South Kashmir. Glacial melt satellite imagery showed no change in size of the glaciers. Proceedings of the Conference have been compiled in the form of a Report. Action Aid and CRDP (2015) Kashmir floods: genesis, response and way forward. See also, Himanshu Thakker, Jammu and Kashmir Floods Chronicle of a Tragedy Foretold, 18 Sep 2014, <http://www.thehindu.com/opinion/op-ed/jammu-and-kashmir-floods-chronicle-of-a-tragedy-foretold/article6420015.ece>

46 Khandekar Madhav. (2014) Floods And Droughts In The Indian Monsoon Natural variability trumps human impact, Global Warming Policy Foundation. <http://www.thegwpf.org/content/uploads/2014/11/Monsoon-Floods.pdf>. The study states, 'it is [...] documented that such floods and droughts are caused by natural variability of regional and global climate, and not by human carbon dioxide emissions.

47 For an analysis with regard to US government's similar position on the natural inevitability of Hurricane Katrina, see Neil Smith, There is no such thing as a Natural Disaster, 11 June 2006, <http://understandingkatrina.ssrc.org/Smith/>

48 National Remote Sensing Centre, ISRO and Department of Ecology and Environment and Remote Sensing. (2014) A Satellite Based Rapid Assessment of

Indian establishment, such as Dr. Madhav Khandekar thus deny the mounting scientific evidence on the role of global warming and socially induced ecological degradation, in the increased frequency of such extreme and disastrous climate events, especially in the Himalayas. In the JK – Envis Report the scientific establishment of Jammu and Kashmir however lists climate change in the Himalayas as the first in a list of possible causes of the floods, which also includes destruction of wetlands, and deforestation.⁴⁸ The State Action Plan for Climate Change (SAPCC) prepared by the Jammu and Kashmir government also places great emphasis on the scientific evidence of climate variability in the Himalayas, and sees climate change as having a profound impact on the region's environmental and food security, and vulnerability to disasters, especially floods.⁴⁹ The Indian national policy and discourse on development are thus seemingly at odds with the interests and the future existence of its fragile Himalayan (and coastal) borderlands, which are most at threat from extreme climate variability.⁵⁰ The theory of the 'natural inevitability' of the flooding (proposed by the State Flood Control Department and the Chief Minister) and 'normalness' of the rainfall (highlighted by the Indian Meteorological Department)⁵¹ both mask the socio-political (and therefore preventable) dimensions of such disasters.

Gauge Readings and Breaches

The J & K state flood control department is responsible for monitoring water levels in the Jhelum river, on the basis of measurement gauges installed at 'Sangam' (near Bijbehara in South Kashmir), Ram Munshi Bagh (near Zero Bridge in Srinagar), Asham (in Sonawari, Bandipora) and at Ningli on the Wular Lake (in Sopore, Baramulla). Each of these gauges have pre-determined levels at which flood alarms (danger level) and flood declarations are announced. At the Sangam gauge the flood alert is announced at 18 feet, and a flood is declared at 21 feet. The gauge reads upto 35 feet, after which it gets submerged. At the Ram Munshi Bagh Gauge flood alert is at 16 feet, and a flood is declared at 18 feet, and the gauge reads upto 26.5 feet. The readings are done by ground staff, usually by a designated 'gauge reader'. At their peak, the water levels in the Jhelum broke the previous record for the highest recorded floods in the valley, crossing 33 feet at Sangam on 5th September, and 23 feet at Ram Munshi Bagh, Srinagar on 6th September. Both gauges were submerged, with the one at the Sangam remaining under water for 53 hours. The waters at the Sangam rose up to 38 feet, according to press reports. The discharge in the river was 1.35 lakh cusecs, not including the waters that flowed out through breaches in the Bund, more than double the carrying capacity (50,000 cusecs) of the Jhelum, its canals and tributaries.⁵² Flood Control officials, stationed at the Pampore sub division, head quartered at Kakapora in South Kashmir, told JKCCS that heavy rains started in the region, on September 1st and continued through September 2nd. The following is reconstructed from interviews and their records, some of which were also shared with JKCCS.

On the early morning of 3rd September, the gauge at Sangam was displaying a normal level of 8.5 feet. There was incessant rain through the day, and the gauge recorded hourly rises of almost one foot an hour. Patrolling by beat officers, and inspections of the bunds, began at 18 feet, as the water reached the 'danger mark'. At 4 pm, the water level of 21.3 feet had crossed the 'flood level' of 21 feet, and a flood was officially declared in the sub division. By 11 pm, the gauge was reading 27 feet, as nallahs and streams flowing into the river began to turn 'flashy', bringing with them huge amounts of silt and debris. At 11 am, on 4th September, the water had reached 29 feet. Shortly thereafter, the river bank at Kandizaal was breached. Normally, this has had the effect of lowering the levels of water at the Sangam, by about 4 feet, but officials were surprised to see that flood levels continued to rise in the river. The river began overflowing its banks at numerous places, recording overflows of almost four to five feet.

After 3 pm, on 4th September there is an unexplained twelve hour gap in the register recording the hourly levels at Sangam Gauge, as no further recordings appear to have been made until 4 am on 5th September where the reading

Floods in Jammu and Kashmir, September 2014. http://www.jkenvis.nic.in/pdf/jkenvis_floodreport.pdf

49 J&K Environmental Information Sensing Centre (JK-ENVIS), JK State Action plan for Climate Change, <http://www.jkdears.com/eers/eers/orders/Final%20Report%20SAPCC.pdf>.

50 For the impact of climate and anthropogenic change on ecological vulnerability of the Himalayas, see South Asia Network on Dams, Rivers and People, Uttarakhand Floods disaster: Lessons for Himalayan states, <https://sandrp.wordpress.com/2013/06/23/uttarakhand-floods-disaster-lessons-for-himalayan-states>. Scientists have argued that the Himalayan region is far more vulnerable compared to the subcontinental plains to climate change and are reportedly getting warmer at a much faster rate of nearly 0.6 °C every decade, about three times the global average warming rate. Average annual rainfall is increasing at a rate of about 65 mm each decade and the monsoon season is getting wetter, while winters are getting increasingly drier. See Shrestha, Uttam Babu, Shiva Gautam, and Kamaljit S. Bawa. Widespread climate change in the Himalayas and associated changes in local ecosystems, *PLoS One* 7.5 (2012): e36741. <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0036741#pone-0036741-g006>

51 See comments of IMD officials in R. Ramachandran, A Tragedy that was waiting to happen, *Frontline*, 17 Oct 2014 <http://www.frontline.in/the-nation/a-tragedy-that-was-waiting-to-happen/article6461161.ece>

52 National Remote Sensing Centre, ISRO and Department of Ecology and Environment and Remote Sensing. (2014) A Satellite Based Rapid Assessment of Floods in Jammu and Kashmir, September 2014.

S. No.	Time	Gauge	Remarks
21.	3.00 A.M.	27.70.	
22.	4.00 A.M.	28.00	
23.	5.00 A.M.	28.10	
24.	6.00 A.M.	28.30	
25.	7.00 A.M.	28.45	
26.	8.00 A.M.	28.55	
27.	9.00 A.M.	29.70.	
28.	10.00 A.M.	28.85	
29.	11.00 A.M.	29.00.	
30.	12.00 A.M.	29.15.	
31.	1 P.M.	29-40	
32.	2.00 P.M.	29.70	
33.	3 P.M.	30.00	
34.	4.00 P.M.	30.30	
35.	5.00 P.M.		
36.	6.00 P.M.		
37.	7.00 P.M.		
38.	8.00 P.M.		
39.	9.00 P.M.		
40.	10.00 P.M.		
41.	11.00 P.M.		
42.	12.00	(5.9.2014)	
43.	1.00 A.M.		
44.	2.00 A.M.		
45.	3.00 A.M.		
46.	4.00 A.M.	33.30	

Day/Time	beds Time	Grays	Signature Date
5:00 AM			
6:00 AM			
7:00 AM			
8:00 AM			
9:00 AM			

30. 60 led with pencil
 Sanger orange plate with water / submerged
 so then wet blue beads in the pot
 mixed brown
 By the all the
 previous records
 x by 1 + 1
 100%

Pages from the register dated 3rd and 4th September the Flood Control Sub division, Kakapora, showing the gap in monitoring, and the submergence of the gauge.

Locals from Lalhera, in Pulwama district, which falls within the jurisdiction of the Pampore Sub division, informed JKCCS that though flood control officials were seen on their beats in the area up to 2 pm, and helped community bund-strengthening measures, they thereafter 'disappeared' – an observation which corresponds to the written record. The office of the flood control sub division in Kakapora was flooded upto 10 feet, and three officials remained trapped overnight, until rescued by locals on 6th September. Officials in the Flood Control Committee's control room set up in the Police Headquarters, Srinagar stated that by 5th September, they were receiving frantic SOS calls from Pulwama, saying that water in the river was becoming uncontrollable, and they were conveying the information received to their field staff, but the staff was often unable to report back with ground reports due to the lack of connectivity. Soon they lost all touch with their field staff in South Kashmir.

The Pampore sub division subsequently recorded 38 breaches, big and small, as well as 13 'sloughings' (erosions of the bund), in the stretch between Pampore and Kandizaal which came under their supervision. Major breaches occurred at Kakapora, Lethpora, Athwajan, Lasjan as well as four breaches in Kandizaal.



The Main Breach at Kandizaal, after the waters receded. The tree trunks, and sand bags are evidence of unsuccessful attempts at controlling the breach

A total of 84 breaches were recorded by the Flood Control authorities through out the valley.⁵³ According to a study by the Head of the Kashmir University Department of Earth Sciences, Dr. Shakeel Romshu, 22 bund breaches were found in and around Srinagar city. Besides, breaching embankments on both sides of the river-banks, the silt and garbage laden Jhelum waters also entered the Dal lake for the first time.⁵⁴ The flood control department, in a statement issued on 17th October pointed out that the statement made by the Head of Department, Earth Sciences, Kashmir University, [...] mentioning three breaches of 250, 150 and 50 ft having occurred in the area, has failed to mention about the main breach, with length of about 400 ft and depth of over 30 ft, which had occurred on 4th September at 11:00 a.m. at Kandizaal, when the Sangam gauge was 29 feet, while as in the past, even at a gauge level of 31 feet at Sangam, flooding of downstream areas had not occurred.⁵⁵ With the breaches at Kandizaal, semi-urban areas in former wetlands and marshes to the south of Srinagar, such as Narbal, Solteng and Lasjan became quickly inundated.

In Srinagar city, the first breach occurred at Barzulla on the embankments of the Doodh-ganga nallah near Bone and Joint hospital on 4th September, where a taxi stand, and other illegal structures had been built on the embankment. An official told JKCCS, that the head quarters of the J and K State Disaster Relief Force (SDRF), a specially designated battalion of the J and K Police, at Baghat- Barzulla, became flooded and dysfunctional in this early round of flooding, well before the remainder of the city came under water. This was followed by a second round of more widespread and serious series of breaches on the night of 6th – 7th September, including at Sempora, the Army convoy ground at Pandrethan, Sonawar, Rajbagh, and in supplementary flood channel at Rambagh - all of it attributed to the unauthorised constructions on – or tampering of – embankments.⁵⁶ The river also began overflowing its banks on the Bund near Danjibhai building, JK bank, Polo view and Abi Guzar. It out-flanked the walls at the Ram Munshi Bagh gate, and began overflowing into the Dal Lake. Inner city waterways such as the Tsunti-khul also began overflowing their banks, resulting in the submergence of Bishambar Nagar and adjacent areas.⁵⁷

53 National Remote Sensing Centre, ISRO and Department of Ecology and Environment and Remote Sensing. (2014) A Satellite Based Rapid Assessment of Floods in Jammu and Kashmir, September 2014.

54 Arif Shafi Wani, Govt closed eyes to Jhelum deterioration, Greater Kashmir, 1 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/1/govt-closed-eyes-to-jhelum-deterioration-29.asp>

55 Press note issued by Government of Jammu and Kashmir Department of Information, 17 Oct 2014, I&FC Dept refutes claim of GOC, Sub Area regarding Kandizaal breach available at <http://jkdirinf.in/NewsDescription.aspx?ID=9242>

56 ER S.R.S. Madni, Kashmir Floods Forgotten Lessons, Greater Kashmir, 23 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/23/kashmir-floods-forgotten-lessons-14.asp>

57 ER S.R.S. Madni, Kashmir Floods Forgotten Lessons, Greater Kashmir, 23 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/23/kashmir-floods-forgotten-lessons-14.asp>

Warnings

Kashmir is a blind spot, in both the Central Water Commission⁵⁸ and Indian Meteorological Department's monitoring and flood forecasting establishments.⁵⁹ Floods in the Jhelum Valley are not listed as a potential hazard in the National Disaster Management Policy, though the region has a well-documented history of flooding.⁶⁰ The intensive satellite, electronic and on ground surveillance of Jammu and Kashmir, integrates it firmly into India's defence and military intelligence grid, aimed at blocking 'infiltration bids', quelling political dissent and holding territory.⁶¹ However, the integral nature of Jammu and Kashmir does not appear to extend to Indian agencies monitoring or sharing information that may prevent the loss of Kashmiri lives and property.⁶² It should be noted that the Geneva Convention IV mandates a relationship of 'trusteeship' by an occupying power over an occupied territory's natural resources and would entail the fiduciary sharing of such information even amongst 'hostile populations' in occupied territories.

The Central Water Commission, operates a network of 878 hydrological sites throughout India, data from which are used for issuing Level forecasts at 147 sites and Inflow forecasts at 28 sites. Level forecasts are information about the likely water level in the rivers in 12, 14, 16 and 18 hours in advance. This information is issued to concerned local and State level authorities when the water level at the forecast site is above the 'warning level', which is generally 1 metre below the 'danger level'. It is based on actual observed water-level data upstream, which is measured on an hourly basis during the monsoon, together with rain gauge data in case of significant rainfall in the upper reaches which eventually discharges into the riverine system, and inputs of rainfall forecast during rainy seasons. The 'danger level', is usually determined in consultation with the State government departments and local bodies involved in flood management. These parameters are supposed to be reviewed on a regular basis by the State Government.

There is no CWC flood monitoring station in Jammu and Kashmir. Since the primary cause of the flooding was a week long rise in water levels due to sustained rainfall, advance level readings generated by a monitoring site could have helped with preparation in the lower riparian regions of the valley, including the capital Srinagar, which saw some of the worst losses to life and property. The chief of the Flood Monitoring Cell of the CWC blamed the J and K state government for the lack of CWC monitoring and warning, stating it had not complied with the required protocols at the local level. An article quoted him as saying, 'It is a complex issue but includes finalisation of parameters such as warning time and danger level.'⁶³ The Indian Government's responses have by and large sought

58 Himanshu Thakkar, Jammu and Kashmir Floods Chronicle of a Tragedy Foretold, 18 Sep 2014,

<http://www.thehindu.com/opinion/op-ed/jammu-and-kashmir-floods-chronicle-of-a-tragedy-foretold/article6420015.ece>

59 For a description of the lapses on the part of the Indian Meteorological Department, see R. Ramachandran, A Tragedy that was waiting to happen, Frontline, 17 Oct 2014 <http://www.frontline.in/the-nation/a-tragedy-that-was-waiting-to-happen/article6461161.ece>. See, for a description of inadequate hydrological and meteorological data gathering facilities in the region, Ahmed N., and Ahmed T., Problems of Water Resource Management in Kashmir Valley, 12(2) IOSR Journal Of Humanities And Social Science (IOSR-JHSS) 76-82.

<http://iosrjournals.org/iosr-jhss/papers/Vol12-issue2/J01227682.pdf>. The paper states, 'The metrological observatory at Srinagar was opened in 1891 and at Gulmarg in 1897. The position has not substantially changed since then. Regular metrological data are, however, available only for Srinagar, as the Gulmarg observatory functions only during the four summer months June to September for reasons best known to IMD (Indian Metrological Department) [...] The IMD did not, however, bring out a similar volume on snowfall – a meteorological variable of great significance for the Himalayan region. The monthly weather reports of the IMD contain such data for the Srinagar city and aerodrome observation.'

60 The JK State's Action Plan on climate change, for instance, places floods as the second on the list of disasters the state is vulnerable to, after earthquakes. The list includes avalanches, and landslides which are often associated with heavy rains. J&K Environmental Information Sensing Centre (JK-ENvis), JK State Action plan for Climate Change, <http://www.jkdears.com/eers/eers/orders/Final%20Report%20SAPCC.pdf>

61 See for instance, Mandeep Singh Bajwa, The intelligence war in Kashmir, Hindustan Times, 30 Nov 2014 <http://www.hindustantimes.com/punjab/chandigarh/the-intelligence-war-in-jammu-and-kashmir/article1-1291701.aspx>. See also, Marks.T.A, Jammu & Kashmir: State Response to Insurgency - The Case of Jammu <http://www.satp.org/satporgtp/publication/faultlines/volume16/article1.htm> for description of the layered inter locking security grid structure aimed at area dominance in Doda district of the Jammu region

62 See Nithya Nair, Did State Govt respond late to warnings? India.com, 9 Sep 2014, <http://www.india.com/news/india/jammu-and-kashmir-floods-did-state-government-responded-late-to-warnings-144520/In>. The report states the India Meteorological Department (IMD) [Srinagar Region] had warned the state of 'very heavy rainfall' from September 2. The warning indicated that rainfall would continue for several days. However, a senior official of National Disaster Response Force (NDRF), on condition of anonymity, said there was not a single warning issued before the floods. In another report, after clarifying that meetings had been held by the Regional Meteorological Centre at Srinagar, a scientist of the IMD stated 'Field level warnings are issued only by Srinagar. He [the person manning the local office] is the guy on the field and responsible, and who liaises with the State government. But the IMD office there is submerged. When that office resumes he will prepare a report.' R. Ramachandran, A Tragedy that was waiting to happen, Frontline, 17 Oct 2014 <http://www.frontline.in/the-nation/a-tragedy-that-was-waiting-to-happen/article6461161.ece> The IMD however, in the case of cyclone Hudhud independently began issuing widely publicized and specific alerts and warnings 48 hours before the cyclone made land fall, backing them up with ground reports, rather than waiting for the 'field level warnings' from Regional Meteorological Centre. See Sandeep Sahu, Hudhud: Spot on twice, India's Met Dept beats global weathermen hollow, Firstpost, 13 Oct 2014 <http://www.firstpost.com/india/cyclone-hudhud-spot-on-twice-indias-met-dept-beats-global-weathermen-hollow-1753695.html>

63 R. Ramachandran, A Tragedy that was waiting to happen, Frontline, 17 Oct 2014 <http://www.frontline.in/the-nation/a-tragedy-that-was-waiting-to-happen/article6461161.ece>

to wash their hands of the responsibility for the disaster, attributing all lapses to the Jammu and Kashmir State Government.⁶⁴ For instance, CWC officials were on record stating that 'this was more of a drainage problem than a flood'⁶⁵. The Disaster Management Division of the CWC which is responsible for compiling inputs from all the agencies, in its 'Situation report' for 2nd September 2014 made no mention of the threat of floods in Jammu and Kashmir, despite forecasts of heavy rainfall.⁶⁶ Commentators have also pointed out that under the terms of Indus Water Treaty, India is required to monitor water levels in the Indus and its sub basins including the Jhelum, and provide this information to lower riparian Pakistan. Apparently the CWC also either neglected to do this, or failed to pass on this 'sensitive' national interest information to local authorities, as well as Pakistan, which it is obliged to do.⁶⁷

Beginning from 2nd September 2014, the Jammu and Kashmir Regional Meteorological department (under the Indian Meteorological Department) began issuing a series of increasingly ominous warnings, about the unusually heavy rains to come,⁶⁸ including a communication sent to the Divisional Commissioner Kashmir which read:

'A Western Disturbance over Jammu and Kashmir and its interaction with monsoon currents over North West India is likely to affect State from today (September 3) up to Saturday (September 6th). Moderate to heavy rains/thundershowers and snowfall will occur in higher reaches. Some places may receive heavy to very heavy rain/shower during this period and these weather conditions may trigger landslides and flashfloods.'

A copy of the warning was also reportedly sent to the Deputy Director General, Meteorology, Regional Meteorological Centre, New Delhi, and Chief Engineer Mechanical Division, Flood Control Department, Srinagar.⁶⁹ Despite the constitution of Central Flood Control Committee, and Zonal Flood Committees on 4th September and an urgent video conference between the Chief Secretary and the District Deputy Commissioners asking for sand bags to be procured, and boats to be requisitioned from administrative agencies, the civilian administration conveyed no sense of urgency, or potential emergency to the public. For instance, they made no effort to deploy government vehicles to make announcements or evacuate and barricade areas at risk, a practice otherwise followed routinely during state declared curfews and search and cordon operations (crackdowns). Meanwhile, the low lying areas of the military cantonment was already being evacuated, according to local residents who lived in the vicinity.

According to a Rapid Impact Assessment report, prepared by independent researchers on 3rd September local dailies reported that threat of floods was imminent in the valley. As rains continued to pour incessantly, water levels in the major rivers and tributaries in both Jammu and the Kashmir valley, including the Chenab, Jhelum, Tawi and Sind started to rise. Water levels in the Sangam gauge were recorded as by-passing the flood level of 21 feet. Water levels in the Jhelum's tributaries, particularly Lidder, Tounгри and Vaishav in South Kashmir were also seen rising considerably. Educational institutions in the South of Kashmir were closed. The Srinagar Jammu highway was also closed down for traffic due to landslides. In District Kulgam the Vaishav Nallah created havoc by changing its

64 See for instance R. Ramachandran, A Tragedy that was waiting to happen, Frontline, 17 Oct 2014 <http://www.frontline.in/the-nation/a-tragedy-that-was-waiting-to-happen/article6461161.ece> See also the CWC's response to the J & K Government's statement that proposal for flood control works, [the Taj Mohiudeen Report] had not been sanctioned, GK News Network, JK, CWC pass the buck over Jhelum flood project, Greater Kashmir, 1 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/2/jk-cwc-pass-the-buck-over-jhelum-flood-project-61.asp> See also the Indian Parliamentary Standing Committee's report on the Kashmir floods, PTI, Parliamentary panel raps Jammu and Kashmir government for inadequate steps on flood warning, Daily news and Analysis, 22 Dec 2014 <http://www.dnaindia.com/india/report-parliamentary-panel-raps-jammu-and-kashmir-government-for-inadequate-steps-on-flood-warning-2046151>

65 Mail Today Bureau, Disaster unforeseen, impact underestimated: Scale of Kashmir's floods dwarfs heroic relief efforts as death toll hits 200, Mail Today, 8 Sep 2014, <http://www.dailymail.co.uk/indiahome/indianews/article-2748392/Disaster-unforeseen-impact-underestimated-Scale-Kashmir-s-floods-dwarfs-heroic-relief-efforts-death-toll-hits-200.html>

66 On September 2 the Regional Meteorological Department (Srinagar) forecast 'Moderate rain along with thunder showers would occur at most places across Jammu and Kashmir for next four days.' On September 3, 'Rather moderate to heavy rain/thundershower would occur at most places with very heavy falls at few places. And again 'Heavy to very heavy rain/thundershower would occur at few places for next 48 hours.' On September 4 it predicted 'Rather heavy to very heavy rains will occur at most places.' On September 5, 'Vigorous monsoon conditions are prevailing over the state, associated with strong westerlies.' See, Mudassir Ali, JK Govt. slept over repeated warnings, Greater Kashmir, 9 Oct 2014 <http://www.greaterkashmir.com/news/2014/Oct/9/jk-govt-slept-over-repeated-warnings-52.asp>

67 R. Ramachandran, A Tragedy that was waiting to happen, Frontline, 17 Oct 2014 <http://www.frontline.in/the-nation/a-tragedy-that-was-waiting-to-happen/article6461161.ece>

68 Mudassir Ali, JK Govt. slept over repeated warnings, Greater Kashmir, 9 Oct 2014 <http://www.greaterkashmir.com/news/2014/Oct/9/jk-govt-slept-over-repeated-warnings-52.asp>

69 Muddasir Ali, Clueless on how Srinagar sank, says Govt, Greater Kashmir, 30 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/30/clueless-on-how-srinagar-sank-says-govt-33.asp>

course and washing away the entire villages of Akhran and Aaregutun. On the same day, the Deputy Commissioner of Kulgam District, Nissar Hussain Wani issued a mildly worded warning, urging people 'not to venture out near streams', which were 'witnessing rise in waters due to incessant rains.' The notice also stated that 'people living in low lying areas have been advised to move to safer places in view of apprehension of inundation due flood waters.'⁷⁰ Though this warning appears on the Jammu and Kashmir State Information Department's website, it was not widely disseminated or publicised, and no administrative steps beyond the perfunctory issuance of the warning circular, were taken to publicise a disaster management plan, or evacuate vulnerable areas or buildings such as hospitals, on an urgent basis.

The Irrigation and Flood Control Department issued two memos addressed to the Director Doordarshan (News), Srinagar and the Director Radio Kashmir (News) Srinagar, on 4th September, and 6th September 2014. The first titled 'Declaration of Flood Threat' asked for a public announcement to be broadcast that 'the habitation residing along embankments and low-lying area are asked to evacuate to prevent human loss' and that all officers 'supposed to be on flood duty in Baramulla and Bandipora' [and a third district which is obliterated by whitener and therefore illegible], attend to their duties directly. The second titled 'announcement' and marked 'Most Urgent' reiterated the warning to residents of 'low lying areas' to evacuate.⁷¹ The letters were also subsequently posted on the official Facebook page and web site of the department, according to an RTI (Right to Information) reply dated 23rd Feb 2015 by the Irrigation and Flood Control Department.⁷²

On 4th September 2014, the same day as the 'Most Urgent' evacuation circular was issued, Mir Javed Jaffer, the Chief Engineer Flood Control, stated during a Radio Kashmir broadcast that the situation was 'stable' and the water level had started 'lowering' in the river, though discharge in the river at Ram Munshi Bagh was then at 23 feet, five feet above danger mark.⁷³ Reports by the Regional Meteorological Department that rainfall would lessen on the night of 4th - 5th September, and the appearance of a rainbow during a lull in the rains on the evening of 5th September, also added to the sense of false complacency. Several retired and serving hydraulic engineers stated to JKCCS that the Chief Engineer's statements showed a basic misjudgement on his part, as a sudden drop in water levels when the river is in spate is indicative of a breach in its embankments, and an increase in, rather than the passing of danger.⁷⁴ Listeners who heard the broadcast told JKCCS that in reply to a specific question on whether he would advise residents of Rajbagh (a particularly badly hit river bank neighbourhood in Srinagar) to evacuate, the Chief Engineer replied that 'it was up to them'. Contradictory official information amplified the sense of both complacency and panic in the community. In the absence of widespread publicity, specific instructions, or organized logistical efforts towards evacuations, the seriousness of the warnings and evacuation circulars, not surprisingly, went unheeded by most people. Unaware of which were the 'safer' areas in a city where almost every (non-militarised) area is low-lying, many made decisions to migrate or send children, the elderly or other loved ones into areas which in hindsight proved even more dangerous than their original neighbourhoods.⁷⁵

The Rapid Impact Assessment report, prepared by independent researchers under the banner of Kashmir Volunteers in Delhi for Flood Relief (KVDFFR), has documented that by 5th September about seventy villages in Anantnag were submerged. In Anantnag town, the areas of Mattan Chowk, Dangerpora, Mehendi Kadal, Lal Chowk, Janglat Mandi, Achajipora, Moominabad, Iqbal Market, Bakshiabad, Laizbal, Anchidora, SK Colony, Achabal Adda, Naibasti and Khanabal were particularly affected. Several bridges were washed away along the rivers and streams in the area, leaving the South of Kashmir totally cut off by road. The Srinagar – Anantnag stretch of the National Highway was declared unsafe for traffic. Land-line and mobile phone networks shut down creating

70 Press Release by JK Information Department, available at <http://jkdirinf.in/NewsDescription.aspx?ID=8885>

71 PS 1525-50/ 2014 dated 4 September 2014 and PS 1555-57/ 14, Press statements dated 6 September 2014, issued by Government of Jammu and Kashmir, Irrigation and Flood Control Department on file with JKCCS

72 RTI reply dated 23.02.2014, by Er. Arif Ahmed Mir, Public Information Officer, Irrigation and Flood Control, on file with JKCCS.

73 Mudassir Ali, JK Govt. slept over repeated warnings, Greater Kashmir, 9 Oct 2014 <http://www.greaterkashmir.com/news/2014/Oct/9/jk-govt-slept-over-repeated-warnings-52.asp>

74 Muddasir Ali, Clueless on how Srinagar sank, says Govt, Greater Kashmir, 30 Sep 2014. The report quotes Former Minister for Flood Control Taj MohiudDin as saying, 'When I heard the Chief Engineer saying on radio that water level is coming down in Jhelum, I immediately called him on his mobile phone and told him it was not a natural decrease in water level but that the river has breached embankment which must be checked.'

75 For an example see Shanaz Bashir's flood memoir, Shahnaz Bashir, When the Deluge hit Srinagar, Fountain ink, 7 Nov 2014 fountainink.in/?p=6214

panic, and the absence of reliable information. Reports received from Shopian indicated that Rambhara Nallah had breached its embankments and the village of Kaprin and its surrounding villages were inundated. The Rambhara Nallah breached its embankments in District Pulwama as well, submerging Sarvanpur. In the North of the valley, breaches along the Nallah Ferozpora in Tangmarg had inundated Shrai Kunzar, and surrounding areas. In Srinagar severe water logging due to the heavy rainfall was reported from several areas including Safa Kadal, Eidgah, Nowshehra, Soura, Ali Jan Road, Gulshan Nagar, Mehjoor Nagar, Gogji Bagh, Wazir Bagh, Jawahar Nagar, Rajbagh and Bemina. The River Jhelum started breaching its embankments and started spilling over into areas such as Lasjan, Armwari, Kanilpora, Pandrethan and Pantha Chowk.⁷⁶

Interviewees repeatedly described to JKCCS how during the late hours of 6th September, Srinagar was a city of widespread chaos and traffic snarls, as people gathered on bunds and bridges to observe the rising waters, moved belongings and vehicles, and drove across the city towards supposedly 'safe locations' or to help evacuate relatives, based on hearsay and rumour. One survivor related to JKCCS how he had frantically travelled with his family from his home in Padshahi Bagh, to a relative's home in Rajbagh to another relative's residence in Gupkar Road, through the course of that night, hoping to – but failing to – stay ahead of the advancing waters. His final haven located at the lower end of Gupkar Road, also became flooded up to the first floor and eventually had to be evacuated. Several mosques across the city had begun monitoring water levels in their adjoining areas as waters rose, and breaches and overflows became uncontrollable, issuing progressive warnings to evacuate ground and first floors, and to help with community based flood control measures such as sand bagging of bunds, as in parts of South Kashmir.⁷⁷ In certain areas with a history of flooding, such as in Noorbagh–Palpora, local youth who were monitoring, strengthening and raising the bunds, since the heavy rains began, provided locals with information about the water levels and possible breaches. In a few elite localities, such as Rajbagh, police vehicles mounted with a PA system also issued similar warnings, but again with no indication as to what the evacuation protocol was to be, and who was in charge, leading to further chaos and panic.⁷⁸ In response to questions about whether they had any prior official warning of the probable intensity of the floods or water levels, an overwhelming majority of the more than fifty survivors spoken to in the course of this research, replied in the negative. What warnings they had received had all been community based, through concerned relatives and friends, including friends from South Kashmir, where the floods had reached two days prior, and through the social media.⁷⁹ Radio Kashmir which had suspended all routine broadcasts on 6th September, and began airing only flood related news and messages once Srinagar was in danger of widespread flooding, stopped their broadcasts around 8 am on 7th September. The presenters said an emotional good bye to their listeners, as they left their flooded studio premises in order to save their own families.⁸⁰ Flood related broadcasts were restored only a week later, from a makeshift radio station at the Shankaracharya Hill, becoming a literal beacon of hope and survival, at a time when all other signs of the administrative apparatus had disappeared.

76 Kashmir Volunteers in Delhi: Flood Relief and CSA. (2014) Kashmir Floods: Rapid Assessment Peoples' Report <http://www.scribd.com/doc/241324957/Kashmir-Floods-Rapid-Assessment-Peoples-Report-1#scribd>

77 This was stated to JKCCS by several local residents, from across the areas visited.

78 This was stated to JKCCS by residents. See also Mohammad Junaid, Diary of a flood (unpublished essay on file with JKCCS).

79 JKCCS found several examples of experts posting warnings and advice on their personal face book pages

80 See for instance IANS, Hundreds abandon homes as flood ravages Kashmir, Business Standard, 5 Sep 2014, http://www.business-standard.com/article/news-ians/hundreds-abandon-homes-as-flood-ravages-kashmir-114090500327_1.html

Militarisation, Ecology, Disasters

In 1990, in the wake of an armed resistance movement in J and K, India intensified its military presence in the region manifold, as part of its 'counter insurgency' (COIN) strategy. Defense analysts have characterized Indian counter insurgency operations in the region, as a 'mixed approach', that combines 'massive military deployment' such as 'Operation Parakrama' the unofficial war with Pakistan in Kargil, with 'people-oriented programs such as socio-economic development', exemplified by Operation Sadbhavana the military operation aimed at winning Kashmiri 'hearts and minds' through community development. The Indian COIN strategy in Kashmir has been officially described as 'integrating all available national means [...] political, economic, and military.'¹

This chapter attempts to map the destructive ecological impact of this combined strategy of massive deployment and militarised development, and their bearing on the flooding of Kashmir. In part 1, it focuses on the physical occupation of huge areas of different kinds of land by the military, which has affected the valley's ecology, hydrology and urban development, and increased the flood vulnerability of its population. Part 2 looks at the effects of militarised development. It concentrates on two particular projects, the railway line between Jammu and Baramulla, considered partly responsible for the unprecedented inundations in South Kashmir; and the building of multiple hydro electricity projects in the Chenab and Jhelum valleys.

Studies by the United Nations Environmental Programme (UNEP) on the environmental impact of armed conflict and occupations in the Gaza Strip and Iraq, have found the following significant environmental impacts resulting from the conflict: degradation of water and sanitation systems, degradation of waste management systems, pollution and contamination from oil fires and spillages, physical degradation of ecosystems, degradation of water resources, degradation of agricultural resources, waste pollution and loss of biodiversity.² In general, warfare and militarisation are widely acknowledged to be among the most ecologically destructive human activities.³ In an article on the relationship between militarisation and the degradation of the Indus River Basin (of which the Jhelum valley is a sub basin), divided between Indian Administered J and K and Pakistan, disaster management expert, Arjmand Talib draws attention to the long term ecological impacts of the toxic waste pollution and contamination of the highly militarised Siachen glacier, which he describes as the 'world's highest garbage dump'. It contains over an estimated 10,000 tonnes of 'plastic and metal waste, remains of crashed helicopters, worn out gun barrels, splinters from gun shelling, empty fuel barrels, burnt shelters, telephone wires, skid boards, para-dropping boards, edible oil containers, canisters, gunny bags, rotten vegetables, bad meat, expired tinned meat, cartons, wrappers, shoes, clothing, ration items [...]'⁴ fecal matter, toxic metals, and unrecovered human remains. Non biodegradable wastes absorb heat, which result in temperature rise in the Himalayan region, melting snows and glacial ice, forming new and unstable glacial lakes, posing a risk of Glacial Lake Out-burst Floods (GLOF), such as those which occurred in Ladakh in 2006 and 2010.⁵ A report on the significant recession of the Siachen glacier (in comparison to other Karakoram glaciers), attributes the glacier's catastrophic decline (and the Ladakh Glacial Outflow floods of 2010) to its intensive militarisation including the setting up of military infrastructure, toxic and ammunition waste pollution, and the deliberate chemical blasting and cutting of the glacial ice which are a part of military routine for setting up encampments.⁶ Regular troop and vehicle and helicopter movements add to glacial instability and

1 Dhakal, C. B. (2014). Understanding counterinsurgency in democratic settings: counterinsurgency success and failure in Kashmir and Nepal (Doctoral dissertation, Monterey, California: Naval Postgraduate School).

2 Mason, M. (2011). The application of warfare ecology to belligerent occupations. In *Warfare Ecology* (pp. 155-173). Springer Netherlands.

3 For an extensive bibliography of scholarship, on warfare, militarisation and ecology see Mitchell, M. N., & Coco, L. E. (2004). War, Militarisation, and the Environment An annotated bibliography. <http://globetrotter.berkeley.edu/bwep/greengovernance/papers/Bib/B08-MitchellCoco.pdf>. See also Gould, K. A. (2007). The ecological costs of militarisation. *Peace Review: A Journal of Social Justice*, 19(3), 331-334. Machlis, G. E., & Hanson, T. (2008). Warfare ecology. *Bioscience*, 58(8), 729-736; Marler, T. E. (2013). Military ecology more fitting than warfare ecology. *Environmental Conservation*, 40(03), 207-208.

4 Arjmand Hussain Talib, Degradation of Indus Basin: How secure is South Asia's future? *Akhbar*, July 2002 <http://www.indowindow.com/akhbar/article.php?article=100&category=3&issue=17>. See also, Associated Press, Experts warn glaciers in Indian Kashmir melting, CNY Central. 13 Oct 2009. <http://www.cnycentral.com/weather/story.aspx?id=362280#.VIRKoleCSPU>

5 See presentation created by Centre for Science on Environment, available at http://www.cseindia.org/userfiles/TM_Presentation.pdf

6 Arshad Abbassi, Melting of Siachen Glacier: Don't blame climate change, *The News*, 22 April 2012, <http://www.thenews.com.pk/Todays-News-13-14094-Melting-of-Siachen-glacier-%20-don%20t-blame-global-warming>

degradation.⁷ The degradation of the glacier is seen as adding significantly to the regions disaster vulnerability including floods, landslides and avalanches.⁸ Dumping of wastes in drums from the heights of the glacial ridge, into lower crevasses has also been seen as a cause of the 2012 Saltoro avalanche which cost 140 lives.⁹ Studies show that the Siachen Glacier has receded to half its former size.¹⁰ The Siachen glacier feeds the Shayok and Nubra rivers, which flow through Ladakh and ultimately join the Indus.

The people of J and K have also suffered the more direct effects of environmental catastrophes caused by militarisation. In August 2007, a large ammunition depot of the Indian Army located at Khundru, on highlands in South Kashmir, caught fire, leaving at least twenty dead,¹¹ thousands of villagers living in its vicinity homeless for months, and causing widespread destruction to nearly 54,000 kanals (6750 acres) of agriculture and orchard lands in 13 villages in the Anantnag (Islamabad) district.¹² Unexploded shells reportedly caused deaths months later and soil and water sources became contaminated and unusable.¹³ The widespread use of land mines, of which India is the third largest stock piler, especially along the forests and fields of border areas, along the 2897 km long Line of Control has also resulted in large number of deaths, loss of limbs, livestock and lands.¹⁴

Not every militarised disaster however, has such directly visible effects. The very conditions of militarised occupation often present major practical obstacles to efforts to determine impartially the environmental effects of militarisation, as large areas of the occupied territory become inaccessible to scholars and scientists for 'security reasons'.¹⁵ Commentators and reports on the Kashmir floods, have overwhelmingly attributed the devastating nature of the flooding to the degradation of Kashmir's ecology, including the effects of trans Himalayan climate change, and the fragmentation and destruction of wetlands, depletion of forest cover, soil erosion, urbanization of flood plains, and encroachments on water bodies and river embankments.¹⁶ The intensive militarisation of J and K, which has had some bearing on each of these, has largely remained unmentioned upon in these analyses, and in articulating demands for accountability and answers. For instance, while many have noted the ineffectual

7 Bronwyn Curran, War zone's melting glaciers a 'colossal risk', *The National*, 21 Sep 2008, <http://www.thenational.ae/news/world/south-asia/war-zones-melting-glacier-a-colossal-risk>. See also, Amin Ahmed, Military activity lead to melting of Siachen's glaciers, *The Dawn*, 18 Mar 2007, <http://www.dawn.com/news/237989/military-activity-leads-to-melting-of-siachen-glaciers>

8 Priyanka Bhardwaj, Destroying the glacier to save it Global warming melts an India-Pakistan bone of contention, *Asia Sentinel* 27 Mar 2009 <http://www.ecoearth.info/shared/reader/welcome.aspx?linkid=122667>

9 Aftab Noor Indian military activities finally resulted in Siachen tragedy, *The News*, 22 April 2012.

10 Priyanka Bhardwaj, Destroying the glacier to save it Global warming melts an India-Pakistan bone of contention, *Asia Sentinel* 27 Mar 2009 <http://www.ecoearth.info/shared/reader/welcome.aspx?linkid=122667>

11 Reuters, Indian troops find more bodies in wrecked arms dump, 14 Aug 2007, <http://in.reuters.com/article/2007/08/14/idINIndia-28975620070814>

12 Mudasir Ali, 54,000 kanals of agriculture, horticulture land affected around Khundru, *Greater Kashmir*, 17 Aug 2007 <http://www.greaterkashmir.com/news/2007/Aug/17/54-000-kanals-of-agriculture-horticulture-land-affected-around-khundru-44.asp>

13 Season for farming begins in valley but not for still shell shocked Khundroo people, *Kashmir Times*, 1 May 2008

14 Rediff news, Pakistan still has 6 million landmines, India third with 4 million, [rediff.com](http://www.rediff.com/news/report/pix-pakistan-still-has-6-million-landmines-india-third-with-4-million/20141205.htm), 5 Dec 2014, <http://www.rediff.com/news/report/pix-pakistan-still-has-6-million-landmines-india-third-with-4-million/20141205.htm>; Scott J.J, From the Himalayas to the Indian Ocean: The world's largest mine-field? *Journal of Mine Action*, 6(1) April 2002. <http://www.jmu.edu/cisr/journal/6.1/notes/scott/scott.htm>. See also, Suvojit Bagchi, Kashmiris dream of mine free land, *BBC news*, 10 Dec 2008, http://news.bbc.co.uk/2/hi/south_asia/7773105.stm.

15 See for instance remarks of Prof. Syed Iqbal Hussain, who headed the first scientific team in 20 years to visit the fast depleting Kolahai glacier, the source of the Lidder river, one of the main sources of the Jhelum's water. 'To understand the whole dynamics of the glacier we have to have a data base—that is very important as we don't have any data base as of now about this important glacier. This glacier was studied by some scientists between 1975- 1985 but since then nobody has gone there because of the situation in the valley. We are the first people who have visited this glacier since twenty years. And in twenty years the damage to the glacier is more than what was there in last 50 or 100 years.' Majid Maqbool, Across the table [an interview with Prof. Hussain] *Greater Kashmir*, 5 Aug 2008 <http://www.greaterkashmir.com/news/2008/Aug/5/across-the-table-5.asp>. See also the comments of Prof. Akhtar Hussain, curator of Kashmir University's Department of Taxonomy, about the absence of studies on the ecological impacts of building a firing range on the Tosh Maidan Alpine meadow. 'Over the years the fear of shelling has prevented experts from conducting any scientific survey of Tosmaidan to list the medicinal plants. Who would go to Tosmaidan for a survey knowing that it is like walking into a death zone? Our Taxonomy Department (only one in the Valley involved in the botanical surveys) has a rich stock of plants collected from some of the remotest parts of the state, but Tosmaidan has been left untouched.' Danish Zargar, (Mis)use of tosmaidan meadow affects ecology: experts, 16 Sep 2013, *Kashmir Reader*.

16 See for instance Chetan Chauhan, Kashmir floods - a story of destroyed ecology, *Hindustan Times*, 16 Sep 2014, <http://www.hindustantimes.com/floodfury/hitsjk/kashmir-floods-a-story-of-destroyed-ecology/article1-1264745.aspx>; Sushmita Sengupta, Urban floods: lessons from Jammu & Kashmir, *Down to Earth*, 10 Sep 2014; <http://www.downtoearth.org.in/content/urban-floods-lessons-jammu-kashmir>; Himanshu Thakkar, Jammu and Kashmir Floods Chronicle of a Tragedy Foretold, 18 Sep 2014, <http://www.thehindu.com/opinion/op-ed/jammu-and-kashmir-floods-chronicle-of-a-tragedy-foretold/article6420015.ece>; Dar, M.A and Qadri, N.S, Disaster Risk Governance: A Study of Kashmir Floods 2014, *South Asia Journal* Issue 12, Winter 2015. <http://southasiajournal.net/disaster-risk-governance-a-study-of-kashmir-floods-2014-2/>;

See also comments by environmentalist Dr. Shakeel Romshu and urban planner Ifitikar Hakim, made at a conference on the floods, at the Kashmir University, by Action Aid and the Centre for Research and Development Policy in November 2014, summarised in *Action Aid and CRDP (2015) Kashmir floods: genesis, response and way forward*.

functioning of the flood control department, and the lack of dredging in recent years,¹⁷ none have remarked upon the physical occupation of the Khwajabagh (Baramulla) Flood Mechanical Division, the largest in the valley, by the CRPF, for a period of about twenty years (early 1990s to 2009-2010) with a direct bearing on the department's dredging works, and the state of disrepair of its equipment.¹⁸ Residents of Narbal told JKCCS that the Border Security Force occupy the local flood control department's offices. Similarly, while the role of the armed forces in response and rescue has been much debated, what has not been noticed is the fact that the massive militarisation of J and K (particularly its flood-safe highlands and orchard karewas)¹⁹ has played a major role in determining land use patterns in the valley, by causing huge losses of livelihood, massive dislocations, and pushing the growth of urban settlements into progressively lower lying flood prone areas. Again, while the role of the Jammu-Baramulla railway line in causing widespread and unprecedented inundations in South Kashmir has been a matter of discussion,²⁰ the explicitly militarised nature of this project, deliberately built on 'flood safe' high embankments after a study of hundred year flood levels, with a callous disregard for the increased flood vulnerability of villages and farmlands along it, has been ignored by commentators.

As with conflict more generally, occupational practices can indirectly affect natural resources and ecosystems by influencing the adaptive strategies employed by local populations and displaced people, often forcing them into more ecologically harmful activities, in a desperate search for livelihood. Scholarship shows that the military appropriation of the environment as a security concern threatens not only the environment but also increases social and disaster vulnerability, especially of poor communities.²¹ A report from 2009, notes that more than 200 kanals [25 acres] of proprietary land at Lashdut, a frontier district, comprising maize, pulse, potato fields and apple and walnut orchards have been under army occupation since 1990. As a consequence, nearly 50 families were forced to cross over to Pakistan Administered Kashmir in 1990 and 30 other families were living temporarily at Kanyan, Doga and Kamkadi near the Line of Control under the constant threat of avalanches, demonstrating how the occupation (and the forcible dislocation) of homes, lands and livelihood renders lives increasingly vulnerable to

17 See for instance, Masood Hussain, Jammu & Kashmir floods: How sluice-gate of troubles opened in the valley, *Economic Times*, 13 Sep 2014.

http://articles.economictimes.indiatimes.com/2014-09-13/news/53877149_1_bemina-railway-track-dal-lake. See also Khalid Gul, Encroachment on Jehlum worsened floods in south Kashmir <http://www.greaterkashmir.com/news/2014/Sep/27/encroachment-on-jehlum-worsened-floods-in-south-kashmir-25.asp>

18 CRPF Continues to Occupy Govt Depdt Building: Helpless Employees Forced To Work In Tin Sheds, News report dated 12 Jan 2009, on file with JKCCS.

While the report states that the troops occupied the buildings in preparation for the elections of November 2008, residents of the locality stated that the campus had been occupied since the 1990s. It had become dilapidated after the 2005 Earthquake, and some buildings vacated. These were reoccupied in 2008 before the elections as a large troop contingent of troops were deployed. They remained in place until late 2009 or 2010 according to locals. The dredging machines which were in a state of disrepair and were replaced in 2012, under the Jhelum River Conservation Plan, when dredging works were inaugurated, but these too were 'shelved' later according to officials, as the comprehensive proposal for flood control and dredging measures became embroiled in red tape. (See discussion below for details)

19 See for instance, Khalid Gul, 20 years on, orchard owners wait for compensation, *Greater Kashmir*, 26 August 2014

<http://www.greaterkashmir.com/news/2014/aug/26/20-years-on-orchard-owners-awaiting-compensation-26.asp>; See also, Zulfikar Majid, Air Force seeks 7000 kanals of land in Awantipora, *Greater Kashmir*, 13 Mar 2015,

<http://beta.greaterkashmir.com/news/career-and-counseling/air-force-seeks-7000-kanals-of-land-in-awantipora/5519.html> [First published in 2007]. A

number of articles appeared in the press in relation to this issue in 2007, after the release of a Indian Ministry of Defence Report recommending vacation of orchards. See for instance, Hilal Ahmad, Dispossessed people fighting hard for survival, *Greater Kashmir* 13 March 2015 [originally published in Dec 2007]

<http://beta.greaterkashmir.com/news/gk-magazine/dispossessed-people-fighting-hard-for-survival/26477.html>; Shahid Rafiq, Bagatpur villagers struggle for

occupied land, *Greater Kashmir*, 3 Sep 2007 <http://www.greaterkashmir.com/news/2007/Sep/3/bagatpora-villagers-struggle-for-occupied-land-28.asp>;

Parvaiz Bukhari, Occupied by force, *Outlook Magazine* 13 Aug 2007. <http://www.outlookindia.com/article/Occupied-By-Force/235300>. Much of this land however continues to be in military possession.

20 See for instance Irfan Mehraj, Railway line contributed to extreme flooding of Srinagar, says study, *Aunthintmail.com*, 16 Oct 2014

<https://www.aunthintmail.com/2014/kashmir/railway-line-contributed-extreme-flooding-srinagar-says-study-101332>; Masood Hussain, Jammu & Kashmir

floods: How sluice-gate of troubles opened in the valley, *Economic Times*, 13 Sep 2014, http://articles.economictimes.indiatimes.com/2014-09-13/news/53877149_1_bemina-railway-track-dal-lake; Mudasir Ali, In flood hit villages, railway track, expressway sped up the devastation, *Greater Kashmir*, 2

Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/2/in-flood-hit-villages-railway-track-expressway-spaced-up-devastation-60.asp>

http://articles.economictimes.indiatimes.com/2014-09-13/news/53877149_1_bemina-railway-track-dal-lake;

21 Peluso, N. L., & Watts, M. (Eds.). (2001). *Violent environments*. Cornell University Press. See also Woodward, D., & Simms, A. (2006). Growth is failing the poor: the unbalanced distribution of the benefits and costs of global economic growth. UN, Department of Economic and Social Affairs. A series of articles written by Hilal Ahmad on land, livelihoods and militarisation provide a wealth of illustrations of this phenomena from across Kashmir. See for example, Mala Begum, a dispossessed widow, *Greater Kashmir*, 12 Dec 2007, <http://www.greaterkashmir.com/news/2007/Dec/12/mala-begum-a-dispossessed-widow-4.asp>. Dispossessed people fighting hard for survival, *Greater Kashmir*, 7 Dec 2007, <http://www.greaterkashmir.com/news/2007/Dec/7/dispossessed-people-fighting-hard-for-survival-5.asp>, A long legal battle for their land, *Greater Kashmir*, 24 Dec 2007 <http://www.greaterkashmir.com/news/2007/Dec/24/a-long-legal-battle-for-their-land-7.asp>

disasters.²²

Another article on the ecological degradation of the Wular Lake and wetlands states that the 'political instability' caused by constant military presence and patrolling of the lake and its surrounding villages, by the army and Marine Commandos stationed in the Naval Base located within it, has worsened the lake dwelling community's impoverishment.²³ Traditional low impact livelihood activities such as fishing, fodder collection, and singhara (water chestnut) cultivation are on the decline, due to the general ecological degradation of the lake, compounded by the restrictions on mobility imposed by the naval occupation. The Wular Lake-bed has been widely encroached upon by plantations of commercial varieties of fuel yielding trees, though it should be noted that the largest such plantation (70,000 kanals, i.e. 8750 acres consisting of 22.5 lakh willow trees) is under the aegis of the Social Forestry Department, rather than the local individuals' directly.²⁴ The article notes that 'Economic instability means that practicality often wins over preservation. People who live around the lake are not as concerned with the long-term outcomes for the environment if they worry more about providing for their families. They are aware that the hydrological regime has shifted over the past couple decades and they foresee having to move into cities to find work.'²⁵

Massive Military Deployment and the Occupation of Land

The deployment of armed forces in J and K, based on military strategies of 'force saturation' and 'area domination' extends beyond its fenced borders, and penetrates into the heart of cities and villages in the so called 'civilian' areas of the valley. At present this deeply penetrative counter-insurgency grid in J and K involves the deployment of an estimated 700,000 armed personnel, including regular forces of the Indian Army, Navy and Air force; paramilitary forces including Central Reserve Police Force, Border Security Force, Sashastra Sena Bal, Indo-Tibetan Border Force; auxiliary forces such as the Territorial Army; other Central armed police forces such as Central Industrial Security Force, and India Reserve Battalions; armed and regular police of State, and various community embedded state-armed special operatives, including 'volunteer' members of Village Defense Committees, and 'Special Police Officers' paid stipends by the JK Police.²⁶

According to 2006 figures of the Army's Northern Command, more than one third of its total strength of 1.13 million soldiers was deployed in J and K.²⁷ A defence related web site states that of its total strength of 180,000, the Border Security Force also deploys one third of its force in Jammu and Kashmir, on counter insurgency and intelligence gathering operations.²⁸ In August 2006, the Deputy Chief Minister stated on the floor of the State legislative Assembly that there were more than 7,50,000 'security forces' in the state, a number that was disputed by the then Chief Minister.²⁹ There are five division-strength Indian Army formations engaged in counter insurgency

22 See for instance, Shahid Rafiq, 200 Kanal Land Under Troops Occupation Since 1990, 50 Families Migrated To AJK, 30 Living Under Avalanche Threat, Greater Kashmir, 20 Jan 2009. <http://www.greaterkashmir.com/news/2009/Jan/20/200-kanal-land-under-troops-occupation-since-1990-36.asp>. For other instances of forced displacement, see Arif Shafi Wani, 'Army Has Occupied Our Land', Greater Kashmir, 13 Mar 2015, [first published in May 2008] <http://beta.greaterkashmir.com/news/career-and-counseling/army-has-occupied-our-land/33788.html>. Rendered Homeless In Homeland, Rising Kashmir, 27 Mar 2009;

Umer Maqbool Dar, Land Under Army, Owners Without Rent For 15 Yrs., Greater Kashmir, 3 April 2009

<http://www.greaterkashmir.com/news/2009/Apr/3/land-under-army-owners-without-rent-for-15-yrs-48.asp>, 16 Bandipore families wandering for shelter since '97 Houses occupied by army, families seek CM's intervention, News report dated 27 Dec 2009, on file with JKCCS, News report dated 23 March 2009, on file with JKCCS. For another example of the impact on food security and livelihood, see Handwara villagers in a fix as army says no to maize crop, Kashmir Times, 18 Apr 2008 available at <http://www.indiaenvironmentportal.org.in/content/243510/handwara-villagers-in-a-fix-as-army-says-no-to-maize-crop/>

23 Reana Thomas, The disappearing lake, Pulitzer Centre on Crisis Reporting, 2 Sep 2014,

<http://pulitzercenter.org/reporting/asia-india-kashmir-ecological-inequality-wular-lake-pollution>

24 Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir, at page 53.

http://sites.wetlands.org/reports/ris/2IN003_mgtplan.pdf, box 2 at page 42

25 Reana Thomas, The disappearing lake, Pulitzer Centre on Crisis Reporting, 2 Sep 2014,

<http://pulitzercenter.org/reporting/asia-india-kashmir-ecological-inequality-wular-lake-pollution>

26 For a description of the multi-layered security grid in one district in Jammu see Marks.T.A, Jammu & Kashmir: State Response to Insurgency - The Case of Jammu <http://www.satp.org/satporgtp/publication/faultlines/volume16/article1.htm> for description of the layered interlocking security grid structure aimed at area dominance in Doda district of the Jammu region

27 Hilal Ahmad, Dispossessed people fighting hard for survival, Greater Kashmir, 7 Dec 2007

<http://www.greaterkashmir.com/news/2007/Dec/7/dispossessed-people-fighting-hard-for-survival-5.asp>

28 See Border Security Force, <http://www.globalsecurity.org/military/world/india/bsf.htm>

29 See UNI, India is not a banana state, our army is not a rogue force: Baig, oneindia.com 1 Aug 2006,

<http://www.oneindia.com/2006/08/01/india-is-not-a-banana-state-our-army-is-not-a-rogue-force-baig-1154450410.html>; Nasser Ganai, Govt divided over troop strength in J and K. Greater Kashmir, 3 Aug 2006, <http://www.greaterkashmir.com/news/2006/Aug/3/govt-divided-over-troops-strength-in-jk-26.asp>. For an account of fluctuating official troop numbers, see also Bashir Dabla, Social impact of militarisation <http://www.kashmiriife.net/social-impact-of-militarisation-729/>

operations in the region, Kilo stationed in Kupwara, Victor in Awantipora, Romeo in Rajouri, Delta in Doda and Uniform in Udhampur, under the XV and XVI Corps of the Indian Army. The XIV Corps, created after the war in Kargil in 1999, and head quartered at Leh, is deployed along the Indo–China and Indo–Pakistan borders in Ladakh, and is actively involved in development oriented counter-insurgency programmes such as Operation Sadbhavna.³⁰ The XV Corps continues to be head quartered at the Badamibagh cantonment in Srinagar, despite the ostensible 'removal' of Indian army from the city limits. The XVI Corps, stationed at Nagrota in Jammu, is a 'super corps' of Indian army with eight divisions each having an estimated 16–20,000 troops each.³¹ In addition to the army, there are 75 battalions of Central Reserve Police Force, an armed paramilitary police force in the state, 65 of them in the Kashmir valley, with each battalion consisting of 1000 armed personnel (2013 figures).³²

The full sanctioned strength of the Jammu Kashmir Police, was stated to be 78,242 in 2014, making it the single-largest employer in the region.³³ According to 2012 figures of the Indian Government 76,980 persons are actually employed by the Jammu Kashmir State Police, giving it an average of 646 policemen per 100,000 population, higher than any other state in Indian territory.³⁴ This does not include Special Police Officers, armed community based special counter-insurgency operatives, who are paid a stipend, rather than a regular salary. There were 25,574 Special Police Officers employed by the J and K Police Special Operations Group in 2013.³⁵ Five companies of 5,035 personnel from the Indian Reserve Police Battalion, specially created for law and order and internal security duties, and 'trained and equipped with non-lethal weapons like stun grenades, laser guns, taser guns, gas guns, anti-riot rifles, and pump action guns' are also stationed in J and K, the highest number in any state in Indian territory.³⁶ Policing in J and K is materially dependent on Indian government funding, and the state police force, acts as an auxiliary to the Indian military occupation. Between 1989 and 2011, the J and K State government has been reimbursed Rs 3,583.305 crore, as Security Related Expenditure for policing [SRE (P)] by the Indian Government.³⁷ According to Right to Information data obtained from the Indian Ministry of Home Affairs by the Commonwealth Human Rights Initiative, of the total of over Rs.600 crores allocated to police expenditure, the honorarium paid to SPOs (Special Police Officers) was Rs.88.88 crores in 2013–14 and Rs. 56.85 crores during the first 7 months of the current financial year (2014–2015)³⁸

These numbers reflect the normal deployment in the permanent grid. During times of heightened security, such as the elections,³⁹ or cross-LOC firing⁴⁰ additional forces are regularly deployed. As such the Indian occupation is considered the largest militarised deployment in the world, with one armed personnel, to every 17 civilians, (total

30 See for an ethnographic account of the impact of militarisation on the region, Bhan, M. (2013). *Counterinsurgency, Democracy, and the Politics of Identity in India: From Warfare to Welfare?* Routledge.

31 Joint Resolution 07, Pakistan – India People's forum for Peace and Democracy, Joint Position Paper on Jammu and Kashmir, 7th Joint Convention, Delhi, 25–28 December 2005, available at http://www.irenees.net/bdf_fiche-defis-250_fr.html. See also <http://www.globalsecurity.org/military/world/india/corps.htm>

32 PTI, Withdrawal from CRPF battalions from Kashmir may be put on hold, *The Economic Times*, 13 March 2013, http://articles.economicstimes.indiatimes.com/2013-03-13/news/37683735_1_crpf-camp-crpf-battalions-crpf-men For 2007 figures see Hilal Ahmad, Dispossessed people fighting hard for survival, *Greater Kashmir*, 7 Dec 2007 <http://www.greaterkashmir.com/news/2007/Dec/7/dispossessed-people-fighting-hard-for-survival-5.asp>.

33 Abhinav Verma, J&K Police face shortage of 5768 personnel, *Greater Kashmir*, 5 Dec 2014 <http://jammu.greaterkashmir.com/news/2014/Dec/6/j-k-police-face-shortage-of-5768-personnel-28.asp>. See for police being the single largest employer (according to 2009 figures), Naseer Ganai, 3.50 Lakh employees serve in the J and K government, <http://www.greaterkashmir.com/news/2009/Aug/24/3-50-lakh-employees-serve-jk-govt-73.asp>

34 Praveen Swami, Kashmir: fewer troops, more peace, *The Hindu* 21 Jan 2004, <http://www.thehindu.com/opinion/lead/kashmir-fewer-troops-more-peace/article5597916.ece>

35 Zee news, Over 25,000 SPO's working in state: J&K Govt, 12 Mar 2013, http://zeenews.india.com/news/jammu-and-kashmir/over-25000-spos-working-in-state-jandk-govt_834862.html

36 Anant A. (2013) *Beyond Stereotypes: Contours of the Transition in Jammu and Kashmir*, IDSA Monograph no 16, Institute for Defence Studies and Analysis <http://www.idsa.in/system/files/Monograph16.pdf> page 43

37 Ministry of Home Affairs (2012) Department of J and K Affairs, Schemes, <http://mha.nic.in/pdfs/JK-sch8.pdf> cited in Anant A. (2013) *Beyond Stereotypes: Contours of the Transition in Jammu and Kashmir*, IDSA Monograph no 16, Institute for Defence Studies and Analysis <http://www.idsa.in/system/files/Monograph16.pdf> at page 42–43

38 KL Desk, How J&K Govt Spent Funds Under Security-related Expenditure Schemes?, *Kashmir Life* 8 Jan 2015, <http://www.kashmirilife.net/how-jk-govt-spent-funds-under-security-related-expenditure-schemes-71392/>

39 See for instance, PTI, Centre to deploy over 51,000 troops for Jammu and Kashmir, Jharkhand polls, *Daily News and Analysis*, http://www.dnaindia.com/india/report-centre-to-deploy-over-51000-troops-for-jammu-and-kashmir-jharkhand-pol_9 Nov 2014. Is-2033393. See also Sanjay Kak, Ballot Bullet Stone, *Caravan*, 1 Sep 2004, for a description of the militarised Parliamentary elections in December. He writes, 'To supplement over half a million soldiers deployed as part of the permanent security grid, additional paramilitary forces were flown in from all over India—452 companies of a hundred men each. With about a thousand polling stations in each phase of voting, almost fifty soldiers were available to oversee every single booth. If this was not enough pressure on voters, the final tightening of the tourniquet was provided by a curfew: each round of voting was preceded by an unprecedented week-long lockdown.'

40 See for instance, TNN, Army rushes more troops as Pakistan intensifies cross-border shelling in Jammu & Kashmir, *Times of India*, 23 Aug 2014, <http://timesofindia.indiatimes.com/india/Army-rushes-more-troops-as-Pakistan-intensifies-cross-border-shelling-in-Jammu-Kashmir/articleshow/40793688.cms>

population 2011 census 1.25 crores, estimated armed military, paramilitary forces 700,000) and roughly seven armed personnel to every square km of land in Indian Administered J and K (total area 101,387 sq. kms). The figures are even more staggering when one considers that large parts of the region in Ladakh are under perma-frost in sub-arctic deserts, with a population density of about 3 persons per sq. km. It should also be noted that the Indian state of J and K is considered 'land-scarce', as only seven per cent of its geographical area is arable, compared with the Indian average of 42 per cent. Per capita agricultural land holdings in J and K, have shown a steady decline due to a general trend of land fragmentation in the Indian subcontinent, falling from an average of 0.76 ha (15 kanals, about 2 acres) as revealed by the Agriculture Census of 1995-96 to 0.66 ha (13 kanals, about 1.5 acres) in 2000-01, which is less than half of the all India average of 1.41 ha, adding to a situation of land scarcity and food insecurity in rural areas.⁴¹ The census of 2011, shows that 3.3% of the population of the region consists of Indian armed personnel, not including state subjects of J and K, employed in the police, army or paramilitary.⁴²

Extent of Land Occupation

The stationing of such huge numbers of armed personnel, has resulted in a pattern of land use where almost every topographical feature of Kashmir's varied ecosphere, be it glaciers, forests, mountains, hills, paddy fields, stream beds or lakes have been subject to the environmentally destructive consequences of military manoeuvres, encampments, and permanent military establishments. This is particularly true of forested tracts and meadows in the mountains, and the tops of the arid karewa plateaus around villages, which are valued for their strategic utility. The land under occupation is not confined to the country-side alone, but extends to civilian areas in the midst of congested and land strapped cities, leading to their skewed and anomalous growth. For instance, a 2012 study by independent consultants in the course of preparing the Srinagar Master Plan, found that 26 sq. kms (7%) of the city lands under the Master plan area, (including Srinagar and a large semi-urban peripheral area) are under use by the army and paramilitary forces.⁴³

The exact extent of land under the armed forces is highly disputed, as large tracts of land remain 'illegally occupied', having never been formally demarcated, leased, requisitioned, mutated or acquired under the J and K Land Acquisition Act, or other applicable law.⁴⁴ Proprietary owners of these lands, whether they are the State of J and K, or private farmers, orchard owners, nomadic, forest or lake dwelling communities, receive no rent or compensation for these illegally expropriated lands. The discrepancy in the records of land under possession of the Army by the Defence Estate Office, and the State Revenue Department, in the city of Srinagar alone was more than 12965 kanals (1620.75 acres) with large areas of land in physical possession of the armed forces (in Batamaloo for instance) having no records at all.⁴⁵ According to the latest available figures disclosed by the Chief Minister on the floor of the J and K State Legislative Assembly in 2015, a total of 7 lakh 77 thousand kanals (97,125 acres) of land are under possession of Army and paramilitary forces. Of this, 1,70,696 kanals and 6.5 Marlas (approx.21,337 acres) of land are under illegal occupation of the armed forces. The Chief Minister also informed the House that 2,36,728 kanals and 6 Marlas (29,591 acres) of state lands, 1,54,940 kanals and 05 marlas (19,367 acres) [private] acquired land [under the land acquisition act], 1,97,910 kanals and 11 marlas (24,739 acres) of requisitioned land; 16,474 kanals and 16 Marlas (2059 acres) of hired land and 1171 kanals and 19 marlas (146 acres) of [private] leased / licensed lands were under occupation of forces in the state.⁴⁶ However, figures disclosed in 2014 revealed that the Army and paramilitary forces were in illegal occupation of only 66,690 kanals (8336 acres) of land in J and K. This included 1856 buildings (1526 private establishments, 280 government buildings, 14 industrial units, five cinemas

41 Quoted in Navlakha, Gautam (2006) State of Jammu and Kashmir's Economy, Economic and Political Weekly (XLII)40. <http://www.epw.in/commentary/state-jammu-and-kashmir-economy.html> [requires subscription]

42 Election Commission of India (2014) Complete SVEEP Plan of J & K State 2014, http://eci.nic.in/eci_main1/SVEEP/Jammu%20&%20Kashmir19092014.pdf at page 8

43 26 sq kms of city land in forces' use, Greater Kashmir, 3 Apr 2013, <http://www.greaterkashmir.com/news/2013/Apr/4/26-sq-kms-of-city-land-in-forces-use-69.asp>

44 Sumaiya Yousuf, Huge discrepancy in records of Army-occupied, Rising Kashmir 10 Jun 2014 <http://www.risingkashmir.com/huge-discrepancy-in-records-of-army-occupied-land/>; See also, Mudasir Ali, GOI, JK Govt dish out conflicting figures, Greater Kashmir, 25 Apr 2010 <http://beta.greaterkashmir.com/news/career-and-counseling/goi-jk-govt-dish-out-conflicting-figures/73555.html>

45 See for instance, Sumaiya Yousuf, City's 3000 kanals occupied by army missing in revenue records, Rising Kashmir, 6 Jul 2014, <http://www.risingkashmir.com/citys-3000-kanals-occupied-by-army-missing-in-revenue-records/>

46 Umer Maqbool '1.70 lakh kanal land under authorized occupation of forces' Greater Kashmir, 27 Mar 2015 <http://www.greaterkashmir.com/news/2015/Mar/27/1-70-lakh-kanal-land-under-authorized-occupation-of-forces--4.asp>,

and 28 hotels) No rent has been paid to the land-owners against use of the land.⁴⁷ Figures disclosed by the State Government in 2009, showed 10,54,721 kanals (1,31,840 acres) of land in the possession of various Indian military and paramilitary forces. Of this, 1,28,257 kanals (16,032 acres) were in the Kashmir division, 3,13,266 kanals, (39,158 acres) in Jammu and 4,00,055 kanals (50,007 acres) in Ladakh. This included 8,55,407 kanals (10,69,26 acres) under 'illegal occupation', of which 5,33,455.78 kanals (66,681.97 acres) were in Kashmir, followed by 3,21,951.4 kanals (40,244 acres) in Jammu and 26,3376 kanals (32,922 acres) and 13,3804 kanals (16,725.5 acres) respectively in the Leh and Nobra districts of Ladakh. A total of 1,99,314 kanals (24,194 acres) were occupied by armed forces legally on the basis of leases, licenses and acquisitions under the provision of the J & K Land Acquisition Act (of which 36,397 kanals i.e 4549.65 acres) of land were in Kashmir and the rest in Jammu).⁴⁸ In response to a separate question, the state of J and K disclosed that the Army and Paramilitary forces were in occupation of 4,11,672 kanals (51,459 acres) of land illegally in Leh and Kargil districts of the Ladakh region.⁴⁹

Conflicting Indian Government figures, presented by the Union Defence Minister in the Rajya Sabha, concerning the occupation of land by the India Army, put the figure at 570133, kanals (71,266 acres) of land.⁵⁰ The minister also stated that 'There is no land under possession of Army in J and K which is on free hold rights category or long term lease. In Jammu & Kashmir the land is being held either on hiring or requisition for which rent is being paid'.⁵¹ This was contrary to the State Government's stance that the transfer of a large areas of land, acquired under the Land Acquisition Act, was permanent.⁵² In 2007, journalist Hilal Ahmad reported that the army held 3300 acres of proprietary farm-land for which it paid nominal rent annually, and 900 acres which they had permanently acquired.⁵³ While large areas of the land which are 'illegally' occupied have simply been commandeered by taking forcible physical possession of the land, often with no advance notice or compensation,⁵⁴ 'legally occupied' lands are generally rented through a process in which the armed forces place a formal requisition order, which must be consented to by the local state MLA (Member of Legislative Assembly), local land owners, and the district administration. In practice however, most politicians and bureaucrats succumb to the pressure of the Indian state, as revealed by the large areas of the valley under such requisition, despite protests and litigation by locals.⁵⁵ The (non) payment⁵⁶ of long delayed⁵⁷ and paltry annual rents for highly productive and fertile orchards and farms has led to the displacement and impoverishment of even people whose lands are classified as 'legally occupied'. Hilal Ahmad reports that according to the villagers in Hamrey village, Baramulla, horticultural and agricultural lands under military occupation have been arbitrarily divided by revenue officials into First, Second, Third categories, according to its usage, as stipulated by revenue records from six decades ago. For the First category the [annual] rent is Rs 3000 per acre and for the second and third categories, it is Rs 2000 and Rs 720 respectively. For orchard land the rent is Rs 8400 an acre. Locals stated that there was no difference in the quality of land occupied by the army and all of it could be used for the lucrative cultivation for fruits.⁵⁸ A 2012 study of fifty villages in Baramulla and

47 Mudassir Ali, Army, CRPF illegally occupying 66,690 kanal land in JK: Govt, Greater Kashmir, 24 Feb 2014, <http://www.greaterkashmir.com/news/2014/Feb/24/army-crpf-illegally-occupying-66-690-kanal-land-in-jk-govt-19.asp>

48 Arif Shafi Wani and Mudassir Ali, Troops occupy 10.40 lakh kanals in JK, Greater Kashmir 23 Aug 2009, <http://www.greaterkashmir.com/news/2009/Aug/25-troops-occupy-10-40-lakh-kanals-in-jk-78.asp>

49 GK News Service, Troops occupy 4 lakh kanals in Ladakh, Greater Kashmir, 3 Aug 2006, <http://beta.greaterkashmir.com/news/career-and-counseling/troops-occupy-4-lakh-kanals-in-ladakh/10350.html>

50 Mudassir Ali, GOI, JK Govt dish out conflicting figures, Greater Kashmir, 25 Apr 2010, <http://beta.greaterkashmir.com/news/career-and-counseling/goi-jk-govt-dish-out-conflicting-figures/73555.html>

51 Shujat Bukhari, Land grab of a different kind, Institute of Peace and Conflict Studies, 24 Jul 201, <http://www.ipcs.org/article/jammu-kashmir/jk-land-grab-of-a-different-kind-4050.html>

52 In response to a question raised in the Legislative assembly the government of J and K stated in a written reply that 'Land acquired by troops under land acquisition act becomes property of the party'. It disclosed that 1,99,314 kanals (24,194 acres) of land was held under 'lease, licences and acquisitions under the provision of Land Acquisition Act' in the state. See Arif Shafi Wani and Mudassir Ali, Troops occupy 10.40 lakh kanals in JK, Greater Kashmir 23 Aug 2009, <http://www.greaterkashmir.com/news/2009/Aug/25-troops-occupy-10-40-lakh-kanals-in-jk-78.asp>

53 Hilal Ahmad, Dispossessed people fighting hard for survival, Greater Kashmir 13 March 2015 [originally published in Dec 2007] <http://beta.greaterkashmir.com/news/gk-magazine/dispossessed-people-fighting-hard-for-survival/26477.html>

54 See for instance, Arif Shafi Wani, 'Army has occupied our land', Greater Kashmir, 14 May 2008, <http://beta.greaterkashmir.com/news/career-and-counseling/army-has-occupied-our-land/33788.html>

55 Hilal Ahmad, A long legal battle for their land, Greater Kashmir, 24 Dec 2014, <http://beta.greaterkashmir.com/news/career-and-counseling/a-long-legal-battle-for-their-land/26981.html>

56 See for instance, GK News Network, Protest over non payment of rent, for land under army in Handwara, Greater Kashmir, 5 Nov 2008, <http://beta.greaterkashmir.com/news/career-and-counseling/protest-over-non-payment-of-rent-for-land-under-army-in-handwara/42202.html>

57 See for instance, Orchards under occupation Tragpora residents await compensation since '92, News report dated 6 Oct 2009, on file with JKCSS

58 Hilal Ahmad, Dispossessed people fighting hard for survival, Greater Kashmir 13 March 2015 [originally published in Dec 2007] <http://beta.greaterkashmir.com/news/gk-magazine/dispossessed-people-fighting-hard-for-survival/26477.html>

Kupwara districts showed the presence of fifty-three camps in their vicinity, which had served as 'torture centres' and at which locals had been detained. In addition there were 126 'bunkers' located on village lands. A total of nineteen camps were located within village limits in farmlands, comprising a total of 2047 Kanals.⁵⁹

None of the statistics on land occupation, reflect the extensive lands under J and K State police, militarised infrastructure projects such as dams and the railways, or otherwise legally or illegally occupied by other state bodies or functionaries.⁶⁰ These are out of bounds to the public, and protected by barbed wire and often by armed personnel, for instance parts of the large VIP enclave in the Gupkar Hills, stretching from the Cantonment up to the Foreshore Road bordering the Dal Lake in Srinagar, which is officially designated as forest land. The following sections attempt to map the kinds of lands occupied by the armed forces in J and K, and their direct and indirect impacts on the floods of 2014.⁶¹ This is not intended to be a comprehensive study, but provides a preliminary basis for further research in an area where reliable information is almost impossible to obtain. The classifications below are broad and general. Thus, while wetlands, meadows, forests and cities are classified as discrete spaces for the purposes of clarity, as in all ecosystems, causes, effects and consequences are complex, and densely interconnected, both within and across these landscapes.

59 The Citizens' Council for Justice, Atrocity and Suffering, A report on fifty villages in Baramulla & Kupwara Districts of Jammu and Kashmir, September 2012.

60 See for instance Abid Bashir, 14 Lakh kanals of state lands encroached, 11 Oct 2013, Greater Kashmir, <http://www.greaterkashmir.com/news/2012/Oct/11/14-lakh-kanals-of-state-land-encroached-upon-80.asp>.

61 For brief essays vividly describing the landscape of occupation see Showkat Ahmed, Mapping the Occupation 1, Kashmir Solidarity Network, <https://kashmirsolidarity.wordpress.com/2012/05/22/mapping-the-occupation-in-kashmir-1/> and Mohammad Junaid, Mapping the Occupation 2, Kashmir Solidarity Network, <https://kashmirsolidarity.wordpress.com/2012/05/26/mapping-the-occupation-in-kashmir-2/>. See also for a description of Srinagar's intimate relationship with the Jhelum river, and the effect of the intensive militarisation, Wasim Bhat, 'Captive City' in Kak, S. (Ed.). (2011). *Until my freedom has come: The new intifada in Kashmir*. Penguin Books India.

Shutrashahi: The Micro ecologies of Urban Militarisation.

Shutrashahi, is a small, working class city neighbourhood of about three hundred and fifty families living in around 160 single and double storied, traditional largely timber and mud brick homes, and small businesses, along a narrow main street and a network of inter connected alleyways. Its occupational profile is mixed, with many males, employed in various neighbouring government offices as peons and clerks, enagaged in driving rickshaws, or selling small goods on redas (hand carts). Many families supplement their income with home based handi crafts, or embroidery carried out by women. It is located in a highly militarised part of Srinagar's central administrative zone, at Shaheedgunj bordered by the high walls, and barricades of the Old Secretariat, the District Commissioner's Office, the Legislative Assembly buildings and secretariat, the Police Lines including the Police Control Room, the Fire and Emergency Services Head Quarters, the Food Corporation of India compound and godowns. One side of the neighbourhood, is entirely fenced off by thick coils of barbed wire, and watch towers of a CRPF camp that guards the back gates to the secretariat. Another large permanent CRPF camp, is located at Neelam cinema, a stone's throw away. Within a three kilo metre radius lie five police stations: Batmalloo, Karan Nagar, Habba kadal, Hari Singh High Street, and Jehangir Road.

The neighbourhood began to get flooded on 5 September, as is quite normal in the area, whenever there are two or three days of rain, as it is very low-lying being built on the former wetlands of Batmalloo, and suffering from practically non existent drainage. The lack of adequate drainage has been a cause of constant complaints to Municipal authorities. However, by 6th September it was clear to residents that this was no ordinary water logging. As nearby bunds to the South of the city were breached, waters began to rise at a terrifying rate especially after 1 pm, and by 6 pm, the water was two storeys high. Some families had managed to ford the rising waters and escape, but most who had remained climbed onto the roofs and attics of two storeyed homes, the government school and the Imtiyaaza (mosque). Residents told JKCCS that they had been frantically trying to contact the District Commissioner's Office and the Police control room, (both adjacent to their neighbourhood) from 7 am that day, but there was no answer to their SOSes. By 2 pm on 6th September, phone lines began to fail, and people lost contact with family members and friends, and the neighbourhood became an island of marooned families.

Personnel from the CRPF camp, located in the neighbourhood, also got marooned, but managed to rescue themselves walking along the high walls, and reaching the roof of the Government school. No help was extended to their civilian neighbours. The police had earlier abandoned their posts at the local police station, except one man left to protect their guns, who did not help civilians. Residents stated that from the 7th September, they could see helicopters carrying out sorties over their neighbourhood, but received neither food drops, nor any help in evacuation. They helped their own. They are trained to think of us as the enemy, so how can they save us? was a repeated refrain. Local youth from the neighbourhood, helped to distribute food and water, wading through high waters and climbing walls, and improvised pulleys and floatation devices. They also delivered messages from home to home. Rescues and evacuation which began on 7th and 8th September, were entirely community based—young men from Tengpora, and neighbouring downtown areas, using improvised rafts, pipes, high tension cables, makeshift ladders, etc carried out the evacuations. At the time of JKCCS visit in October 2014, the white dome of the Imtiyaaza still bore fading marks scrawled in charcoal 'NEED FOOD'.

The neighbourhood was ravaged by the flood waters, with 30 houses collapsing, and almost every home severely damaged, with cracks, collapsed internal walls, sunken floors and unstable and tilting foundations. Most families were living with friends or relatives or on rent in downtown areas, and only visiting the neighbourhood during the day to carry out repairs and salvage. Some with nowhere else to go, continue to stay in the damaged and unsafe homes. Debris and mud caked household objects, food stores, sacks of charcoal, sodden mattresses and bedding, lay everywhere, and many families were engaged in attempting to wash out the thick mud from their homes and yards. Some had engaged daily wage labourers to do this task, and many complained that the Municipality workers had not cleared the piles of garbage and filth that lined the still partly waterlogged alleys. The overpowering stench of rotting rice from the food corporation godown, which had still not been cleaned, made breathing difficult. The electricity had just been partially restored, after the residents collected fifty rupee contributions, to pay a bribe to the local line man and electricity officials to restore the supply. The District Commissioner had visited the neighbourhood on a twenty minute inspection, and the CRPF had donated two tents which had become the source of conflict, between homeless families. The Government school was still functioning as a relief centre of sorts, with neighbourhood elders and mosque committee members involved in the distribution of privately donated aid. Residents constantly pointed out that if their neighbourhood, located so close to the offices of the civil and police administration could be in such a state, the remainder of the city was likely to be far worse. The debris from the collapsed and damaged homes, was finally cleared around the second week of October by volunteers from Muslim League, a pro freedom political organisation, JKCCS independently learnt.



Top: Researchers navigate the alleys of Shutrashahi, 4th October 2014. The red roofs and high walls of the Assembly Building are visible in the background. Middle Left: Policemen and Paramilitary are a common sight in the neighbourhood, given its 'high security' neighbours. Green roofs of official buildings are visible in the background. Middle Right: The CRPF watch tower near the Secretariat gates. Bottom: Piles of Liquor Bottles, alongside walls of the CRPF camp. Residents stated that the 10-12 feet high walls which barricade the neighbourhood from all sides, prevented water

The Occupation of Civic and Flood Control Infrastructure

The military occupation of civic infrastructure and government buildings is a prominent characteristic of the military deployment and stationing of troops in the Kashmir valley. This is despite the much publicized policy of 'demilitarisation' in 2007-2008, following the Shekhar Dutt Committee report, which recommended the vacation of hospitals, schools, and other public and semi public utilities.⁶² The State government of J and K constantly protests its helplessness and cites its efforts to demilitarize civilian infrastructure, but has had limited success, as illustrated by the case of Tattoo Grounds in Srinagar, discussed below. Besides private buildings⁶³ and hotels,⁶⁴ many large public campuses and buildings belonging to sports stadia,⁶⁵ university facilities and campuses,⁶⁶ hospitals,⁶⁷ offices of the local administration,⁶⁸ Panchayat offices,⁶⁹ Town-halls,⁷⁰ Wakf Board lands including mosques, graveyards etc.,⁷¹ and essential government departments such as Education,⁷² Power Development,⁷³ Public Works, Public Health and Engineering,⁷⁴ Flood Control⁷⁵ and the Food Corporation of India and Civil Supplies and Public Distribution (CAPD), remained under occupation through out towns, villages and cities in J and K.⁷⁶ A 2012 study based on a survey of fifty villages in Kupwara and Baramulla districts found that in addition to 2047 kanals (2556 acres) of village lands, armed forces occupied 11 private and public buildings including the Primary Health Centre, Tarzoo, in Kreeri, a Food Corporation of India office at Warpora, Baramulla; a South Kashmir University building in Sunwani, and a Roads and Buildings Department Guest House in Chandigam, Kupwara.⁷⁷ 2014 figures, disclosed by the Chief Minister, state that 5 cinema halls, 28 hotels, 3 hospitals, and 14 industrial units, as well as 280 government buildings remain under military or paramilitary occupation in Srinagar city alone.⁷⁸

62 In August 2007, an expert panel headed by former Union defence secretary Shekhar Dutt submitted its report on its report on troop relocation and reconfiguration in J and K to the Union defence minister A.K. Antony. It strongly recommended accelerating the process of vacating private buildings and orchards in J and K under occupation of the armed forces particularly the Kashmir Valley. The Union government then set November 30 as a deadline for army to vacate school buildings and hospitals occupied by them in the past 17 years as makeshift camps. The General Officer Commanding (GoC) of Srinagar based 15 Corps on November 22 claimed that except one school in Budgam district the army has vacated all the school and hospital buildings. Paramilitary armed forces however continued to occupy schools, hotels, and other private and government buildings and land in the State. Parvaiz Bukhari, Occupied by force, Outlook 13 Aug 2007. <http://www.outlookindia.com/article/Occupied-By-Force/235300>. However, the process of demilitarization of urban civic infrastructure, led to the building of huge permanent encampments in city peripheries, (see discussion below).

63 See for instance Muddasir Ali, Army, CRPF illegally occupying 66,690 kanal land in JK: Govt, Greater Kashmir, 24 Feb 2014, <http://www.greaterkashmir.com/news/2014/Feb/24/army-crpf-illegally-occupying-66-690-kanal-land-in-jk-govt-19.asp>

64 See for instance, Shabir Ibn Yusuf, CRPF Occupy 46 Hotels, Guest Houses In City, Greater Kashmir, 16 May 2012, <http://www.greaterkashmir.com/news/2012/May/16/crpf-occupy-46-hotels-guest-houses-in-city-89.asp> See also Shabir Ibn Yusuf Centre asks CRPF to vacate Boulevard hotels: 6000 rooms occupied by govt., forces: Police, Greater Kashmir 18 Jun 2012 <http://www.greaterkashmir.com/news/2012/Jun/19/centre-asks-crpf-to-vacate-boulevard-hotels-57.asp>

65 See for instance, M. Hyderi, 20 years on, indoor stadium awaits vacation by troops, Greater Kashmir, 18 Jan 2010, <http://beta.greaterkashmir.com/news/srinagar-city/20-years-on-indoor-stadium-awaits-vacation-by-troops/66511.html>

66 See for instance, Muhammad Suhail, Research takes a back seat, As Police, Army, CRPF turn Kulgam Rice Station into garrison, 1 Feb 2015, Rising Kashmir, <http://www.risingkashmir.com/research-takes-backseat-as-police-army-crpf-turn-kulgam-rice-station-into-garrison/>

67 CRPF occupies valley hospitals, Greater Kashmir, 23 Feb 2013 <http://www.greaterkashmir.com/news/2013/Feb/25/crpf-occupies-valley-hospitals-65.asp>

68 Troops occupation tells upon official work, News report dated 5 Jan 2010, on file with JKCCS. The report states, from 1989 to 1999, troopers of Bn 81 and 17 of BSF were occupying three official buildings in Tehsil office complex, from 1999 to 2008, Bn 11 and 51 of BSF occupied these structures and now the buildings are under CRPF. Two departments, Revenue and District Treasury, are cramped in the left out portion comprising of ten rooms. See also Govt offices operating from rented accommodations as army occupies official buildings, Kashmir Reader, 25 November 2013.

69 See for instance, Umer Maqbool Dar, CRPF occupies 3 buildings in one month, Greater Kashmir, 12 Feb 2009

70 See for instance, Saima Bhat, Government to get back occupied land from Army, Kashmir Life, 9 Oct 2012.

71 Umer Maqbool, It is official: 4000 kanal Wakf land under illegal occupation, Greater Kashmir, 21 Mar 2015, <http://www.greaterkashmir.com/news/2015/Mar/21/it-is-official-4000-kanal-wakf-land-under-illegal-occupation-53.asp>, See also, Abid Bashir, Army occupies 2500 kanals of Waqf land in JK: Jammu tops with nearly 1200 kanals, Kashmir Reader, 13 Feb 2012; Hameed Hamid, Army occupies shrine, graveyard on LoC, Greater Kashmir, 6 May 2008

<http://beta.greaterkashmir.com/news/career-and-counseling/army-occupies-shrine-graveyard-on-loc/33335.html>

72 Faisul Yaseen Troops illegally occupy over 1800 buildings: Govt, Rising Kashmir, 1 Mar 2014, <http://www.risingkashmir.com/troops-illegally-occupy-over-1800-buildings-govt/>

73 GK News Network, Govt to vacate PDC buildings occupied by forces, Greater Kashmir, 15 May 2012

<http://www.greaterkashmir.com/news/2012/May/15/govt-to-vacate-pdc-buildings-occupied-by-forces-86.asp>; Umer Maqbool Dar, Troops presence in Handwara PDD Office hampers work, Greater Kashmir, 3 Sep 2009, <http://www.greaterkashmir.com/news/2009/Sep/3/troops-presence-in-handwara-pdd-office-hampers-work-82.asp>

74 GK News Network, Troops to vacate Govt, Pvt. Buildings: DGP, Greater Kashmir, 10 Jan 2010

75 Mudasir Ahmed, 2 Decades on, Sonerwani Canal still under army occupation, Kashmir Reader, 5 Jul 2013.

76 See for instance Muddasir Ali, Army, CRPF illegally occupying 66,690 kanal land in JK: Govt, Greater Kashmir, 24 Feb 2014, <http://www.greaterkashmir.com/news/2014/Feb/24/army-crpf-illegally-occupying-66-690-kanal-land-in-jk-govt-19.asp>

77 The Citizens' Council for Justice, Atrocity and Suffering, A report on fifty villages in Baramulla & Kupwara, Districts of Jammu and Kashmir, September 2012.

78 Muddasir Ali, Army, CRPF illegally occupying 66,690 kanal land in JK: Govt, Greater Kashmir, 24 Feb 2014, <http://www.greaterkashmir.com/news/2014/Feb/24/army-crpf-illegally-occupying-66-690-kanal-land-in-jk-govt-19.asp>

The washing away of an entire Army Camp in Bela-Slamabad, built precariously on a river bed in Baramulla, on the premises of the National Hydro Power Corporation (NHPC) shows how despite assurances public and semi public buildings continue to be extensively militarised.⁷⁹ Even after the vacation of troops, the premises continue to suffer from the effects of long-term occupation, neglect and misuse, as is the case with the prolonged occupation of the Flood Control Department's Mechanical Division at Khwajabagh, which was under CRPF occupation from the early 1990s to 2010, when it was revived by the infusion of funds for new equipment. Residents of Narbal, Budgam district, told JKCCS that the local office of the Flood Control Department, located in the Tehsil headquarters at Narbal, was under occupation of the Border Security Force. Large and multi-storeyed public and semi public buildings such as hotels, cinema halls, and government offices which should function as crucial civic centers of first response in terms of providing shelter, first aid and essential services during an emergency, are rendered inaccessible and dysfunctional due to the military occupation. The direct and indirect damage to civic infrastructure by long-term occupations in other international contexts is well documented.⁸⁰ Srinagar's civic infrastructure, including its roads, sanitation, inner city waterways, and waste management facilities have also suffered from the effects of neglect and mismanagement.⁸¹

City Highlands, Karewas

The role of 'unplanned development' and 'encroachments' in Srinagar's waterways, peripheral wetlands, and traditional flood basins, has been almost universally blamed for the unprecedented inundation and damage from the floods.⁸² While poor regulation, and bad planning certainly had a role to play in this destructive growth pattern, what is rendered invisible in this map of land use is the pervasive military occupation of the city's hill sides, and the karewas, a chain of low, undulating plateaus radiating both north and south along the valley floor, into which river bank cities could have expanded. Perhaps the most significant, yet unnoticed impacts of the occupation and militarisation of J and K, has been its effect on the valley's urbanisation, which has shown a marked trend of extending downwards into low lying areas ever more vulnerable to flooding.⁸³

In response to a question about his government's plans for the rebuilding of Srinagar after the floods, the J and K Chief Minister stated, 'Srinagar will continue to be where it is [...] You can't move a City as large as this. It's easy to say that flood prone areas be vacated. Where will I take the people? Will I make them scale mountains?'⁸⁴ The Chief Minister failed to mention that the reason that Srinagar's residents cannot build their homes and high streets on hillside terraces, like for instance the valley dwellers of Greece, is because almost all the hills and mountains for miles around are under the 'legal' or illegal occupation of Indian Armed Forces, or the bureaucratic and security apparatus of the occupation. The following brief account of Srinagar's history is compiled from conversations with journalists, urban planners and historians. The pre-Dogra cities of Srinagar, whether it was Rinchenpur and Alauddinpur near the Hariparbat Hill, Nowshera built by Zain-ul-Abidin, or the Mughal city of the Sheher-e-Khaas, always lay on the slopes and relative highlands rather than on the river banks or the flood plains. These areas of the 'old city' or 'downtown' remained largely flood safe, even during the worst of the flooding in 2014. The colonial city of modern Srinagar, built during Dogra rule, with its civil and police lines, bungalows, cantonment, missionary schools, museums, boulevards, promenades, and high street aspiring to be reminiscent of the Strand in London, was planned and engineered on the newly built concrete bunds of the River Jhelum. Several government allotted 'colonies' such as Jawahar Nagar, Karan Nagar and Indira Nagar (named after two Indian Prime Ministers, and the

79 Atlatf Baba, Floods wash away army's ammunition depot, Greater Kashmir, 21 Sep 2014

<http://www.greaterkashmir.com/news/2014/Sep/21/floods-wash-away-army-s-ammunition-depot-9.asp>

80 See for instance, Mason, M. (2011). The application of warfare ecology to belligerent occupations. In *Warfare Ecology* (pp. 155-173). Springer Netherlands.

81 Haroon Mirani, Fall of Srinagar, Kashmir Life, 24 May 2010, www.kashmirilife.net/fall-of-srinagar-495/

82 See for instance, Soma Basu, Unplanned urbanisation, encroachment blamed for Srinagar flood, Down to Earth, 8 Sep 2014.

<http://www.downtoearth.org.in/content/encroachment-blamed-srinagar-flood563q2>. Shakil Romshoo, The 2014 Kashmir Flood: The Extreme of the Extremes, Greater Kashmir, 22 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/22/the-2014-kashmir-flood-the-extreme-of-the-extremes-30.asp>;

Khalid Gul, Encroachment on Jhelum worsened floods in south Kashmir, Greater Kashmir, 27 Sep 2014,

<http://www.greaterkashmir.com/news/2014/Sep/27/encroachment-on-jhelum-worsened-floods-in-south-kashmir-25.asp>

83 See for instance the Srinagar Master Plan. The decongestion of the city centre, and the planned development of the city, both residential and administrative, is concentrated in low-lying areas such as Bemina. Srinagar Development Authority, Srinagar Masterplan 2000-2021,

http://www.sdasrinagar.com/index.php?option=com_content&view=article&id=32:full-master-plan&catid=12:master-plan&Itemid=171

84 M Hyderi, 'No one could have stopped these floods', [interview with Omar Abdullah], Greater Kashmir, 23 Sep 2014,

<http://www.greaterkashmir.com/news/2014/Sep/23/nobody-could-have-stopped-these-floods--21.asp>

former Maharaja) followed thereafter, alongside the embanked river, in the 1950s and 60s, under surrogate governments installed by the Indian occupation, after the political imprisonment of J and K's first Prime Minister, Sheikh Abdullah. After the Indo–Pakistan war of 1965, the former marshes, rice fields and villages of Batamaloo were set on fire by Indian forces, in an attempt to flush out Pakistani 'infiltrators'. They were then encroached upon by the state to build a new administrative and commercial quarter. The Nowgam 'by pass' was built in the 1970s, circling the city and connecting its large cantonment area to the National Highway 1 A, which cuts across the valley floor longitudinally. This 'opened up' traditional wetland areas devoted to grasslands and flood-based paddy cultivation, such as Bemina, Lasjan, Hokesar and Narkara, to land-filling and urbanised residential settlements. The highway was built on a raised embankment, cutting across many former water channels, with narrow culverts for the drainage of water, every 2.5 kms. During the September 2014 floods, this acted as a barrier, leading to widespread inundation along its length, a hydraulic engineer told JKCCS. An official connected with the flood control department, who was on the ground at about midnight on the night of 6th September 2014 told JKCCS that by his estimate, the difference in water level on the two sides of the highway embankment near Srinagar, was about 50 centimetres.

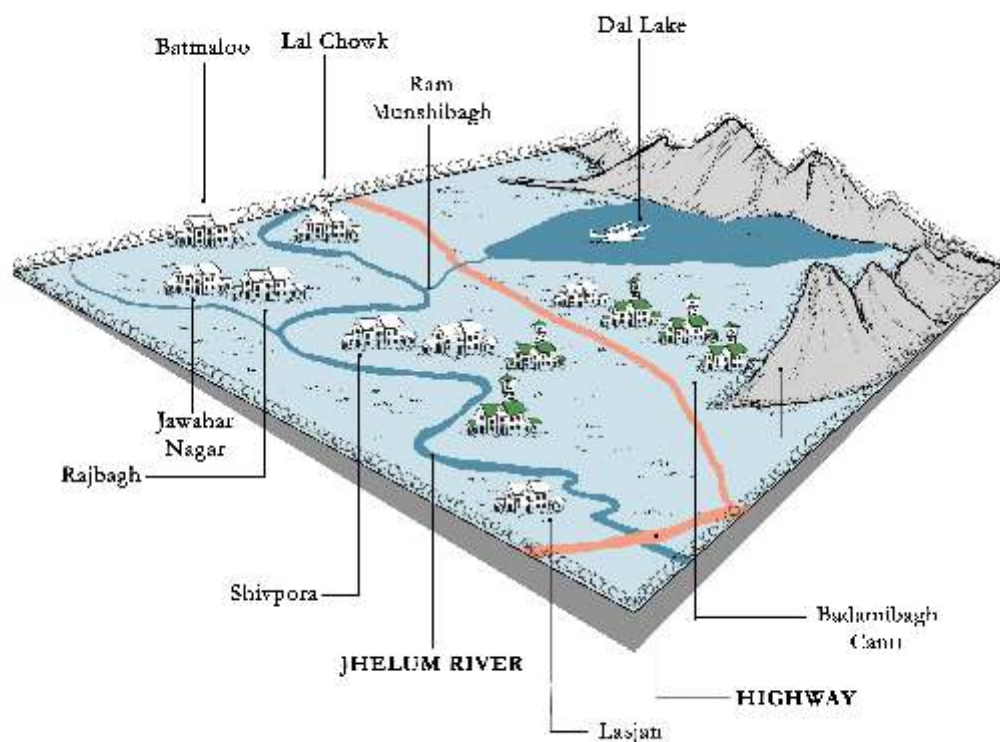
In a recent interview, urban planning expert Rafique Khan, suggests that Srinagar's development is a complete inversion of the ideal land use pattern suited to Kashmir's geography. He states 'At the valley floor level, next to the water bodies, land is most suitable for agriculture [...] the malyari land around lakes is the most productive agricultural land [...] The area is flood prone and it is not the best land for human habitation. The karewa land is higher ground, and more suited for urban uses'.⁸⁵ The army is in legal or illegal occupation of almost the entirety of the Zabarwan foot hills (part of the Pir Panjal range), and the Pampore, and Damodar karewas, that ring the city of Srinagar to the east. Lands of this nature begin near the city centre, and stretch from the hill sides around the Dal lake, down to the Jhelum river banks in the massive Badamibagh Cantonment, and military encampments built on the river banks in Sonwar, Bonathsar, Pandrethan, Batawara, and Pantha Chowk. It carries on along the Zewan range, southwards through the saffron growing karewas of Pampore and Pulwama, almost up to Khrew in Anantnag district, 25 kms away, enacting a militarised siege around the south east of the city. Similarly the highlands to the north of the city, in Manasbal, Ganderbal, and Bandipora and Pattan in Baramulla and to its south and south west, in Humhama, Rangreth, and Shariefabad karewas in Budgam, are sites of large military encampments, some of which have been mapped below.



Google Earth view of part of Badamibagh Cantonment extending from Jhelum Banks to the Zabarwan Hills in Srinagar

⁸⁵ Majid Maqbool, 'In Kashmir, instead of building new roads, the existing buildup areas are destroyed to widen existing roads', [interview with Rafique Khan] <http://www.greaterkashmir.com/news/2014/Nov/11/-in-kashmir-instead-of-building-new-roads-the-existing-buildup-areas-are-destroyed-to-widen-existing-roads-4.asp>

A news report based on the Joint Preliminary Report on Master Plan violations in Badamibagh Cantonment, prepared by the Srinagar Municipal Corporation and Srinagar Development Authority, states that military infrastructure and 'establishments within the cantonment area from Shekrashari up to Pantha Chowk and from Zewan Chowk to Zawoora, Ballhama have been constructed in blatant violation of the Master Plan.' Prepared in response to the J and K High Court directions relating to Master Plan violations, the report found that there were extensive illegal constructions in the Badamibagh Cantonment area which occupies 14589 acres (11668 kanals) including a 'civil area' of 313 acres (2500 kanals) of predominantly river bank and hilly forested lands in Srinagar city. The report stated that 'most of the Army establishments have been constructed outside the delineated [cantonment] area, in the ecologically fragile zone', and that these illegal constructions 'on agricultural land, green areas, wetlands, mountain peaks etc. which have been raised illegally, need to be demolished to safeguard the environment and agricultural sustainability.'⁸⁶ Not surprisingly, no such demolitions were subsequently carried out. The effect of this large scale occupation on urban planning is visible in the Master Plan's proposed expansions to the city, such as the building of an administrative zone, and several new multi-storeyed residential 'flat syle' housing colonies, as well as a residential resettlement housing colony for Dal Lake dwellers, after landfilling of former wetlands, in Bemina and Rakh Arath.



An artist's impression of Srinagar's geography. Illustration by Mir Suhail

⁸⁶ As per revenue records the land officially under Army possession in Badamibagh is only 1503.7 kanals, (187.9 acres) of which 1486 Kanals (185.75 acres) has been mutated to the Army under the provisions of the J and K Land Acquisition Act. See Mudassir Ahmed, 'Army's BB Cantonment set up in violation of Master Plan', Kashmir Reader, 24 Oct 2013

The occupation of Fategarh colony near Anantnag town, part of the Rashtriya Rifles' 'High Ground' camp in South Kashmir, forcefully shows how the acquisition of such high lands directly impacts the growth of cities towards ever more low-lying areas, resulting in 'encroachments' on river banks, and the fragmentation of wetlands- and flood absorption basins. A residential colony was proposed in the high lands of Fatehgarh in 1990s, after a significant area of downtown Anantnag was burnt down by the armed forces in counter- insurgency 'flushing out' operations in the early 1990s. Plots were allotted, and 56 houses were built, but about 991 kanals (approx. 123 acres) of land, including the land allocated to Fatehgarh colony, was occupied by the army in 1994, before the owners could claim possession of their new homes. Later 59 canals (approx. 5 acres) of the land was given to University of South Kashmir, which continues to have a shared entrance with the army camp, but was still not returned to local proprietors. In a news report on the struggle to recover their lost homes, residents cited the unavailability of land for housing as one of the reasons for the unauthorised river-side constructions in town. 'If the land is got vacated, Fatehgarh residential colony could be established,' they suggested.⁸⁷

The occupation of karewas as military policy

In 2007, the spokesman of Indian army in Kashmir, Lt. Colonel A K Mathur stated that there was a state policy of allowing the armed forces to occupy orchards (usually located on karewas) when the armed insurgency started in 1989. 'We were provided land in orchards and other places. So it is State government which should be held accountable for matters regarding the occupation of orchards', he said.⁸⁸



Paramilitary encampment on a Karewa at Buzgoo, Budgam.

⁸⁷ See also, Muhammad Yousuf, HC directs DC to probe land occupation by army, Greater Kashmir, 2 Sep 2009, <http://www.greaterkashmir.com/news/2009/Sep/2/high-court-directs-dc-to-probe-land-occupation-by-army-82.asp> or a similar case in Jammu relating to lands allotted to the Gujjar community, see Govt Unable To Retrieve Army-Occupied Land For Nomads, News report dated 8 Mar 2011, on file with JKCCS. The report states, 'A project for development of a housing colony for the settlement of migratory Gujjars was taken by Jammu Development Authority in 1976. A patch of land measuring 574 kanals (72 acres) was identified for the purpose in village Sunjwan. In the first phase 73 plots were allotted by the government on the recommendation of the committee in 1978-79. "The work on the second phase could not be taken up due to occupation of land by the army," said Minister of Social Welfare Sakeena Itoo in reply to a query by MLC Syed Muhammad Rafiq Shah'

⁸⁸ Hilal Ahmad, Dispossessed people fighting hard for survival, Greater Kashmir, 7 Dec 2007. <http://beta.greaterkashmir.com/news/gk-magazine/dispossessed-people-fighting-hard-for-survival/26477.html>

In 2007-2008, there was a much publicized move to demilitarise residential areas and civic amenities in Srinagar city, but this was simultaneously coupled with the intensification and consolidation of the occupation of high lands in its peripheries, especially along the national highway that runs roughly parallel to the Jhelum River.⁸⁹ For instance, in 2007 the state Government leased out around 1000 kanals (250 acres) of state and proprietary land, to the south of Srinagar, to the CRPF for setting up a camp. The land consisted predominantly of terraced saffron fields built on karewas in Latipora and Pampore, in Pulwama district, along the Highway (NH 1A). In 2008, amidst protests, a further 145 kanals (18 acres) of land owned by J and K Joinery Mills, adjoining the same area was leased in violation of the J and K Revenue Code and Land Transfer Act, to the Central Reserve Police Force. Local saffron growers were quoted in a news report as saying, 'It seems that the authorities have decided to turn this saffron producing belt into a garrison. We wouldn't let this happen and we condemn the decision.'⁹⁰ As per revenue records more than 2547 kanals (318 acres,) of which 1045 kanals, (129.49 acres,) is under illegal occupation), consisting of paddy fields and orchard Karewa lands, is in Army possession at Javbyara village (rechristened 'Victorpara' by the Army) and hosts the headquarters of Victor Force, the Army Counterinsurgency grid for south Kashmir, along the National Highway to Jammu.⁹¹

In Budgam, the neighbouring district of Srinagar, lands under the army and air force include the highlands to the south west of the city in Humhama, which houses a military airbase (and civilian airport) and about 3800 kanals (475 acres) of surrounding highlands in Shariefabad-Damodar and Rangreth karewas, which has been a subject of spirited litigation by local land holders, and pastoralists.⁹² Figures released in 2013 reveal that a total of nearly 2400 kanals (300 acres) of land, consisting of orchards and agricultural lands is under the illegal occupation of Army in five villages of South Kashmir's Anantnag district, amongst the worst affected by the flooding. The bulk of the land (including 991 kanals, 19 marlas, approx. 124 acres), is on high lands located at Fatehgarh, Qasba Bagat and villages of Khirman and Donipawa, adjacent to Anantanag town, and comprise a camp tellingly named 'High Ground', under the Army's Rashtriya Rifles (RR) since 1994. The land owners have not been compensated or paid even nominal rent. News reports in 2013 indicated that the Indian Ministry of Defence has sanctioned the 'regularization' of this illegally occupied land, making it permanent.⁹³ A further 1386 kanals and 15 marlas (approx. 173 acres) of predominantly orchard and karewa land is under the army at the villages of Nowgam, Kuthair, Pahloo, Sambroona and Khundroo, including 701 kanals and 14 marlas (87.6 acres) at the hill of Khundroo, the ammunition depot which caught fire in August 2007, causing widespread ecological devastation and loss of lives.⁹⁴ To the north of the city of Srinagar, around Pattan the army occupies over 500 acres of proprietary orchards and farmlands,⁹⁵ including over 250 acres of high land in Khayambar taken over by Pattan Garrison in Baramulla.⁹⁶ In general the rare geological formation of Pleistocene era karewa lands are under severe threat of extinction, especially in Budgam and Bandipora districts, where in some places, entire stretches of karewas have been illegally quarried and destroyed, by contractors, (frequently military contractors) who operate within metres of army camps, and full army knowledge, and probable connivance, according to locals.

The army is also in occupation of about 2500 kanals (approx. 312.5 Acres) of high land, belonging to the Sher-e-Kashmir university, adjacent to the Manasbal lake, including farmlands and orchard uplands belonging to the villages of Asham, Safapora, Garokabal, Kundbal, Mirabad, Gratabal.⁹⁷ The extent and dispersion of the military occupation of highlands, throughout the valley can be illustrated by looking at the figures of such highlands

89 Hilal Ahmad, Dispossessed people fighting hard for survival, Greater Kashmir, 7 Dec 2007.

<http://beta.greaterkashmir.com/news/gk-magazine/dispossessed-people-fighting-hard-for-survival/26477.html>

90 Mudassir Ali, Another land row crops up in Pampore, Greater Kashmir, 15 Oct 2008,

<http://www.greaterkashmir.com/news/2008/Oct/15/another-land-row-crops-up-in-pampore-49.asp>

91 Tariq Ali Mir, Army renames village as 'Victorpara', Greater Kashmir, 6 Nov 2007,

<http://beta.greaterkashmir.com/news/career-and-counseling/army-renames-village-as-victorpara/24951.html>

92 See Manzoor ul Hassan, Defence ministry to acquire 3800 kanals of land in Budgam, 17 June 2013

<http://www.greaterkashmir.com/news/2013/Jun/17/defence-ministry-to-acquire-3800-kanals-of-land-in-budgam-63.asp>. See also for the villagers; struggles to re acquire some of these lands, Hilal Ahmad, A long legal battle for their land, Greater Kashmir, 24 Dec 2007.

<http://www.greaterkashmir.com/news/2007/Dec/24/a-long-legal-battle-for-their-land-7.asp>

93 Aamir Ashraf Gujri, Army occupies 2400 kanals in 5 Anantnag villages, Kashmir Reader, 9 Oct 2013

94 Aamir Ashraf Gujri, Army Occupies 2400 Kanals In 5 Anantnag Villages, Kashmir Reader, 9 Oct 2013

95 Shujat Bukhari, Land grab of a different kind, Institute of Peace and Conflict Studies, 24 Jul 201.

<http://www.ipcs.org/article/jammu-kashmir/jk-land-grab-of-a-different-kind-4050.html>

96 Parvaiz Bukhari, Occupied by force, Outlook Magazine, 13 Aug 2007. <http://www.outlookindia.com/article/occupied-by-force/235300>. See also, Hilal Ahmad, Hilal Ahmad, Dispossessed people fighting hard for survival, Greater Kashmir, 7 Dec 2007,

<http://beta.greaterkashmir.com/news/gk-magazine/dispossessed-people-fighting-hard-for-survival/26477.html>

97 Azim Jan, Army snatches land and sleep of Manasbal residents, Greater Kashmir, 9 Oct 2007.

<http://greaterkashmir.com/news/2007/Oct/9/army-snatches-land-and-sleep-of-manasbal-residents-33.asp>

belonging to a single institution, the Sher-e-Kashmir Agriculture University (SKUAST). These are state lands, which the Maharaja's Military Farms and Rakhs Department originally acquired, many of which were formerly leased out to cultivators and horticulturalists and were by and large accessible to the public, after they were transferred to the Revenue Department J and K state government in 1950, exempting them from the general acquisition of the Maharajah's military lands by the Indian Armed Forces.⁹⁸ Some of these lands were subsequently transferred to the University. A Defence spokesperson however incorrectly stated in 2007, that all JK Forces' lands were automatically 'transferred' by the Maharaja to the Indian Army at the time of Kashmir's accession, and in fact it was the transfer to the University which was irregular.⁹⁹ Over 300 acres of highland adjacent to the Manasbal lake, formerly a Cattle Research Station belonging to the University are now home to the Indian Air force's biggest airbase in J and K, where its Unmanned Aerial Vehicle (drone) surveillance operations are based.¹⁰⁰ A report on the occupation of the Cattle Research Station, at Manasbal, quoted SKUAST officials as saying that 'the armed forces have already grabbed High Altitude Research Station at Phalgam and Sagam [...] the heavy presence of armed forces at other premier research stations like KD Research Station Budgam, Faculty of Agriculture Wadura, Regional Rice Research Station Khudwani Islamabad, KVK Malangpora, Fruit Research Station Balpora Shopian has already affected the working of the University.' In Damodar karewa in Budgam the army has occupied lands surrounding the Agricultural University's 'KD Farm', creating problems of access for officials. The Seed Production and Multiplication Farm, built over 50 acres of karewa land at the Wadura Campus in North Kashmir's Baramulla district is also occupied.¹⁰¹ The Army also occupies over 200 Kanals (25 acres) of horticultural highlands in the Fruit Research Station in Balpora village in South Kashmir's Shopian district. A Krishi Vigyan Kendra (Agricultural Sciences Centre) in Malangpora karewa in Pulwama has been recently vacated, but is still in a highly militarised zone, adjacent to the Quil military airforce base, built on a large stretch of karewa lands close to Awantipora.¹⁰²

Highlands and flood Safety

During the recent floods, residents and tourists from flooded areas in Srinagar sought safety in their thousands, on relatively unoccupied highlands—including Shankaracharya hill, the foot hills of the Zabbarwan range at Nishat Brein, Chasm-e- Shahi, Harwan, Dara, and Soura, in relief camps through out downtown areas, and on the slopes of the Kohi-maraan (Hariparbat Hill), particularly at the shrine of Makhdoom Sa'ab.¹⁰³ The hill around the Mughal era Chasm-e-Shahi gardens, and Parimahar, including the Raj Bhawan, became the temporary offices of the civil administration, and base for military rescue missions, as helicopters transported stranded tourists and others to the Military Airbase and Civilian Airport from the helipad at the Governor's House (Raj Bhawan). Ironically, these areas are normally designated high security zones, whose tourist huts and facilities are out of bounds to the general public and used to accommodate senior bureaucrats, and their large retinues of security personnel.¹⁰⁴

These higher areas were the only places in the city where it was possible to receive a cell phone signal during the floods. The Afghan fort at the top of the Kohi-Maran (Hariparbat) hill, an early 19th century heritage structure occupied by the army, and the stairway cut into its hill slope continued to remain inaccessible to the public, and guarded by armed personnel, even at the height of the floods, survivors told JKCCS. People were forced to scramble over the rock face, or gather at open ground at a lower level, in their desperate search for a phone signal. The floods also illustrated how access into and out of the city, is restricted due to the occupation of its highlands. For about a

98 Cabinet Order No 409-C of 1950 dated 30-3-1950, as reproduced in Imtiyaz H., (2007) Revenue Manual Land Laws in J & K, (II). Srinagar Law Journal Publications. (Chapter 14, 'Rakhs and Farms', page 283.)

99 Hilal Ahmad, Army claims 3000 kanal Cattle Research Station, Greater Kashmir, 24 Apr 2007, <http://www.greaterkashmir.com/news/2006/Apr/24/army-claims-3-000-kanal-cattle-research-station-18.asp>

100 Rajat Pandit, Indian armed forces building deadly drone arsenal, also want combat UAVs, Economic Times, 5 Feb 2013 http://articles.economicstimes.indiatimes.com/2013-02-05/news/36764597_1_harop-american-predators-and-reapers-killer-drones

101 Hilal Ahmad, Army claims 3000 kanal Cattle Research station, Greater Kashmir, 24 Apr 2007, <http://www.greaterkashmir.com/news/2006/Apr/24/army-claims-3-000-kanal-cattle-research-station-18.asp>
See also, Indian students in SKUAST join demilitarisation chorus, Rising Kashmir, Mar 10, 2008

102 Hilal Ahmad, Army claims 3000 kanal Cattle Research station, Greater Kashmir, 24 Apr 2007, <http://www.greaterkashmir.com/news/2006/Apr/24/army-claims-3-000-kanal-cattle-research-station-18.asp>

For a description of the Makhdoom Sahab floods immediately after the flooding, see Bilal Handoo, The Sheltering Shrine, Kashmir Life, 21 Sep 2014, <http://www.kashmirlife.net/the-sheltering-shrine-65601/>

103 For a description of the Makhdoom Sahab floods immediately after the flooding, see Bilal Handoo, The Sheltering Shrine, Kashmir Life, 21 Sep 2014, <http://www.kashmirlife.net/the-sheltering-shrine-65601/>

104 Excelsior Correspondent, 67 Huts Juts located at Cheshmashahi occupied by VIPs, Daily Excelsior, 19 Mar 2012, [http://www.dailyexcelsior.com/web1/12mar20/state.htm#7](http://www.dailyexcelsior.com/web1/12mar20/state.htm#7;); See also Babus, security agencies occupy plush huts since '90, Kashmir Informer, Feb 2013, <http://freepresskashmir.blogspot.in/2014/03/babus-security-agencies-occupy-plush.html>

week after the floods the inner city became an island archipelago terrestrially cut off from its southern suburbs, and the city airport, due to the high water levels near the flyover at Tengpora. During this time, a restricted cantonment road situated on higher ground was opened to the public for a brief period by the army and became almost the only possible means of accessing friends and relatives marooned in the city. The army's control over the only flood safe land route for exit and egress, amplified the suffering of the flood survivors, and the difficulties of reaching essential supplies and conducting rescues. The route was closed as soon as the normal route via Pantha Chowk became slightly navigable by heavy vehicles, even though large parts of the city remained under water, and many were in urgent need of rescue.

During flooding, higher grounds of relative safety, and close to habitations, are rendered inaccessible to locals through out the valley, increasing their disaster vulnerability. Residents of Gulzarpora and Beighpora, in Pulwama, [see box and illustration below] which lie sandwiched between the massive Awantipora Airforce base, (approximately 836 acres of former orchard lands on the karewas of Quil and Malangpora) and the railway line and river Jhelum, told JKCCS that seeking shelter in the non-inundated highland area beyond the fencing was unthinkable. 'They have shoot at sight orders, and the land is probably mined. There are guard towers every few metres. No one dares go there. They did not open the camp to locals during the floods. They remained safe and secure up in their base, while we were left down here to drown', one resident said.

Water Bodies

Rakhs and Wetlands

The armed forces have been guilty of occupying ecologically fragile wetlands, lakes, water courses and river banks through out the valley, a fact which often goes unnoticed in decrying the destruction of Jhelum basin's flood absorption capacity.¹⁰⁵ The military occupation of community water sources is also a cause of pollution, contamination and shortages.¹⁰⁶ Within the designated limits of Srinagar city alone, lands officially belonging to Defence establishments (Army and Air force) cover an area of 2304.5 hectares (46,080 Kanals, i.e. 5760 acres), in ecologically fragile areas at Rangreth, Damodar and Shariefabad karewas, Badamibagh (both highland and low-lying-riverbanks) and Tattoo and the Militia grounds (former wetlands).¹⁰⁷ This is despite the supposed non-deployment of the Army in the city limits, after the demilitarisation of the city in 2008. The army occupies about 139 acres of land at Gundak ground which is located on the marshy former wetlands of Batamaloo-Bemina, an important though now degraded flood absorption basin.¹⁰⁸ This includes 93.20 acres stretching along the left side of the Srinagar-Baramulla highway from Bemina-Batamaloo to Haft Chinar, (consisting of a transit camp) and 24.14 acres on the right side of the highway in the Chattabal/Qamarwari area (consisting of military farms). The Militia Grounds (demarcated from Alochi Bagh to Danderkhah opposite Iqbal Park) are also located in low lying, former wetlands and military farms, and include the JAKLI Regimental Centre at Haft Chinar, on the Doodh Ganga river, a tributary of the Jhelum, and Garrison Engineers office near Iqbal Park. At another city wetland, Rakh Gundakshah, the army occupies 153 kanals and 17 marlas (approx. 20 acres) of land as per revenue records or 166 kanals (approx. 21 acres) of land according to its own Estates Office.¹⁰⁹

The Government of J and K has been unsuccessfully attempting to get these city areas back from the Armed forces for over 10 years, despite the defense establishment's commitment to vacate the lands at 'Civil-Military Liason Conference' regarding demilitarisation of city lands. The Srinagar Master Plan (2000-2021) states, 'Over a period of time, urban development has heavily enveloped Militia ground as well as Tattoo ground. These two areas have therefore to be utilized for urban development purposes. Consequently the defence establishments are to be removed from militia ground and Tattoo ground.' The Master Plan also states that against the total area of 2304

¹⁰⁵ B. R. Singh, The deluge of development, 14 Sep 2014, Times of India.

<http://timesofindia.indiatimes.com/home/stoi/deep-focus/The-deluge-of-development/articleshow/42417342.cms>

¹⁰⁶ See for instance, Shahid Rafiq, Snapping of water supply by troops triggers protests, 27 Nov 2007,

<http://beta.greaterkashmir.com/news/career-and-counseling/snapping-of-water-supply-by-troops-triggers-protests/64330.html>; See also, People denied water in Bandipora: 'Troops occupy, pollute natural water sources', News report dated 2 Nov 2014, on file with JKCCS.

¹⁰⁷ Officially, Army occupies 46,080 kanals of Srinagar land, Greater Kashmir, 31 Jan 2007

¹⁰⁸ Srinagar Development Authority, Srinagar Master Plan 2000-2021, page 68.

http://www.sdasrinagar.com/index.php?option=com_content&view=article&id=32&Itemid=171

¹⁰⁹ Shabir-ibn- Yusuf, Army gets Shariefabad land in lieu of Tatoo Ground, keeps both, Greater Kashmir, 4 Apr 2013,

<http://beta.greaterkashmir.com/news/career-and-counseling/army-gets-shariefabad-land-in-lieu-of-tatoo-ground-keeps-both/143319.html>

hectares (5693.30 acres) presently under defense use in Srinagar local area, 2356 hectares (5821.80 acres) of land has been provided in Damodar karewa and at Shariefabad.¹¹⁰ These numbers however appear to be incorrect. According to reports, the Defense Ministry sought 212 acres of land at Shariefabad-Damodar Karewa in lieu of 139 acres of land it occupies at Tattoo Ground. It also laid down the precondition that the land at Tattoo Ground would be vacated only after the Army took over the possession of the land at Shariefabad-Damodar karewa and raised the requisite assets there, and that the J and K government would compensate the cost of building such assets.¹¹¹ The Srinagar Master Plan states that Ministry of Defense said that the sanction of the President of India had been granted for the exchange of 212 acres of land in Shariefabad-Damodar karewa belonging to the J and K Government in lieu of the 139.04 acres of Defence Land at Tattoo Ground, 'at no cost basis'.¹¹² The land at Tattoo ground therefore was due to be handed over to the State Government. The Master Plan notes that 108 acres of land at Shariefabad--Damodar karewa have already been taken over, and therefore at least 108 acres of land at Tattoo Ground should be handed over to the State Government. According to the Master Plan, the Defense Ministry desired to acquire the remaining 104 acres (of the total 212 acres exchanged) at Gogo near the New Airport, but since it was fertile agricultural lands, some other non-agricultural land should be provided.¹¹³ However records show that the Army has already occupied 1622 kanals (202.75 acres) of highlands at Shariefabad karewa and lowlands at Hanjik (sic) [Hajin, on the river bank, across the Highway from Shariefabad] in lieu of Tattoo Grounds and has built a considerable amount of infrastructure there. According to a letter written by the Deputy Commissioner, Budgam to the Principal Secretary of the J and K Home ministry in 2011, 1622 kanals [202.75 acres] of land at Shariefabad and Hanjik, [Hajin] are under possession of the armed forces, of which 1073 kanals [134.125 acres] of land have been mutated in favour of the Ministry of Defense while the remaining 548 kanals [68.5 acres] of land are under 'unauthorized occupation of the Kilo Force of the Army' since 1991.¹¹⁴ This is in contradiction to the Army's contention that it is yet to get possession of the entire 212 acres (1696 kanals) of land that was to be given to it in lieu of the Tattoo Ground, claiming that it had got possession of only 107-108 acres of land at Shariefabad with the balance 104-105 acres still to be handed over by the state government.¹¹⁵ According to news reports in 2014, the J and K government has decided to look for an alternate additional 112 acres of land to be transferred to army to persuade them to vacate Tattoo Ground.¹¹⁶

The army's Militia Ground establishment, built along the Doodh-Ganga river and its adjoining marshes, which now lies in heart of the residential areas of Qamarwari and Bemina, has been described by the Srinagar Master Plan, as the 'biggest hurdle' in the overall planned development of the city, in accordance with the Srinagar Master plan.¹¹⁷ The Master Plan advocates the shifting of the Militia Grounds to peripheral city karewas which are not under agricultural or horticultural use.¹¹⁸ However, the vacation of Militia Ground was not part of the proposed plan for demilitarisation of city lands, according to the Divisional Commissioner Kashmir.¹¹⁹ The substitution of lands in a former, degraded wetland area for existing relatively unspoilt highlands and wetlands in the peripheries of the city at Shariefbad and Hajin, point to the complete lack of consideration for the valley's ecology or disaster vulnerability in militarised urban planning, and the pressures that housing of such enormous numbers of troops exerts on the developmental and flood zoning needs of an already land-strapped valley.

In the recent floods, areas in the vicinity of Tattoo grounds and Militia Grounds, both of which were inundated, were amongst the worst hit in the city. Besides the damage from remaining severely inundated for almost three

110 Srinagar Development Authority, Srinagar Master Plan 2000-2021, page 72

http://www.sdasinagar.com/index.php?option=com_content&view=article&id=32&Itemid=171

111 Shabir-ibn- Yusuf, Army gets Shariefabad land in lieu of Tatoo Ground, keeps both, Greater Kashmir, 4 Apr 2013,

<http://beta.greaterkashmir.com/news/career-and-counseling/army-gets-shariefabad-land-in-lieu-of-tattoo-ground-keeps-both/143319.html>

112 Under Letter No. A/511120/Q3L (North/181/S/D/(Lands) as quoted in Srinagar Development Authority, Srinagar Master Plan 2000-2021, page 72

http://www.sdasinagar.com/index.php?option=com_content&view=article&id=32&Itemid=171

113 Srinagar Development Authority, Srinagar Master Plan 2000-2021, page 72.

http://www.sdasinagar.com/index.php?option=com_content&view=article&id=32&Itemid=171

114 Shabir-ibn- Yusuf, Army gets Shariefabad land in lieu of Tatoo Ground, keeps both, Greater Kashmir, 4 Apr 2013,

<http://beta.greaterkashmir.com/news/career-and-counseling/army-gets-shariefabad-land-in-lieu-of-tattoo-ground-keeps-both/143319.html>

115 Shabir-ibn- Yusuf, Army gets Shariefabad land in lieu of Tatoo Ground, keeps both, Greater Kashmir, 4 Apr 2013,

<http://beta.greaterkashmir.com/news/career-and-counseling/army-gets-shariefabad-land-in-lieu-of-tattoo-ground-keeps-both/143319.html>

116 Sumaiya Yousuf, City should be demilitarised: Div Com, Rising Kashmir, 14 Feb 2014, <http://www.risingkashmir.com/city-should-be-demilitarised-div-com/>

117 Sumaiya Yousuf, Army's Militia Ground 'biggest hurdle' in city's holistic development, Rising Kashmir 5 Feb 2014

<http://www.risingkashmir.com/armys-militia-ground-biggest-hurdle-in-citys-holistic-development/>

118 Srinagar Development Authority, Srinagar Master Plan 2000-2021, page 72,

http://www.sdasinagar.com/index.php?option=com_content&view=article&id=32&Itemid=171

119 Sumaiya Yousuf, Army's Militia Ground 'biggest hurdle' in city's holistic development, Rising Kashmir 5 Feb 2014,

<http://www.risingkashmir.com/armys-militia-ground-biggest-hurdle-in-citys-holistic-development/>

weeks, residents suffered huge losses of domesticated livestock when animals became fatally entangled with the barbed wires that surrounds these grounds. The death of over 400 heads of cattle, who were left to drown in the military farm at Qamarwari, part of the Tattoo Grounds, along with the barb wire entangled carcasses of stray dogs and domestic livestock, contributed greatly to the unbearable stench and unsanitary conditions that residents had to cope with in the long aftermath of the floods. Two youth from Bemina reportedly lost their lives, trying to unharness the trapped cattle in the Military Dairy farm.¹²⁰

River Banks and Lakes

The occupation of stretches of land close to rivers or water sources has also been an occupational strategy in the military deployment. Examples of such deployments along or inside ecologically fragile water bodies include a large stretch of the Jhelum banks south of the city, in Badamibagh Cantonment; the occupation of the historic Leeward Hotel and Kabutar Khana on Dal Lake by the CRPF; the construction of a Naval base in the Wular Lake, and the occupation of a tourist resort (constructed by the flood control department) on the banks of the Sonerwani-Zainagree canal, near the river Madhumati in Bandipora by the Army's 14 Rashtriya Rifles.¹²¹ Such occupation of water bodies and riverbanks have had direct and dire consequences in relation to the flooding of the city.



The CRPF camp at Dal Lake's Leeward Hotel. The CRPF did not carry out any rescues in Dal, as several of their boats were apparently found to be non functional.

¹²⁰ HT Correspondent, Carcasses of cows in military dairy farm pose epidemic threat, Hindustan Times, 17 Sep 2014, <http://www.hindustantimes.com/jandk/carcasses-of-cows-in-military-dairy-farm-pose-epidemic-threat/article1-1265000.aspx>

¹²¹ Mudasir Ahmed, 2 decades on, Sonerwani Canal still under occupation, Kashmir Reader, 5 Jul 2013

There appears to be a high co-relation between military control over river-banks and bunds and the breaches and over flows observed during the recent flooding. While the embankments in these areas are officially under the J and K State Flood Control Department, officials serving with the department complained to JKCCS of the difficulties in monitoring illegal structures, and maintenance of the bunds which fall within official or unofficial army occupation. This assertion is bolstered by the fact, that of the 22 reported breaches along the embankments in the city of Srinagar, around 8 fall either within the cantonment board's jurisdiction, or in its vicinity around the Badamibagh Cantonment. This has historically been considered a weak clay embankment which breaks during flooding, but according to experts the unregulated building and tampering with bunds that has been permitted by military/city authorities has further weakened it structurally.¹²² For instance, interviewees pointed to the building of multi storeyed hotels and guesthouses in Shivpora and Indira Nagar areas often encroaching on the bund, to temporary housing for visiting security and state personnel when the 'Darbar' (state capital) shifts to Srinagar in the summer months, which are within the cantonment board's jurisdiction. Furthermore, locals reported that unauthorized constructions are frequently obscured from general public view by the fencing and walls that surround the area.

In 2005, J and K state flood control authorities launched a sustained demolition drive on bund encroachments from Sonawar to Dobji Ghat. However, the historically weak, southern Sonawar-Pantha chowk stretch of river embankments, which were under the army's occupation, were not touched. The construction site for building of a military bridge to Lasjan, near the Army transit Camp at Pandrethan, which was breached by 3 am on 7th September 2014 was one of the first large breaches in the bunds around the city, inundating large semi-urban and agricultural areas to its south. Locals told JKCCS that while the construction site itself was obscured by fencing, earth movers, and other construction equipment, a large number of trucks had been observed in the area in the recent past carrying away sand, leading them to believe that a large scale tampering with the bunds was in progress behind the fencing. It was also alleged by some locals in the area speaking to JKCCS, that the breach was deliberately engineered by the army, to forestall the waters from reaching Badamibagh cantonment. Locals reported seeing boats and unusual troop movements in the vicinity of the breach in the late hours of 6th September, prior to the breach. A civilian contractor working in the cantonment premises, stated that several offices and establishments located in the low lying river-bank areas of the Cantonment, including the Head Quarters of the Area Sub- Commandant, had been evacuated on the 4th-5th September night, when the flood threat was imminent. A stretch of embankment between Pantha-Chowk and Sempora occupied by the Army had also been completely dismantled for the widening of the highly militarised four-lane highway, that bisects the valley.¹²³ This area too reported some of the worst inundation. Another large breach in the bund within the city limits occurred opposite the CRPF camp at erstwhile Srinagar Club, which commentators have suggested was due to the military presence and consequent neglect of the stretch by civilian flood control authorities.¹²⁴

While the exact extent of ammunition waste or other toxic materials flowing with the flood waters in these areas is not known, the residents of Indira Nagar, Shivpora and Gupkar Road in the area adjacent to these lands told JKCCS that water flowing in their direction from militarised areas were covered by a thick oil slick. The Cantonment's garages, and MES (Military Engineering and Supplies) department workshops and stores, were inundated, leading credence to the belief that the waters were contaminated by potentially dangerous inflammable ammunition and petroleum waste.

In Bela-Slamabad in Baramulla, an army camp located on the banks of the Haapatkhy stream was swept away entirely in flash floods in September 2014. It was reported that around 12 Shaktimaan armoured vehicles and 13 buildings of National Hydro Power Corporation (NHPC) occupied by the Army's 34 RR and 18 Bn BSF as well as huge

122 See Er. S.R. S Madni, Kashmir Floods: Forgotten lessons, Greater Kashmir, 23 Feb 2014.

<http://www.greaterkashmir.com/news/2014/Sep/23/kashmir-floods-forgotten-lessons-14.asp>. He writes: 'In 1957, due to a breach in the Jhelum at Batwara, flood waters reached up to Sonawar where it was restricted by a massive bund put up near the bridge. The affected areas were Batwara, Shivpora and part of Sonawar. In 1959, there was a breach again and the flood waters reached up to the present cricket stadium where the water column was about seven feet. This flood was also devastating, claiming heavy loss of life and property in the whole valley. The August '73 floods caused huge loss of infrastructure but the city of Srinagar remained safe.'

123 Arif Shafi Wani, Govt plugged ears on crumbling Jhelum embankments, 11 Oct 2014.

<http://www.greaterkashmir.com/news/2014/Oct/12/govt-plugged-ears-on-crumbling-jhelum-embankments-33.asp>

124 R.S Gull, Do not blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirilife.net/do-not-blame-Jhelum-66544/>

stores of petroleum, diesel, kerosene and an unknown quantity of ammunition stored in its depot was washed away. Local residents feared that live arms and ammunition carried along with the water from the ammunition depot may have got buried beneath the silt, mud and boulders, posing a further potential threat to their already devastated lives, livestock and farmlands.¹²⁵

Forests

Kashmir's forests have been disappearing at an alarming rate. Studies show that fifty years ago, Kashmir's forest cover was 37 per cent of its total surface area, which as of 2007 is reduced to only 10.21 per cent.¹²⁶ The Forest Survey of India states that the state lost 3 square km of forests in the period between 2005 and 2007.¹²⁷ According to the J and K Forest Policy 2010, 40 per cent of dense forests have slipped into the category of open/degraded forests in the past few decades. A news report states that almost 35,000 acres of forests have been lost to forest fires, while 23,7281 acres have been 'encroached' upon.¹²⁸ The JK-Envis Report states loss of forests have been particularly dramatic since 1992, and draws a direct co-relation between the loss of forest lands and the intensity of the floods of 2014. The Report states, 'A comparison of forest survey reports for the period [since 1992] shows that the valley lost about 10% of its dense forest cover, indicating that ability of forests to retain water has been reduced. It meant more rain water flowed directly into Jhelum river causing flooding.'¹²⁹ Deforestation of forested lands, along with quarrying and mining activities in karewas is also identified as a key factor for soil erosion. The erosion of soil leads to the siltation of wetlands and water bodies, and reduces the flood absorption capacity dramatically. A study by the Central Soil and Water Research and Training Institute suggests that J and K loses over 5,334 million tones of soil annually, of which 29% is carried by rivers to the ocean, 10% is deposited as silt in water bodies en-route, and 61% is displaced as erosion.¹³⁰ A study of the Wular Lake, and its wetlands found that the lake basin is not able to hold water due to siltation from deforestation and soil erosion, so it nearly dries up in July and refills during the winter. Not only does this reduce its flood absorption capacity, but the reduced water depth makes it highly eutrophic, or rich in nutrients, creating an ideal environment for invasive aquatic weeds, but an oxygen-poor system for fish and other animals.¹³¹ This in turn aggravates the economic instability of lake dwelling communities, and pushes them into more ecologically destructive activities, such as commercial tree plantation, which further reduce the lake's carrying capacity.

According to a statement made by the forest minister in the J and K State Assembly in 2006, 14,345 hectares (35,447 acres) of forestland is encroached upon, 9,463 hectares (2,33,834 acres) in Jammu and 4,878 hectares (12,0534 acres) in Kashmir.¹³² As per 2008 figures revealed by J and K Land Acquisition Department, the Army occupied 8245 kanals (1030.6 acres) of land in Kupwara District alone, which did not include 'hundreds of kanals of forestland'.¹³³ Other reported large scale occupations of forest areas include, 305 acres of land in close vicinity of Gulmarg, of which 175 acres is illegally occupied¹³⁴ and 6405 Kanals [800 acres] in the peripheries of the controversial 3000 acre Toshia Maidan Firing Range, situated on an alpine meadow.¹³⁵ In mid 2008, intense public

125 Atlatf Baba, Floods wash away army's ammunition depot, Greater Kashmir, 21 Sep 2014

<http://www.greaterkashmir.com/news/2014/Sep/21/floods-wash-away-army-s-ammunition-depot-9.asp>

126 Action Aid. (2007) On the Brink? A Report on Climate Change and Its Impact in Kashmir. http://awaazekashmir.in/live/wp-content/uploads/2013/06/31_1990362411_ActionAidClimateChange.pdf

127 India State of Forest 2009, Jammu and Kashmir, at page 94. <http://www.fsi.nic.in/sfr2009/jammu.pdf>

128 Baba Umar, Cutting paradise down to size: One conifer at a time, Tehelka, 21 Apr 2012

http://archive.tehelka.com/story_main52.asp?filename=Ne210412Cutting.asp

129 ISRO and Department of Ecology and Environment and Remote Sensing. (2014) A Satellite Based Rapid Assessment of Floods in Jammu and Kashmir, September 2014. http://www.jkenvis.nic.in/pdf/jkenvis_floodreport.pdf

130 R.S Gull, Do not blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirilife.net/do-not-blame-Jhelum-66544/>

131 Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir, at page 22-23. http://sites.wetlands.org/reports/ris/21N003_mgtplan.pdf

132 Hilal Ahmad, Dispossessed people fighting hard for survival, Greater Kashmir, 7 Dec 2007, <http://beta.greaterkashmir.com/news/gk-magazine/dispossessed-people-fighting-hard-for-survival/26477.html>

133 Land occupation by army, construction boom may fuel food crisis in Kashmir, Etalaat, 8 May 2008

134 GK News Network, Army illegally occupies 175 acres in Gulmarg. Greater Kashmir, 18 Feb 2014. The report quotes the J and K state Home Minister as stating 'In Gulmarg and Botapathra area land measuring 305.64 acres is in the occupation of Army, out of which 130 acres had been transferred to Defense Ministry by State Tourism Department vide order number 107-TSH of 1991 dated 22.11.1991 while around 175.64 acres of land are under unauthorized occupation of Army' See also, Army occupies 305 acres in Gulmarg against 130 'allotted', Kashmir Reader, 16 May 2013. See also Umer Maqbool, Army violated Gulmarg land transfer pact: Government Greater Kashmir, 27 Mar 2014, <http://www.greaterkashmir.com/news/2014/Mar/28/army-violated-gulmarg-land-transfer-pact-government-15.asp>

135 Comprising 'Forest compartment Nos.: S-9, S-20, S-21 and S-22 of the Peer Panchal division, situated at Khundlasipora/Arizal/ Drang in tehsil Beerwah of district Budgam', as reported in Umer Maqbool, 3000 acre meadow apart, Army in possession of 6400 acres of forest land, Greater Kashmir, 4 Apr 2014 <http://www.greaterkashmir.com/news/2014/Apr/4/3000-acre-meadow-apart-army-in-possession-of-6400-kanals-of-61.asp>

protests broke out at the grant of [J and K State] cabinet approval to the highly dubious 'transfer' of 40 hectares (98.84 acres) of forestland in the vicinity of Pahalgam, to the Shri Amarnath Shrine Board (SASB), whose presiding officer, the then Governor. Lt Gen (Retd.) S.K Sinha, exercised 'officio, sovereign control' over the board, in his 'personal capacity'¹³⁶



The Army Camp at Sonamarg, on Forest and Alpine Meadows. Source: www.panoramio.com

Building of camps, barracks, watch towers, communications infrastructure, roads and other permanent and temporary structures, clearing of trees and undergrowth, patrolling, convoy movements, dumping of non bio-degradable and toxic wastes including ammunition, forest fires, noise pollution from artillery drills, contamination of water resources, destruction of wild life and bio-diversity, and illegal felling of trees in collusion with local timber contractors and forest officials are just some of ecological effects associated with the militarisation of forests.¹³⁷ The military occupation of over 800 acres of forest land around the Tosha maidan meadows has been seen as a cause of their significant deterioration. According to Farooq Ahmed Lone, of the Centre for Climate Change and Mountain Agriculture, Sher-e-Kashmir University of Agricultural Science and Technology, 'Almost 40-50 per cent of the forests [around Tosha maidan] have been severely devastated by timber smuggling and illegal extraction of firewood. There is a lot of ecological degradation ranging from habitat loss to degeneration of green cover[...] Preliminary observations reveal that a closed forest with more than 70 per cent density has been heavily degraded to a scrub land. A large chunk of forests in the area has gone treeless. As a result, a little rainfall or snowfall is quite enough to trigger a big landslide on steep slopes.'¹³⁸

136 Gautam Navlakha, Kashmir: State cultivation of the Amarnath Yatra, Monthly Review, 8 Aug 2008, <http://mrzine.monthlyreview.org/2008/navlakha080808.html>

137 See for an overview, Jorgenson, A. K., Clark, B., & Givens, J. E. (2012). The Environmental Impacts of Militarisation in Comparative Perspective: An Overlooked Relationship. *Nature and Culture*, 7(3), 314-337. For an extensive bibliography of scholarship on warfare, militarisation and ecology see Mitchell, M. N., & Coco, L. E. (2004). *War, Militarisation, and the Environment* An annotated bibliography. <http://globetrotter.berkeley.edu/bwep/greengovernance/papers/Bib/B08-MitchellCoco.pdf>.

138 Ishfaq Naseem, Tosa Maidan tragedy: Abandoned artillery shells take toll on human lives, Greater Kashmir, 10 Mar 2014. <http://beta.greaterkashmir.com/news/career-and-counseling/tosa-maidan-tragedy-abandoned-artillery-shells-take-toll-on-human-lives/165543.html>. See also, Zahid Rafiq, Tosa Maidan --The meadow of death, Greater Kashmir, 18 Apr 2014, <http://www.greaterkashmir.com/news/2014/Apr/18/tosa-maidan-the-meadow-of-death-11.asp>

A news report quotes Om Prakash Sharma, a forest expert in Jammu, as stating that besides biotic development pressures, 'The movement of security forces in mountainous forested areas has contributed to about 15-20 per cent of loss to the forests.'¹³⁹ There is journalistic evidence of the involvement of the armed forces, police and forest officials in the illegal timber trade,¹⁴⁰ in collaboration with local contractors.¹⁴¹ An investigative news report on the illegal occupation of agricultural and forest lands, in the Drugmulla area of Kupwara, and its disastrous effects on local livelihoods and bio-diversity, quotes at length from a previously published IANS news report relating to militarisation and deforestation in the Jammu region. The IANS report states, 'Two forest range officers said on condition of anonymity that troops of the Rashtriya Rifles [...] were felling trees illegally and carrying them in army trucks in the forest-rich mountainous areas [of] Banihal, Bhaderwah, Doda, Gandoth, Kishtwar, Ramban, Keshwan, Chhatroo and Sarthal. Of an area of about 11,500 sq km, nearly 25 percent comprises forests where top quality deodar, kail and fir trees grow.' Quoting a timber contractor of the State Forest Corporation (SFC), the IANS reported that 'the army people not only cut trees illegally but also help local smugglers transport timber in army trucks on a commission basis.[...] Army vehicles cannot be checked by forest check-posts, noted a forest range officer, 'We are helpless in this matter and cannot do anything for fear of being falsely implicated or some other action.' [a euphemistic reference to a fake encounter].'¹⁴² In a recent episode, at Sitaharan in Budgam district, villagers who were formerly involved in timber smuggling, (in connivance with police and forest officials) accused the local police of the mass filing of false Public Safety Act cases (allowing for prolonged preventive detention) against them, as a means to extract bribes. 'Earlier we paid a bribe because we were smugglers. We now pay bribes for the sin of having stopped smuggling' villagers, who had formed the 'Jungle Bachav Front' to prevent the further degradation of local forests stated.¹⁴³

The presence of the armed forces in forest lands, is also seen as a cause of forest fires, and prevention of civilian fire and emergency services, and forest rangers from being able to access these 'high security' areas. A study on climate change in the ecology of the Western Himalayas has found that increased incidences of forest fire were a prominent change that was linked to higher temperatures in the region.¹⁴⁴ A news report from 2008, about a major forest fire raging in Kupwara district which destroyed thousands of trees, listed eight other such incidents taking place in a two week period. It quoted the Chief Conservator of Forests, Abdur Razzaq as saying that the 'excessive movements of troops', in addition to unusually dry conditions, had led to an increase in the number of such incidents. 'We have officially communicated to the Army, and told them to avoid lighting cigarettes and cooking food in the jungles, during frequent sieges and patrolling' Razzaq said, according to the news report.¹⁴⁵

The occupation of forestlands has rendered the lives of those who live in forest peripheries socially and economically marginal. Journalist Hilal Ahmed points out that the 'massive militarisation and the ensuing security restrictions have reduced working hours, restricted the access of womenfolk to forests where they would fetch firewood and graze cattle, collect wild mushrooms and other forest products. Several persons were shot dead by army in forests in the past 17 years. While army says the soldiers mistook these persons as militants, the people have dismissed army's claims.'¹⁴⁶ The inaccessibility of traditional food and livelihood sources, and the scarcities produced by militarisation, have compelled a cycle of ecological destruction, including illegal felling of trees for

139 Bino Joshi, Kashmir's green cover halved in 30 years, *twocircles.net*, 9 Oct 2011, http://twocircles.net/2011oct09/kashmir_green_cover_halved_30_years.html#VJEHsidr7V0
<http://www.spacedaily.com/2003/030413043256.hk012h53.html>

140 See for instance, Arif Shafi Wani, When forest loot was on, babus looked the other way

Greater Kashmir, 15 Nov 2007 <http://greaterkashmir.com/news/2007/Nov/15/when-forest-loot-was-on-babus-looked-the-other-way-52.asp>. See also

141 <http://www.greaterkashmir.com/news/2007/Dec/12/mala-begum-a-dispossessed-widow-4.asp> See also militarisation threatens gurez ecology locals allege army smuggles precious medicinal plants, minerals—on the losses to bio diversity., See also <http://www.downtoearth.org.in/node/29175> militancy and deforestation. "The Srinagar-based Feature And News Agency reported: "The Army has 92,000 ha of forest area under its possession. According to DEARS, extensive damage has been done by the Army too, especially in the borders. Recently, they intended to prepare a detailed report on the ecological vandalism by armed forces, but were prevented by the authorities."

142 Hilal Ahmad, Mala Begum, a dispossessed widow, Greater Kashmir, 12 Dec 2007, <http://www.greaterkashmir.com/news/2007/Dec/12/mala-begum-a-dispossessed-widow-4.asp>. Dispossessed people fighting hard for survival, Greater Kashmir, 7 Dec 2007,

143 Nayeem Rather, Sitaharan villagers may resume timber smuggling, courtesy police harassment, Kashmir Reader, 7 Mar 2015, <http://www.kashmirreader.com/sitaharan-residents-may-resume-timber-smuggling-courtesy-police-harassment/>

144 Negi, G. C. S., Samal, P. K., Kuniyal, J. C., Kothiyari, B. P., Sharma, R. K., & Dhyani, P. P. (2012). Impact of climate change on the western Himalayan mountain ecosystems: An overview. *Tropical Ecology*, 53(3), 345-356.

145 Forest Fire Rages in Kupwara, Officials hand in glove with smugglers: Locals, News report dated 3 Nov, 2008 on file with JKCCS. See also, for a more recent account of frequent fires in the densely forested and heavily militarised district of Kupwara, see Shahid Rafiq, Forest fires rage in Kupwara, Greater Kashmir, 10 Jan 2015, <http://beta.greaterkashmir.com/news/kashmir/forest-fires-rage-in-kupwara/183656.html>

146 Hilal Ahmad, Mala Begum, a dispossessed widow, Greater Kashmir, 12 Dec 2007, <http://www.greaterkashmir.com/news/2007/Dec/12/mala-begum-a-dispossessed-widow-4.asp>.

fuel and commercial purposes, and plantation of fuel yielding trees in stream beds and river embankments by local communities. Kashmir's dependency on wood as a fuel and heat source, a widely reported cause of deforestation and global warming in the region,¹⁴⁷ has in part been caused by chronic electricity shortages an outcome of its lack of sovereign control over its water resources and hydro electricity, which are regulated by India, and entangled in its national security concerns and disputed water arrangements with Pakistan.¹⁴⁸

The illegal occupation and conversion of forest lands to non forest uses, is in violation of the J and K Forest Conservation Act (1997) and numerous directions of Indian Supreme Court's in the T.N Godavarman case.¹⁴⁹ However, the Indian judiciary has shown a decided laxity when it comes to matters related to defense and 'development'. Thus while there is a general ban on the export of timber from J and K under Supreme Court of India directions, the ban does not apply to timber procured for 'meeting the needs of Railways, Defence and DGS &D'.¹⁵⁰ The Ministry of Environment has recently announced a much criticized policy of fast track blanket environmental clearances which would be given general approval at state government level, rather than being evaluated on a case by case basis. This policy is applicable to defence-related and national security projects within 100 km of the Line of Actual Control [LAC] and its disputed border with China, which brings parts of J and K within its ambit, besides 60 protected national parks and wildlife sanctuaries in the wider Himalayan region. A proposed 6000 kms of roads connecting border posts to main road-head in forested areas are expected to be cleared under this policy.¹⁵¹

Alpine Pastures

The Alpine and Sub-alpine meadows in the Jhelum catchment area are severely under threat, and the resultant erosions of mountain slopes has compounded the siltation of low-lying wetlands.¹⁵² Besides, widely reported loss of bio-diversity, especially of medicinal flora and fauna,¹⁵³ the loosening of soil caused by over-grazing, contributes directly to mudslides during heavy rain and snow fall, and the siltation of streams and rivers, worsening flooding. It also contributes indirectly to wetland fragmentation and degradation, again reducing the water bearing capacity of the flood basin.

A recent study conducted by Wetlands International on the Wular Lake and its wetlands, shows that out of a total of 8750 hectares (21621.2 acres), of such meadow lands, 2000 hectares (4942 acres) of pasture land is identified as severely eroded, 2,500 hectares (6177.6 acres) as moderately eroded and 4,100 hectares (10131.3 acres) as under slight erosion. It states that 'the pastures under the Wular direct catchment are under constant pressure of the nomadic grazers with enormous number of low yielding cattle and sheep moving from meadow to meadow in search of grass.' According to a report by the J and K Statistics and Evaluation Department, the total available area under 'permanent pastures and grazing fields' in Kupwara district, reduced from 7,000 hectares (17297.384 acres) to 5191 hectares (12827.24 acres) between 2001-2002 and 2004-2005 alone.¹⁵⁴ These meadows are usually fringed by coniferous forests, and under the control of the State Forest Department. They are the traditional grazing lands of J and K's estimated 11 lakh Gujjar and Bakherwaal pastoralists.

The overgrazing and degradation of the alpine meadows is linked to the high degree of militarisation of Kashmir's high lands and pastures, and the lack of access to traditional grazing lands and routes. An Action Aid study on the

147 Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir, at page 53.

http://sites.wetlands.org/reports/ris/2IN003_mgtplan.pdf. For an account of how Wular lake communities are becoming impoverished by the lake's degradation, see Reana Thomas, The disappearing lake, Pulitzer Centre on Crisis Reporting, 2 Sep 2014, <http://pulitzercenter.org/reporting/asia-india-kashmir-ecological-inequality-wular-lake-pollution>.

148 See, Dar Zubair, (2012) Power Projects In Jammu & Kashmir Controversy Law And Justice LIDS Working Papers 2011-2012 Harvard Law and International Development Society. For an overview of the disputes between India and Pakistan over water, see Niharika Mandhana, Water wars: Why India and Pakistan squaring off over their rivers, Time Magazine, 16 April 2012. <http://content.time.com/time/world/article/0,8599,2111601,00.html>

149 T.N. Godavarman Thirumulpad v. Union of India, (1996) 9 S.C.R. 982

150 J and K Department of remote sensing, environment and ecology (2009) State of the Environment Report: Jammu and Kashmir, http://www.jkenvis.nic.in/pdf/jkenvis_soer.pdf

151 Manu Pubby and Anuradha Vishnoi, Defence projects near China border in fast lane, Indian Express, 12 Jun 2014, <http://indianexpress.com/article/india/india-others/environment-ministry-to-ease-norms-on-defence-projects-along-china-border/2/> see also, Janaki Lenin, India's new policy puts roads ahead of wildlife concerns, The Guardian, 10 Jul 2014, <http://www.theguardian.com/environment/blog/2014/jul/10/indias-new-policy-puts-roads-ahead-of-wildlife-concerns>

152 Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir, at page 12 http://sites.wetlands.org/reports/ris/2IN003_mgtplan.pdf,

153 Dr. S.G Rasool and F.A Kuthoo, TossaMaidan: Turning green land into Wasteland, Greater Kashmir, 1 Apr 2014, <http://www.greaterkashmir.com/news/2014/apr/1/tossamaidan-turning-greenland-into-wasteland-12.asp>

154 Land occupation by army, construction boom may fuel food crisis in Kashmir, Etalaat, 8 May 2008

effects of climate change in Kashmir found that 'heavy military presence and militant activities in the upper reaches in most of the areas have constrained [Gujjar and Bakherwaals] access to highland pastures.'¹⁵⁵ An article on the Gurez valley, in Outlook magazine titled Eden's Secret, vividly describes the militarised landscape, and the dangers it poses to the lives, livelihood and ecosystems in these areas.

'A thick concertina fencing of the LoC snakes through the valley. It winds by roadsides, along the banks of the Kishan-ganga, through grazing areas, sometimes cutting right across a village, dividing it into two. [...] "This razor-wire fence has cut deep wounds into our lives, It has divided neighbours, destroyed our way of life and our livelihood," laments villager Abdul Gani Lone. Every winter, heavy snowfall and avalanches bring down the fence, sweeping the wire into the grazing areas, the small patches of cultivable land and even the river. It is never removed. Come summer and the army simply erects new fences. Says Lone: 'The debris of old, broken fencing makes it dangerous even for the animals to cross the river, apart from preventing us from fishing. My mule, which I had bought for Rupees 28,000, just died after it got caught in the fence.'¹⁵⁶



A warning sign states 'Firing in progress' in the Tosha Maidan meadows Source: theparallelpost.com



Local villagers and children regularly find ammunition debris and unexploded shells in the meadows. Many have lost their limbs and lives. Source: An international humanitarian medical aid organisation

155 ActionAid. (2007) On the Brink? A Report on Climate Change and Its Impact in Kashmir. http://awaazekashmir.in/live/wp-content/uploads/2013/06/31_1990362411_ActionAidClimateChange.pdf

156 Parvaiz Bukhari, Eden's Secret, Outlook, 27 Aug 2007, <http://www.outlookindia.com/article/Edens-Secret/235414>. See also For an example of land occupations in border area for putting up fencing, BSF acquiring Agricultural Land for border fencing: CM, Kashmir Reader 9 Oct 2012). See also, Suvojit Bagchi, Kashmiris dream of mine free land, BBC news, 10 Dec 2008, http://news.bbc.co.uk/2/hi/south_asia/7773105.stm.

Indian Administered J and K, hosts 12 major firing ranges, (besides numerous smaller ones) the highest number of firing ranges of any state within the territory of India, a majority of them located on meadows, and associated forest lands. The illegal occupation of the 3000 acre Tosha Maidan meadow in Budgam (widely called the Meadow of Death by the Kashmiri media) by the Indian Army, and its use as a firing range, caused a public controversy after intense opposition by the local community, which had suffered 65 officially recorded deaths and innumerable losses to live stock due to artillery shelling and unexploded shells.¹⁵⁷ A news report on the ecological effects of militarisation, quoted Akhtar Hussain, curator at Kashmir University's Department of Taxonomy as saying, 'Economic losses suffered by the local population (due to conversion of the meadow into firing range) have resulted in large scale deforestation on these high altitudes. People cut trees to smuggle timber for living.' A professor at Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST) who requested anonymity also drew attention to the damage caused to water resources and infrastructure in the vicinity. 'Only corn is grown in the neighbouring villages of the firing range [...] The heavy artillery firing has created cracks in the canals and rivulets, leading to diversion of water. The resulting loss of irrigational waters may have limited the agricultural options available to the people', he is quoted as saying.¹⁵⁸ While the controversy surrounding its request for re-notification of Tosha Maidan as a firing range was still raging, the Indian Army made a further request seeking re-notification of Chur-Khud forest land and meadows in north Kashmir's Baramulla district as a firing range. Other possible alternative sites for shifting the denotified range included the equally fragile alpine meadows in Wadwan, Yusmarg and Gurez.¹⁵⁹ Even where meadows are not occupied in their entirety, they form convenient locations for military encampments. For instance, Kungwatan, a meadow in South Kashmir was partly occupied and the army had built several illegal constructions on it, locals told JKCCS. The lands surrounding these encampments are out of bounds to local grazers and pastoralists.

Glaciers

The Kashmir valley lies in the Himalayan-Hindu Kush-Karakoram (HHK) region, often referred to as the Third Pole, because it contains the largest remaining stores of frozen fresh water outside the polar regions. The Himalayan glaciers supply the rivers that feed half the world's population. They are disappearing faster than in any other region in the world at the rate of 50 feet per year in Northern India¹⁶⁰

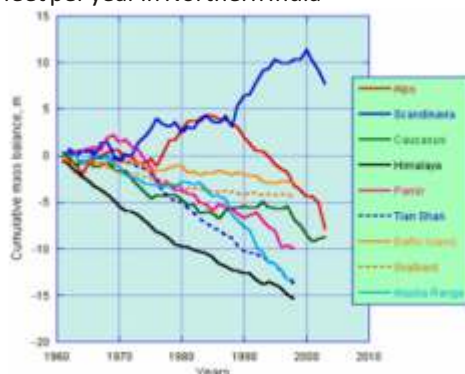


Figure 5: Rapid retreat of greater Himalayan glaciers in comparison to the global average (Source: Occurrence and Mass 2000)

Comparison of Glacial Recession in the World's largest Mountain Ranges. The Black line at the bottom depicting the Himalayas shows the steepest decline. Source: ICMOD Perspective Paper on the Changing Himalayas.

157 Umer Maqbool, Under fire, army to sanitize 'Meadow Of Death' from today, Greater Kashmir, 1 Aug 2014 <http://www.greaterkashmir.com/news/2014/Aug/1/under-fire-army-to-sanitize-meadow-of-death-from-today-55.asp>. See also, Ishfaq Naseem, Tosa Maidan tragedy: Abandoned artillery shells take toll on human lives, Greater Kashmir, 10 Mar 2014. <http://beta.greaterkashmir.com/news/career-and-counseling/tosa-maidan-tragedy-abandoned-artillery-shells-take-toll-on-human-lives/165543.html>, Zahid Rafiq, Tosa Maidan –The meadow of death, Greater Kashmir, 18 Apr 2014, <http://www.greaterkashmir.com/news/2014/Apr/18/tosa-maidan-the-meadow-of-death-11.asp>. See also articles listed at <http://www.kashmirreader.com/search/tosmaidan/>, for a history of the local struggle.

158 Danish Zargar, (Mis)Use of Tosmaidan Meadow affects ecology: Experts, Kashmir Reader, 16 Sep 2013

159 See Umer Maqbool, Undeterred by Tosa Maida row, army eyeing Chur Khud forest, Greater Kashmir, 19 Dec 2013 <http://www.greaterkashmir.com/news/2013/Dec/19/undeterred-by-tosa-maidan-row-army-eyeing-chur-khud-forests-52.asp>. See also, Save Yusmarg Movement stages protest against govt. plan to shift firing range to Yusmarg, Rising Kashmir, 22 Aug 2014 <http://www.risingkashmir.com/sym-stages-protest-against-govt-plan-to-shift-firing-range-to-yusmarg/>

160 For climate change and the Himalayas, see generally, thethirdpole.net. For glacial recession in the Himalayas, see International Centre for Integrated Mountain Development (2007) The changing Himalayas – Impact of climate change on water resources and livelihoods in the Greater Himalayas, http://www.worldwatercouncil.org/fileadmin/www/Library/Publications_and_reports/Climate_Change/PersPap_01_The_Changing_Himalayas.pdf For alarming evidence of recession of Jammu and Kashmir's glaciers see, J&K Environmental Information Sensing Centre (JK-ENVIS), JK State Action plan for Climate Change, <http://www.jkdears.com/eers/eers/orders/Final%20Report%20SAPCC.pdf>

Satellite imagery, taken immediately preceding the recent floods, showed that there had been no significant recession of the Kolahoi glacier, which feeds the River Jhelum and therefore ruled out glacial melt, or glacial lake overflow in the Lidder catchment as a primary cause of the floods.¹⁶¹ However, a study by Shakil Romshu, Head of the Department of Earth Sciences at Kashmir University, based on field examinations, drew a connection between recent climatic variability in the region, specifically heavy and late snow falls, and the flooding. The report stated that 'High snowmelt runoff from the extensive snow-packs was observed in the mountainous regions this year.' It found that since 2010, there has been unusually heavy snowfalls in the Kashmir Himalayas, which was responsible for higher and unseasonal snow and glacial melt.¹⁶² A study on the impact of climate change in Kashmir by Action Aid, titled 'On the Brink', has documented alarming evidence of glacial recession in the Kashmir Himalayas, and its impact on river flows and food security down stream. It states that while winter and spring water run-off from the glaciers has increased because of early meltdown of glaciers due to rising temperatures, and resulting in frequent floods, faster meltdown has resulted in significant decrease in water availability in streams during summers.¹⁶³ Studies of snow melt in the upper reaches of the Lidder Watershed in the Kashmir Himalayas have also found a co-relation between 'rising Himalayan temperatures, the accelerated melting and rapid disappearance of snow, and significant seasonal variability in the availability of water.'¹⁶⁴ The emission of green house gases, by the estimated 300 convoys of heavy gas-guzzling military trucks and armoured vehicles that traverse the region every day, including through high mountain passes above the snow line, has a direct bearing on rising temperatures in the region. As the Action Aid study pointed out, unlike civilian vehicles, army trucks are not subjected to regular pollution and emissions checks.¹⁶⁵

In an article on the degradation of the Indus Basin (of which the Jhelum valley is a part) disaster management expert, Arjmand Hassan Talib draws attention to the link between militarisation, glacial and snow melt and the risk of floods in the region. He cites a study by the United Nations' Environment Programme (UNEP), based on data from the Pakistani side of the border, but which given the region's geographical and hydrological continuities, is equally applicable to Indian Administered Kashmir. The study revealed that the lakes are forming in the Himalayas and other connected mountain ranges, because of global warming and localized 'thermal stimulation activities', like military manoeuvres, which threaten the lives of tens and thousands of people in the valleys.¹⁶⁶ The recent landslides that have dammed the river Phutkal, in the Zaskar valley, leading to the formation of an unstable glacial lake occurred in close proximity to a National Hydro-electric Power Corporation project site, adding to the growing evidence of an ecological disaster well underway at the high altitudes.¹⁶⁷

Scientists have noticed a marked co-relation between the alarming retreat of the Kolahoi glacier which feeds the Jhelum River, and the annual Amarnath Yatra which brings an ever growing numbers of pilgrims to within 5-6 kilometers of the glacier every year.¹⁶⁸ Helicopter sorties carrying tourists (which until 2006, flew directly over the glacier) are attributed by locals and scientists to causing crevasses and cracks in the fragile glacial wall, and the thinning of ice along its surface. The Action Aid report, *On the Brink* notes with concern, the 'promotion of large-scale pilgrim tourism in ecologically fragile eco systems, which results in tremendous pollution of water bodies and

161 ISRO and Department of Ecology and Environment and Remote Sensing. (2014) A Satellite Based Rapid Assessment of Floods in Jammu and Kashmir, September 2014. http://www.jkenvis.nic.in/pdf/jkenvis_floodreport.pdf

162 Shakil Romshu, 2014 Extreme Floods in Kashmir: Genesis, Magnitude and Correctives, as quoted in Arif Shafi Wani, Survey trashes government's cloud burst theory, Greater Kashmir, 20 Oct 2014 <http://www.greaterkashmir.com/news/2014/Oct/20/survey-trashes-government-s-cloudburst-theory-55.asp>

163 ActionAid. (2007) *On the Brink? A Report on Climate Change and Its Impact in Kashmir*. http://awaazekashmir.in/live/wp-content/uploads/2013/06/31_1990362411_ActionAidClimateChange.pdf

164 Jeelani, G., Feddema, J. J., Veen, C. J., & Stearns, L. (2012). Role of snow and glacier melt in controlling river hydrology in Liddar watershed (western Himalaya) under current and future climate. *Water Resources Research*, 48(12).

165 ActionAid. (2007) *On the Brink? A Report on Climate Change and Its Impact in Kashmir*. http://awaazekashmir.in/live/wp-content/uploads/2013/06/31_1990362411_ActionAidClimateChange.pdf

166 The 2014 Yatra drew 3,50,000 pilgrims. The numbers peaked in 2012, when the number was around 700,000. For latest figures See Amarnath Yatra to conclude today, Greater Kashmir, 10 Aug 2014. <http://www.greaterkashmir.com/news/2014/Aug/10/amarnath-yatra-to-conclude-today-54.asp>. For an account of the increasing numbers of both pilgrims and casualties on the trek, see Samir Mohindru, Amarnath: 80 dead and counting, Wall Street Journal: India, 19 Jul 2012, <http://blogs.wsj.com/indiarealtime/2012/07/19/amarnath-80-dead-and-counting/>. See also, Nick Hunt, Two briefs from Amarnath, for a description of travelling along the pilgrimage route, <http://nickhuntscreutiny.com/articles/melting-gods-and-glaciers/two-briefs-from-amarnath>

167 See SANDRP, Landslide Dam blocks Phutkal River, threatens Zaskar Valley: Update, South Asia Network for Dams Rivers and People, 13 Feb 2015, <https://sandrp.wordpress.com/2015/02/13/landslide-dam-blocks-phutkal-river-threatens-zaskar-valley-update/>

168 For the ecological impact of the yatra, see Syed Tahid Muzter, Bigger the Yatra, more the damage, Greater Kashmir, 25 Jun 2009, <http://beta.greaterkashmir.com/news/gk-magazine/bigger-the-yatra-more-the-damage/54238.html>. See also, Tourism leads to melting of glaciers in J&K, The Sunday Guardian, 6 July 2013 <http://www.sunday-guardian.com/investigation/tourism-leads-to-melting-of-glaciers-in-jak>; Majid Maqbool, Across the Table, Greater Kashmir, 5 Aug 2008, <http://greaterkashmir.com/news/2008/Aug/5/across-the-table-5.asp>; Rebecca Byerly, Massive Hindu pilgrimage melting sacred glacier, National Geographic, 14 March 2012, <http://news.nationalgeographic.com/news/2012/03/120312-hindu-pilgrimage-stresses-fragile-himalaya-environment/>

generation of huge amounts of carbon di-oxide'.¹⁶⁹

The promotion of the Amarnath Yatra, is an exercise in militarised tourism,¹⁷⁰ code named 'Operation Shiva' in 2013,¹⁷¹ and involving large scale deployments,¹⁷² troop movements, and temporary military encampments, being constructed all along the ecologically fragile mountain route. Every year, the pilgrimage takes place in an environment of heightened security, due to fresh 'intelligence inputs' of terrorist threats,¹⁷³ and intensification of the military presence placing the entire route under a state of surveillance and siege. Visits to places beyond the Chandanwari base camp require a special Yatra permit issued by the SASB. The numerous checkpoints and security measures, including body searches and frisking (for instance at Nunwan 2.5 kms from Pahalgam town) make travel, even for emergencies, a harrowing and time consuming experience, especially for Kashmiris. Public announcements by state officials, about the terrorist threats to the largely Hindu pilgrims in the apparently 'dangerous' and 'communalized' Muslim region, are made annually, despite the lack of any militant attacks directed at pilgrims since 2002, and repeated assurances on the part of 'pro-freedom', pro India politicians, and indigenous militant groups that pilgrims are not militant targets.¹⁷⁴ For instance, in 2010, the Indian Home Minister, Sushil Shinde, stated that 'The security agencies have [...] been directed to carry out aerial surveillance of the Yatra area and deploy spotters in adequate numbers at the camps [...] particularly at the Holy Cave Shrine area to spot unwanted activities (and) suspicious characters'.¹⁷⁵ In an order dated 13 July, 2012, the Supreme Court of India took suo moto cognizance of high numbers of reported casualties during the Yatra, and constituted a High Powered Committee, comprising representatives from different Indian Ministries, (including Health and Family Welfare, Environment and Forests, and Home Affairs), the Chief Secretary and other officers of the state Government, Director Generals of the Border Security Force and the Border Roads Organization to look into the matter. The Court recognised the fundamental rights of the pilgrim's safety, health care, and free movement. The Court appointed Committee recommended, amongst other civil infrastructure like toilets, the building of a twelve feet wide 'track' to the shrine area.¹⁷⁶ No mention was made about the ecological costs of increasing unregulated numbers of pilgrims, or the rights of communities living in the area, whose lives, water and land resources, face severe threats from the contamination and militarisation.

The army/ paralimilitary forces are in permanent occupation of about 370 kanals of land (46.25 acres) at the meadow at Baltal, where pilgrims camp before their trek to the shrine. Other temporary encampments downstream include a camp, Pahalgam Golf course on the banks of the river, and fencing and checkpoint at the Nunwan base camp, adding to the waste pollution, and contamination caused by the pilgrimage. After the Uttarakhand floods, the number of pilgrim tourists visiting the Gangotri glacier was restricted. A similar restriction in the case of Amarnath, though demanded by Kashmir based civil society groups, seems unlikely, given that it would require a significant demilitarisation of the region, and the placing of ecological and disaster risk considerations over those of pilgrims.¹⁷⁷ This militarised tourism project, bringing hundreds of thousands of

169 Action Aid. (2007) On the Brink? A Report on Climate Change and Its Impact in Kashmir.

http://awaazekashmir.in/live/wp-content/uploads/2013/06/31_1990362411_ActionAidClimateChange.pdf

170 For the relationship between militarisation and tourism promotion in Jammu and Kashmir, see Mohammad Junaid, Peace, tourism and political games in Kashmir, Al Jazeera, 29 Jul 2012 <http://www.aljazeera.com/indepth/opinion/2012/07/201272612535508711.html>; Anatomy of a crisis, Interview with Sanjay Kak, Socialist Worker, 8 Sep 2008, <http://socialistworker.org/2008/09/08/anatomy-of-the-crisis>

171 For a description of the 'security' arrangements during the Yatra see, Jasbir Sarai, Concentrate on the smooth conduct of the Amarnath Yatra, <http://www.defenceinfo.com/concentrate-on-smooth-conduct-of-shri-amarnath-yatra-2-pilgrimage>.

172 See for instance, Mir Ehsan, Amarnath Yatra begins, BSF personnel flown in, Indian Express, 1 Jul 2010, <http://indianexpress.com/article/news-archive/web/amarnath-yatra-begins-bsf-personnel-flown-in/>

173 See for instance, in 2014, PTI, Amarnath Yatra under threat from terrorist attacks, DNA, 22 July 2014 <http://www.dnaindia.com/india/report-amarnath-under-threat-from-terrorist-attacks-2004319>. In 2013, see TNN, Terror Shadow over Amarnath Yatra: Shinde, Times of India, 20 Jun 2013, <http://timesofindia.indiatimes.com/india/Terror-shadow-over-Amarnath-Yatra-Shinde/articleshow/20673677.cms>

174 See for instance, HT Correspondent, No threat to Amarnath pilgrims: Geelani, Hindustan Times, 19 Jun 2013 <http://www.hindustantimes.com/india-news/no-threat-to-amarnath-yatra-exists-geelani/article1-1079119.aspx>; Riyaz Wani, Amarnath Pilgrims have nothing to fear: Salahudin [interview with Hizbul Mujahid leader], Kashmir Observer, 1 Nov 2012, <http://www.kashmirobserver.net/news/interviews/amarnath-pilgrims-have-nothing-fear-syed-salahuddin>; In 2013, the state Chief Minister reportedly objected to the India Ministry of Home Affairs characterisation of the 'heightened threat' from militant groups. See, Riyaz Wani, Week before its onset, Amarnath Yatra runs into familiar controversy, Tehelka, 22 Jun 2013, <http://www.tehelka.com/week-before-its-onset-amarnath-yatra-runs-into-familiar-controversy/>; See also Handle with care, Greater Kashmir, 22 Jun 2013 <http://www.greaterkashmir.com/news/2013/Jun/22/handle-with-care-22.asp>

175 PTI, Amarnath Yatra under threat: Home Minister, Greater Kashmir, 20 Jun 2013, <http://www.greaterkashmir.com/news/2013/Jun/20/amarnath-yatra-under-threat-home-minister-49.asp>

176 WP (Civil) 284/2012, Supreme Court, Court on its own Motion v Union of India and others, See also, GK News, Amarnath Yatra: Guv seeks 'early implementation' of SC directions, Greater Kashmir, 27 Feb 2013 <http://www.greaterkashmir.com/news/2013/Feb/27/amarnath-yatra-guv-seeks-early-implementation-of-sc-directions-69.asp>

177 Kashmiri civil society express concern over Amarnath construction plans, Kafil, 19 Aug 2012 <http://kafil.org/2012/08/19/kashmir-civil-society-express-concern-over-amarnath-construction-plans/>

tourists, and thousands of tonnes of non bio-degradable waste to the region, aimed at establishing the narrative of 'normalcy', and discursively integrating Kashmir into a Hindu cartography of the nation,¹⁷⁸ arguably causes even more ecological harm, than would have been caused by the actual physical occupation of the land.

Militarised Development

The Indian Army's doctrine of sub conventional warfare, released in 2006, states that the 'management and resolution of insurgencies' requires 'a multi pronged thrust by all elements of national power.'¹⁷⁹ This 'multi-pronged approach' has been described by the Ministry of Home Affairs as including confidence-building measures with Pakistan, and 'focused attention on the developmental aspects with a view to strengthening the infrastructure, creating employment and income generation opportunities, and generally improving the quality of life of the people living in different regions of the state.'¹⁸⁰ Anthropologist Mona Bhan, whose work focuses on militarisation in the Kargil region and Gurez valley, states that 'As a counterinsurgency tactic, development blur[s] the tenuous boundary between militarism and humanitarianism to forge a socio-political order in which projects of social improvement, compassion, and betterment provide an ideal framework to strengthen the military's reach and credibility in conflict zones.'¹⁸¹ Development as a military strategy, thus seeks to 'win hearts and minds' of Kashmiris, substituting demands for a political solution to its disputed status, with coercive and penetrative socio-economic integration with India.

This part of the Chapter focuses on two such projects, in the larger context of the larger military-development paradigm that underpins the building of large scale, purportedly 'civilian' infrastructure in Kashmir, namely Jammu–Baramulla railway line, and the building of multiple hydro electric projects (dams) in the Jhelum and Chenab valleys. Both these much-celebrated projects have a bearing on the region's ecological stability and flood vulnerability.

The Jammu – Baramulla Railway Line: The Infrastructure of an Occupation

In an article, titled Hope Chugs in, journalist Luv Puri provides a potent description of divisive militarised development on the ground. The article describes the 'multi dimensional' impact of the building of the Qazigund-Katra section of the Jammu-Baramulla railway line 'situated on fragile hilly terrain where landslips are frequent' in the economically marginal Arna Block.¹⁸² It throws light on how counter insurgency oriented 'development' creates antagonistic and polarized ethnic and social divisions, (in this case between Gujjars and non-Gujjars) in order to deepen the military occupation. It is worth pointing out that Gujjars have been extensively employed as military porters, guides and informers especially in the Jammu Region, and selectively armed as local militias (in Village Defence Committees), and socially embedded Special Police Officers (SPOs) since the beginning of the

178 Mohammad Junaid, Peace, tourism and political games in Kashmir, *Al Jazeera*, 29 Jul 2012

<http://www.aljazeera.com/indepth/opinion/2012/07/201272612535508711.html>. See Nick Hunt, Two briefs from Amarnath, for a description of travelling along the pilgrimage route, for a reference to soldiers shouting Hindu religious slogans along with the pilgrims. See also, Anatomy of a crisis, Interview with Sanjay Kak, *Socialist Worker*, 8 Sep 2008, <http://socialistworker.org/2008/09/08/anatomy-of-the-crisis>

179 See also, Doctrine for Sub Conventional Operations, Headquarters Army Training Command, Shimla, Dec 2006, available at <http://ids.nic.in/Indian%20Army%20Doctrine/doctrine%20sub%20conv%20w.pdf>. See also Indian Army Doctrine, Headquarters Army Training Command, Shimla, Oct 2004, pages 68-77.

180 Ministry of Home Affairs, Annual Report 2008-09, at page 7 [http://www.mha.nic.in/pdfs/AR\(E\)0809.pdf](http://www.mha.nic.in/pdfs/AR(E)0809.pdf). See also, Doctrine for Sub Conventional Operations, Headquarters Army Training Command, Shimla, Dec 2006, available at <http://ids.nic.in/Indian%20Army%20Doctrine/doctrine%20sub%20conv%20w.pdf>. See also Indian Army Doctrine, Headquarters Army Training Command, Shimla, Oct 2004, pages 68-77 http://ids.nic.in/Indian%20Army%20Doctrine/indianarmydoctrine_1.doc

181 Ather Zia, 'Operation Sadbhavna in Kashmir is a counter insurgency measure', [an interview with Mona Bhan], *Kashmir Lit*, <http://www.kashmirilit.org/mona-bhan-interview-for-kashmir-lit/> See also, Aggarwal, R., & Bhan, M. (2009). "Disarming Violence": Development, Democracy, and Security on the Borders of India. *The Journal of Asian Studies*, 68(02), 519-542; Bhan, M. (2014). Morality and Martyrdom: Dams, Dharma, and the Cultural Politics of Work in Indian-Occupied Kashmir. *Biography*, 37(1), 191-224. See for an overview of WHAM as counter insurgency tactic, from a national security perspective, Bhonsle, R.K. (2009) Winning Hearts and Minds Lessons from J and K. Maneckshaw Paper 14, Centre for Land Warfare Studies. See also Chaddha V. (2011) 'Heart as a weapon': A Fresh Approach to the concept of hearts and minds Institute for Defence Studies and Analyses. http://www.academia.edu/1320628/Heart_as_a_Weapon. For a specific overview of 'Operation Sadbhavna' see Anant A. (2011), Counter insurgency and Op Sadbhavna in J and K, Occasional Paper no.19, Institute for Defence Studies and Analyses.

182 Luv Puri, Hope chugs in, *The Hindu*, 17 Jun 2007, <http://www.thehindu.com/todays-paper/tp-features/tp-sundaymagazine/hope-chugs-in/article2275306.ece>

armed militancy.¹⁸³

Luv Puri writes:

'The [railway] project is under a thick blanket of security with the para-military forces deployed near the project sites and J and K police personnel spread around the hills for area domination. Ever since the project picked up pace, security forces have recorded important successes, courtesy the fact that intelligence inputs have come from the local Gujjar population. For instance, Sharief, a Hizbul Mujahideen Commander and one of the most wanted militants, was eliminated due to the precise information provided by a Gujjar clan. A senior police officer said, 'Ever since the Railway project started, our information base has considerably improved and we are giving militants a run for money'.¹⁸⁴

The Indian government funded Jammu-Baramulla railway line, sometimes referred to as the Kashmir Railway Project, a 354 km extension to the Indian Railway Network, will when fully built connect the 'geographically isolated' Kashmir Valley, to the Jammu plains, and Indian mainland. It was first proposed in the late 19th Century. No significant progress on its construction was however made, until it was designated a priority 'national project' by Indian Prime Minister Atal Behari Vajpayee in 2001, more than a hundred years later. This classification, removed all budgetary constraints on the project, as unlimited funds could be allocated to it from the Consolidated Fund of India, rather than the Indian Railway's Budget.¹⁸⁵ The total cost estimated at Rs 2500 crore in 1995 has escalated eight fold to Rs 19,565 crore with the expected commissioning date in December 2018 instead of November 2002 as initially estimated. The Public Accounts Committee (PAC) and the Comptroller and Auditor General (CAG) have been extremely critical of the cost over runs, delays and lack of adequate preliminary, technical studies,¹⁸⁶ with the Public Accounts Committee recently attributing a loss of Rs. 75 Crores due to collapse of 1.8 kms of tunneling, caused by faulty engineering, and incorrect alignment.¹⁸⁷ In 2013 the valley was connected to Banihal, a small town in the Pir Panjal mountains through the 11 km long Pir Panjal tunnel but the most difficult part of the proposed track, between Katra and Banihal, including the bridging of the Chenab Valley remains incomplete and mired in delays, cost over runs, serious safety, engineering and disaster vulnerability concerns,¹⁸⁸ and litigation.¹⁸⁹ Discussions of the Kashmir Railway Project frequently emphasise its 'strategic importance' and role in integrating Kashmir into the 'national mainstream' through development.¹⁹⁰ The inaugurations of the last two phases of the project (Qazigund to Banihal in 2013, and Udhampur to Katra in 2014) have seen visits by consecutive Indian Prime Ministers, and speeches voicing the latter sentiment. In response to Indian Prime Minister Manmohan Singh's speech on these lines, in 2013,¹⁹¹ Syed Ali Shah Geelani the leader of the pro-freedom, Hurriyat Conference (G) stated that 'railways, [special funding] packages, and power projects' could not be a substitute for Kashmir's right to

183 See JKCCS Press statement dated 15 Aug 2013, available at <http://sanhati.com/articles/7834/> on the communalized recruitment of VDCs and SPOs. See also Abhinandan Mishra, et al., Village Defense Committees will be probed in Kishtwar, Sunday Guardian, 17 Aug 2013.

<http://www.sunday-guardian.com/news/village-defence-committees-will-be-probed-in-kishtwar>. For an account of the violent lived realities of such militarized polarization, see JKCCS (2014) Anatomy of a Massacre: The Mass Killings at Sailan, <http://www.scribd.com/doc/235731215/The-Anatomy-of-a-Massacre-The-Mass-Killings-at-Sailan#scribd>. For the use of specifically Gujjar armed operatives (Special Group III) as a part of the military operation 'Sarp Vinash' (Snake destruction) to 'sanitize' the hills of Poonch district, Jammu see Praveen Swami, The hype and the folly, Frontline (20) 3, 4 July 2003, <http://www.frontline.in/static/html/fl2013/stories/20030704007300400.htm>

184 Luv Puri, Hope chugs in, The Hindu, 17 Jun 2007,

<http://www.thehindu.com/todays-paper/tp-features/tp-sundaymagazine/hope-chugs-in/article2275306.ece>

185 Jeph, P., and Kumar N. (2013), Jammu-Udhampur-Srinagar-Baramulla Railways link, Dept. of Civil Engineering, IIT Delhi. [Student paper providing a brief history and over view of the project]

186 See Maneesh Pandey, Jammu and Kashmir Rail link faces CAG fire, Mail online, 20 Dec 2012,

<http://www.dailymail.co.uk/indiahome/indianews/article-2251298/Jammu-Kashmir-rail-link-faces-CAG-fire.html#ixzz3U3VJBmL>

187 Bisheswar Misra, PAC pulls up Railways for delay in rail link in Jammu and Kashmir, Indian awaaz, 26 Nov 2014.

www.theindianawaz.com/index.php?option=com_content&view=article&id=22467:-pac-pulls-up-railways-for-delay-in-rail-link-in-jammu-and-kashmir&catid=16:REGIONALAWAAZ

188 See Raghavendra Rao, No full stops in this rail journey, Indian Express, 6 Aug 2008,

<http://archive.indianexpress.com/news/no-full-stops-in-this-train-journey/345657>

189 W.P.(C) No. 2932/2012, Delhi High Court, Centre for Public Interest Litigation vs Union of India, See also Pankaj Kumar, Delhi HC orders board to review the alignment of the Kashmir rail link project, Governance Now, 30 May 2014.

<http://www.governancenow.com/news/regular-story/delhi-hc-orders-board-review-alignment-kashmir-rail-link-project> See also Raghav Thakur, Kashmir valley railway makes slow progress, International Railway Journal, 2 Aug 2013,

<http://www.railjournal.com/index.php/main-line/kashmir-valley-railway-makes-slow-progress.html>

190 See for instance, Ragini Verma, Kashmiris await Pir Panjal, India's longest railway tunnel, Mint, 24 Jun 2013,

<http://www.livemint.com/Politics/RdlnE5fAQ4EQsuEldwh3K/Kashmiris-await-Pir-Panjal-Indias-longest-railway-tunnel.html>. See also on the proposed

extension of the track from Srinagar to Leh, Virendra Sahai Verma and P. Wangdus, A train journey worth making, 2 Jul 2013,

<http://www.thehindu.com/opinion/op-ed/a-train-journey-worth-making/article4870304.ece>,

191 New rail tunnel puts Kashmir on track to join India railway grid, The Hindu, 27 Jun 2013.

<http://www.thehindu.com/todays-paper/tp-in-school/new-rail-tunnel-puts-kashmir-on-track-to-join-india-railway-grid/article4854778.ece>

self determination, or erase India's long history of human rights violations in the region.¹⁹² During his July 2014 visit to J and K, to inaugurate two developmental projects, the railway line between Katra and Udhampur, and the Uri Hydropower Project in Baramulla, the Indian Prime Minister's speech at the opening of the railway line, was redolent with metaphors drawn from the Indian Army's WHAM (Winning Hearts and Minds) and 'Heart as a weapon' counter insurgency doctrines. 'It is my priority to win the hearts of the people of J and K and this has to be achieved through development and their welfare' he reportedly said.¹⁹³ The militarised nature of the project is overtly visible in writings by commentator which frequently draws comparisons between Kashmir Railway Project (and especially its proposed extension from Srinagar to Ladakh) to the Trans Tibet Railway line, being built by China (with Pakistani collaboration), and the urgent need to further consolidate India's defensive and military infrastructure and supply lines along contested India's borders.¹⁹⁴

The Railways and the flooding of Kashmir

The Kashmir valley stretch of the railway track, completed in 2009, covers a distance of 119 kms connecting the towns and cities of Qazigund, Anantnag, Pulwama, Srinagar, Budgam and Baramulla, and includes 704 major and minor bridges across rivers, canals and roads. The railway line runs through 136 villages and has consumed more than 1982 acres (16000 Kanals) of mostly agricultural land.¹⁹⁵ It runs longitudinally along the lowlying- valley floor, on a ten to fifteen foot high 'flood safe' embankment, through paddy fields and agricultural lands roughly parallel to the Jhelum, on its weaker left bank. Commentators have described it as bifurcating the valley into the Upper valley (right bank) and the Lower Valley (left bank). On the right bank of the river, another development project, the widening and four-laning of the National Highway Authority Of India's (NHAI) National Highway 1A, from Jammu to Baramulla, is underway. This project too is built on an elevated embankment, effectively converting the stretch of fields and villages that lie between it and the Railway track, into part of the river channel when it is in spate, by preventing flood waters from draining beyond these two parallel walls. Thousands of acres of fertile agricultural and horticultural land have been acquired for the tracks, embankments, and railway stations and associated paramilitary encampments, including for instance, over 250 acres of fields in the Awantipora area alone, 57 acres of land belonging to a single village, Hamrey in Baramulla District, and the proposed acquisition of 31 acres of khhacharai village commons lands in Kinhama, by the CRPF adjacent to the Nowgam (Srinagar) railway station.¹⁹⁶ Besides the widely reported engineering and alignment problems in the Jammu section of the track, the alignment of the railway line through Kashmir has been subject to dramatic and arbitrary changes, which have been disruptive to city planning. Commenting on the huge discrepancies between the Srinagar Master Plan (2000-2021) and on ground developments, during a large-scale revision in 2013, Farooq Renzu, Vice Chair-man, Srinagar Development Authority stated 'While preparing the draft Master Plan we found that there is drastic deviation in construction of Railway tracks through Srinagar'.¹⁹⁷ Some of these changes were clearly motivated by military rather than environmental or engineering concerns. Residents of Anantnag District, told JKCCS that the track had been deviated at Wujjar Army Camp, near the Forest Checkpost at Munda, solely to avoid displacement of the camp from its original location. A turn in the tracks had been engineered through adjacent orchard lands instead. Villagers from Gulzarpora stated that the track takes a turn towards the hilly karewas on its left, at Pusul, thus effectively blocking off the streams which flow down the hill sides.

As with all Indian Railway projects, the track has not been subject to any environmental impact assesment or

192 GK News, 'Packages, railway lines, power projects can't heal Kashmiris' wounds': Geelani 26 Jun 2013, <http://beta.greaterkashmir.com/news/kashmir/packages-railway-lines-power-projects-can-t-heal-kashmiris-wounds-geelani/149719.html>

193 Arun Sharma, Mir Ehsan, 'Want to win your hearts', Modi tells J&K on first visit, Indian Express, 5 July 2014, <http://indianexpress.com/article/india/india-others/jk-pm-narendra-modi-to-inaugurate-rail-link-to-put-katra-on-railway-map/>

194 Pankaj Kulkarni, Taking Indian Railways to India-China Border, Swarajya, 26 Feb 2015, <http://swarajyamag.com/economy/taking-indian-railways-to-india-china-border/>

195 Irfan Mehraj, Railway line contributed to extreme flooding of Srinagar, says study, Aunthintmail.com, 16 Oct 2014 <https://www.aunthintmail.com/2014/kashmir/railway-line-contributed-extreme-flooding-srinagar-says-study-101332>

196 See Air force seeks 7000 kanals of land in Awantipora, Greater Kashmir, 17 Apr 2006, <http://beta.greaterkashmir.com/news/career-and-counseling/air-force-seeks-7000-kanals-of-land-in-awantipora/5519.html>; Hilal Ahmad, Dispossessed people fighting hard for survival, Greater Kashmir, 7 Dec 2007, <http://beta.greaterkashmir.com/news/gk-magazine/dispossessed-people-fighting-hard-for-survival/26477.html>; GK Correspondent, After Pampore, CRPF eyes 250 kanals of land in Kinhama, Greater Kashmir, 26 Nov 2008, <http://beta.greaterkashmir.com/news/career-and-counseling/after-pampore-crpf-eyes-250-kanals-at-kinhama/43384.html>

197 Arif Shafi Wani, Draft Master Plan envisions green Srinagar, Greater Kashmir, 1 Feb 2013, <http://www.greaterkashmir.com/news/2013/Feb/1/draft-master-plan-envisions-green-srinagar-21.asp>

studies.¹⁹⁸ Forest clearances, mandated under the Indian Supreme Court directions in the TN Godavarman case, have been viewed as impediments to its progress, and the cause for unwarranted delays, rather than required checks on unregulated, badly planned and dangerous development in ecologically fragile, forested, and disaster vulnerable regions. The new Land Acquisition ordinance, passed in December 2014, specifically exempts defence and national security related infrastructure and production facilities from social impact assessments.¹⁹⁹ The Indian Railways has reportedly approached the Indian Environmental ministry to put in place a policy of blanket 'forest approvals' for forty projects in border areas.²⁰⁰ The Indian Ministry of Environment and Forests (MoEF) has also announced a plan of 'general approvals' to allow defence related infrastructure projects in 'border areas' to proceed without a case by case evaluation.²⁰¹

Writing in 2010, urban planner Rafique Khan presciently described the potentially disastrous ecological effects of the militarised track alignment on the valley's topography:

'A Google map of Kashmir shows a new feature on Kashmir's landscape: a straight line gash across the length of the Valley, from Khanabal to Baramulla. This gash is the new rail alignment. It runs through mainly the low ground elevation, within paddy fields. The rail for the rail line is laid on a raised embankment, presumably to avoid flooding of the rail line. Millions of truck loads of earth were mined from hill sides to create the new embankment. Thus Kashmir's landscape was made unsightly. The soil erosion prone hazard areas are left unattended. The rail alignment and the location of train stations, with military compounds adjoining the train stations, would imply that the rail project is more for military purposes. The rail alignment is unrelated to the existing habitation areas of the Valley towns. Was an alternate alignment ever considered? A rail alignment circling around the valley above the flood plain and below the forest lands would have opened up new areas more suitable for urban development, instead of a straight alignment cutting through the most productive agricultural land, and most flood prone areas.'²⁰²

Residents of Anantnag and Bijbehara, told JKCCS, that the railway line provided minimal benefits to the local population, and appeared to be engineered primarily for the efficient transportation of military men and materials. This railway line is not built for Kashmiris, it is built by India for Indians. The road network between the towns it connects in the valley, is already good. Sumos (shared taxis) and buses are readily available, in all weathers, and there is no waiting time, unlike for the train. Instead of connecting far off villages, which lack roads they have connected all their camps [built along the Jhelum Valley Road] at a huge cost. It would have benefited us more if they had invested in improving the roads, but India wants to use the train to bring in more outsiders: soldiers, Biharis, [migrant workers], tourists, people from Jammu, and completely change the face of the valley', a resident stated.²⁰³

The railway line, (sometimes in combination with the National Highway, on the other bank of the river) has been widely seen by experts and locals as the cause of unprecedented inundation, especially in South Kashmir and the southern areas of Srinagar city. While the flood devastated over 400 villages in South Kashmir, washing away hundreds of houses, and damaging thousands of acres of crops and fruits, both highway and railway track remained largely untouched with only minor damage reported in some areas. The Commissioner/Secretary Flood Control Department, Pawan Kotwal has been on record stating that when the water level increased drastically in river Jhelum, on 4th September, and breached the Kandizal embankment on Srinagar-Jammu highway, it was assumed that the waters flowing through the breach, would be absorbed by the basin from Kandizal to Lasjan, but the railway track and the highway prevented the draining of water, and caused the unprecedented flooding in Srinagar. The Chief Engineer, Flood Control Department Javaid Jaffer has also stated that the Flood Control department has now started assessing the 'impact' of the highway and railway track as 'contributing factors to devastation.'²⁰⁴

198 Ministry of Finance, Government of India, 'Overview of Environmental Impact Assessment'

<http://toolkit.pppinindia.com/highways/module2-fgost-ooeiaaec.php?links=fgost3>

199 Cabinet approves ordinance on amendments to Land Acquisition Act, Economic Times, 29 Dec 2014.

http://articles.economictimes.indiatimes.com/2014-12-29/news/57495164_1_land-acquisition-act-resettlement-act-consent-clause

200 Richa Sharma, Railways pushes for Green Clearance to 40 key projects, New Indian Express, 2 July 2014,

<http://www.newindianexpress.com/nation/Railways-Pushes-for-Green-Clearance-to-40-Key-Projects/2014/07/02/article2309918.ece>

201 Urmi Goswami, Environment Minister Prakash Javadekar eases approval process for defence infrastructure, Economic Times, 26 Feb 2015,

http://articles.economictimes.indiatimes.com/2015-02-26/news/59541737_1_border-security-related-infrastructure-strategic-border-projects-border-areas

202 Rafique Khan, Engineering Kashmir: Drains, Ditches and Darya Jhelum, 10 Oct 2010,

<http://kashmirfoundation.us/engineering-kashmir-drains-ditches-darya-jhelum/>

203 See Raghavendra Rao, No full stops in this rail journey, Indian Express, 6 Aug 2008,

<http://archive.indianexpress.com/news/no-full-stops-in-this-train-journey/345657> for how the railway track realignment will reduce the number of connected villages from 50 to 8.

A study by Professor Shakil Romshu, of the Earth Sciences Department, Kashmir University, too found that 'the presence of the railway line aligned through the floodplains may have made a difference in the observed inundation levels and patterns during the 2014 flooding and could be responsible for the higher levels of the inundation observed in some areas of Jhelum floodplains around Srinagar city. However the study also noted that 'a few of the traditionally flood-hit areas in the Jhelum floodplains didn't receive the floodwaters this time probably because of the presence of the railway embankment all along the floodplain. This needs to be further researched in order to quantify the impacts of the prominent railway embankment on 2014 flooding to initiate any corrective measures in future'.²⁰⁵ An official in the National Highway Authority of India was quoted in a news report as saying that 'The priority was to build the track at a height which would not be touched by flood [...] after conducting a study of hundred year flood levels.'²⁰⁶ JKCCS observed markings on the culverts under the railway bund, showing various high flood lines. From markings on the bund observed by JKCCS in Pulwama, the bund appears to have been deliberately built a few metres above the previous highest flood line recorded. (See image below) The logistical priorities of militarised development are clear from the fact that both the railway and highway embankments have been deliberately built at a height of almost ten to fifteen feet in certain areas, after studying 100 year flood levels in the Jhelum to make them flood safe, but apparently with no prior assessment on their potential impact on low-lying surrounding areas, which is only now being contemplated after devastating human and economic losses.



Above: Close up of Markings of flood levels, on the Railway bund in Pulwama. Officials stated that the bund was built after a study of 100 year flood levels, to be flood safe. Below: Narrow culverts under the bund.

204 Muddasir Ali, In flood-hit villages, railway track, expressway 'sped up' devastation: Wall-like tracks worsened deluge, Govt. admits, Greater Kashmir, 2 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/2/in-flood-hit-villages-railway-track-expressway-sped-up-devastation-60.asp>

205 Muddasir Ali, In flood-hit villages, railway track, expressway 'sped up' devastation: Wall-like tracks worsened deluge, Govt. admits, Greater Kashmir, 2 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/2/in-flood-hit-villages-railway-track-expressway-sped-up-devastation-60.asp>

206 Muddasir Ali, In flood-hit villages, railway track, expressway 'sped up' devastation: Wall-like tracks worsened deluge, Govt. admits, Greater Kashmir, 2 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/2/in-flood-hit-villages-railway-track-expressway-sped-up-devastation-60.asp>

Local flood control engineers, posted at the Flood Department's Pampore sub division headquartered in Kakapora, sought to minimise the damage caused by the railway line stating that inundation of villages located on the left of the bund, was delayed by about an hour, due to the bund like barrier it formed on the Jhelum's banks. However, they admitted that thereafter these villages too were flooded, as water came from the 'back' (Southwards), from Northern streams such as Ferozepur Rambheria and Romshi, and from Srinagar (overflow of Doodh-ganga nallah and Flood Spill Channel). Jhelum's waters too began over-flowing the railway bund at certain places. According to them, the highway embankment built on the right bank, pushed the waters backwards, and also created a pressure on the already weak left bank of the river, causing overflows. However, they continued to maintain that the damage caused was mainly due to the sheer quantity of water in all the water bodies; attributable to a 'cloud burst' or similar freak event, rather than these physical structures or obstructions.

Local residents of villages in Pulwama, and Anantnag, located on both sides of the bund were less equivocal about the impact of the railways on the flooding. A resident of a village near Bijbehara, stated:

'For miles around the only thing you could see in this area was the Railway line. The rest was all just river. Yes, you could say it saved us – because it was the only high structure [which was accessible], and we stayed for days on the bund when our houses were under two storeys of water. But before that it had already drowned us.'

News reportage described the extent and kinds of widespread devastation, caused all along the Railway and Highway embankments, in South Kashmir. A report stated 'In many villages of south Kashmir, people who helplessly saw the flood flattening their houses and sweeping away paddy fields and orchards said "these walls" [ie the railway and highway bunds] added to the devastation by stopping spread of flood water, leading to inundation of villages which were never touched by flood in the past [...] Shoul along with Sursuna, Shamespora and scores of other villages [in South Kashmir] witnessed massive damage to housing and agriculture sector. [...] The flood has washed away more than 50 houses and caused partial damage to another 65 houses in [Shoul] village comprising of 200 households.[...] Far off from Shoul, in Haasanpora Tawala and Hussanpora Bagh villages of Anantnag, people say there was no history of floods. "Water from Vaishaw River got trapped due to the railway track and it flattened 200 houses," said Khalid Hussain, a local.'²⁰⁷

A news report quoted a senior official in the Flood Control department as saying that 'when the two tracks [highway and railway] were approved for construction, it proposed their construction on a "bridge pattern" in flood-prone areas in view of the flood history of Kashmir. But there was pressure from both the central [Indian Government] and [J & K] state governments that led to shelving of the proposal.'²⁰⁸ A journalist told JKCCS that a proposal for making the surrounding areas flood safe, budgeted at Rs 300 crores had been formulated by the Flood Control Department, by building adequate drainage channels through the bund, but was rejected due to the cost. JKCCS observed that while small via ducts had been provided under culverts in the bund, for petty streams to drain into the river, these were by no means adequate when these streams filled up due to the rains. This had resulted in water logging of the areas hitherto untouched by floods.²⁰⁹ Locals from villages such as Gulzarpora, on the left side of the railway bund, too corroborated this view to JKCCS, stating that when the streams and nallahs flowing down from the surrounding highlands and karewas turned flashy and began flowing at a great speed, the railway bund acted as a barrier, flooding even relatively high lying areas, with the back flow. (See Box and Illustration below for details) The waters could only be drained after weeks, finally by cutting the bund at various locations, using earth moving equipment (JCBs) hired by the community. Residents from lowlying- villages located on the right side of the bund, close to the Jhelum banks, such as Beighpora stated that parts of their villages became a part of the Jhelum river channel for all practical purposes. Locals from Lalhera (on the left bank) stated that they had never seen the river behaving as it did in these floods. 'We are located in a patch of land between the Ferozepur Nallah, the Sukhnag, and the Jhelum. We are used to floods, having seen terrible flooding even in 2006, and earlier. Whenever the waters rise, we are prepared; we know how to strengthen our [village] bunds, and where they will breach. But this time, the water's speed and ferocity was different. The [recently raised] highway embankment pushed back the waters, causing our bunds to break at so many places, that it was impossible to stop.'

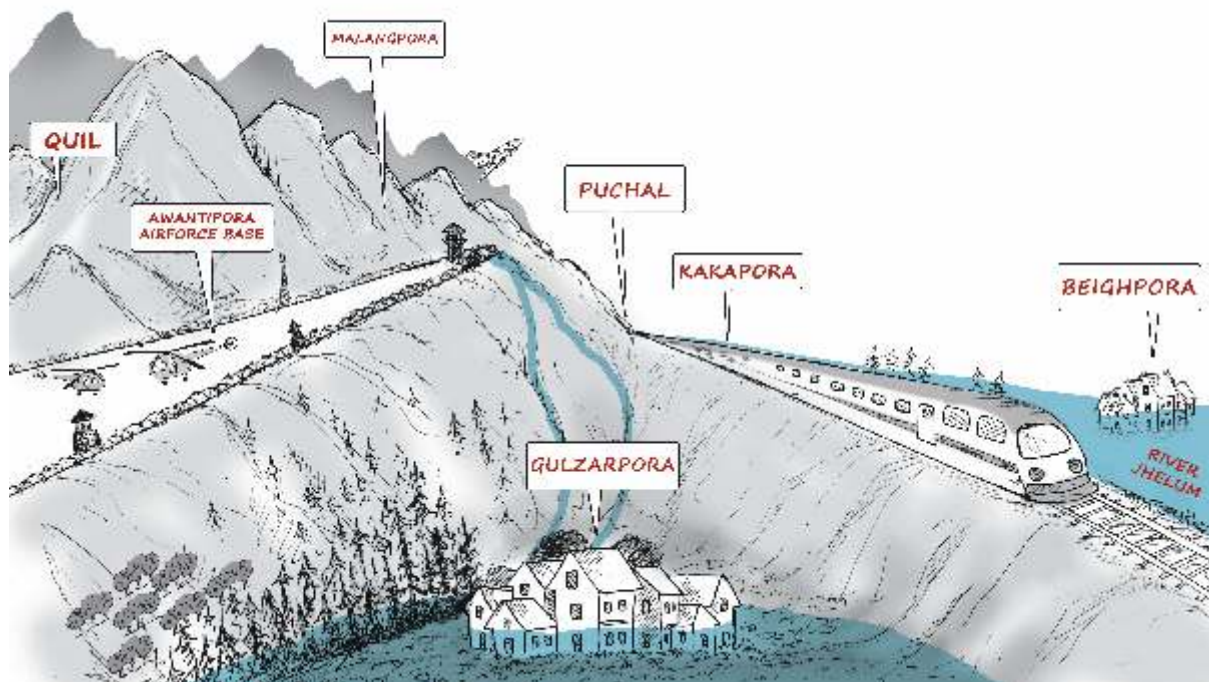
207 Muddasir Ali, In flood-hit villages, railway track, expressway 'sped up' devastation: Wall-like tracks worsened deluge, Govt. admits, Greater Kashmir, 2 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/2/in-flood-hit-villages-railway-track-expressway-spiced-up-devastation-60.asp>

208 Muddasir Ali, In flood-hit villages, railway track, expressway 'sped up' devastation: Wall-like tracks worsened deluge, Govt. admits, Greater Kashmir, 2 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/2/in-flood-hit-villages-railway-track-expressway-spiced-up-devastation-60.asp>

209 R.S Gull, Do not blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirilife.net/do-not-blame-Jhelum-66544/>

Gulzarpora and Beighpora: Trapped Between a Railway line and an Airforce Base

JKCCS visited the village of Gulzarpora, and Beighpora in Pulwama district, which villagers maintained had seen unprecedented inundations as a result of the railway bund. The combined effect of massive military land occupation and militarised development, wreaked havoc on orchards, fields and homes in the area. Gulzarpora, a hamlet of about 300 households, is located partly on karewa highlands bordered on one side by the vast Awantipora Airforce Base (836 acres of land across Malangpora and Quil karewa) and on the other by the railway bund. Orchard high lands and paddy fields for the the airforce base had been acquired from surrounding villages including, Gulzarpora, Beighpora, Jangalnarda, and Malangpora in 1965, after the Indo-Pakistan war. Villagers were paid Rupees 400, as compensation. Considerable lands, a total of about 100 acres, in the Awantipora area (within which both villages fall) were also lost to the railway construction. About eighty houses in Gulzarpora had completely collapsed in the floods, mainly from the Rambir nallah, residents told JKCCS. They stated that the condition of about eight surrounding villages that lay along the same side of the railway track was similar. In Beighpora, a similar sized hamlet located about 3 kms away, on the banks of the Jhelum, whose fields are bifurcated by the railway bund, about 150 houses had collapsed. The village also lost about 600 heads of cattle, including 90 cows and 400 goats. Around 400 kanals of land from Beighpora alone had been acquired for the railway line, and infrastructure. Villagers from both villages told JKCCS that they had repeatedly protested the height of the railway bund, intuitively grasping that building such an embankment would cause flooding. A news article, about the devastating effect of the railway track during the recent floods, quoted the village headman of Gulzarpora, Ali Muhammad Sheri, as stating, 'during the construction of the track some years ago, the entire village had protested, demanding adequate water-subways built under it [...] Nobody heard our pleas that time. The results are evident now'. Shahid Malik, another resident stated, 'The tracks should have been constructed on fly-over pattern to allow water to move freely [...] At present there are not enough water subways under the highway and railway and it is a serious problem.' The villages also live under constant threat of further land acquisition, dislocation and resource deprivation. A 2007 news report also stated that the Indian Air Force (IAF) in 2006, requested the civilian administration to acquire an additional 736 acres of land for its proposed expansion of air base (already built on nearly 850 acres). If the move went ahead, it would mean the displacement of at least seven villages, which are Gulzarpora, Beighpora, Shala Tolina, Jungle Nar, Sonari Gund, Batapora, and Renzipora. Villagers then told the reporter that they were against the IAF acquiring their land, pointing out that Indian Railways has already taken over 100 acres of fertile village land to lay down railway tracks and construct building stations. Further occupation of their land, they stated, would subject them to extreme poverty. Villagers told JKCCS, that whereas in past flooding, water levels had reached 4 5 feet high at the very most, and drained away quickly due to the natural incline, the waters on this occasion reached a height of 8-10 feet, and their villages remained inundated for almost two weeks after the waters rose on 5th September. The water could only be drained by making cuts in the railway bund, using local resources. They pointed to flash floods in surrounding streams, especially Romshi and Rambiar, and local village kuls, which could find no outlet to drain away. Further, they stated that the railway bund, took a drastic turn towards the highlands at Puchul village, a few kilometres away, which had the effect of further narrowing the water's course, raising flood levels, and endangering embankments. During the floods, Gulzarpora villagers had to seek refuge in neighbouring highlands in Renzipora, the closest highlands that were not militarily occupied, during the emergency. Many spent the night on the the same railway bund which had drowned their villages. Neither the personnel of the neighbouring Awantipora Airforce base, which occupies 1400 kanals of former village lands, nor the 55 RR Army camp in another highland area in Panzgam, located about 4-5 kms away, offered any help in rescue or evacuation. In another neighbouring village, Malangpora, villagers stated that the army from the RR camp located there, had conducted evacuations, but that survivors had to undergo a body search (talaashi) before being allowed to board rescue vehicles. The personnel of the Victor force, located in highlands at Javbayara (about 6 kms away from Beighpora) remained at camp, and were also not involved in local rescues to their knowledge. Unlike in Gulzarpora, a rescue mission by life raft by personnel from the Awantipora Airforce base, along with NDRF forces aided by local volunteers, had attempted to rescue some Beighpora villagers. An official photographer was also present. On the very first mission, the raft carrying a very elderly woman, and two children capsized. They were saved by community volunteers. The old woman, who was according to villagers over 100 years old died two days later. After this accident, no further rescues were conducted by state agencies.



The Railways and Quarrying of Karewas

Another collateral damage of the building of the railway and highway embankments has been the widespread destruction caused to the karewas alongside the entire stretch due to excavation and quarrying for soil to build these bunds. The unregulated quarrying causes soil erosion, and siltation of water bodies, besides being a potential land-slide and mud-slide hazard during heavy rains and snowfall. A study on wetlands degradation in the Wular Lake and its catchment found that 'Quarrying is an intensive activity in the direct catchment, particularly along the Bandipora–Srinagar road in the Sadarkote Sector. During the course of survey, 78 stone quarries were identified of which 69 were concentrated in Sadarkote Bala. These quarries run throughout the year and dislodge tremendous quantity of loose stones, pebbles and slush which enter into the lake bed during the monsoon seasons.'²¹⁰ It should be noted that Sadarkote Bala, lies in the Sumbal–Sonawari Tehsil, which was one of the worst affected areas in the recent floods.

A news report, on the virtual extinction of karewas in Budgam District stated that, 'the soil excavation on these Karewas started in the late 1990s after the work on Qazigund-Baramulla rail project started. Hundreds of tippers were pressed into service by various construction firms including IRCON, who undertook works for Railways. The soil was used for making elevated railway track and 90 per cent of the soil which was used for such works was excavated from Karewas of Budgam, Pulwama and Baramulla districts.' In the Pulwama district, residents of Gulzarpora stated that landslides and mudslides were seen in their neighbouring villages at Jangalnarda, Shalteknā, Puchul, Malangpora, Sonarganda, Batapora, Akhirwans, and Malangpora, in areas where such unlicensed quarrying is rampant, and carried on by military, and government sub contractors, with the connivance of local officials.

²¹⁰ Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir, at page 53. http://sites.wetlands.org/reports/ris/2IN003_mgtplan.pdf, at page 13

Hydropolitics and Water Resource Sovereignty

Anthropologist Mona Bhan writes that '[I]n Kashmir, whose rivers were partitioned in 1947 and have since remained a major source of contention between India and Pakistan, dams are key "strategic" investments to maintain India's national and energy security and retain critical control over disputed waters of the Indus River basin.' She argues that 'the construction of [...] dams in the J and K state to harness its water resources is as indubitable an expression of India's illegitimate rule in the region and its extensive military hold over Kashmir.'²¹¹

A study by South Asian Network on Dams Rivers and People (SANDRP) states that 'the Chenab basin may have one of the highest concentrations of hydropower projects among all basins in India. The basin has over 60 HEPs under various stages of planning, construction and commissioning in states of Himachal Pradesh (HP) and J and K. The State of J and K has 13 projects planned of total capacity 8,623 to 8,923 MW. These consist of at least four operational projects (of total 1563.8 MW), three under construction projects (of 1450.5 MW) and six proposed projects (of 5608.7 MW).'²¹² A map of the Jhelum river basin, by the same organisation shows the existence of five hydro electric projects, namely Ganderbal, Uri, Lower Jhelum, Mohra, and Upper Sindh.²¹³ Twelve sites for building small projects of under 15 MW have been identified under Phase 1 of JK State Power Development Corporation's Policy (2011) with Indian Government loans and incentives to encourage investment in the sector.²¹⁴ The imbrication of these projects in the Indian 'national interest' agenda, and the heavy military surveillance and monitoring on the ground, make independent scientific studies extremely rare, and accurate and unbiased information hard to come by.

The terms of the contentious Indus Water Treaty between India and Pakistan, have deprived Kashmir the sovereign control over its water resources, and created conditions of chronic power shortages in the region, despite its considerable water resources. Long load shedding, and power-cuts stretching to six or eight hours in the winter are routine, and a cause of frequent public protests.²¹⁵ The deliberate resource deprivation of Kashmir, and the unequal terms on which it sells its electricity to the Indian Government controlled National Hydro-electric Power Corporation, earning only a royalty of free power, on the basis of agreements and Memoranda of Understanding which are rarely made publically available, and which are often reported as mysteriously lost, has been subject of some controversy.²¹⁶ The building of hydro electric projects, has been part of Indian Government's 'post conflict' reconstruction schemes and packages, especially the Prime Minister's Reconstruction Plan (2004), with Rs. 19,162 crores of the total amount of Rs. 27,902 crores being allocated to the power sector, under the heads of seven major NHPC power projects, a thousand MHPs (Micro Hydel Projects), and Central assistance to the under construction Baglihar Project.²¹⁷ The scheme has however been heavily criticized, as power generated from these projects is sold back to J and K, at a profit. 'The power projects [...] were constructed from the public money under PMRP (Prime Minister's Reconstruction Plan). But NHPC is selling the power from same projects to J and K on regular prices and earning crores of rupees from it. The PMRP package launched with much fanfare was actually the systematic scheme to exploit the power resources of state to fetch the demand of Union government', an official of the J and K Power Development Department was quoted as saying in a news report, echoing a widely held sentiment. The NHPC and Government of India has constantly resisted the state government's attempts to buy back these projects.²¹⁸

211 See Bhan, M. (2014). Morality and Martyrdom: Dams, Dharma, and the Cultural Politics of Work in Indian-Occupied Kashmir. *Biography*, 37(1), 191-224.

212 SANDRP, Massive Kwar and Kiru HEPs on Chenab, J and K: Poor quality & cut paste EIAs, flawed public hearing, 10 May 2014, <https://sandrp.wordpress.com/2014/05/10/massive-kwar-and-kiru-heps-on-chenab-j-and-k-poor-quality-cut-paste-eias-flawed-public-hearing/>

213 See Map of Hydroelectric Projects, at http://sandrp.in/basin_maps/Hydro_Electric_Projects_on_Jhelum_River_Basin.pdf

214 Sultan, S. (N.D) Development of small hydro power in Jammu And Kashmir (India), available at http://www.unido.org/fileadmin/import/52395_Mr_Shafat_Marazi.pdf

215 See for instance, Fayaz Bukhari, Power Crisis deepens in Valley, *Daily Excelsior*, 6 Jan 2015, <http://www.dailyexcelsior.com/power-crisis-deepens-valley/>; Shabir ibn Yusuf, Power Crisis hits Kashmir, *Greater Kashmir*, 4 Nov 2013, <http://www.greaterkashmir.com/news/2013/Nov/4/power-crisis-hits-kashmir-66.asp>. Fayaz Bukhari, Power Crisis deepens in Valley, *Daily Excelsior*, 6 Jan 2015, <http://www.dailyexcelsior.com/power-crisis-deepens-valley/> See also, GK News Network, Kupwara locals protest power shortage, *Greater Kashmir*, 21 Jan 2014, <http://beta.greaterkashmir.com/news/kashmir/kupwara-locals-protest-power-shortage/162704.html>

216 See Dar, Z., (2013) A river and a tribune, Seminar 643, March, http://www.india-seminar.com/2013/643/643_zubair_a_dar.htm. See also <http://www.greaterkashmir.com/news/2008/Dec/7/nc-gifted-7-power-projects-to-nhpc--78.asp>.

217 See Prime Minister's Reconstruction Plan for J and K, summary available at <http://www.rtiactivists.org/govt-programs/india-union-govt-programs/pm-reconstruction-plan-for-j-k>

218 Of 7 PMRP power projects, JK gets fair share in only 1, *Rising Kashmir*, 4 Jul 2014, <http://www.risingkashmir.com/of-7-pmrp-power-projects-jk-gets-fair-share-in-only-1/>. See also, Masood Hussain, NHPC not getting any project in Jammu and Kashmir, *Economic Times*, 17 Feb 2014, http://articles.economictimes.indiatimes.com/2014-02-17/news/47412328_1_nhpc-project-uri-ii-omar-abdullah

NHPC has been trenchantly criticized for its exploitative and corrupt practices and lack of a social or environmental conscience, in relation to various hydro electric projects including in the Narmada valley in Central India, Teesta and Subansiri projects in North Eastern India, and the Tamanthi project in Burma.²¹⁹ A commentator recently noted, that if NHPC paid Kashmir a fair market price for the electricity it exploits, comparable to the price it pays other states in India, the Flood Control Proposal to the Central Water Commission (amounting to Rupees 2200 crores) could have been paid for by the state government itself, instead of awaiting the Indian Government's sanction of the funds.²²⁰ India has lately sought to subvert the terms of the Indus Water Treaty which prevents the building of large scale hydro electric projects, or water reservoirs on the upper riparian waters of the Western Rivers it shares with Pakistan, (including Chenab, Kishen Ganga, Jhelum and Chenab) by pursuing an aggressive policy of building multiple smaller 'run of the river' projects, or as in the case of the Kishen Ganga project in the Gurez valley, diverting the waters of the dammed river, into the existing natural reservoir of the Wular lake, through a 24 km long tunnel.²²¹ Multiple hydroelectric projects on a river course, of the nature presently being built across J and K, have been seen as extremely destructive to Himalayan river hydrology.²²² Environmentalists and official expert committees, have widely attributed the massive floods of Uttarakhand in 2010, to the unregulated construction of such destructive projects.²²³ In J and K, no studies have been carried out about the cumulative impacts of such multiple dams on a single river course. A SANDRP (South Asian Network of Dams, Rivers and Peoples) study notes the prolific building of multiple projects on the Chenab with alarm, stating that the 'Cascade of hydel projects proposed on the river basins of this region would make the region even more vulnerable to extreme and erratic weather events, which will increase in changing climate'.²²⁴ By and large, environmental management plans and impact assessment of Hydro-electric Projects remain inaccessible, despite the orders of the Central Information Commission, stating that they should be made public.²²⁵ Where such reports are made public, as in the case of the Kiru and Kwar dams on the Chenab river, they are technically flawed to the extent of being plagiarized 'cut and paste' jobs which occasionally even get the name of the project wrong.²²⁶ Citing the example of the February 2009 landslide, caused due to construction of the Bagliar dam on the river Chenab, which completely cut off the people in two districts – Doda and Kishtwar – for days, experts stated in a news report that 'Dam construction is probably one of the greatest stressors affecting the integrity of running waters, because it can interfere or even stop the transport of sediment and nutrients along waterways and eventually disturb ecological connectivity, which underpins the transfer of materials and products of ecological functions and processes'.²²⁷ The dangers of building dams in sensitive Himalayan seismic zones have been a source of considerable concern, in the context of NHPC hydel projects in Arunachal Pradesh in the North Eastern Himalayas.²²⁸

219 Ungewald et al, (2008) NHPC: The People don't matter, http://www.internationalrivers.org/files/attached-files/nhpc_people_don27t_matter.pdf. See also People's Union for Democratic Rights (PUDR). (2013) Dams, Development and the North East: A Report on the Peoples' Resistance to Mega Dams in the Brahmaputra and Barak Valley, <http://www.pudr.org/sites/default/files/pdfs/north%20east%20page%20maker%20pdf301212.pdf> for accounts of environmental, damage, inadequate regulation, corruption, increased disaster vulnerability, state violence and protests and resistance in relation to several NHPC projects in Manipur, Arunachal Pradesh.

220 Javid Iqbal, Clueless babus of a clueless sarkar, Greater Kashmir, 4 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/4/clueless-babus-of-a-clueless-sarkar-2.asp>

221 See Akhtar, S. (2010). Emerging Challenges to Indus Water Treaty, Issues of Compliance and Transboundary Impacts of Indian Hydro Projects on the Western Rivers. Quarterly Journal of the Institute of Regional Studies, 28. <http://www.irs.org.pk/f310.pdf>. See Khaleeq Kiani, Sold down the river, Dawn, 8 Sep 2013 See also Bhan, M. (2014). Morality and Martyrdom: Dams, Dharma, and the Cultural Politics of Work in Indian-Occupied Kashmir. Biography, 37(1), 191-224. for an ethnography of an NHPC project site on the Kishen-ganga (Neelum) river

222 SANDRP, Uttarakhand Floods disaster, lessons for the Himalayan states, 23 Jun 2013, <https://sandrp.wordpress.com/2013/06/23/uttarakhand-floods-disaster-lessons-for-himalayan-states/>

223 SANDRP, Massive Kwar and Kiru HEPs on Chenab, J and K : Poor quality & cut paste EIAs, flawed public hearing, 10 May 2014, <https://sandrp.wordpress.com/2014/05/10/massive-kwar-and-kiru-heps-on-chenab-j-and-k-poor-quality-cut-paste-eias-flawed-public-hearing/>. See also, SANDRP, Dams on the Chenab river: How many are too many? http://sandrp.in/hydropower/Dams_on_Chenab_How_many_are_too_many_Dec2012.pdf, Dec 2012

224 SANDRP, MoEFCC orders "Don't Ask Additional information unless Inevitable" (Or: "Just clear the projects and don't bother about informed decisions") <https://sandrp.wordpress.com/2014/10/13/moefcc-orders-dont-ask-additional-information-unless-inevitable-or-just-clear-the-projects-and-dont-bother-about-informed-decisions/>, 13 Oct 2014,

225 SANDRP, Massive Kwar and Kiru HEPs on Chenab, J and K : Poor quality & cut paste EIAs, flawed public hearing, 10 May 2014, <https://sandrp.wordpress.com/2014/05/10/massive-kwar-and-kiru-heps-on-chenab-j-and-k-poor-quality-cut-paste-eias-flawed-public-hearing/>

226 SANDRP, Massive Kwar and Kiru HEPs on Chenab, J and K : Poor quality & cut paste EIAs, flawed public hearing, 10 May 2014, <https://sandrp.wordpress.com/2014/05/10/massive-kwar-and-kiru-heps-on-chenab-j-and-k-poor-quality-cut-paste-eias-flawed-public-hearing/>

227 Ather Parvaiz, Multiple Hydel Projects on the Chenab worry experts, thethirdpole.net, 21 Aug 2013, <http://www.thethirdpole.net/multiple-hydel-projects-on-chenab-worry-experts/>

228 SANDRP, Uttarakhand Floods disaster, lessons for the Himalayan states, 23 Jun 2013, <https://sandrp.wordpress.com/2013/06/23/uttarakhand-floods-disaster-lessons-for-himalayan-states/>

Even when not occupied by the army, project sites across the valleys rivers and streams are high security zones, and generally out of bounds to the public.²²⁹ On 2nd January 2012, Alaft Ahmad Sood, a Class XII student was shot dead by Central Industrial Security Force (CISF) security guards during a public protest against chronic power shortages at a power station, in Boniyar, Baramulla. News reports quoted a broadly worded circular of the Deputy Inspector General of Police, CISF which stated that the CISF need not wait for the arrival of local police or the presence of a magistrate, for taking 'any steps against any activities which threaten the security of the installation', indicating that the CISF had standing orders to shoot live rounds at the protestors.²³⁰ In the September 2014 floods, an Army and BSF camp, including its armoured vehicles, and ammunition stores, located on an abandoned and non functional NHPC project site was washed away in Bela-Slamabad, due to flash floods in the Haapathkhy stream. Locals blamed NHPC for the devastation that the area has witnessed during the flash floods, since the 'NHPC authority had filled a vast area on one side of the Haapathkhy stream, shrinking the area of the stream to a great extent. Huge amounts of waste and debris material dumped by the NHPC in 1995 at the site, was washed away in the floods and this huge material landed in the village'.²³¹ The recent landslides that have blocked the course of the Phutkal river, in Ladakh's Zaskar valley, which occurred in close proximity to an NHPC project site, are a further cause for concern about the ecological consequences of such militarised development practices and agendas.

In the case of the Kishenganga project, where construction is on going, the Impact Assessment documents (conducted by a New Delhi based institute) accessed by media outlets, revealed devastating social and ecological damage, including large scale displacement, deforestation, bio-diversity and wildlife losses, demographic changes, and adverse impacts on livelihood.²³² Experts have demanded a fresh, more comprehensive study, stating that the existing assessments is based on outdated information, and does not sufficiently take into account the ecological and hydrological impact of the large scale diversion of the Kishenganga's waters (and silt) into one of its tributaries, the Madumati, and thereafter into the already highly silted Wular Lake.²³³ The Committee on Environment (EC) of J and K Legislative Assembly, headed by its Chairman M. Y. Tarigami, has also raised similar concerns, specifically asking for further evaluations on the impact of the tunnelling and river inter-linking, and its relationship to the hydrology of the Wular Lake.²³⁴ This becomes even more imperative given the recent flooding, which clearly demonstrated the low carrying capacity of the valley's water bodies. The siltation and ecological degradation of the Wular Lake and its wetlands has been seen by experts as harming its ability to act as a drainage basin, and reservoir for the flood waters.²³⁵ No studies have been done to understand what impact the additional waters from the Kishenganga project would have on the water bearing capacity of the lake, and its catchment. One commentator asked, in the context of the Kishenganga plan, 'If Kashmir lacks space for the water it already has, why add to the crisis?'²³⁶ The overt militarised nationalism underlying the project, however accord little if any weight to answers which prioritise Kashmir's economic or ecological interests, and resource sovereignty, over that of India's belligerent water politics with Pakistan.

229 See for a description, Bhan, M. (2014). *Morality and Martyrdom: Dams, Dharma, and the Cultural Politics of Work in Indian-Occupied Kashmir*. Biography, 37(1), 191-224. for an ethnography of an NHPC project site on the Kishen-ganga (Neelam) river

230 Aman Sharma, Kashmir under siege: CISF had orders to fire at protestors, India Today, 4 Jan 2012, <http://indiatoday.intoday.in/story/kashmir-cisf-men-had-orders-to-fire-baramula-protesters/1/167162.html>

231 Altaf Baba, Floods wash away army's ammunition depot, Greater Kashmir, 21 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/21/floods-wash-away-army-s-ammunition-depot-9.asp>

232 Faheem Aslam, EIA report reveals ravaging impact of Kishanganga Project, Greater Kashmir, 13 Sep 2011, <http://www.greaterkashmir.com/news/2011/Sep/13/eia-report-reveals-ravaging-impact-of-kishanganga-power-project-51.asp>

233 Experts pitch for a fresh EIA, Greater Kashmir, 13 Sep 2011, <http://www.greaterkashmir.com/news/2011/Sep/13/experts-pitch-for-fresh-eia-50.asp>

234 Environment Committee of LA visits Gurez, Scoopnews, (n.d) <http://www.scoopnews.in/det.aspx?q=22921>

235 Dr. Aijaz Hassan Ganie, Bilal A Tali, Saving Wular lake, 20 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/20/saving-wular-lake-17.asp>

236 R.S Gull, Do not blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirlife.net/do-not-blame-Jhelum-66544/>

Operation Sadbhavna and Micro Power Projects

The involvement of the Indian army in grass-roots water resource management and power generation in J and K, provides a telling case in point about the impact of military counter-insurgency strategies, masquerading as 'community development projects', undertaken without any understanding of local practices, or ecological conditions. In 2003, under Operation Sadbhavna, its community development and employment generation initiative, the Indian army embarked on an ambitious project of building and conversion of traditional 'gharats' (water mills) on streams and springs in hilly areas of the Kashmir valley, particularly those close to the LOC, into 'run of the river' Mini-Hydel Electricity Projects (MHEP) of 1 MW. A technology kit to upgrade the gharats to perform 'multi utility functions' was procured from a Non-Governmental Organisation, HESCO, and initial experimental projects were set up.²³⁷ The Army was made directly responsible for the funding of 300 plants under Operation Sadbhavna; the Border Area Development Project was to fund 265 plants, and the Indian Ministry of Non-Conventional Energy Resources (MNRE) was to finance 435 plants. An amount of Rs 3.68 crores were released under BADP and Rs 8.70 crores under MNRE (through JAKEDA, J and K Environmental Development Agency) to the Army. In 2004, the scheme was incorporated into the Prime Minister's Reconstruction Programme. In 2007, the Army PRO (Press Relations Officer) was quoted in a news report as saying, that five hundred and fifty projects had been built, and the rest were in the pipeline.²³⁸ According to the Army, it handed over the plants in 'working condition' to the village committees under the civil administration, for maintenance and operations between 2004-2006.²³⁹ But this is disputed by the civil administration, who state that they were only approached when problems arose in running the plants.²⁴⁰

In 2007, after receiving several complaints about the dysfunctionality of the projects, the Institute of Integrated Rural Energy Planning (IREP) conducted a survey, which found that of the 524 MHEPs for which the survey was conducted, '388 (74%) were found non-functional, 37 were found non-existent and 18% (99) were functional'.²⁴¹ A further report was prepared by the State Power Development Department which found that 'The quality of civil, electrical and mechanical works of the power houses set up by the Army was not up to the mark and that discrepancies exist in all installations inspected in various areas of Kashmir and Jammu'.²⁴² A news report quoted a state government official as saying, 'Faulty material and wrong techniques were adopted by the Army while setting up these power houses. Had it been done by the civil department, many heads would have rolled by now. No one is ready to take on the Army for causing losses to the exchequer'.²⁴³ In 2009, the J and K government, through its science and technology department, was asked to conduct an inspection of these units. Besides finding most of the units non-functional, the team realised that some existed only on paper.²⁴⁴ Most of these abandoned and dysfunctional power plants have never been revived or handed over to the village committees, as planned, as they were technically unfeasible and inoperable, an official told JKCCS. He conjectured that the abandoned project structures and debris continue to remain located on the river and stream bed, and may well have contributed to the debris and uncontrollable water flows, in various local streams and nallahs in the September floods. The ill conceived and badly executed projects, and the abandonment of the water mills, also probably contributed to the state of dereliction of J and K's community managed water and irrigation system of khuls, gharats and nallahs, which in the past functioned as drainage channels during flooding. While earlier scientific wisdom tended to consider MHEPs as having a low ecological impact, recent studies in other Himalayan regions have shown that badly planned small and micro projects can have a devastating impact on the river ecology and create land slide hazards,

237 Jasbir Sarai, Mini-hydel Electricity Projects lying defunct due to State government apathy, defenceinfo.com, 5 Oct 2012, <http://www.defenceinfo.com/mini-hydel-electricity-projects-lying-defunct-due-state-government-apaty>

238 Shabir Ibn Yusuf, 550 power projects, Rupees 10-cr go down the drain, The Kashmir Times, 5 Dec 2007

239 Jasbir Sarai, Mini-hydel Electricity Projects lying defunct due to State government apathy, defenceinfo.com, 5 Oct 2012, <http://www.defenceinfo.com/mini-hydel-electricity-projects-lying-defunct-due-state-government-apaty>,

240 Majid Jahangir, 1,000 power units defunct : These were set up by Army under Operation Sadbhavna, Kashmir Tribune, 10 Aug 2012, <http://www.tribuneindia.com/2012/20120810/kashtrib.htm#>

241 Excelsior Correspondent, 80 pc micro hydel projects set up by the army dysfunctional, Daily Excelsior, 3 Apr 2011, <http://www.dailyexcelsior.com/web1/11apr03/state.htm#2>

242 As quoted in Majid Jahangir, 1,000 power units defunct : These were set up by Army under Operation Sadbhavna, Kashmir Tribune, 10 Aug 2012, <http://www.tribuneindia.com/2012/20120810/kashtrib.htm#>

243 As quoted in Majid Jahangir, 1,000 power units defunct : These were set up by Army under Operation Sadbhavna, Kashmir Tribune, 10 Aug 2012, <http://www.tribuneindia.com/2012/20120810/kashtrib.htm#>

244 Majid Jahangir, 1,000 power units defunct : These were set up by Army under Operation Sadbhavna, Kashmir Tribune, 10 Aug 2012, <http://www.tribuneindia.com/2012/20120810/kashtrib.htm#>

besides being destructive to traditional community managed water resources.²⁴⁵

A recent editorial by Samir Saran, vice president of the Observer Research Foundation, a national security think tank, suggested that it was the 'Infrastructure of Occupation' [...] 'helipads built on apple orchards, hospitals built on peach orchards, and supply dumps built on farm land' that were being used in the floods 'to rescue the stranded, treat the wounded and provide relief supplies to the displaced', and also somewhat puzzlingly that 'it is the malignant Armed Forces Special Powers Act used to "suppress" the Kashmiris, that the Army is using to deliver critical supplies to the Occupied.' Laying aside the contentious question of the extent and effectiveness of the armed force's humanitarianism, and whether or not Kashmiris ought to be grateful, what this view ignores is that it is this very 'infrastructure of occupation' that is responsible for Kashmir's tortured ecology and people.

245 SANDRP, The Socio-Ecological Effects of Small Hydropower Development in Himachal Pradesh, 8 Jun 2014, <http://sandrp.wordpress.com/2014/06/08/the-socio-ecological-effects-of-small-hydropower-development-in-himachal-pradesh/>

Chapter 3 The Chronicle of a Flood Foretold - Militarised Governance and the Floods

This chapter attempts to look at various state government agencies of flood control, urban planning and disaster management, in the context of its political economy of militarised governance, to highlight how these institutions failed in reducing disaster risk, before, during and after the floods. The physical occupation of lands and public infrastructure, outlined in the previous chapter, is only the most obvious feature of the military dominated nature of 'civil-military liaison' that characterises the integrationist annexation and occupation of Jammu and Kashmir.¹ The normalised and pervasive hollowing out of democracy, executive authority and public accountability, of India's 'democratically elected' surrogates and their bureaucrats at the grassroots level, through which the occupation is made real in everyday Kashmiri lives, is somewhat harder to make visible. In describing this complex and interlocking structure of 'military governance' in Indian Administration Kashmir, the International Peoples' Tribunal on Human Rights and Justice in Kashmir (IPTK) stated in a press release:

'India's political dominance hinges on its ability to possess Kashmir. Institutions of democracy—the judiciary, educational institutions, media—are neutralized by the Government of Jammu and Kashmir and the Indian Armed Forces as they function in tandem, continuing military governance. State violence seeks to undermine people's capacity to resist and solicits collaborators'.²

While corruption and inefficiency in governance are considered endemic problems through out the Indian sub-continent, they must be contextualized in Jammu and Kashmir, as consequences of a state policy of creating politically compliant, and undemocratic local institutions. While the failures of the state administration in responding to the flood emergency have been widely highlighted and criticised, both by the media and the political establishment,³ these are merely the symptoms of deeper structural issues of a militarised governance through an occupational administration. For instance, in 1976 a system of 'single line administration'⁴ was introduced. Under this system the powers of District Magistrate, Deputy Commissioner (Collector) and District Development Commissioner (DDC) were vested in one authority. The DDC is vested with the powers of heads of departments for all the departments in a district and is responsible for day-to-day functional and administrative control of all major line departments. While the system was ostensibly introduced to allow for decentralised district-level development planning, and to enable the DDC to act as a 'civil-military' liaison,⁵ the actual effect on the ground was a decline rather a deepening of democratic planning and accountability, as local executive agencies lost their autonomy, and became dependent on the District Administration for funds and approvals. The responsibility for all development and engineering related works in the district, which had formerly vested in independent specialised departments headed by technical experts (e.g. the Director of Health who was a medical professional, the Chief Engineers of Roads and Buildings, Flood Control, the Chief Forest Conservator etc.) became answerable to a single generalist, usually a bureaucrat from the Indian or Kashmir administrative services with little technical experience or local knowledge. This change was widely cited by technical experts speaking to JKCCS as one of the primary reasons for the decline in the importance of technical knowledge, and accountability to Kashmiri civil society, in day-to-day administration. It led to the officially endorsed involvement of military officials and the Indian Central government in local administrative matters. Local officials stated that since the establishment of the 'single line administration' frequent inter-departmental transfers have become the norm, leading to a destruction of institutional memory, which had preserved continuity in standards and operational procedures in technical departments, such as Flood Control. Officials also cited frequent 'out of turn promotions', and the bestowing of 'honorary' IAS and KAS (Indian Administrative Services and Kashmir Administrative Services) status, by executive

1 For a description of nature of the 'civil-military' relationship between the Armed forces, police and civilian administration, see Bukhari, P., (2010) Barriers of Militarization, India International Centre Quarterly, 37 (3 & 4), 224. The nitty gritty and finances of such processes are normally a matter of state secrecy, and are only occasionally revealed. A well known example which illustrates the pervasive nature of the involvement of the military establishment in governance are the revelations of General V.K Singh, in 2013. See Sandeep Unnithan and Asit Jolly, Dirty Tricks: A politically ambitious general and a bungling govt put national security at risk, India Today, 27 Sep 2013, <http://indiatoday.intoday.in/story/general-vk-singh-bungling-government-national-security-at-risk/1/312040.html>

2 Press statement dated 29 June 2010, International Peoples' Tribunal on Human Rights and Justice in Indian Administered Kashmir, http://www.kashmirprocess.org/reports/militarygov/20100629_Statement.html.

3 See for instance, A band of unsung heroes in Jammu and Kashmir, Mint, 11 Sep 2014 <http://www.livemint.com/Opinion/9dWdIpallXlWMniyTx6prK/A-band-of-unsung-heroes-in-Jammu-and-Kashmir.html>; PTI, Parliamentary panel raps Jammu and Kashmir government for inadequate steps on flood warning, DNA, 22 Dec 2014, <http://www.dnaindia.com/india/report-parliamentary-panel-raps-jammu-and-kashmir-government-for-inadequate-steps-on-flood-warning-2046151>

4 Pursuant to cabinet decision No. 526, dated- 07/10/1976, revised in 1993 through government order No.2380-GD 71976, dated- 14/01/1976. See also, Planning Commission of India. (2014) Jammu and Kashmir Development Report, Chapter 14 (c), 'Administration', at page 239-240. http://planningcommission.nic.in/plans/stateplan/sdr_jandk/sdr_jkch3c.pdf

5 'Single Line Administration', District Reasi Website, <http://reasi.gov.in/single.html>.

decree, on hand picked individuals who had neither passed the requisite qualifying examinations, nor risen through the ranks having served the requisite number of years to reach the rank of Deputy Commissioner, as contributing to the decline in administrative competency.

Contrary to repeated assertions that a lack of over all planning caused the unprecedented flooding, an examination of the regulations and institutions concerned with disasters, floods, urban planning and infrastructure, show that the state governance of Jammu and Kashmir is characterised by a multiplicity of over lapping official agencies, planning bodies, regulations and policies, all of which appear to be plagued by chronic and systemic dysfunction, and executive incapacity. The intention here is not to excuse or mitigate the culpability of individual local officials or the J and K Government, but to locate these individual and collective actions, within a complex governing culture of diffused responsibility, official deniability and secrecy, unimplemented regulations, ad hoc project based funding, corruption, executive impunity and ultimately, a complete lack of accountability to the people whose lives it governs.

Disaster Management

The Political economy of Disaster Management

In a conversation with JKCCS about the functioning of disaster risk reduction policies and agencies in Jammu and Kashmir, an international disaster management expert pointed to the political economy of militarised governance as a major constraint in the effective working of state disaster management institutions during the recent floods. The conversation provided an insightful overview of the functioning of state institutions within the political economy and administrative structures of an occupation. According to him, the problem with official disaster management structures lay in three spheres - economic, political and technical competence. He highlighted the control over public finances of the state, especially through discretionary federal grants in aid, reconstruction packages and projects, all of which served a militarised development agenda. About half the state's annual budget is financed through Central grants in aid, he pointed out.⁶ He stated:

'The structure of the state finances of Jammu & Kashmir has evolved so that that the state government has little or no political space or financial autonomy to address pressing issues like disaster management. For example Jammu and Kashmir falls in high-risk category for earthquakes and is highly vulnerable to hydrological disasters, yet risk management is not mainstreamed into development, because the state can't afford to, and the central government decides the state's development priorities. There is not enough money for the flood control department, or building the public health infrastructure.'

Because of this 'begging bowl' economy, caused by a deliberate policy of resource deprivation, and encouragement of financial dependency,⁷ even the development domains, which are well in the purview of the State government, such as flood control or urban planning, are dependent on New Delhi for funding and execution.

Secondly, he pointed to the Indian encouragement of a polarized polity in the state of J and K, which has resulted 'in a near total divergence of interests between Jammu and the Kashmir Valley, manifesting in administrative anarchy - meaning that officers and ministers from the Jammu region, rarely communicate with, or show accountability to their counter parts from the Kashmir valley, and vice versa'. A comprehensive disaster management framework has to be co-ordinated throughout the administrative and political architecture of the state, without such games of rival allegiances, or political one-upmanship, he stressed. The working of this kind of polarized functioning, at the highest levels, was seen during the recent floods when the minister in charge of Irrigation and Flood Control, Shamlal Sharma, (from Jammu), widely blamed for the discontinuance of flood control measures (which had been initiated under the previous minister Taj Moihudeen, from the Kashmir valley) did not visit flood hit areas in the valley,⁸ and remained completely unavailable for comments to journalists in Srinagar. Ultimately when he resigned due to public pressure, he sent his resignation to his party president, rather than to the Chief Minister as per protocol.⁹

Finally, the expert drew attention to the technical aspects of disaster management. There is more than enough

⁶ See also, Dr. Javed Iqbal, Disaster, Deprivation & Disempowerment, Greater Kashmir, 14 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/14/disaster-deprivation-disempowerment-4.asp>

⁷ See also, Bhan, M. (2014). Morality and Martyrdom: Dams, Dharma, and the Cultural Politics of Work in Indian-Occupied Kashmir. *Biography*, 37(1), 191-224. For a recent instance, see Don't alter funding for central schemes, Mufti tells New Delhi, Greater Kashmir, March 28, 2015 <http://www.greaterkashmir.com/news/2015/Mar/28/don-t-alter-funding-for-central-schemes-mufti-tells-new-delhi-13.asp>

⁸ See for instance, Mudassir Ali, CE, I & FC skips press conference, Greater Kashmir, 5 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/5/ce-i-fcd-skips-press-conference-54.asp>

⁹ See PTI, Congress minister Sham Lal Sharma resigns from Omar Abdullah's government, India Today, 25 Oct 2014 <http://indiatoday.intoday.in/story/congress-minister-sham-lal-sharma-resigns-from-omar-abdullahs-government/1/397495.html>

local manpower, and technical expertise in Kashmir to create a workable framework for disaster management, but institutional structures are constrained by political polarization and the lack of adequate financial resources, thereby impeding effective functioning of competent individuals. The decentralisation of 'line departments' such as Engineering, since the mid-1970s, has meant that technical officers are forced to answer to generalists from the centralised bureaucracy.¹⁰ This has led to a loss of effective decision-making capacity, and a decline in overall technical standards. When political considerations come into play, technical imperatives become subservient to short-sighted political agendas, and decisions get taken which benefit local political elites and consolidate the power of the Indian state. Armed forces and civilian government are both a part of the decision making structure here, but there is a gulf between their understanding, motivations and way of functioning. Crucial executive powers to make essential decisions in an emergency do not rest with civilian authorities. He explicated:

'The militarisation directly affects day-to-day decision-making. For instance, an advance weather warning system for prevention of accidents and management of traffic on the disaster and accident prone Srinagar-Jammu National Highway, which regularly sees pile ups of 3000-4000 vehicles, cannot be implemented by direct unilateral communications between the affected district authorities, which would be the fastest way. Every decision has to be relayed to the military authorities, and subject to their commands. Similarly, the flood control or city planning authorities simply cannot demolish illegal constructions in the cantonments or militarised areas, even if they wanted to. Again, during the 2005 earthquake, [which affected the highly militarised border areas of Uri] relief agencies could only function with military approval and permissions, and their movements were restricted and constantly monitored. Research and scientific studies can be carried out in the militarised enclaves along the border – for example in Gurez, Tangdhar or Uri – only with military clearance, and even then researchers are under constant suspicion and surveillance.'¹¹

He cited an instance following the 2005 earthquake, when an international NGO organised a meeting at Srinagar between Tangdhar and Uri villagers and the Divisional Commissioner, Kashmir, in relation to their rehabilitation. Intelligence officials, questioned the organisers subsequently, demanding to know why these people had been brought to Srinagar. He strongly emphasised, that unless one took into account the militarisation of Jammu and Kashmir and the pervasive official and unofficial pressures it exerts on the functioning of civic agencies, one could not evolve effective policy or institutions to address the ecological degradation and disaster vulnerability of Kashmir.

The Policy Framework

At present Jammu and Kashmir has no comprehensive disaster management plan or policy in place, despite Jammu and Kashmir's Zone 5 seismic vulnerability, and the requirements of India's National Disaster Management Act 2005, the National Disaster Management Policy 2009, the Jammu and Kashmir State Disaster Management Rules (SRO 138 vide Notification dated 23 April 2007) thereunder, and India's international obligations under the United Nations Hyogo Framework for Action.¹² The Act and Rules mandate the setting up of an overall Disaster Management Authority in the State, which is tasked with formulating detailed disaster management plans and policies. A policy and plan has been under process of being drafted since 2011, in collaboration with the Tata Institute of Social Sciences, Mumbai and recent reports suggested it was being revised and finalised after the recent floods.¹³ The present governing framework is therefore the Draft Disaster Policy (2012), approved by the Chief Minister in February 2012.¹⁴

10 In an interview for an article on the decline of civic and sanitation standards in Srinagar, Former Chief Engineer, Ajaz Rasool stated that the current government was devoid of professional expertise and relied on administrative bureaucrats for taking technical decisions. 'I call them pseudo professionals or KAS quacks' he is quoted as saying. See Haroon Mirani, Fall of Srinagar, Kashmir Life, 24 May 2010, <http://www.kashmirlife.net/fall-of-srinagar-495/>

11 For an instance of human rights investigators being detained and harassed by police and intelligence officials in the heavily militarised Kupwara district, see IPTK, Press Release dated 21 June, 2008. 'International People's Tribunal intimidated and detained in Indian-administered Kashmir' http://www.kashmirprocess.org/press/20080621_PR.html

12 See Government of India, National Disaster Management Act, 2005, http://www.ndma.gov.in/images/ndma-pdf/DM_act2005.pdf; National Policy on Disaster Management, 2009 <http://hpsdma.nic.in/Notifications/NdmPolicy2009.pdf>; J and K State Disaster Management Rules http://kashmirdivision.nic.in/Disaster_Management/JK_State_Disaster_Mgmt_Act.pdf; Hyogo Framework for Action 2005-2015, <http://www.unisdr.org/we/inform/publications/1037>;

13 PTI, Jammu and Kashmir to have own disaster management plan, Economic Times, 12 Jan 2015, http://articles.economictimes.indiatimes.com/2015-01-12/news/57982994_1_state-disaster-management-plan-jammu-and-kashmir-emergency-operation-centers

14 See GK News, CM approves draft disaster management policy, Greater Kashmir, 2 Feb 2012. <http://www.greaterkashmir.com/news/2012/Feb/2/cm-approves-draft-disaster-management-policy-75.asp>. For the full text of the version of the draft policy relied upon in this report see, J and K State Dept of Revenue, Relief and Rehabilitation, (2011), Draft J & K State Disaster Management Policy, http://kashmirdivision.nic.in/Policy_on_Disaster_Management_13022012.pdf. For the most recent version of the Draft Disaster Management Plan (2015), revised after the September 2014 floods, which is awaiting government approval, http://jkfcr.nic.in/pdf/Master_Plan_Version_IV.pdf

As per the provisions of Disaster Management Act, 2005, the Jammu and Kashmir government has notified and constituted the State Disaster Management Authority (SDMA), the State Executive Committee (SEC) and the District Disaster Management Authorities, as well Divisional Disaster Management Authorities, for the state's three administrative divisions of Jammu, Kashmir and Ladakh under the J and K State Disaster Management Rules, 2007. The State Disaster Management Authority is chaired by the Chief Minister and the State Executive Committee by the Chief Secretary. The State Disaster Response Force (SDRF) has also been officially constituted with one battalion of J and K Police, ready for deployment.

The Draft State Disaster Management policy (2012) however, itself acknowledges that 'In the present form, the SDMA [State Disaster Management Authority][...]is only a de-facto Committee and is not a continuing autonomous Institution involved in the day-to-day work connected with policy, planning, oversight, implementation, coordination, quality control and activities connected with monitoring, evaluation, documentation etc.'¹⁵ It also states that 'The existing centre for disaster management at Jammu and Kashmir IMPA [Institute for Management, Public Administration and Rural Development] is highly deficient to fulfill the needs of capacity-building in the domain of DRR' [Disaster Risk Reduction].¹⁶

In accordance with existing practice, the policy places civilian divisional authorities, [the Divisional Commissioner of Jammu, Ladakh and Kashmir, and their sub ordinate bureaucracy] in direct and primary charge of emergency response, aided by police and other emergency and relief services, including the military, and the recently constituted State Disaster Relief Forces (SDRF) paramilitary forces, consisting of two specially designated CRPF Companies, trained in disaster response. It states that 'The divisional administration shall carry out evacuation, search, rescue and relief activities with the help of the concerned District Administration. Fire & Emergency Services, SDRF, NDRF, Police, IAF and Armed Forces shall be engaged by the Divisional/District administration in evacuation, search and rescue activities depending upon the gravity of the event.'¹⁷

The policy outlines a framework for disaster management, under the overall charge of the State Disaster Management Authority, and State Executive Authority. In order to effectuate the policy and incorporate disaster risk related concerns into administrative structures and planning, it advocates several far-reaching reforms. These include:

- The office of the Financial Commissioner, Revenue, Relief and Rehabilitation (FCR) shall be re-designated as FC(R&DM) i.e. Financial Commissioner (Relief & Disaster Management)¹⁸
- All line departments shall formulate Standard Operating Procedures (SOPs) for Disaster Risk Reduction
- The SDMA shall ensure a mechanism aligned with overall disaster management plan of the State to receive forecasting and early warning from the nodal agencies like Indian Meteorological Department (IMD), Snow and Avalanches Study Establishment (SASE), etc. Modern instrumentation like Doppler radars and satellite based information shall form the basis of accurate forecasting and early warning.¹⁹
- The BOCA [Board of Construction Authorisation] of Municipalities/ULB [Urban Local Bodies] and Govt. construction agencies/engineering departments working through contractors or on their own will ensure that disaster proofing is adequately dovetailed into the building permissions given by the ULB/other bodies. Non-compliance shall be treated as a major violation amounting to demolition, of construction. No construction shall be allowed at vulnerable places especially in khuds/on the banks of river/streams/nallas upto 5-10 meters either side which should be duly notified by the Government. Such unauthorised constructions should be demolished under all circumstances.²¹

15 J and K State Dept of Revenue, Relief and Rehabilitation, (2011), Draft J & K State Disaster Management Policy, http://kashmirdivision.nic.in/Policy_on_Disaster_Management_13022012.pdf, at page 9, para 4.1.

16 J and K State Dept of Revenue, Relief and Rehabilitation, (2011), Draft J & K State Disaster Management Policy, http://kashmirdivision.nic.in/Policy_on_Disaster_Management_13022012.pdf, at page 12

17 J and K State Dept of Revenue, Relief and Rehabilitation, (2011), Draft J & K State Disaster Management Policy, http://kashmirdivision.nic.in/Policy_on_Disaster_Management_13022012.pdf, at page 20, para 7.2.2.2.

18 J and K State Dept of Revenue, Relief and Rehabilitation, (2011), Draft J & K State Disaster Management Policy, http://kashmirdivision.nic.in/Policy_on_Disaster_Management_13022012.pdf, at page 11, para 4.4

19 J and K State Dept of Revenue, Relief and Rehabilitation, (2011), Draft J & K State Disaster Management Policy, http://kashmirdivision.nic.in/Policy_on_Disaster_Management_13022012.pdf, at page 19, para 7.1.2

20 J and K State Dept of Revenue, Relief and Rehabilitation, (2011), Draft J & K State Disaster Management Policy, http://kashmirdivision.nic.in/Policy_on_Disaster_Management_13022012.pdf, at page 22, para 7.3.1.2

21 J and K State Dept of Revenue, Relief and Rehabilitation, (2011), Draft J & K State Disaster Management Policy, http://kashmirdivision.nic.in/Policy_on_Disaster_Management_13022012.pdf, at page 13, para 6.

Perhaps, the most far reaching change at the grass roots, that the policy contemplates, is that of setting up well equipped 'Emergency Operation Centres' as district level nodes for co-ordinating disaster response. The policy states:

'There shall be Emergency Operation Centres (EOCs) in each district under State Disaster Management Authority, Divisional Disaster Management Authorities and District Disaster Management Authorities which shall coordinate in pooling resources and synchronize the disaster response under the guidance of SDMA. The systems and procedures of EOC shall be designed in such a way that information can be promptly accessed and relayed to concerned quarters. Rapid dissemination contributes to quick response and effective decision-making during emergencies. EOC would ideally be the meeting place of SEC and would act as master coordination and control point for all disaster management efforts, as the place of decision-making and effective implementation under a unified command. The Divisional EOCs shall function round the clock and shall maintain direct linkage with District EOCs through phone, fax, wireless and internet. Ham radios, integrated wireless systems, voice logger (computer recorded audio and video facility, automatic recorders for receiving all communication), high frequency radio telephone (100w) transistorized radio receiver, satellite and computer operational system GIS and GPS. State Disaster Management Authority shall ensure that State DMIS is available for timely collection of hazard-related information and rapid dissemination of relevant information and warnings. Inter EOC networking will also be ensured, networking shall also be done with PCR and Fire Control rooms. Emergency Operation Centres Control Rooms should also be made operational under the nodal departments in the event of a disaster. Manuals and Standard Operating Procedures (SOPs) for the operation of EOCs shall be prepared.'²¹

According to news reports, the 13th Finance Commission had approved an allocation of Rs 950 Crores for 'disaster management' to the state.²² News reports stated that a meeting was held in February 2014 of the State Executive Committee chaired by the Chief Secretary of the State, Iqbal Khandey. The meeting was attended by Financial Commissioner, Revenue, Arun Kumar, Principal Secretary Planning and Development Department, B R Sharma, Principal Secretary Home, Suresh Kumar, Administrative Secretaries and other senior officers.²³ At the meeting, sanction was granted for the creation of four Emergency Operation Centres, one each in Jammu, Srinagar, Kargil and Ladakh. A sum of Rs 18 crores was sanctioned for the purchase of rescue equipment and materials for post disaster relief and rehabilitation. While directing setting up of these Emergency Operation Centres in March 31, 2014, the Chief Secretary sanctioned Rs 2 crores each for such centres in Jammu and Srinagar while Rs one crore each for setting up centres in Leh and Kargil districts of the Ladakh region. The EOCs' were to be responsible for provisions of emergency services along the hazardous, accident prone and 'strategically important' National Highway routes between Jammu Srinagar and Ladakh.²⁴ A news report quoted anonymous sources as stating that 'an amount of Rs 11 crores was allocated to the State Disaster Response Force, under the control and command of the Director General [of Police], (Home Guards and Civil Defence), and an amount of Rs 7 crores was given to Fire and Emergency Services Department for purchase of necessary equipment. This equipment would be kept at the [JK Police] Battalion Headquarters of the State Disaster Response Force at Jammu and Srinagar and [...] at the Emergency Operation Centres as per their requirement.'²⁵

A report stated that the State Executive Committee also approved enhancement in relief fund to be kept at the disposal of Financial Commissioner, Divisional Commissioner and Deputy Commissioners for meeting relief expenditure to the tune of Rs 2 crores, Rs 1 crore and Rs 50 lakh respectively. For immediate restoration of public infrastructure, the Deputy Commissioners would be responsible for sanctioning of works up to Rs 10 lakh, the Divisional Commissioners up to Rs 20 lakhs and the Financial Commissioner up to Rs 30 lakh, for each sector. For funding above Rs 30 lakhs, the project would be referred to the SEC.

It was also decided at the meeting that Emergency Operation Centres in the remaining 18 districts of the State would be established during the next financial year (2015-2016). In accordance with the J and K State Draft Disaster Policy (2012) these centres were to be directly under the control of concerned Deputy Commissioner. In order to ensure better functioning of these Emergency Operation Centres, the State Executive Committee issued directions

²² Peerzada Ashiq, J-K: The safety valves that never opened, Hindustan Times, 20 Sep 2014,

<http://m.hindustantimes.com/floodfury/hitsjk/j-k-the-safety-valves-that-never-opened/article1-1266614.aspx>

²³ Excelsior Correspondent, Establishment of 4 Emergency Operation Centres in J&K gets nod, Daily Excelsior, 7 Feb 2014,

<http://www.dailyexcelsior.com/establishment-of-4-emergency-operation-centres-in-jk-gets-nod/> See also, Emergency Operating Centres, Daily Excelsior, 9 Feb 2014, <http://www.dailyexcelsior.com/emergency-operation-centres/>

²⁴ Emergency Operating Centres, Daily Excelsior, 9 Feb 2014 <http://www.dailyexcelsior.com/emergency-operation-centres/>

²⁵ Excelsior Correspondent, Establishment of 4 Emergency Operation Centres in J&K gets nod, Daily Excelsior, 7 Feb 2014, <http://www.dailyexcelsior.com/establishment-of-4-emergency-operation-centres-in-jk-gets-nod/>

for examining the functioning of such centres in the States of Gujarat and Assam. The news report quoted sources stating that each of these Emergency Operation Centres would have round-the-clock helpline, relief material, tents, equipment required in rescue and relief operation, and medical kits. 'Efforts were also on to provide one ambulance to each Emergency Operation Centre' it quoted officials as stating. The report also stated that the Chief Secretary had directed the concerned authorities to ensure that 'besides equipping response teams, measures for capacity building for disaster management would also be undertaken on the lines recommended by the National Disaster Management Authority.'²⁶

The funds for setting up Emergency Operation Centres and equipping the State Disaster Relief Force were released to the concerned authorities only towards the expiry of the 2013-14 financial year—a few days before accounts were closed on 31st March 2014, though the Executive Committee had directed establishment of such centres before the end of the financial year. Due to this, even the four officially sanctioned Emergency Operation Centres, which could have provided rescue and relief during the floods of September 2014, could not be established.²⁷ A news report quoted official sources as saying that 'had at least four sanctioned Emergency Operation Centres particularly in Srinagar been established it would have played vital role during the flood fury [...]. Moreover, EOC would have ensured some sort of communication link of Srinagar with rest of the State.'²⁸ A news report also stated that the SDRF battalions in the state, stationed in Jammu and Srinagar, were unable to utilize the sanctioned funds within the financial year, and that they were to be revalidated in the present financial year, due to the delay. It quoted an SDRF official as stating, 'We have floated the tenders but purchase of necessary equipment would take time as very lengthy process is required to be followed before placing the orders for the equipment'.²⁹ An official told JKCCS that the tender documents were damaged due to the flooding of the Police Lines, in September 2014. New technical tenders had been finalized by March 2015, but he had no knowledge with regard to the financial tenders.

After the 2005 Earthquake, the United Nations Development Programme worked in association with the state government on a plan to set up 'Disaster Management Cells' through out the region. A Special Commissioner, Mr. Amir Ali, was deputed to the office of the Divisional Commissioner, tasked with dealing with disaster risk reduction, and preparedness. However, officials told JKCCS, that after the transfer of this officer, the office was more or less non-functional. The head quarters of the State Disaster Relief Force located in low-lying Baghat – Barzulla, was one of the first official buildings to be submerged along with its stores, and became symbolic both of the disaster vulnerability of the region, and the utter dysfunctionality of its disaster management bodies.

In the September floods there was little to suggest that any institutional disaster management systems, militarised or otherwise, were in existence. Despite the creation of SDRF, 488 National Disaster Response Force (NDRF) personnel from 4th, 5th, 6th and 7th [CRPF] Battalions, and inflatable boats, had to be flown in on an emergency basis from Tamil Nadu and other far flung areas, from 6th September onwards, leading to a delay in immediate response.³⁰ The NDRF remained deployed in Kashmir, for about ten days, under the direct control of the Indian Ministry of Home Affairs, as the designated nodal agency National Disaster Management Authority (NDMA), mandated with co-ordinating disaster response under the National Policy (2009), was 'defunct', according to official insider sources.³¹ Under the draft policy, it is the duty of Divisional Commissioner or District Deputy Commissioners to intimate the various stakeholders of the SDMA, and assist them in assessing and conducting relief and rescue operations, but officials told JKCCS that several Deputy Commissioners remained incommunicado with other authorities during the crucial emergency period.³²

26 Excelsior Correspondent, Establishment of 4 Emergency Operation Centres in J&K gets nod, Daily Excelsior, 7 Feb 2014, <http://www.dailyexcelsior.com/establishment-of-4-emergency-operation-centres-in-jk-gets-nod/>

27 Mohinder Verma, J&K fails to take NDMA's directives on Emergency Operation Centres seriously, Daily Excelsior, 16 Sep 2014, <http://www.dailyexcelsior.com/jk-fails-take-ndmas-directives-emergency-operation-centres-seriously/>

28 State's Criminal Negligence, Daily Excelsior, 17 Sep 2014, <http://www.dailyexcelsior.com/states-criminal-negligence/>. See also, Mohinder Verma, J&K fails to take NDMA's directives on Emergency Operation Centres seriously, Daily Excelsior, 16 Sep 2014, <http://www.dailyexcelsior.com/jk-fails-take-ndmas-directives-emergency-operation-centres-seriously/>

29 Mohinder Verma, Despite release of funds, SDRF yet to be fully equipped to handle disasters, Daily Excelsior, 6 Sep 2014 <http://www.dailyexcelsior.com/despite-release-funds-sdrf-yet-fully-equipped-handle-disasters/>

30 Tarun Shukla, Kashmir floods: Nearly 50,000 rescued as Army, govt step up relief effort

<http://www.livemint.com/Politics/TefiFu3wEgN0Pprehy2OMJ/JK-floods-NDRF-launches-intensive-rescue-operations.html>; See also, PTI, Jammu and Kashmir floods: Centre despatches more boats, NDRF teams for rescue operations, Deccan Chronicle, 7 Sep 2014, <http://www.deccanchronicle.com/140907/nation-current-affairs/article/jammu-and-kashmir-floods-centre-despatches-70-boats-5-ndrf> See also Situation Reports, 6 September 2014 onwards on the NDMA website, <http://www.ndmindia.nic.in/flood-2014/floodsSep-2014.htm>

31 Vidya Krishnan, J & K Floods: Where is the NDMA?, Mint, 12 sep 2014,

<http://www.livemint.com/Politics/jah25OqZkUffs4g3JY1E2N/JK-floods-Where-is-the-NDMA.html>

The Flood Control Department

Historically, the Kashmir 'Flood control' department under the state government's Ministry of Public Health Engineering, Irrigation and Flood Control has been the line department in charge of preparedness and protection measures in the flood prone valley.³³ These have included the building and maintenance of bunds and other hydraulic constructions such as weirs or flood channels, dredging works (through its mechanical division), maintenance and monitoring of gauges to measure water levels, declaration of flood emergencies when the water reaches a certain designated danger level, issuance of public warnings, and patrolling and emergency responses to bund breaches or over flows when water levels are high. They have however never had official 'rescue' related responsibilities, an official told JKCCS.³⁴ There has been considerable public criticism of the department's 'criminal negligence' of its duties, as a contributing factor to the recent floods.³⁵ Several officials told JKCCS that the over all technical standards and general functioning of the department had seen a qualitative decline, especially since the 1990s. 'It has almost become like a hospitality department, for the ministry. There was a brief revival of its activities, under the Ministership of Taj Mohiudeen, [2005-2012] with the conducting of studies, restarting of some dredging, and a few successful demolition drives along the embankments. But after his portfolio was changed, it has gone back to its earlier state of decline', one former official stated. It should be noted that the same minister was indicted by the State Accountability Commission in a case involving the illegal occupation of forest lands in South Kashmir.³⁶

Unimplemented Plans and Laws relating to flood prevention and wetland conservation

Integrated Flood Management cum Drainage Development Project for River Jhelum and its Tributaries

In 2009, the Irrigation and Flood Control Department under its then Minister, Taj Mohiudeen sent a comprehensive Rs 2083 crores project proposal titled 'Integrated Flood Management cum Drainage Development Project for River Jhelum and its Tributaries' (sometimes referred to as the Jhelum Conservation Plan) to the Indian Ministry of Water Resources for sanction, of which Rs 500 crores was earmarked for urgent works.³⁷ The project included restoration works on embankments, improvement of Jhelum's existing dredging of outfall channels, protection and anti-erosion works and increasing 'hydraulic efficiency' of the flood spill channel and the River Jhelum and official told JKCCS. It was based on scientific and technical studies of Jhelum's hydrological cycles, and an evaluation of present flood vulnerability. Officials recalled to JKCCS (and in news reports) that the documentation for the proposals 'weighed at least a tonne' and was sent on a truck to the Indian Water Resources Ministry from the state Flood Control Department. In a news report, first published in 2010 around the time of the Flood Control Department's proposal and widely re-circulated after the recent floods, the Minister alleged that the flood control department was in a state of utter disrepair, and that he had inherited 'only accumulative and criminal negligence from his predecessors'. He stated that he was helpless at a point of time 'when the [flood] cycle of fifty to fifty-five years is nearing to complete and the basic infrastructure to tackle any eventuality is missing.' And further, that 'the water has no place to outgo in Srinagar city' citing the example of Bemina, a former flood basin 'where large number of

32 See also, Yogesh Sagotra, JK fails to devise effective disaster management policy, Greater Kashmir, 6 May 2013, <http://beta.greaterkashmir.com/news/jammu/jk-fails-to-devise-effective-disaster-management-policy/145863.html> for earlier failures of State Disaster Management framework, in relation to an earthquake in the Chenab district, Jammu in 2013.

33 The present organisational framework of the Flood Control Department, under the Ministry of Public Health Engineering, Irrigation and Flood Control, Government of J and K, is illustrated in Annexure 1 of this report. [from the Official website of the Irrigation and Flood Control Department, <http://ifckashmir.com/Aboutus/OrgChart.pdf>] See also chapter 1 of this Report, for a history of flood management in Kashmir.

34 See also RTI reply dated 23.02.2015, by Er. Arif Ahmed Mir, Public Information Officer, Irrigation and Flood Control, on file with JKCCS, which states that the IFC Department has no boats at its disposal.

35 See for instance, Mudassir Yaqoob, Authorities sit over strengthening of river Jhelum embankments: Inhabitants of flood prone areas accuse Irrigation and Flood Control department of 'criminal negligence', Greater Kashmir, 2 March 2015. See also, for latest orders in a Public Interest Litigation filed before the Srinagar High Court in this regard, HC directive to CS on flood PIL, Daily Excelsior, 7 Apr 2015. <http://www.dailyexcelsior.com/hc-directive-to-cs-on-flood-pil/>

36 Nazir Masoodi, J&K minister Taj Mohiuddin in trouble over land grab allegations, NDTV, 17 Dec 2012 <http://www.ndtv.com/india-news/j-k-minister-taj-mohiuddin-in-trouble-over-land-grab-allegations-507712>

37 See Dept of Irrigation and Flood Control, Government of J and K, (2010) 'Salient Features of Draft Proposal of 'Integrated Flood Management cum Drainage Development Project for River Jhelum and its Tributaries', <http://ifckashmir.com/Aboutus/Salient%20Features.pdf>

residential and commercial buildings have come up in last ten years.³⁸

The Central Water Commission (CWC) raised several technical questions about the State Ministry's Flood Control proposal, and ultimately, only Rs 97 crores was sanctioned by the Indian Prime Minister's Office, as sums of over Rs 100 crores, require the approval of the Indian Planning Commission, officials told JKCCS.³⁹ Immediate interventions including procurement of dredging machines and commencement of dredging of the Jhelum, particularly of its flood spill channel in Srinagar (whose carrying capacity stood at an estimated 2800 cusecs instead of the designed capacity of about 17,000 cusecs) and outflow stream at Daubgah and Ningli in Baramulla, were carried out in 2010 using the sanctioned funds. The sanctioning of the remaining funds for the ambitious Rs 2083 crores outlay, became mired in official disinterest and paperwork, as the Flood Control Department failed to answer some of the Central Water Commission's queries. Officials told JKCCS, and the local press, that answering the queries would require extensive new technical studies, which they did not have the funds to commission, and that the objections raised were a tactic to deny the state any further funds. However, they also stated that a special cell had been set up, solely with the purpose of answering the CWC's queries on a priority basis, but stated they could not comment on when these reports were likely to be finalised, or funds sanctioned.⁴⁰

State Government funds were also allocated to the department for repairing of bunds, and the beautification of embankments, under Taj Mohiudeen's ministership. In the 2005-2006 period, demolitions of hundreds of unauthorised and illegal structures on certain city embankments and river beds, creation of parks along the bund near the Amira Kadal bridge; and removal of shoals from the river bed near Athwajan bypass were carried out, but these soon became embroiled in litigation,⁴¹ and the lack of political will to venture south wards into the Cantonment area, and its peripheries along the historically weak, and heavily militarised Sonwar-Pantha Chowk stretch.⁴² In 2012, there was a cabinet reshuffle and the Irrigation and Flood Control portfolio was transferred to Shamlal Sharma, a politician from the Jammu region, who has recently joined the Hindu nationalist Bhartiya Janata Party, but who was then with the Congress. News reports stated that the dredging works begun under the integrated flood management proposal were discontinued in the Jhelum basin from the summer of 2013 under the new Minister, though the process continued in his native Jammu region.⁴³

In the absence of conservation and dredging works over the decades, the river Jhelum has lost its carrying capacity and has been extensively polluted by raw sewage and effluents from urban settlements on its banks. Sanitation and Public Health Engineering departments of urban local bodies have been criticized, for constructing pump stations on river banks to empty all city drains into the river, thus drastically affecting its ecology. Attempts at building an effective and functional sewage treatment and solid waste management for Srinagar using Asian Development Bank aid have been confined to waste from certain parts of the city, but many areas continue to be served by open drains flowing directly into the river. The Jhelum Conservation Plan a federal government funded programme which included efforts at sewage treatment, de-silting and dredging of the river basin, (of which the above mentioned flood management proposals appear to be a part) has languished, mired in paper work, after an ambitious inauguration with dredging works at Baramulla by the Chief Minister Omar Abdullah in 2012.⁴⁴ In March 2014 floods the Chief Engineer of Irrigation and Flood Control department, Mir Javaid Jaffar, was quoted as saying that 'the Government of India has raised several queries regarding the Jhelum conservation project. For past several months, we have cleared many queries regarding different aspects of the project. Hopefully, it will take two or three months more to get the project sanctioned.' And further that, 'We have kept a provision in our Jhelum conservation project to raise the Bund, including this stretch, to the highest recorded flood level and strengthen it

38 Firdous Tak Srinagar awaits catastrophe: 'Massive Flood Can Hit City In 5 Years', Greater Kashmir, 12 <http://www.greaterkashmir.com/news/2010/feb/12/srinagar-awaits-catastrophe-57.asp>

39 For a detailed cost break up of the various project components, see 'Flood Threat of <http://ifckashmir.com/Aboutus/on%20going/Flood%20threat%20of%20River%20Jhelum%20%28Urgent%20Works%29.pdf>

40 See also, GK News Network, JK, CWC pass the buck over Jhelum flood project, Greater Kashmir, 2 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/2/jk-cwc-pass-the-buck-over-jhelum-flood-project-61.asp>

41 Jammu and Kashmir High Court orders in writ petition OWP 831/07 (Ghulam Hassan Bhat and another versus State) relating to the removal of a shoal in the river bed near Athwajan bypass.

42 Arif Shafi Wani, Historic Jhelum bund crumbles as flood threat looms Embankment in ruins due to unabated encroachments, illegal excavation, govt neglect, Greater Kashmir, 12 May 2014. See also, R.S Gull, Do not Blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirilife.net/do-not-blame-jhelum-66544/>;

43 Haroon Mirani, Fall of Srinagar, Kashmir Life, 24 May 2010, <http://www.kashmirilife.net/fall-of-srinagar-495/>. See also, R.S Gull, Do not Blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirilife.net/do-not-blame-jhelum-66544/>

44 Arif Shafi Wani, Jhelum gasps for breath, Greater Kashmir, 29 Mar 2012, <http://www.greaterkashmir.com/news/2014/Mar/29/jhelum-gasps-for-breath-12.asp>. See also, Arif Shafi Wani, Jhelum conservation saved Valley from floods: Govt, Greater Kashmir, 17 Sep 2012. <http://www.greaterkashmir.com/news/2012/Sep/17/jhelum-conservation-saved-valley-from-floods-govt-31.asp>

with RCC wall. Work will be started as soon the project gets approval.⁴⁵ An older Jhelum conservation project, the Jhelum River Conservation Plan (JRCP), a Government of India funded project [under the National River Conservation Plan] to be implemented by the Lakes and Waterways Authority, the regulatory agency which manages water bodies within Srinagar, such as Dal and Nigeen Lakes, Chinar Bagh and Chonti Kul, has also never been implemented. A report on the Wular lake and its wetlands stated that 'a critical evaluation JRCP indicates that too much emphasis has been laid on engineering measures' without taking into account the co-dependent and inter-linked ecologies of the entire Jhelum river, its lakes and wetlands.⁴⁶

Law and Policies on Demarcation of Flood Zones/ Flood Basins and Wetlands

The legislative terrain related to demarcation and conservation of marshlands and flood absorption basins in Jammu and Kashmir consists of over-lapping, and under implemented laws and a multiplicity of uncoordinated legislative and project implementation authorities, and illustrates a lack of holistic understanding of the entire basin system as an inter-linked ecology. The earlier revenue demarcations of 'rakhs' 'grazing lands' 'wastelands' etc, (for grasslands, low lying marshes and wetlands) are hopelessly out of date, and neither accurately reflect the present status of these now urbanized or semi urban areas, nor their vital role in flood management. In 2012 a House Committee of Legislative Assembly of Jammu and Kashmir, headed by MLA Mir Saifullah, was constituted to look into the degradation of wetlands, and illegal encroachments. In its meeting of 21 May, 2012 the Committee directed that ecologically fragile 'wet land areas' be demarcated for conservation.⁴⁷ However, no further progress on this process seems to have been made on. Meanwhile, the Wular Conservation Plan, 'a mega conservation project' concentrating on the Wular lake and its surrounding wetlands, and the setting up of the Wular Development Authority, is in the pipelines, with Rupees 398 crore having been sanctioned by Ministry of Environment and Forestry, Government of India. The plan requires the felling of 25,000 acres of willow plantations, created by the Social Forestry department, within the main lake basin.⁴⁸ This project requires a large scale demarcation of the wetlands in the project area, on which little progress has been made according to officials. While the zoning maps and regulations under the Srinagar Master Plan (2000-2021) demarcate 'wetlands', these maps are hopelessly out-dated, and given the long period of non implementation, their specifications bear little resemblance to existing land use, and cannot serve as a basis for practicable interventions.

In 2005, the Jammu and Kashmir Flood Plain Zones (Regulation and Development) Act was enacted, which defines 'flood plains' as 'water channels, flood channels and that area of nearby lowland area as may be susceptible to flood inundation'. It constitutes the Deputy Commissioner of each district as the 'Flood Zoning authority', to undertake the survey and demarcation of 'flood zones' (Section 3 (3), 5 and 6). The Flood Zoning authority is empowered to regulate activities in the flood plain (Section 12), levy penalties (Section 13) and direct the removal of unauthorized obstructions in the flood plain (Section 24). However, none of the several flood control and water resource management officials spoken to by JKCCS had any awareness of the existence of this law, when interviewed in October and November 2014. After consultation with present departmental employees and providing them a copy of the legislation, a former flood control official later told JKCCS, that the concerned officers were surprised at the existence of such a law, and were in the process of 'checking up on it'. It is astonishing that a law specifically dealing with 'flood zoning' is not known by senior officials of the main executive department concerned, even after the worst flooding in Kashmir's history.

In 2010, the Water Resources (Regulation and Management) Act was enacted, which provides for the creation of an over arching water resource management authority, and policy framework. The law overrides several existing legislations relating to water resources and hydraulic management including Water Mills (Jandar and Gharat) Act Samvat 1989, The Kashmir Valley Embankment Act, Samvat 1992, The Jammu and Kashmir Water Supply Act, 1963 and the Jammu and Kashmir Irrigation Act 1978. No mention however is made of the pre-existing Flood Plain Zones Act of 2005. The Water Resources Act, 2010 vests the overall authority and physical control over the states water

45 Arif Shafi Wani, Jhelum gasps for breath, Greater Kashmir, 29 Mar 2012,

<http://www.greaterkashmir.com/news/2014/Mar/29/jhelum-gasps-for-breath-12.asp>

46 Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir, at page 22-23,

http://sites.wetlands.org/reports/ris/2IN003_mgtplan.pdf

47 LA Panel seeks details of Valley water bodies, Greater Kashmir, 22 May 2012,

<http://www.greaterkashmir.com/news/2012/may/22/la-panel-seeks-details-of-valley-water-bodies-71.asp>

48 Wetlands International. (2007) Comprehensive Management Action Plan for Wular Lake, Kashmir, at page,

http://sites.wetlands.org/reports/ris/2IN003_mgtplan.pdf. See also, Aliya Bashir, Wular Lake shrinking fast, Kashmir Monitor, 17 Jun 2014, <http://kashmirmonitor.in/news-wular-lake-shrinking-fast-68625.aspx>

resources in the State Water Resources Regulatory Authority, and includes oversight over water channels, dams, flood control and irrigation infrastructure and drinking water and ground water resources. This authority was constituted under the Act in 2012 and is presently in the process of formulating the State's Water Management Policy. In relation to flood zoning, and flood control infrastructure such as embankments, the Act provides for the appointment of the Chief Engineer, Irrigation and Flood Control as the 'prescribed authority' [Section 2 (zm)]. Under Part VI (Flood Basins and Embankments) the 'prescribed authority', which is the Chief Engineer, Irrigation and Flood Control, is empowered to demarcate and notify 'flood basins', regulate embankments, river beds and banks, regulate excavations, and traffic in these areas and remove obstructions. This is in direct contradiction with the earlier legislation, the Flood Plain Zones (Regulation and Development) Act, 2005 which designates the Deputy Commissioner as the concerned authority to demarcate 'flood plains' with widely over lapping powers. Officials told JKCCS that the process of demarcating and notifying 'flood basins' by the Flood Control Department under this act is underway, but professed a lack of knowledge about the earlier 2005 legislation. The over-lapping, discrepant and uncoordinated laws are both a symptom and cause of their complete non-implementation, as ambitious but fragmentary new laws and policies are framed on paper, with no coordination between executing departments, and little reflection on the prevailing situation or the ground, or study of the problems with existing legal frameworks. The contradictory legislative provisions and different terminology (revenue classifications, Master Plan zonal classifications, wetlands, flood basins, flood zones etc) employed to refer to over-lapping areas, shows that there has been no process of consultation, inter departmental co-ordination, or research in drafting laws.

News reports state that of 1200 wetlands in the valley, about 12 are managed by the Department of Wildlife as these fall in demarcated forest areas, while a few others are under the care of Lakes and Waterways Development Authority. The remaining fall in the domain of the Revenue Department (mainly designated as 'rakhs', 'wastelands' and grazing lands, and state/private agricultural lands) which administers them as any other kind of revenue generating land, with no regard to their enormous importance in flood prevention and ecological sustainability. The fact that legislative provisions prohibiting the conversion of agricultural lands to other land use, under Section 133 of the Jammu and Kashmir Revenue Code, are largely ignored and now over ridden by the Srinagar Development Act in the Master Plan area, has been acknowledged, in the Srinagar Master Plan, which states that it, along with several other legislations needs to be reviewed and reformed in order to bring it in conformity with the Development Act.⁴⁹

Official sources were quoted as saying in a news report, 'It is astonishing that neither the Wildlife Department and Department of Environment nor the Revenue Department are aware of the exact area of these wetlands which was required to be demarcated by the Revenue Department and [this] is an important exercise before handing over these wetlands to any particular department'. The report stated that even in the case of marshlands, which were notified as 'wetland reserves' under the J & K Wildlife (Protection) Act in 1978, exact boundaries have not been defined and local property and usufruct rights have not been recorded and settled by the Revenue Department. The lack of formal demarcation of wetlands and flood basins, and over all policy for their conservation and regulation, as well as the multiplicity of regulatory authorities, has created conditions ripe for corruption, and inefficiency. It is not surprising that they are on the verge of extinction, and constantly encroached upon by settlements, particularly as these low-lying areas are often the only 'free' non-militarised lands available in urban peripheries.⁵⁰

In and around Srinagar, approximately 20 wetlands have been lost to urban colonies, particularly in southern areas. A study carried out by the Department of Earth Sciences, Kashmir University stated in relation to the wetlands at Hokersar, that 'The wetland area has shrunk from 18.75 Sq Kms in 1969 to 12.8 sq kms at present. Its open water body has shrunk from 1.74 Sq Kms in 1969 to less than one sq.Km [...] Some areas of the wetland that existed in 1969 have been converted into Paddy fields. About 10 hectares (24.71 acres) of the wetland have been converted into a built-up area. Marshy areas within the wetland, that form an important part of habitat for migratory birds, have shrunk by 150 hectares (370.658 acres) have been colonized by the aquatic weeds.'⁵¹ This is despite the fact that India is a signatory to the Ramsar Convention (the Convention on Wetlands of International Importance, especially as Waterfowl Habitat), an international treaty for the conservation and sustainable utilization of

49 Srinagar Development Authority, Srinagar Master Plan 2000-2021, at page 152, http://www.sdasinagar.com/index.php?option=com_content&view=article&id=32:full-master-plan&catid=12:master-plan&Itemid=171

50 See chapter 2 of this report.

51 Arif Shafi Wani, 'Queen of wetlands' Hokersar dying slow death, Greater Kashmir, 22 Jun 2014, <http://www.greaterkashmir.com/news/2014/Jun/22/-queen-of-wetlands-hokersar-dying-slow-death-22.asp>

wetlands, and Hokersar is a Ramsar site, identified by the convention as requiring conservation. Haigam Wetland Conservation Reserve, another important flood absorption basin has also shrunk considerably as people from adjoining villages have encroached on the land and started paddy cultivation. Experts were quoted as saying in a news report, 'If the government is serious to save Srinagar from future floods, it needs to restore the carrying capacity of wetlands as these are naturally designed to absorb flood waters. Further, there needs to be strict implementation of the legal frameworks governing land use and land cover in the catchment and vicinity of wetlands.' Though the Wildlife department had submitted a comprehensive conservation project for Hokersar and other wetlands to the Central Government, these have not been approved so far, illustrating how fragmentary governance and policies, and the structuring of public finances, affects the flood vulnerability of the region.⁵²

Encroachments on bunds, flood channels and riverbeds

The lack of clear demarcation and implementation of flood absorption basins, and ecologically fragile wetlands has naturally led to a complete lack of clarity, as to which constructions are impermissible, and who is responsible for their removal in the wider flood basin. Constructions built directly on the river bed, or on embankments, are prohibited under the Water Resources Management Act, (previously under the Embankments Act) and the Flood Control Department is responsible for both permissions for such works, and for demolitions of unauthorized structures. Various news reports and officials have pointed out that allowing illegal and dangerous constructions on the river embankments and water channels caused some of the worst breaches and inundations, which could have been prevented by timely maintenance and oversight by the Flood Control Department.⁵³ The Flood spill channel (FSC) at Padshahibagh built to accommodate Jhelum's flood discharge, was heavily silted, and silt had accumulated in all the major Jhelum tributaries, including Doodh Ganga, reducing their carrying capacity dramatically, news reports stated after the flooding. The lack of adequate flood zoning and regulation is demonstrated by the fact that Srinagar Development Authority, the city's main urban planning body has constructed a 'mega project', a shopping complex, on the flood channel near Rambagh. Several experts spoke to JKCCS about the building of an illegal taxi stand and refreshment stall opposite the Barzulla hospital as one such spot where inundations occurred. In South Kashmir the civil administration admitted that the encroachments on water bodies led to large-scale devastation by floods, and official documents quoted in a news report attributed the scale and frequency of the breaches to 'encroachment by way of plantation and construction.' Orders were passed to remove the fallen or standing trees within the definite limit of rivers particularly Lidder, Jhelum, Arpath, Brengi, Vaishaw, Sandran and Vethroo, within a period of 15 days.⁵⁴ News reports also stated that unregulated commercial constructions on the river banks in Khanabal and Bijbehara; Aaripath river at Donipawa, Achajipora and Mehandi Kadal; Sandran river at Muniward, Sadoora and Harnag; Brengi Nallah at many places, Vethvatroo and Vaishaw and on the Lidder Nallah and its tributaries in Anzwal, Aang, Chee and New Qazibagh, exacerbated the flooding in South Kashmir. Residents blamed the Irrigation and Flood Control Department, Municipality authorities and District administrations of tacitly supporting the encroachments, in the interest of benefitting from bribes.⁵⁵ In a series of orders the High Court of Jammu and Kashmir has ordered the removal of all illegal encroachments on the banks of the Jhelum and its tributaries.⁵⁶

Several of the locks and flood gates in the Srinagar water system were found to be dysfunctional or blocked by debris due to lack of regular maintenance in the recent flooding. Locals told JKCCS that the Dal gate, overflowed, as

52 Arif Shafi Wani, Vandalized Kashmir wetlands no longer absorb flood waters, Greater Kashmir, Oct 4, 2014, <http://www.greaterkashmir.com/news/2014/Oct/4/vandalized-kashmir-wetlands-no-longer-absorb-flood-waters-14.asp>

53 See for instance, Abdul Majid Zargar, Kashmir Floods: a man-made calamity, Rising Kashmir, (n.d) 2014, <http://www.risingkashmir.com/kashmir-floods-a-man-made-calamity/>. See also D.A Rashid, Flood Havoc: PIL seeks probe on 'official negligence', Greater Kashmir, 30 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/30/flood-havoc-pil-seeks-probe-into-official-negligence-26.asp>

54 Khalid Gul, Encroachment on Jhelum worsened flooding in south Kashmir, Greater Kashmir, 27 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/27/encroachment-on-jhelum-worsened-floods-in-south-kashmir-25.asp>

55 Khalid Gul, Encroachment on Jhelum worsened flooding in south Kashmir, Greater Kashmir, 27 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/27/encroachment-on-jhelum-worsened-floods-in-south-kashmir-25.asp>

56 D.A Rashid, Free Jhelum from encroachments, Greater Kashmir, 28 Feb 2015, <http://www.greaterkashmir.com/news/2015/Feb/28/free-jhelum-from-encroachments-hc-54.asp>; Sumaiya Yousuf, Admin finally wakes up to Doodh Ganga encroachments, Rising Kashmir, 8 Jan 2015, <http://www.risingkashmir.com/admin-finally-wakes-up-to-doodh-ganga-encroachments/>; Padshahi Canal encroachments: HC seeks property details of officers, Greater Kashmir, 25 Nov 2014, <http://www.greaterkashmir.com/news/2014/Nov/25/padshahi-canal-encroachments-hc-seeks-property-details-of-officers-13.asp>

the older gate system built of wooden slats allowed debris and mud to flow through when the river came into spate, whereas the new metal gates blocked the flow of the debris, and the force of the water ultimately broke the gates and overflowed, leading to a sudden and sharp rise in water levels, endangering lives and properties of thousands of lake dwellers. Locals also told JKCCS that at Chhanapora-Tengpora floodgates an earth moving JCB had to be procured as the gates were heavily clogged.

Constructions on the river channel require a No Objection Certificate from the Flood Control Department, along with other NOCs from various regulatory and urban planning bodies, including the BOCA (Board of Construction Authorization) of the Municipal Corporation/Urban local body. However various construction projects, including those undertaken by government agencies such as the Srinagar Development Authority, the Jammu and Kashmir Public Construction Company (JKPCC), and the Economic Reconstruction Agency have been able to bypass these requirements due to 'political pressures'. For instance, the JKPCC is involved in an on going building of a bridge across the Jhelum between the General Post Office (GPO) and the Presentation Convent, in violation of the Srinagar Master Plan. This construction described as a pet 'political project' remains half complete and has faced vociferous local objections.⁵⁷ The obstructions in the river channel caused due to this structure, reportedly triggered backflow in the main river and forced water to the banks on both sides. Similar disastrous effects were also reported in other constructions, such as the building of a concrete bridge over the flood channel at Mehjoor Nagar, and the laying of water pipelines in the Bund between Lal Chowk (Amira Kadal) and Zero Bridge under projects funded by the Asian Development Bank and implemented by the Jammu and Kashmir ERA (which are further analysed below).

The task of rebuilding and reinforcing broken and flood damaged bunds presently being carried out by the Department across the state, has also raised some questions. The urgent rebuilding works have taken a toll on the already ravaged karewas of Budgam, as unregulated excavation and quarrying has increased. New reports said that when 'Tipper drivers ferrying the earth from Budgam Karewa [were asked] as to what it was for, pat came the reply, 'for fighting floods'.⁵⁸

Operational Procedures

A copy of the Official Flood Control Duty chart of the Engineering Wing for Srinagar District, which is in the nature of a manual of Standard Operating Procedures issued by the Irrigation and Flood Control Department, was obtained by JKCCS. Officials told us that this document has been annually reproduced and reissued in virtually the same form [with only the names and contact information of the designation of the concerned officers being changed if required] for at least ten years. The Chart provides for the setting up of a Central Flood Committee, headed by the Minister for PHE / Irrigation and Flood Control, at Srinagar, Flood Co-ordination Committee for Kashmir at the Divisional Head quarters (Srinagar), the Central Stores Committee (for provision of sand bags and equipment) as well as Zonal Flood Committees at the Sub Divisional (District) levels, on the declaration of a flood, with the 'main objective [...] ensuring relief and rescue operations during the floods, so that life and property of the public is safe guarded.' When water levels reach the designated danger level, i.e 18 feet at the Sangam Gauge, the Central Flood Committee, which is formed with the purpose of 'complete co-ordination between the administration and engineering staff' and is empowered to decide on the role of 'law and order enforcing agencies', is responsible for sounding the 'first alarm' to all District Headquarters and the Engineering wings of Zonal Committees, to begin regular sector-wise beats for monitoring of river banks, and co-ordinating emergency responses. The chart lays out the duties to be performed by various concerned administrative agencies, including the Administrative Wing of the District Commissioner's offices (to arrange for boats and labour), the Power Development Corporation, Urban Environment Engineering Department, Road Transport Corporation, Bharat Sanchar Nigam Limited (for telecommunications), Traffic Police etc., who are enjoined to depute various junior officers/engineers to the Flood Control room set up at the Police Control Room/ Sectoral Head quarters. The Deputy Inspector General of Police (Police Telecommunications) is required to provide wireless sets at the various gauges, the flood control room, and the vehicle of the Member Secretary of the Zonal Flood Committee. The composition of the various flood committees at the divisional, district and sectoral level is set out, which comprise of technical and administrative officers, from stake holder departments such as the District Administration, Power Development Authorities, the

57 See for instance, Ashraf Fazli, 'Skewed bridge construction is Dracula's return from the grave' Greater Kashmir, 2 Nov 2012, <http://www.greaterkashmir.com/news/2012/Nov/2/-skewed-bridge-construction-is-dracula-s-return-from-the-grave--14.asp>. For other such flawed projects, see Haroon Mirani, Engineers spill the beans: 'Political pressure, vested interest behind flawed works in JK', Greater Kashmir, 4 Apr 2015, <http://www.greaterkashmir.com/news/2015/Apr/4/engineers-spill-the-beans-political-pressure-vested-interest-behind-flawed-works-in-jk--50.asp>

58 GK News Network, I&FC Department readies to plug Jhelum breaches, Greater Kashmir, 23 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/23/i-fc-department-readies-to-plug-jhelum-breaches--7.asp>

Department of Public Health and Engineering (PHE), Roads and Buildings, Telecommunications etc. The Chart also sets out the jurisdictions of each of these bodies, and the duty rosters (day and night shifts) for designated beats, within each sector.⁵⁹

An analysis of the Duty Chart, shows the complete lack of upgradation of equipment, technology, or terminology in the contemplated operational procedure, reflecting the dire neglect of the Department. For instance, it contemplates beat officers, carrying out physical examination of the bunds in their patrol equipped with 'gas lamps', 'lanterns with chimneys', 'cotton wicks', 'sewing needles', 'chouldaries', 'sutlies' 'baskets' etc. (page 20) A former flood control official told JKCCS that protocols had remained unchanged since the Department began, and required to be urgently updated, revised and technologically upgraded. Even the existing inadequate procedures however had fallen into neglect. For instance, a study of the Register of the Flood Control office at Kakapora showed the availability of 29,217 empty sand bags on 3rd September. Officials at the zonal office told JKCCS that after the flooding, a further 12,000 bags were procured locally from the open market, once the waters started overflowing the river banks. The Flood Control Duty chart however states under the 'Empty Cement Bags norms' on page 19 that when a flood emergency is declared, the Zonal Committee at Kakapora should be provided with 6,00,000 bags in stock. Further, officials told JKCCS that annual or biennial flood emergency drills, involving all the concerned officers and zonal sub-divisions, which were a regular feature earlier, and served as an audit on preparedness and response, had been discontinued at least since 2009. Several field officers told JKCCS that the department does not issue them wireless sets, even during flood emergencies, as provided for in the Duty Chart, and they use their cell phones to communicate with beat officers on the ground, and with each other when not in their offices. As mobile towers became flooded, mobile connectivity progressively failed, officers at the field offices lost all touch with what was happening on the ground. A former minister in charge of the department stated during the recent floods that the 'Standard Operations Procedure (SOP) was not followed, no beats were formed and no vigilance was maintained on the bunds which otherwise used to be a norm in the past during floods.⁶⁰ 'This has however been denied by the Flood Control Department, which has stated that operational procedures regarding setting up of flood control committees were followed.⁶¹

Field Officers on duty during the recent floods told JKCCS that their field stations, gauges and communications set ups were dangerously out of date and ill equipped. The Head Quarters of the Flood Zonal Committee at the Hydraulic Circle office at Kakapora is located in two rooms of a rickety, two storied structure, shared by the offices and godown of the Tehsil Food Corporation of India. Records show that it was woefully under prepared, even in terms of empty sand bags, the most basic of flood control measures. These bags are freely issued to the public by the department, and used to fill bund breaches, or block overflows temporarily, by both the department and community volunteers. Locals from Beighpora, which comes under the Kakapora sub division, told JKCCS that while officials were seen inspecting and patrolling the bunds, and helping locals with organising community-based bund protection measures, they 'disappeared' after 4 pm on 3rd September, when the situation began to become unmanageable. This is also reflected in their record of gauge readings, which shows a gap of over 12 hours between the afternoon of 3rd September and the morning of 4th September, when water levels were reaching their peak at the Sangam Gauge.

After this point, the community was left to survive entirely on its own resources, with no further visible official presence, until the waters receded almost two to three weeks later, when some rescue and relief measures, such as water tanks and efforts at restoration of electricity and drinking water began to be made.

The lack of employment of telemetric gauges and satellite based monitoring (GIS) information about water levels in flood forecasting, the capacity for which exists in the Ministry of Forest and Environment's Remote Sensing department, also shows the institutional lack of interest and co-ordination when it comes to disaster risks

59 See Annexure 2 for the organizational structure of divisional and sub divisional committees, to be set up under the 'Flood duty chart'

60 GK News Network, Govt response to floods pathetic: Naeem Akhter, Greater Kashmir, 15 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/15/govt-response-to-floods-pathetic-naeem-akhtar-62.asp>

61 Department of Information Government of Jammu and Kashmir, I&FC Dept. refutes claim of GOC, Sub Area regarding Kandizal breach, Press release dated 17 Oct 2014, available at <http://jkdirinf.in/NewsDescription.aspx?ID=9242>. RTI reply dated 23.02.2015, by Er. Arif Ahmed Mir, Public Information Officer, Irrigation and Flood Control, on file with JKCCS, corresponds to the press release.



The Flood Control zonal office at Kakapora

The Flood Control Committee and Control Room

Divisional Flood Control Committee and Zonal Flood Control Committees were constituted by the Chief Engineer, Irrigation and Flood Control, at a meeting at his office on 4th September, a senior official present at the meeting informed JKCCS. There were several senior officers present, including 7-8 senior level engineers, and about 8-10 Police Officials, at this meeting. This is in contradiction to the official statement of the Flood Control Department, that the Committees were constituted on the 3rd September. The official who spoke to JKCCS was categorical, that the administration 'only actually woke up on the 4th, when Kulgam had already drowned, and Kandizaal was breached.' He was of the opinion that even if it existed on paper earlier, they only became operationalised on the 4th. The Flood Committee was established and began functioning in accordance with the duty roster laid out in the Flood Duty Chart, as various field staff under the departments were dispatched on beats and monitoring duties. On 4th September the operational base (Flood Control room) was shifted to the 1st floor of the Police Control Room, in the Police lines in Shaheed Gunj, in accordance with the Flood Duty Chart. The Police Control Room building itself was submerged on 7th September, and ceased to function, with several on-duty officers who had not already left the premises having to be rescued by the NDRF, including the Additional Director General of Police, (Armed Police) S.M Sahai (with special charge of SDRF)

On 4th September a public flood alert was issued,⁶² but officers involved in these deliberations told JKCCS that the District and State administrative machinery were slow to recognise the seriousness of the disaster that was unfolding despite the forecasts, even as the South of Kashmir was flooded by 3rd–4th September. News reports stated that on 4th September the Chief Minister also reviewed the emergency at a high level meeting at Police Control Room. Minister for PHE and Flood Control, Sham Lal Sharma, Minister of State Nazir Ahmad Gurezi, the Divisional Commissioner, Inspector General of Police, Chief Engineer Irrigation and Flood Control, District Development Commissioner, Srinagar and various senior officers, including Chief Engineers of concerned departments, were present at the meeting. The Divisional Commissioner and the Chief Engineer, Irrigation and Flood Control presented a brief to the Chief Minister on the rescue and relief plan put in place to meet the exigencies arising due to flood threat and incessant rain. The Chief Minister also visited the Bone and Joint Hospital at Barzulla, which had become flooded.⁶³

A separate meeting was held at the Divisional Commissioner's Office in Srinagar, with Chief Engineer's of concerned departments, including Public Health and Engineering, Irrigation and Flood Control, Maintenance and Engineering (Rural Development) the Head of the Regional Meteorology Department, Srinagar Development Authority etc. The Deputy Commissioners and Superintendent Engineers of various districts joined the meeting via videoconference. The Head of Meteorology, Sonam Lotus, told the gathering that rains were not expected on the

⁶² See chapter 1 of this report

⁶³ Arif Shafi Wani, Kashmir floods throw life out of gear, Greater Kashmir, 5 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/5/kashmir-floods-throw-life-out-of-gear-6.asp>

night of 4/5th. Deputy Commissioner's were asked to oversee the sufficient provision of sand bags, in their respective districts, and also given instructions to requisition boats from local boatmen communities (Hanjis) in Dal lake and elsewhere, in order to prepare for rescues, in areas that were in imminent danger of flooding, or had already been inundated. The Deputy Commissioner, Srinagar stated at the meeting, that about 50 boats had already been dispatched to South Kashmir from Srinagar for evacuation of people in the submerged areas, and a further 100 boats and 5 lakh sandbags were being procured for emergency flood control and evacuation.

An official told JKCCS that from the night of 4th-5th September, the Flood Control Co Ordination Committee began functioning out of a large hall, equipped with 3-4 working phone lines, and a 24 hour manned desk, but little else in the Police Control Room. The police wireless set was also operational, and at their disposal. The Police hotline number '100' was connecting directly to the Flood Control Room. However, the Battalion headquarters of the SDRF located in Baghat-Barzulla, had already become dysfunctional due to flooding from the Flood Spill Channel. There were 7-8 people in the Flood Control Room in total, including senior police officers, and engineers from various departments. They were constantly receiving calls, especially from Pulwama in South Kashmir, regarding the breaches and overflows, but had limited connectivity with ground officers and had no real sense of the situation on the ground, as they were not getting back any regular reports. They were also receiving hourly updates of water levels, from Ram Munshi Bagh gauge, which was rising at the rate of 8-9 inches per hour. The mood on the whole, the official stated, was one of 'wait and watch'. There was no sense of panic or emergency. Their main job, the officer stated, was to receive information from the public, different departments or field staff, and convey it to the appropriate authorities, or ground workers for further action. On the morning of 6th September, the Flood Control Department issued a second warning, asking river banks and low lying areas to be evacuated. At about 3 pm on the 6th, the Control Room received a call from Lala Ded (LD) maternity hospital, stating that they needed sand bags urgently as there was water seeping through the bund, and entering the compound. This call, like all the others received by the control room, was conveyed to the 'appropriate authority', i.e the Deputy Commissioner's office that was handling the distribution of sand bags in the city. No plans for evacuating the patients either at LD or at any of the river bank/low lying hospitals in the city was contemplated. 'We never thought the situation would get so serious', the official stated.

That evening, the skies were clearer, and a rainbow appeared, which was seen as a sign that the weather was improving. At around midnight of 6th/7th September, two breaches were reported at Kadlabal and Pampore in South Kashmir. Thereafter the rise in water levels at Ram Munshi Bagh slowed down, to about 4-5 inches per hour. The official stated that the feeling in the Control Room was that the 'worst was over', as the breaches had led to a diversion of waters away from Srinagar. Two breaches that had looked likely earlier in the day, one at Batwara bus stop, and the other at Tenggura-Rambagh due to significant bund erosions, did not take place due to the efforts of field staff, and this too was seen as a positive sign. However by 2 am on 7th September the Ram Munshi Bagh gauge went under water and the hourly updates stopped. Between 3 am and 4:30 am on the morning of 7th September, bad news about a series of over flows and bund breaches began to filter in. At 3 am they received a call from the Circuit House, saying that the river was over flowing at the nearby bund, and one minister had still not been evacuated. (He was later rescued by the Deputy Commissioner). Water was reported to be also seeping in through the bund at Shaheed Gunj Police Station, though there was no breach. A serious breach was reported at the Hanuman Temple at Amira Kadal, close to Lal Chowk, and a beat officer called in about another serious breach at Noorbagh. Waters had also begun outflanking the Chhatabal weir by about 1.5 feet. By about 5:15 am the control room heard the first reports of breaches along the bund near Lal Chowk, and at Sonwar. By 5:30 am as Lal Chowk became flooded, the seriousness of the situation finally sank in. 'By the 7th morning, everything was over. Srinagar was finished. Those who had left on the 6th, managed to escape, the others were stranded.'

When the flood hit the Central Business and Administrative district in Lalchowk and Batmalloo, several offices crucial to emergency response, including the Police Head Quarters where the Flood Co-ordination Committee established its operational base, the Civil Secretariat, the Fire and Emergency Services Head quarters, the Offices of the Flood Control Department in Rajbagh, the Food Corporation of India Offices, all became inundated. Telecommunications broke down, and the few wireless links that survived, or were restored were monopolised by officials and ministers seeking or sending information about their own families and loved ones.⁶⁴

64 See for instance, Shahnaz Bashir's flood memoir for an account of listening to official wireless caught on an FM radio wavelength. Shahnaz Bashir, *When the Deluge hit Srinagar*, Fountain ink, 7 Nov 2014 fountainink.in/?p=6214. He writes: One transmission from Uniform 50 to Hotel 51 asked where ex-chief minister Mufti Mohammad Sayed, patron of the People's Democratic Party, archival of the ruling National Conference, could be found. Victor 49 called Hotel 51 to rescue the family of senior state Congress leader Saif-ud-Din Soz. When a caller mentioned the location as Friends' Colony, Hotel 51 couldn't roger that. The caller had to spell the entire word: Foxtrot, Romeo, India, Eco, November, Delta, Sierra. F-R-I-E-N-D-S. [...] There were countless other transmissions, seeking the whereabouts of an assistant commissioner of revenue in Raj Bagh, or looking for Shahnaz Ganai, MLA; a Delta Yankee Sierra Papa (deputy superintendent of police), a Sierra India (sub-inspector) called Ishfaq Ahmad, and many others. Of the situation on the ground there was no mention.

Militarisation and Flood Control

Reports and eye-witness accounts suggest that at various points during the official response to the recent floods, extrinsic factors influenced technical questions, such as whether certain embankments should be breached, or locks or barrages opened or closed. Villagers from Ganastan and Rakh – e – Shilwat in North Kashmir's Bandipora district, reported hearing the sound of an explosion, before the Jhelum waters suddenly flowed into their area, on the night of 9-10 September, forcing them to flee. They alleged that in order to save its headquarters at Badami Bagh cantonment, the army had engineered a blast at the Hokersar Bund near Lawaypora on Srinagar-Muzaffarabad highway. Flood waters inundated villages in the belt, for twenty five days.⁶⁵ The breaching of the Kandizal embankment, south of the city, was for instance the subject of a public spat between flood control officials, and the armed forces. On 16th October 2014, the General Officer in Command, Srinagar Sub Area, Major General Ajay Das issued a statement saying that there was a 'proposal' for the Kandizaal bund to be breached on 4 September, in accordance with past practice, and also army engineers had been sent for the purpose, but the flood control department's delay in diverting the waters at Kandizal had led to widespread damage in Srinagar.⁶⁶ The flood control department maintained that there was no such existing practice,⁶⁷ and that the breach had already naturally occurred on 4th September.⁶⁸ The Army authorities were taken into confidence on the issue through Divisional Commissioner, Kashmir on 3rd September, and the matter was discussed with the concerned Brigadier/Colonel thoroughly. Thus the statement made by the General Officer in Command, Srinagar Sub Area, Major General Ajay Das that the army authorities were not intimidated in time is not based on facts,' the flood control department stated in a press release.⁶⁹ The military's authority to issue instructions and take action superseding authorised civilian agencies in matters of an essentially civilian nature was taken for granted, both in the accusation and its rebuttal. A former flood control official told JKCCS, that a representative of the armed forces was always a member of the central flood control committee, formed as a part of the Standard Operating Procedure when the waters reach danger levels, and was privy to all the decision making of the committee. This appears to be corroborated by the Flood Control Department's refutation that 'Army Authorities' were taken into confidence on the 3rd of September. While the inclusion of a member from the Cantonment Board, which functions as a parallel and autonomous civic authority for a large river flanked part of the city, may be justified, a copy of the Flood Control Duty Chart, obtained by JKCCS which lists the members of the committee, including members of several departments such as Power Development, Roads and Buildings, Bharat Sanchar Nigam Limited (Telecommunications) etc makes no mention of such a member from the armed forces or Cantonment Board. The official also told JKCCS, about an incident, when after the 2006 flooding in large parts of South Kashmir, army officials from 'Brigade Headquarters' expressed a desire to 'see the spot in Kandizal embankment, where it gets breached.' Army officials dressed in civilian clothes, accompanied flood control officials and inspected the bund, so as not to arouse local suspicions.⁷⁰ The involvement of military officials, and militarised motivations in administrative decision-making, which affect the lives and property of millions of Kashmiri civilians, are shrouded in secrecy, and without any checks of public accountability. The high correlation between breach of bunds, in areas under the Cantonment Board and its immediate peripheries has been examined in the section detailing the military occupation of embankments and river-banks.⁷¹

65 Safwat Zargar, Getting Back into Seinweir, Kashmir Life, 23 Oct 2014, www.kashmirlife.net/getting-back-into-seinweir-66860

66 See GK News Network, Govt failed to breach Kandzal embankment says army, Greater Kashmir, 17 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/17/govt-failed-to-breach-kandzal-embankment-says-army-41.asp>

67 See Department of Information Government of Jammu and Kashmir, I&FC Dept. refutes claim of GOC, Sub Area regarding Kandizal breach, Press release dated 17 Oct 2014, available at <http://jkdirinf.in/NewsDescription.aspx?ID=9242>. Flood control officials who spoke to JKCCS stated that the practice of breaching Kandizal, to divert waters from Srinagar was never an official policy of the department. The embankment being 'naturally weak' on the left bank, led to natural breaches when the river was in spate, leading to the saying 'Kandizaal chotuk' [Kandizaal has broken, signalling the possibility of flooding]. Earlier too, if officials were involved in any such interventions, it was always done clandestinely, without the knowledge of local residents (mainly marginal farmers) whose fields would be inundated. Officials maintained that at present this could not be feasible practice, given the huge urbanised growth of the population in the area.

68 Department of Information Government of Jammu and Kashmir, I&FC Dept. refutes claim of GOC, Sub Area regarding Kandizal breach, Press release dated 17 Oct 2014, available at <http://jkdirinf.in/NewsDescription.aspx?ID=9242>.

69 Department of Information Government of Jammu and Kashmir, I&FC Dept. refutes claim of GOC, Sub Area regarding Kandizal breach, Press release dated 17 Oct 2014, available at <http://jkdirinf.in/NewsDescription.aspx?ID=9242>

70 The official stated that the people of flood prone Lasjan and Solteng, near the Kandizal bund have been always 'very protective' of their bunds. Whenever bunds 'had to be breached' during floods, it was done at night, under the cover of darkness. 'They would guard their bunds, with revolvers and hand made guns, if they suspected officials were coming to interfere with them.'

71 See also Chapter 1 : The Flooding of Kashmir: A brief History

Other Interference and lack of executive authority

Resistance to and interference with technical flood control measures and operational procedures, came not only from the armed forces, but also from local bureaucratic, political and other elites. On 3rd September, 2014, three days before the flood waters engulfed Srinagar city, the Mocchua gate of the Flood Spill Channel was opened, according to a flood control official. However, residents of the nearby elite neighbourhood of Rawalpura fearing overflow and inundation in their area, agitated to have them closed again. There was a physical skirmish between the security guards of two senior High Court judges residing in the area and the police over the opening of the gates. The gates were opened at the insistence of the judges' security guards. As the diverted waters came back into the river, the back flow heavily inundated Barzulla on 4th September, breaching its tampered embankments near the Bone and Joint Hospital. It was only after protests by locals of Barzulla that the gates were reopened on 4th September. Commentators and news reports suggested that local Members of Legislative assembly (MLAs) were also involved in gathering crowds at embankments, to prevent officials from accessing or breaching them if required.⁷² According to news paper reports, the MLA of the Lasjan area, Javed Mir, was seen brandishing a gun belonging to one of his official guards, while leading a crowd of locals, in 'protecting' the bund from official interventions, which they feared.⁷³ A protesting crowd also prevented waters from being diverted into the Manasbal lake, locals from Sumbul-Sonawari informed JKKCCS. While local marginal farming communities have historically protected bunds when they feared officials may breach them to save other areas, the rise in population in these areas, as well as the existence of powerful elites often backed by armed state security, combined with a complete lack of transparency in functioning and public trust in the flood control administration, created situations of chaos, executive helplessness and abandonment of responsibility. As a result almost no measures other than the most basic were taken. The department functioned as if everything were more or less normal, rather than on the verge of complete break down. Flood control officials recording readings at the Sangam gauge, for instance, stopped monitoring the gauge at the end of their work day at 4 pm, and began regularly recording readings again at 8 am the next morning, leaving a gap in the recording of flood levels were reaching their peak.

The Departmental Response

After the worst of the crisis had passed, the Irrigation and Flood Control Department in a press statement released in response to the Indian Army's allegations of its negligence, completely denied all responsibility, stating that it had 'set up Joint Control Rooms at Divisional Level, District Level and constituted the Zonal Level Flood Committees under concerned Executive Engineers to monitor flood situation regularly and taking requisite flood protection measures from September, 3rd. However, as already pointed out, the Sangam gauge readings were not being recorded in the Pampore sub divisional office, even on the crucial night of 4th -5th September. The department also stated Divisional Commissioner, Kashmir and the Chief Engineer, Irrigation and Flood Control had been regularly issuing press releases regarding the flood situation and warning the people to move to safer areas through FM Radio, Print and Audio-Visual Media.⁷⁴ The lack of public awareness about these warnings, and the utter ineffectiveness of the administration, and particularly the Flood Control Department in ensuring the dissemination of public information and effective warnings, has been examined in detail in Chapter 1.

At a press conference on 30th September, three weeks after the floods hit, state officials addressed the media collectively for the first time (though the Chief Minister had made public statements in the national media prior to this) adding to the general perception of official apathy. The dominant official line was of the natural 'inevitability' of the floods, given the sheer volume of water in the valley's water bodies, and the helplessness of the entire administration in the face of such 'fury'. A theory of 'cloud bursts' in South Kashmir was also mooted, bolstering the impression of natural inevitability due to uncontrollable and freak weather conditions, again seeking to absolve the administration for their negligence and failures in taking even basic precautions such as recording gauge readings,

72 Abdul Majid Zargar, Kandizal breach-victim of political compulsions, Kashmir Watch, 31 Oct 2014, <http://kashmirwatch.com/news.php/2014/10/31/kandizal-breach-victim-of-political-compulsions.html> ; Peerzada Ashiq, J-K: The safety valves that never opened, Hindustan Times, 20 Sep 2014, <http://m.hindustantimes.com/floodfuryhitsjk/k-k-the-safety-valves-that-never-opened/article1-1266614.aspx>. See also, Riyaz Wani, Paradise Lost, I Tehelka, 4 Oct 2014, <http://www.tehelka.com/kashmir-floods-paradise-lost/>

73 Abdul Majid Zargar, Kandizal breach-victim of political compulsions, Kashmir Watch, 31 Oct 2014, <http://kashmirwatch.com/news.php/2014/10/31/kandizal-breach-victim-of-political-compulsions.html>

74 Department of Information Government of Jammu and Kashmir, I&FC Dept. refutes claim of GOC, Sub Area regarding Kandizal breach, Press release dated 17 Oct 2014, available at <http://jkdirinf.in/NewsDescription.aspx?ID=9242>.

or giving adequate warning. The 'cloud burst' theory was later discredited by scientific data, as the meteorological record showed the absence of any such sudden or extreme weather event, and instead showing a gradual building up of the discharge levels over a week of continuous rains especially in South Kashmir. This gave officials enough lead time to issue warnings, initiate evacuations, and institute other emergency preparedness measures. At the Press Conference, the Commissioner Secretary, Flood Control, Pawan Kotwal told journalists that a day before flood hit Srinagar, the government was 'expecting weather to improve after sky got clear off clouds'. 'Jhelum was running at 22 feet in Srinagar and Sangam gauge (in Anantnag) which has maximum reading of 33.6 feet was under water. We thought water level will rise by another feet in Srinagar which was manageable' he is quoted as saying, in remarks that have been widely seen as showing a lack of basic understanding of Jhelum's hydrology. Chief Engineer, Mir Javed Jaffer had earlier said on 6th September, when water levels were reaching their peak, that the Jhelum was 'stable' and water level had started 'lowering' in the river, contrary to the readings at the gauges and without taking into account that such lowering of water levels was highly indicative of serious breaches in the river banks.⁷⁵ During the press conference, Chief Secretary Muhammad Iqbal Khanday, in response to a question that some local politicians had not allowed breaching the Kandizaal and diverting water to Dal, said: 'Where was the question of interference. Jhelum itself breached its embankments.' Chief Engineer Flood Control, Javed Jaffer was quoted as saying, 'A breach of 450 feet had by itself happened at Kandizaal. We have video evidence.' He also stated that flood committees 'were already alerted on September 2 in every district and government had taken all required steps to deal with the situation.' At the press conference he stated, 'Huge discharge overspilt the Jhelum embankments and even breached it at many points. This water was beyond anybody's control.'⁷⁶ At a subsequent press conference scheduled to be held on 4th October 2014, the Chief Engineer, Javed Jaffer, failed to make an appearance, prompting criticism in the media, for the complete invisibility of the responsible officials, including minister Shamlal Sharma in flood hit areas.⁷⁷

Urban Planning and Development

An academic article written by Humayun Rashid and Gowhar Nassem in 2008 compared an archived topographical map of 1911 and a 2004 map generated from Indian Remote Sensing Satellite (IRS-1D) data of a total area of 69,677 hectares (170.5 acres) in and around Srinagar city. The comparison shows that the network of lakes, swamps and wetlands that characterised the region in the early 20th century is fast disappearing. Nearly 9119.92 hectares (22535.81 acres) of open water surface and wetlands has been lost to other land uses, a loss of over 50 per cent. It found that in the last 93 years, concretised, built up area in Srinagar has grown from 1745.73 hectares (4313.79 acres) in 1911 to 10791.59 hectares (26666.59 acres) in 2004 – a staggering increase of more than 500%, a large part of it in wetlands and city water courses. The study noted, 'Though siltation brought about in the lakes and wetlands, especially during floods, was but natural, subsequent encroachment, earth filling, planting and construction by individuals and converting water channels into roads, presents a living example of how these valuable assets of natural landscape of Srinagar were destroyed [...] The Mar Nalla [a city drainage canal] was lost to a road. Doodganga Nalla [tributary of Jhelum] was converted into buildings. Bemina and Batmallo wetlands were converted into residential colonies [...] The loss in the spatial extent of these lakes and wetlands has affected the micro-climate of the city besides exposing it to flood threats.' The study drew attention to the alarming increase in levels and extent of inundation in the city, presciently observing that 'with a continuous rain for 2-3 days in Kashmir valley, the city is threatened with floods in river Jhelum, while nothing would happen with this much of precipitation 2-3 decades back. Further, it has also been observed during the last decade that residential areas which never had floods in the past are getting inundated during floods in river Jhelum.'⁷⁸

75 Mudassir Ali, JK Govt. slept over repeated warnings, Greater Kashmir, 9 Oct 2014

<http://www.greaterkashmir.com/news/2014/Oct/9/jk-govt-slept-over-repeated-warnings-52.asp>

76 Mudassir Ali, JK Govt. slept over repeated warnings, Greater Kashmir, 9 Oct 2014

<http://www.greaterkashmir.com/news/2014/Oct/9/jk-govt-slept-over-repeated-warnings-52.asp>

77 See for instance, Mudassir Ali, CE, I & FC skips press conference, Greater Kashmir, 5 Oct 2014,

<http://www.greaterkashmir.com/news/2014/Oct/5/ce-i-fc-skips-press-conference-54.asp>

78 Rashid, H., & Naseem, G. (2007). Quantification of Loss in Spatial Extent of Lakes and Wetlands in the Suburbs of Srinagar City during Last Century Using Geospatial Approach, in *Proceedings of Taal 2007: The 12th World Lake Conference* (Vol. 653, p. 658). See also, Fazal, S., & Amin, A. (2011). Impact of urban land transformation on water bodies in Srinagar city, India. *Journal of environmental protection*, 2(02), 142. See also, Soma Basu, Unplanned urbanisation, encroachment blamed for Srinagar flood, Down to Earth, 8 Sep 2014, <http://www.downtoearth.org.in/content/encroachment-blamed-srinagar-flood>

Unplanned official development, private greed, the lack of drainage infrastructure and the unregulated expansion of hard and impermeable surfaces, such as concrete houses and tarmac roads in ecologically vital flood basins, have been widely cited as the causes for fragmentation and destruction of absorption basins, leading to the unprecedented flooding of Srinagar in September 2014, by urban planners. Salim Beigh, member of the National Monument Authority, stated 'Srinagar has lost all but one water body and it has been because of some ill-advised urban planning [...] The government needs to restore the flood plains and rejuvenate water ways to act as cushions for floods.'⁷⁹ A news report stated that in his report to the High Court, the Deputy Commissioner Anantnag pointed out that 'of total width of Jhelum, only one-fifth has been left out without encroachments. The entire flood basin from Kandizaal to Lasjan has seen massive illegal construction of residential houses and business complexes.'⁸⁰

The rapid and unsustainable urban growth of Srinagar, must be contextualized against the background of military occupation of urban lands (See Chapter 2), as well as a history of the occupation's urban development and infrastructure construction policies that have been aimed at political control, including by building 'strategic connectivity', 'decongesting' historic centres of political dissent, and the housing of collaborating political elites in 'posh' VIP enclaves.

A Brief History of a City under Occupation

Srinagar city has expanded exponentially in the last century. Zadibal and Buchwara were added to the Srinagar municipality in 1915, and the low-lying Batmalloo and Sonawar-Shivpora followed in 1923. From 28 sq kms in 1960 to 177 sq kms in 2000, Srinagar has expanded to include peripheral areas in Ganderbal, Baramulla, Bandipore, Budgam and Pulwama districts. The most recent Master Plan (2000-2021, presently under a review process begun in 2013), contemplates extension of Greater Srinagar's limits from the existing 416.25 sq kms to 757 sq kms, including 163 more settlements from its peripheries.⁸¹ Needless to say, civic infrastructure and planning has failed to keep pace with this huge urbanization, leading to further ecological destruction, and pollution.

Political considerations of consolidating the power of the occupational and colonial state administration have played a historical role in the growth and development of Srinagar. The following account is compiled from oral histories provided by retired officials, urban planners and political journalists. The 19th and 20th century city of Dogra-ruled Srinagar, built on the Jhelum banks in the valley basin, was an architectural monument to the regime's modernist aspirations, and both a demonstration and outcome of their loyalty to the British. Residential colonies, such as Rajbagh, ('Royal Garden') on the banks of the river, grew on state lands which were drained, reclaimed and parcelled out as favours to Durbar loyalists, and colonial missionaries and officials, while civil servants and government employees were housed in the established civil and police lines around present day Karan Nagar and Shaheedgunj.

Bakshi Ghulam Mohammad, the Prime Minister of Kashmir who came to power in the 1950s (after an Indian backed coup against Sheikh Abdullah) consolidated his fragile political hold through an authoritarian silencing of dissent, and the creation of a new class of ruling elite, based on state patronage through the award of government contracts, and government allotments. Three new government planned and allotted colonies, Jawaharnagar (named after Indian Prime Minister Jawaharlal Nehru), Indiranagar (named after Indian Prime Minister Indira Gandhi) and Karan Nagar (named after the last Dogra Maharaja) were built after reclaiming and earth-filling on the river banks, paying homage to the new Indian political dispensation, under the surrogate governments of Bakshi Ghulam Mohammad, and later, G.M Sadiq.

The localities of Gulbarg Colony, Nowgam, Tengpora, Pir Bagh, Nagar and Bemina, which came up in the period 1950-1990s, are other examples of the expansion of the city into lowlands. Modern Batmalloo, part of the Rakh Gundak Shah marshes, was built on the ruins of devastated habitation and agricultural lands after the 1965 war with Pakistan, replacing large tracts of paddy fields, open areas and marshes, with imposing administrative buildings and tarmac roads. Bemina was one of the first localities promoted by the state after Sheikh Abdullah's negotiated return from political imprisonment by the Indian state in 1974, as erstwhile Plebiscite Front dissenters

79 Chetan Chauhan, Kashmir floods - a story of destroyed ecology, Hindustan Times, 16 Sep 2014, <http://www.hindustantimes.com/floodfuryhitsjk/kashmir-floods-a-story-of-destroyed-ecology/article1-1264745.aspx>.

80 Mudassir Ali, JK Govt. slept over repeated warnings, Greater Kashmir, 9 Oct 2014 <http://www.greaterkashmir.com/news/2014/Oct/9/jk-govt-slept-over-repeated-warnings-52.asp>. See also D.A Rasid, HC lens on constructions along Jhelum, Greater Kashmir, 3 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/3/hc-lens-on-constructions-along-jhelum-17.asp>

81 Figures as per Master Plan revision, quoted in Arif Shafi Wani, Draft Master Plan envisions green Srinagar, Greater Kashmir 1 Feb 2013, <http://www.greaterkashmir.com/news/2013/Feb/1/draft-master-plan-envisions-green-srinagar-21.asp>

(supporters of Sheikh Abdullah's earlier call for an Internationally monitored Plebiscite to decide the Kashmir dispute) were allotted lands in the areas of Batmalloo and Bemina in order to placate them. In a recent news report, Member of Legislative Assembly, Naeem Akhter, described the process of rewarding political collaborators with land in return for services rendered. He is quoted as saying, 'My locality (Parraypora – Baghat) was green belt in 1977 [Master] plan [...] Later, Sheikh [Mohammad Abdullah] Sahib permitted Mohan Kishan Tickoo, the judge in Kashmir Conspiracy case [1959] whom he had made his minister, [to acquire land in the area], and then all others followed.'⁸² The marshlands of Batmalloo, and more recently Bemina, that once formed the wetland peripheries of the city, were reconceived as business and administrative hubs, with little thought as to the ecological consequences as the city grew. Ghulam Hassan Mir, Superintendent Engineer under Sheikh Abdullah, in 1975 was vehemently opposed to the building of the High Court and Assembly Complex in the open areas of Batmalloo, believing that low lying city areas needed to be decongested, and these new developments would lead to further congestion of the river banks. He was bypassed for promotion because of his principled opposition to the scheme, and never became the Chief Engineer, despite his excellent service record, a retired official told JKCCS. The building of the militarised Nowgam bypass connecting cantonment areas in the city to the National Highway, led to an expansion of the city into the banks of the river, at Lasjan, Somerbugh, Soitang, Padshahi Bagh, that had been earlier largely left to and grasslands, flood based irrigation of paddy.

In the 1960's, as a way to reduce flooding of the Dal Lake, a new canal Nalle Amir Khan, was cut to lower the water level of the lake. The reduced water level of Dal did slow the flow of water in the Nalla Mar, which carried the waters of the Dal through downtown Srinagar, and ultimately into the Jhelum. But the natural cycle of annual flooding of the Dal, with snow melt, which flushed the Nalla Mar ceased to exist, and over time the Nalla Mar became stagnant. The engineering solution proposed to address this problem was to make a new trunk drain for Srinagar City along the route of the channel. To ensure that the Dal continued to drain into the Anchar lake system at Ganderbal, six-foot pipes were proposed to be laid under the new road, but siltation and solid waste deposits created problems, the drainage pipes were never made fully operational, and their construction was abandoned. A decision was instead taken to build a road over the historic Nalla Mar rather than to acquire private property further inland. The historic canal was simply earth filled, and a tar road built over it, completely blocking the waterway, killing several city wetlands in the process, and irreversibly damaging the city's hydrology. Inefficient, frequently clogged, unsanitary open drains, aided by mechanised pumps on the Jhelum banks, came to replace the canal and drainage system that the 'old city' of Srinagar had been planned around.⁸³

In 1975, the administration under the newly reinstated Chief Minister Sheikh Mohammad Abdullah finally completed the building of the Marpalan (Nalle mar) road around the Dal's western flank connecting downtown areas to the Police and Civil Lines. It is commonly believed that the project was designed with the political motive of depopulating downtown areas, historically supportive of the Mirwaiz Maulvi Farooq who was vehemently opposed to the pro-India state government. Lt General Zaki, who was the Corps Commander in Kashmir personally lead a column of troops in a flag march down the Nalle Mar road through the heart of downtown Srinagar, after the intensification of military deployment in 1990, in a display of the military's domination over these insurgent areas, underlining the Nalla Mar road's strategic and militarised importance.⁸⁴ Another 'political' project, the Ali Jan Road, was built after Sheikh Abdullah's negotiated return to power with Indian support after years of political imprisonment. This road, which also destroyed several water channels, was built running from Eidgah in Downtown Srinagar via the Hazratbal Shrine to Abdullah's ancestral locality of Soura.

Srinagar Municipal Corporation and Srinagar Development Authority, which exercise official oversight over constructions and land use in the city, have turned a blind eye to the unsafe land filling, and construction of unauthorized private colonies and houses, especially in low-lying areas to the south of the city, by unscrupulous real estate developers, (locally referred to as draal) from Nowgam to Bemina, and beyond. The Hamdania Colony, built across the Bemina Bridge on the embankments of flood spill channel and extending into the water channel itself, is an example of such state endorsed 'unauthorised' encroachment. The thousands of kanals of state enclosed grasslands (khhacharrai) on which it is built originally were managed as a religious endowment belonging to powerful Aga Syed Mohammad sect. This land was parceled out and sold as individual plots, on the basis of

82 R.S Gull, Do not Blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirlife.net/do-not-blame-jhelum-66544/>

83 Rafique Khan, Engineering Kashmir: Drains, Ditches and Darya Jhelum, 10 Oct 2010,

<http://kashmirfoundation.us/engineering-kashmir-drains-ditches-darya-jhelum/>. See also, R.S Gull, Do not Blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirlife.net/do-not-blame-jhelum-66544/>;

84 David Devidas, Army: Symbol of Patience, The Tribune, 22 Jun 2003, <http://www.tribuneindia.com/2003/20030622/edit.htm>

informal contracts, locally known as 'Ag bayii' or 'Iqrar bayii' since it could not be officially transferred. The marshy grasslands were thereafter land filled and built upon, with official knowledge and co-operation, a local resident said. The colony become inundated to the extent of fifteen to twenty feet of water, during the flooding in September 2014, when a large breach occurred in the embankments along which it is illegally constructed. Waters remained in the area for almost three weeks to a month, and affected large areas of south Srinagar, and even neighbouring Budgam. The complete lack of disaster concerns in construction in flood prone and river bank areas, is also exemplified by the building of large multi-storeyed official and semi official buildings and housing, such as the Revenue Department Offices, the Police Forensic Laboratory, Police residential quarters and school, the Education Department, the Department of Environment, Ecology and Remote Sensing, the State Motor Garages, the LAWDA Boatmen's resettlement colony, the Srinagar Development Authority Office, the Hajj House and the Jhelum Valley Corporation (JVC) Medical College in the former marshlands of Bemina, belonging to the state.⁸⁵ A news report stated that about 625 kanals (78 acres) of flood-prone lands, under the jurisdiction of the Irrigation and Flood Control Department, in Srinagar's Rajbagh river bank neighbourhood had been illegally sold and developed with the active collusion of government officials belonging to the department.⁸⁶ An official told JKCCS that the building of such unauthorized localities, requires the post-facto provision of civic amenities such as electricity, water and sanitation which are also necessarily unplanned and ad hoc. He cited the example of laying of numerous water pipelines in the Rajbagh bund by PHE over the years, in order to provide water to the widespread unauthorized developments, as probably having a weakening effect on it. Figures disclosed in the Jammu and Kashmir State Legislature indicate a total of 14,00,000 (175000 acres) of state lands are illegally occupied. Though members of the Opposition had sought details on how much of such illegal occupation was by 'civil and police officers, and politicians', the state government declined to provide such a break up, saying that the survey of such lands was not complete. The government also stated that 'no specific information was available with the Revenue Department regarding the details of politicians and civil and police officers against whom the encroachment cases are pending disposal in judicial and Revenue courts.'⁸⁷ However, the framing of the question itself, indicates the nature and extent of land expropriation by state functionaries and political elites, which is a subject of common knowledge. In reply to a separate question, in March 2012, the State government stated that 19,00,000 kanals (2,37,500 acres) of state and forest lands were under 'unauthorized occupation' much of it under the 'mafia' or 'unscrupulous elements'.⁸⁸

An article on the civic decline of Srinagar, once considered one of the best laid out and most beautiful, ancient cities in the sub-continent, provides another example of such 'authorised' unauthorized development. It points to an undated SRO 420 in the 1980s, as the inaugural moment in Srinagar's legalized decline. It quotes an environmental and hydraulic expert, Aijaz Rasool, as stating, 'In the original Srinagar Master Plan (1971-1991) there was no provision for any construction in the area around Dal Lake particularly on the sides of Boulevard. It was declared as Green Zone, and any construction banned.[...] In the eighties all this changed as an illegal order was promulgated by the then rulers which legalized the [illegal] constructions.' It should be noted, that the several large bungalows in the VIP Residential area of Gupkar, two private and one government run five star hotel/convention centre, as well as the Royal Springs Golf Course, patronized by high ranking members of Srinagar's political and police establishment, fall in this area. Rasool, further stated 'It [The order] was taken out at the administrative level with no mandatory approval from state legislature.[...] First they allowed illegal construction and then under the garb of this order legalized it [...] The added burden with regards to these new colonies and structures was that government had to provide civic amenities to the areas which otherwise was not in the plan.'⁸⁹

Migration from congested and densely militarised (but relatively flood safe) downtown Srinagar areas, as well as dislocations from the land strapped countryside have exacerbated the problem, actively abetted by the nexus between powerful local politicians, government and military contractors and the real estate lobby. Residents of Anantnag and Pulwama districts told JKCCS, that unlicensed large scale sand excavation from river banks, and illegal earth quarrying of karewas, often carried on clandestinely at night, weakened the river banks, leading to

85 Mudassir Ali, JK Govt. slept over repeated warnings, Greater Kashmir, 9 Oct 2014

<http://www.greaterkashmir.com/news/2014/Oct/9/jk-govt-slept-over-repeated-warnings-52.asp>

86 Shafat Farooq, 'Top civic officials involved in Raj Bagh land swindle', Kashmir Monitor, 10 Oct 2013

<http://www.kashmirmonitor.in/news-top-civic-officials-involved-in-raj-bagh-land-swindle-55687.aspx>

87 Marouf Ahmad Parrey, 14 Lakh of state lands encroached in J & K, Kashmir Reader, 6 Oct 2012.

88 About 19 lakh kanal State, Forest land under encroachment, Daily Excelsior, 7 Mar 2012, <http://www.dailyexcelsior.com/web1/12mar07/state.htm#6>,

89 Haroon Mirani, Fall of Srinagar, Kashmir Life, 24 May 2010, <http://www.kashmirlife.net/fall-of-srinagar-495/>

landslides when the water flow in the rivers and streams became torrential. Such quarrying was particularly prevalent on the stretch between Shamsheesipura to Hassanpora, along which 7 kms of road had been washed away in the floods, completely cutting off the 140 or so families that resided at Hassanpora, locals stated. Relief materials had been reached to these areas by community volunteers of the Syed ud Sadaat Trust, Anantnag, carrying supplies and water bottles on their shoulders. They stated that these quarrying activities were frequently carried out by government/ military contractors and sub-contractors, with the active connivance and knowledge of local municipal officials, and that given their powerful backers, local communities were powerless to stop them. Residents of Anantnag, the second largest city in the valley after Srinagar, pointed to the case of the garbage land fill site, in an abandoned illegal quarry in the Doonipawa area of the city, as emblematic of the problem. They stated that city municipal authorities had not only turned a blind eye to the systematic illegal quarrying by military contractors, but in fact most of the city's garbage was dumped by municipal authorities in abandoned, illegal and highly unstable quarries, which doubled up as unofficial landfills, along the river banks of the Arpat in Achajipora, Mehandi Kadal and Doonipawa. An official plan for a more secure landfill site, the press reported, could not be executed due to the control over the area by the powerful quarrying lobby. During the floods, the flooded river carried huge amounts of rotting waste and debris into downtown city areas from these unsecured garbage dumps, making many parts of the city unlivable for weeks. Residents described it as a torrential 'river of garbage'. After the floods, garbage, carcasses and flood debris continued to be dumped at the same unsafe location, with the full knowledge of municipal authorities.⁹⁰

City Waterways

Obstructions, blockages and constructions on historic inner city waterways and drainage canals in Srinagar city have been widely seen as also exacerbating the inundation. These have no single regulatory authority, with some being regulated by the Srinagar Municipality, others by the Lakes and Waterways Development Authority, or the Flood Control Department. Srinagar's 76 Permanent Dewatering pumps, located on the river bank, are under the Public Health and Engineering Department, as are its water supply pipelines. Tchunt Kol, Kaet Kol and Sonar Kol, the extension of Doodh Ganga between Alochi Bagh and Chattabal, the Padshahi canal, and many other smaller waterways, which formerly drained the city and acted as important transportation and sanitary networks, have been almost completely blocked by constructions and unregulated dumping of solid waste and raw sewage, and now function as unhygienic open drains rather than living waterways. The case of the Nalla Mar canal, which was earth filled in the 1970s, creating a tarred road through the heart of the congested old city, allowing access to downtown areas from the Civil Lines, (see above) is cited as one of the 'worst engineering disasters' to befall Srinagar, leading to the cutting off and degradation of numerous water bodies in the city, including the Brari Nambal, and Baba Damb (lagoons of the Dal Lake).⁹¹

Srinagar's water bodies however, have not lacked at tourism oriented attempts at conservation, 'beautification' and restoration. The Dal lake in Srinagar, an iconic tourist attraction, has been the subject of at least five official, top-down, conservation and tourism based beautification and 'restoration' plans, which have been failures. Development around the lake is also subject to stringent orders in a pending Public Interest Litigation before the Srinagar Bench of the Jammu and Kashmir High Court regulating constructions and repairs of structures on the lake and its peripheries. It is worth reiterating that the promotion of tourism is very much a part of India's 'soft' militarised development strategy, aimed at projecting 'normalcy', and integrating Kashmir into the Indian national cartography.⁹² These haphazard plans and judicial orders have facilitated a culture of corruption and discrimination, whereby those who can pay bribes and navigate the complex bureaucracy of permissions are allowed to continue to construct unsustainable, multi storeyed hotels and concrete homes, while impoverished lake dwelling communities, living in largely salvaged-timber or mud cemented shacks, plying shikaras, running tourist houseboats or floating handicraft shops, or carrying out low impact, sustenance based, vegetable and lotus cultivation on radhs (floating gardens), are criminalised as 'encroachers', and subject to constant harassment,

90 See also, Khalid Gul, Anantnag stinks in absence of garbage dumping sites, Greater Kashmir, 25 Sep 2014. <http://www.greaterkashmir.com/news/2014/Sep/25/anantnag-stinks-in-absence-of-garbage-dumping-sites-41.asp>

91 R.S Gull, Do not Blame Jhelum, Kashmir Life, 15 Oct 2014, <http://www.kashmirlife.net/do-not-blame-jhelum-66544/>

92 Mohammad Junaid, Peace, tourism and political games in Kashmir, Al Jazeera, 29 Jul 2012 <http://www.aljazeera.com/indepth/opinion/2012/07/201272612535508711.html>. With respect to 'saving the Dal lake' for tourism, while discriminating against lake dwelling communities, see Mona Bhan and Nishita Trisal, Fluid Landscapes: The politics of conservation and dislocation, Greater Kashmir, 3 Jul 2009 <http://www.greaterkashmir.com/news/2009/Jul/3/fluid-landscapes-54.asp>

demands for bribes, and threats of demolitions and forced resettlement.⁹³ The recent legal controversy over preventing flood affected Dal lake residents from rebuilding their destroyed and damaged homes highlights once again the state policy of 'preserving' Dal as a 'pristine' tourism destination for the pleasurable consumption of (predominantly Indian) tourists, at the cost of its people. Plans for relocating Dal lake dwellers in the former wetlands in a 'model colony' of Bemina after earth filling the marshes, have been criticised as being ecologically and socially unsustainable, as these areas are highly flood vulnerable, and main livelihood of these communities continues to be tied to the lake.⁹⁴ Many Dal lake dwellers, who spoke to JKCCS stated that continuing to live on the lake was becoming increasingly untenable, and cited harassment by LAWDA officials, and the inability to build or repair their precarious homes, and dungas (boat homes) as reasons why they wished to relocate, despite being aware of the lack of alternative livelihood options, and the squalid and flood prone nature of the Bemina boat men colony (Rakh Arath) relocation site.⁹⁵



Homes of Dal dwellers during the flooding.



Dal lake dwellers complain that they are not allowed to rebuild damaged homes and structures such as these.

93 Mona Bhan and Nishita Trisal, Fluid Landscapes: The politics of conservation and dislocation, Greater Kashmir, 3 Jul 2009
<http://www.greaterkashmir.com/news/2009/Jul/3/fluid-landscapes-54.asp>

94 See for instance, Syed Ali Salvi, Sonia's Kashmir visit: LAWDA's colony inauguration can run into rough weather, 26 May 2010, <http://syedalisaarvi.blogspot.in/2010/05/sonias-kashmir-visit-lawdas-colony.html> See also, Ishfaq Tantry, Waters recede but no let-up in Dal dwellers' woes, 8 Apr 2015, <http://www.tribuneindia.com/news/jammu-kashmir/waters-recede-but-no-let-up-in-dal-dwellers-woes/64239.html>

95 For other examples of planned residential housing in low lying areas, see Srinagar Development Authority, Govt of J and K, 'Land Use Analysis', http://www.sdasrinagar.com/index.php?option=com_content&view=article&id=57:land-use-analysis&catid=21&Itemid=170

The case of Brari Nambal, a lagoon of the Dal lake, located near Khanyar, which has shrunk from 5 sq km, to 1 sq km, and become a stagnant, anoxic cess-pool, due to the blockage of the Nalle Mar canal, is illustrative of the problems of India-centric planning, unaccountable funding, multiple agencies, and misplaced engineering and development priorities, that have beset the conservation of Srinagar's urban water bodies. A Rajya Sabha Parliamentary Standing Committee on Conservation and Management of Dal and Nigeen lake in 2003 had recommended immediate measures, including cleaning of the Brari Nambal and the relocation of local residents. The Lakes and Waterways Development Authority (LAWDA), was entrusted with restoration of Brari Nambal and launched a cleaning and beautification drive a few years ago, involving its enclosure from the city commons, by the erection of an ornamental fencing around the lagoon, which now serves mainly to trap floating garbage and debris.⁹⁶ A news report stated that in 2008, 'a consortium of private global companies specializing in restoration of water bodies and liquid waste [...] in collaboration with Srinagar-based consultancy Techno Help' had 'devised a comprehensive project Eco-Restoration of Brari Nambal', which 'envisaged restoration of Brari Nambal with latest scientific technology, creation of floating restaurants, fun park, mini zoo and bird park.' However Lake and Waterways Authority, (LAWDA) officials told the reporter, that 'as Brari Nambal was not part of the Dal Conservation Plan, a [separate] proposal was sent to the government last year. The project is estimated at Rs 80 crores and stands vetted by Joint Commissioner Works. However we are awaiting its sanction [...] It is futile to undertake any conservation measures in the lagoon this time as drains still flow into it. Once the new STP at Brari Nambal is commissioned by April this year, we will divert the drains into it and launch restoration of the lagoon'.⁹⁷ Needless to say, despite this ambitious planning, Brari Nambal continues to remain in its degraded state.

The Srinagar Development Authority

Like the governing frameworks of wetland and flood management, urban planning and development in Kashmir too is characterised by complex, multiple, overlapping laws and authorities. Such a maze like governing structure serves to obfuscate the responsibility of particular departments or individuals, and to undermine public accountability to the local population. The public accountability of administrative agencies responsible to the elected state government (limited as its powers may be in practice), is further diffused by special packages, and funding from federal schemes and external sources, and the setting up of parallel, and overlapping administrative mechanisms, headed by 'political appointees'. The overall bureaucratic structure, which has evolved as a result of this policy, is unwieldy, complex, and corruption ridden, with little executive autonomy, but with complete impunity, and deniability for its acts and omissions. The Srinagar Master Plan recognizes the existence of several outdated, over-lapping or discrepant legislative provisions, and recommends an over-all review of all applicable laws to urban planning and zoning.⁹⁸

Other than various laws governing municipal and urban local bodies, the two main legislations involved in development and land use planning are the Jammu and Kashmir State Town Planning Act, 1963 and the Jammu and Kashmir Development Act, 1970 which respectively set up the Town Planning Board and Development Authority as the planning and implementing body. Where Development Authorities have been constituted, the later act has by and large over-ruled and replaced the provisions of the Town Planning Act. In areas where no Development Authority has been constituted or Master Plan/ zonal plans created the provisions of the Town Planning Act and schemes thereunder continue to apply. So far, Development Authorities and Master Plans have been created in about twenty areas in the state including, Srinagar, Jammu, Pahalgam, Yusmarg, Gulmarg, Sonmarg and Dodh Patthri. While the Town Planning Act contemplated a single planning and implementation authority for the entire region, the Development Act creates various local Development Authorities with fragmented jurisdictions, which officials who spoke to JKCCS criticised as being inimical to the co-ordinated development of the valley as a single connected ecology and region. Development Authorities, such as the Srinagar Development Authority (SDA) and the Pahalgam Development Authority have demarcated lands far exceeding the present urban settlements in these areas, for instance in the case of the Srinagar Master Plan (2000-2021) extending to 757 square kilometres,

96 Arif Shahi Wani, Govt sits on Brari Nambal conservation, Greater Kashmir, 27 Marc 2013, <http://www.greaterkashmir.com/news/2013/Mar/27/government-sits-on-brari-nambal-conservation-58.asp>

97 Arif Shahi Wani, Govt sits on Brari Nambal conservation, Greater Kashmir, 27 Marc 2013, <http://www.greaterkashmir.com/news/2013/Mar/27/government-sits-on-brari-nambal-conservation-58.asp>

98 Srinagar Development Authority (SDA) , Srinagar Masterplan 2000-2021, page 149-152, http://www.sdasrinagar.com/index.php?option=com_content&view=article&id=32:full-master-plan&catid=12:master-plan&Itemid=171

encompassing present day agricultural areas and neighbouring towns. The framing legislation, the Jammu and Kashmir Development Act, 1970 is an almost clause by clause reproduction of the Delhi Development Act, with no consideration as to the vastly different physical and social patterns of land use that prevail in the two areas. While in the past the SDA has issued caution notices, against unauthorized construction activities in the Local Area of SDA which is a punishable offence under Section (9) of Control of Buildings Operations Act, these are generally not implemented.⁹⁹

The much delayed Master Plan for Srinagar City (2000-2021), based on GIS information and high resolution satellite imagery was approved and sanctioned in 2003, (based on year 2000 data) and has been under review since 2013. It proposes to reserve nearly 331 sq. kms of the total area of city's Master plan area of 757. Sq kms for agricultural purposes, 80.32 sq kms for water bodies, 6.62 sq kms for forests respectively. It prioritises the creation of a large state acquired 'land bank' for planned development, and according to Farooq Renzu, Vice Chairman of the SDA, promotes 'the preservation of agriculture, the promotion of tourism and the protection of the environment.' It contemplates a dramatic decentralisation of population and restructuring of activities through developing Satellite towns as Ganderbal (Education Town), Budgam (Commercial and Hotel Zone), Pampore (Transportation Hub), Khrew (Agro based Industrial Hub/agro-tourism), Zabarwan Range (Tourism Hub). However, much of this planned development, is completely removed from actual realities, land use, military occupation of land, or the organic growth patterns of the city. This was admitted by the Vice Chairman of the SDA Farooq Renzu who was quoted in a news report on the far reaching 2013 master plan review, as saying 'Due to lack of technology and other challenges, [including the changed alignment of the Railway line] there was mismatch between the Master Plan (2001-2021) proposals and the ground reality emerging out of inaccurate existing land use plan.' The SDA has in the past also publically admitted the challenge posed to 'holistic development' of the city by unauthorised military occupation of lands within its jurisdiction. (See chapter 2).¹⁰⁰

In relation to the failure to implement the previous Masterplan (1971-91, notified in 1977), the present Master plan states, that 'Over 29 years, since the SDA has only been able to attempt the preparation of development plans for 7 zones, less than 5% of the 160 zones into which the Local Area is divided. Zonal plans were not implemented[...] Plans and programs of other department concerned with physical and social infrastructure never co ordinated. No reviews were done and without making periodical revisions the plan amounted to making castles in the air.' Such criticism is rather ironic, given that it is equally applicable to the present plan document (2000-2021), which is rife with similar impractical proposals and inconsistencies, including large scale land-use changes and unrealistic zoning and is still under revision. JKCCS was not able to obtain current detailed zonal plans, which are public documents, despite repeated enquiries at the SDA offices. An official told JKCCS that they were still under preparation, though more than half the Master plan period has elapsed.

A reading of the Master plan document is a surreal experience, where idealised descriptions of proposed facilities and urban infrastructure appear to have no connection to existing militarised realities, or the valley's natural hydrology or geology. To give only one example of several available of the Master plan's unfeasible proposals—it contemplates 23 functional cinema halls, and 10 sports stadia on the basis of the population of Srinagar. This will seem almost laughable to any visitor to Srinagar, given the state of the listed existing 'socio-cultural' facilities, which are overwhelmingly defunct and under military occupation. No mention is made of this fact. Rather tellingly the only public services and facilities that that the plan shows as in 'excess' of the population's requirements, are six extra police stations. (page 139-140). Despite the lapse of more than half the plan period, the plan is under revision, and most original proposals are unimplemented, other than a few scattered constructions, publicised on the SDA website as ' infrastructure projects' such as the Shopping Complex at General Bus Stand, Batamaloo, Yamberzal Complex at Lalchowk, Shehjar Housing Colony in Bemina, Sangarmaal Shopping Complex at Moulana Azad Road, and the Regional Bus Stand at Pantha Chowk. Most of these projects, it should be noted, were inundated in the recent flooding.¹⁰¹ While on the one hand the Master plan laments the destruction and degradation of wetlands, many of its planned expansion proposals, including the shifting of the Central Business District to Bemina, and areas around the bypass, appear to completely ignore ecological concerns. While the zoning maps, available separately from the main Master Plan document, show markings of flood zones, wetlands,

99 SDA, Constructions in SDA Local Area: Caution Notice, http://www.sdasrinagar.com/index.php?option=com_content&view=article&id=88:pub-notice&catid=19:important-notice

100 Mr Renzu was under investigation by the State Vigilance Organisation, for illegal grants of permission for the building of malls in city centre areas, in violation of SDA nborms. See, Kamran Shamshad, Farooq Renzu, former SMC boss, booked for granting illegal building permissions, Authint Mail, 6 Mar 2015, <https://www.authintmail.com/2015/kashmir/farooq-renzu-former-smc-boss-booked-granting-illegal-building-permissions>

101 SDA, 'Infrastructure Projects' <http://www.sdasrinagar.com/projects/infrastructure-projects/14-sda/projects>

and 'green belts', there is no mention of ecological profile or environmental concerns in the text, while discussing specific land use changes or patterns. The Master Plan states that the vertical expansion of the city into karewas of Chadura and surrounding areas is unfeasible due to the area's loose soil profile and the region's general seismic instability, but does not consider the hydrological features and marshy and flood prone nature of low lying areas in proposing ambitious lateral expansions and infrastructure projects, based on large scale land filling and ecological destruction. Independent urban planners and disaster experts who spoke to JKCCS, repeatedly reiterated that the clayey, arid highland Karewas surrounding the city, were in fact far more suitable for urban expansion than flood plains. They stated that the Master Plan's model of heavy, concrete, multi-storeyed and high rise housing, administrative, and commercial structures in low lying and marshy flood plains, was utterly unsuited to the region's soil, seismological and hydrological profile, and an invitation to further disasters. An urban planning official told JKCCS

'The Srinagar Masterplan is only a paper plan. If the powers that be favour a particular project, no Masterplan can stop it, for instance, the Jawahar nagar flyover project. The Srinagar Development Authority is a toothless body, with no real authority. It's not as if individuals don't care for the future of their city, but the system promotes complacency, corruption and compromise. Even if one good officer, wants to take a sensible step, he will be obstructed by some or the other parallel authority. The whole system is ultimately answerable at the highest level only to New Delhi, not to the public, so it does not matter who is in power in Srinagar, things won't change at an administrative level, but I cannot comment more than that. Transfers will happen, but the basic structure remains. [...] SDA undertakes constructions of various small and big projects in an ad hoc manner, based on the whims of those in charge: it builds a shopping mall here, and a bus stand or office building there, but does not function as an over all planning or zoning authority for the integrated development of the whole city. It behaves more like a construction agency, than a city planner. Look at how many structures built by the SDA were affected by the flooding, including its own head office, the Sangarmal mall, and residential colonies in Bemina. These are unsafe, unsuitable structures, which should never have been built in these areas. They are neither in keeping with Srinagar's built architectural heritage, nor its natural heritage, nor the lifestyle and culture of the people. Their own buildings, shows you the way in which mindless basis on which construction is being carried out, and allowed by the SDA, disregarding the fundamentals of town planning and zoning.'

A reading between the lines of the Master Plan's drafting history, as narrated in its Foreword, demonstrates many of the unmentioned and unmentionable ills of urban planning which permeates administrative structures under the occupational politics of governing Srinagar from New Delhi. The first Master Plan 1971-91 was approved by the state government vide SRO 754 dated 22 November 1976. The SDA, modelled on the Delhi Development Authority, (DDA) took up preparation of the 2nd Masterplan through the National Institute of Urban Affairs, (NIUA) New Delhi in 1983, and submitted its first draft in October 1986. It was discussed and a revised draft prepared on the basis of comments from the NIUA in 1987. But this draft was not adopted as it was found to be based on old and outdated base maps. The Survey of India was therefore commissioned with the preparation of new base maps, but these were misplaced. The Crime Branch, J and K Police was entrusted with investigating the matter. Meanwhile, the 'whole exercise of concluding the draft Master plan remained in the deep freeze due to turbulence in the valley' until the draft plan based on 1983 data became irrelevant. The existing master plan (1971-91) which was set to expire in 1991, was extended from 'time to time', for a period of ten years, until the new plan was notified in 2003. In 1996, SDA took steps to resume the process of creating the second draft Master plan, and obtained new copies of Survey of India Maps from Chandigarh, but these required to be updated, as they were based on the aerial survey conducted in 1985. Technical collaboration was contemplated with the School of Planning and Architecture, (SPA) New Delhi and the NIUA, New Delhi, but after some deliberation the SDA Board in its 58th meeting on May 20th 1996, assigned the work of preparation to the Town Planning Organisation, (TPO) Kashmir. The TPO submitted its draft on 15 December 1998, but the draft plan was found 'deficient' in a series of meetings of the Committee constituted by the J and K Ministry of Housing and Urban Development, and its invitees the Vice Chairperson of the DDA and the Planning Commissioner, DDA. Thereafter, 'latest satellite imagery' was obtained from IRS Hyderabad and the base map was digitized and updated. The revised draft Master Plan was finally submitted to the SDA board in July 2000, and after hearing of objections, discussions and revisions received official approval in 2003.¹⁰² A new process of revision was begun in 2012-13.

102 Srinagar Development Authority (SDA), Srinagar Masterplan 2000-2021, http://www.sdasingar.com/index.php?option=com_content&view=article&id=32:full-master-plan&catid=12:master-plan&Itemid=171

Reconstruction and Infrastructure

In the last decade 'Infrastructure Development' and 'Economic Reconstruction' have become important governance buzz words in the 'post conflict' occupational governance of Jammu and Kashmir, constituting the state as a special economic zone for nationalised development. (See also 'militarised development' in Chapter 2). The Jammu and Kashmir Economic Survey (2006-2007) thus argues that 'the need for a reformist long-term development strategy – to raise growth, increase employment, reduce poverty, and improve factor use efficiency – is generic to all states and economies in India. In Jammu and Kashmir however, independently of these a long term strategy is needed to ensure conflict resolution and prevention, and peace through economic reconstruction.'¹⁰³ 'The Prime Minister's Reconstruction Plan, 2004 (PMRP)¹⁰⁴ is steeped in similar 'post conflict' language, of reconciliation through economic infrastructure building, 'compensation' and reconstruction, with no mention of the unresolved and continuing nature of the 'conflict'. The PMRP, announces as its objectives, 'expanding economic infrastructure, expanding provision of basic services, providing thrust to employment and income generation and providing relief & rehabilitation to the dislocated, and the families of victims of militancy.'¹⁰⁵ The Jammu and Kashmir Economic Reconstruction Agency (ERA) was established in 2004, contemporaneously to the PMRP as a 'special purpose vehicle' for the implementation of externally funded projects 'to promote the Socio-Economic Development of the State and to plan, implement and execute the policies on behalf of the Govt. of Jammu and Kashmir'. It is the nodal co-ordination and execution agency, for the implementation of several large Asian Development Bank (ADB) loans, extended to the state of J and K, supported and backed with smaller 'counter-part' contributions by the Government of India, under the PMRP.¹⁰⁶ This model of 'reconstruction' and 'reconciliation' oriented development financing, reduces questions of Kashmir's complex political future to pure economics. In many ways it exemplifies how undemocratic, India-centric development institutions systematically over-ride not just community concerns, but statutory laws and regulations. It also illuminates how seemingly abstract concerns of public financing and public accountability affect the everyday lives and disaster vulnerability of ordinary Kashmiris, living under a complex and integrationist occupation.

The ERA employs a public-private partnership model, in project conceptualisation and execution, with ERA officials (including Engineers and Administrators) outsourcing components of a single project to several private consultancy firms, construction companies, and other executing agencies. JKCCS observed what appears to be 'a revolving door policy' between ERA, various state government engineering departments, and private consultancy firms, with government personnel and technical experts often being recruited or seconded to lucrative private consultancy assignments. Different projects are identified by reference to the operative ADB Loan Tranches and Periods, rather than by department, or executing agency, as is normally the case in large public projects.

The first of the loans administered by the ERA in 2004 was the MPIR (Multi Sector Project for Infrastructure Rehabilitation) which amounted to Rs 1611 crores, with ADB contributing Rs 1125 crores, and Government of India contributing Rs 468 crores. The Project ended on 30 Sep 2013, after several extensions, over runs and delays. According to ERA, under the ADB funding of the Multi-sector project for infrastructure rehabilitation (MPIR), and a subsequent financing programme, the Jammu and Kashmir Urban Sector Development Investment programme (JKUSDIP), 69 Sub-Projects including improvement and upgradation of some major roads, bridges, water supply and drainage schemes had been completed in 2012. Equipment worth Rs 34.29 crores, including water tankers, garbage carriers, loaders, sewer cleaning equipment etc. have been provided to SMC (Srinagar Municipal Corporation) JMC (Jammu Municipal Corporation) and PHED (Public Health and Engineering Department) under the project. Under tranche-I of JKUSDIP (to be completed in April 2015, worth Rs 323.50 crores) the ERA took up work on 9 sub-projects which include five sewerage sub-projects and 5 sub-projects for 'scientific disposal of solid waste' and 3 water supply sub-projects, including the building of a land fill site at Achan, and laying of water pipelines from Nishat to Harwan.¹⁰⁷ Tranche 2, which was to end in 2011, but was extended until March 2017, (Rs 905.50 crores) includes construction of Elevated Expressway Corridor (Flyover) from Jahangir Chowk to Rambagh-

¹⁰³ J and K State Economic Survey 2006-07, at page 1 as quoted in Navlakha, Gautam (2006) State of Jammu and Kashmir's Economy, Economic and Political Weekly (XLII)40. <http://www.epw.in/commentary/state-jammu-and-kashmir-economy.html> [requires subscription]

¹⁰⁴ Ministry of Home Affairs, Government of India, PM's Reconstruction Plan for J&K announced on 17th /18th November, 2004 (As on 3 1.08.2013), http://mha.nic.in/hindi/sites/upload_files/mhahindi/files/PMRP-041013.pdf

¹⁰⁵ Ministry of Home Affairs, Government of India, PM's Reconstruction Plan for J&K announced on 17th /18th November, 2004 (As on 3 1.08.2013), http://mha.nic.in/hindi/sites/upload_files/mhahindi/files/PMRP-041013.pdf

¹⁰⁶ See the official JK-ERA website at <http://jkera.org/ERAFWeb/index.asp>

¹⁰⁷ See GK News Network, ADB funded projects reviewed, Greater Kashmir, 19 May 2012, <http://www.greaterkashmir.com/news/2012/May/19/adb-funded-projects-reviewed-37.asp>

Natipora. All the ADB loan tranches have been subject to considerable delays, over runs, and loan extensions.¹⁰⁸ Under its Safeguards Policy Statement, ADB classifies ADB financed projects as category 'A' and category 'B' according to the seriousness of anticipated environmental and social impacts, with Category A projects requiring external independent Environmental and Social Impact Assessments, (outsourced to private firms) and Category B projects requiring only Internal Environmental Impact Evaluations, to be conducted by the executing agency itself, in this case ERA. While ADB loan guidelines strictly mandate the publicising of project documents including information relating to Environmental and Social Impacts and Assessments of loan projects, JKCCS found that the structuring of these under various Loan Periods, and Tranches, makes such information difficult to track and obtain, without considerable insider knowledge. ERA officials, were only concerned with the ongoing loan period, and did not provide documents related to previous loan tranches or completed projects, repeatedly asking JKCCS to approach various New Delhi or Calcutta based private consultants, for the requested information.

The Asian Development Bank has, in other contexts been criticised for its neo-colonial economic policies, and disregard for community. This section analyses two particular ADB funded-ERA infrastructure projects, (i) the laying of a water supply pipeline under the bund on the River Jhelum, between Lal Chowk (Amira Kadal) and the Zero Bridge (part of a larger ERA project on Water Supply and Transmission in Srinagar under MPIR, ADB loan 2151 IND which was completed in September 2013), involving building of several water treatment plants and pipelines, including Replacement/Realignment of Transmission Mains from Nishat Water Supply Plant to Tale Manzil) and (ii) the Construction of an 'Elevated Expressway Corridor (Flyover) from Jehangir Chowk to Rambagh and Natipora (Part of Tranche 2, of JKUSDIP, ADB Loan 2331-IND), and its auxiliary project of building a road diversion on the Jawahar nagar bund, bridge across the Flood Spill Channel at Mehjoornagar (part of Tranche 3, ADB Loan 2331-IND).

These projects have been blamed for breaches, extensive flooding, water-logging and infrastructure damage in surrounding areas during the recent floods. While project documents, including the Internal Environmental Evaluation, available on the JK ERA web site categorise the second of these as a 'Category B' environmental project, (rather surprisingly given their serious potential impact) no detailed documentation was available about the MPIR, including the water pipelines project. Even a cursory reading of the publically available project assessment documents and periodic reports, shows an utter non application of mind, and callousness to disaster risk concerns and implications, in the conceptualizing and execution of projects.

Laying of Water pipe lines in the Jhelum Bund

JKCCS obtained reliable information from serving and former flood control officials that water supply pipes had been laid through stretches of the Jhelum bund by ERA in 2009-2010 as part of its MPIR project. These experts saw the faulty and unsafe pipe laying as a primary factor in the weakening of the bund, and nine large breaches along the stretch, which led to an unprecedented flooding, and water logging of Srinagar's Central business district and administrative offices in the recent floods, including at the District level Saddar Court Complex, and the General Post Office (GPO). For several weeks after the flooding, before the embankments were repaired, the exposed 600mm pipeline served as a precarious pedestrian bridge over the breaches. Local residents of Abi Guzar and Lal Chowk recalled that when the pipes were being laid, they had objected to their location, because of fears that the pipe line would cause damage to the stability of the bund, and adjacent buildings, including their mud-cemented and timber framed shops and homes. This was corroborated by news reports from the period, which reported on the 'frequent water logging as water rushes down from the bund towards the residential houses', and the fears of the residents that there was 'every possibility that the messy condition of the Bund could lead to breach and water from the Jhelum could rush into the area.'¹⁰⁹

In a conversation with JKCCS, a former flood control official stated that the project had been the subject of a protracted controversy, between the Flood control Department, and the executing agencies—PHE (Public Health

108 See for instance, Danish Nabi, ERA keeps its date with missed deadlines, Greater Kashmir, 31 Mar 2009, <http://www.greaterkashmir.com/news/2009/Mar/31/era-keeps-its-date-with-missed-deadlines-17.asp>, GK News Network, Development works suffer in ERA's era, Greater Kashmir, 13 July 2011 <http://www.greaterkashmir.com/news/2011/Jan/13/development-works-suffer-in-era-s-era-48.asp>; Bilal Hussain, ERA of broken promises, (n.d) available at <http://bilalhussainstringer.blogspot.in/2010/06/era-of-broken-promises.html>

109 City Correspondent, Slow work on water pipeline irks City Centre Bund Digging makes public movement difficult: ERA assures respite, Greater Kashmir, 25 Nov 2010, www.greaterkashmir.com/news/2010/Nov/26/slow-work-on-water-pipeline-irks-city-centre-bund-21.asp

and Engineering Department which oversees Srinagar's water supply) and ERA. The original plan for the pipeline did not involve tampering with the bund, and the pipeline from Nishat water treatment plant was to be laid in the VIP Gupkar Road area, and the commercial Residency Road. This is also corroborated by fleeting references in project documents and news reports, which refer to 'Tale Manzil' located in the Karan Mahal palace complex in Gupkar Road. According to a former official, because of 'pressure' from the political and security establishment, the pipeline was sought to be re aligned by the PHE and ERA through the river embankments, as the digging and construction works would cause security and traffic problems, and inconvenience to the VIP residents of Gupkar road. The fact that the pipeline was delayed because of a realignment is also corroborated by official ERA documents.¹¹⁰ An NOC (No Objection Certificate) from the Flood Control Department was required to be given to the BOCA (Board of Construction Authorisation, Srinagar Municipal Corporation), for any engineering works or constructions on the bund, according to municipal regulations. The Flood Control Department withheld permission for the project for a period of one and a half years (between 2009 and 2010), as it was widely believed among technical experts in the department that it would have a disastrous effect on the stability of the bund, and interfere with its crucial 'angle of repose'. The PHE Superintendent Engineer Mir Najibullah, who had originally proposed the realigned plan for laying the water pipes, was transferred to the Flood Control Department in this period, possibly to mitigate the vehemence of the engineering objections. However, as Chief Engineer of the Flood Control Department, he too opposed the proposal, once he understood the problems involved. Finally after several heated meetings, and with the personal intervention of unnamed high ranking 'politicians', the proposal was conditionally allowed in 2010, and building work began in 2011, after a NOC was granted by the Flood Control Department, subject to the condition that concrete filling be used to reinforce the stretch of the bund where the pipes were to be laid. The Flood Control Department also stated in a recent RTI response, that it had granted a 'conditional NOC' to the project.¹¹¹ However according to several flood control and hydraulic experts who spoke to JKCCS, only the cheaper and less stable 'sand filling' was done in the cavity created in the bund after laying the pipeline, after which the stretch was superficially 'black topped' with tar. During the September floods, they said, this sand filling was washed away by the force of the gushing waters, leaving the surrounding areas of Abi Guzar, Lal Chowk and Residency Road completely vulnerable, and inundating Amirakadal, Lal Chowk, Polo View Road, Residency Road, Lambert Lane, the Sadder Court Complex, the Telephone Exchange, and the General Post office. Despite ADB's strict stipulations on transparency and public availability of social and environmental documents, the Environmental and Social Impact Assessment documents relating to this project were not available on the ERA or ADB websites. The only documentation relating to the several water supply projects in Srinagar was the Initial Environmental Examination of Jammu and Kashmir Urban Sector Development Investment Program (JKUSDIP) Providing and laying of raw water transmission main from near upper reaches of Doodhganga to Kralpora Water treatment Plant, dated October 2013.¹¹² Though two hyperlinks are provided to two separate 'Srinagar Water Supply' projects on the ERA website, both link to this same project document. The only other reference, located by JKCCS in publically available documents, to the Nishat-Tale Manzil Water Pipeline, is a single entry in the August 2010, Monthly Progress Report (No. 57 for the MPSIR, in a table listed as Annexure 1B of the Report). The entry states that Contract number SU/WS/8/04&6/06 for 'Nishat Water Supply–Replacement/Realignment of Tale Manzil Transmission Mains, and Doodhganga Water Supply Improvement and extension of transmission Main' with an original scope of 29.7 km (revised to 23.74 km), was awarded on 9 July 2007 to M/S Pratibha Industries Ltd (PCCS No. 0046.), a Mumbai based concern¹¹³ The date of Completion/ Extension is listed as June 2010 for Taley Manzil Portion, the 'estimated/indicative cost' is Rupees 196.91 crores and the 'likely cost' estimated at Rupees 238 crores. The construction was 79.4% completed in July 2010 with 19.82 km out of 23.74 km laid. Under the head of 'Remarks' it states, 'Doodhganga part complete, Nishat Tale Manzil still in progress.' Under the head of 'Critical Issues/Reasons for Slow Progress' it blandly asserts: 'Alignment Finalized along bund of River Jhelum in principle, decided to start work in September 2010 keeping in view of floods'.¹¹⁴

¹¹⁰ JK ERA, Monthly Progress Report August 2010, No. 57, MPSIRJK, ADB Loan 2151 – IND, in a table listed as Annexure 1B, page 44. http://www.jkera.org/DocLibrary/PDFFile/504-MPR_Aug_10.pdf,

¹¹¹ RTI reply dated 23.02.2015, by Er. Arif Ahmed Mir, Public Information Officer, Irrigation and Flood Control, on file with JKCCS

¹¹² Jammu and Kashmir Urban Sector Development Investment Program-Providing and laying of raw water transmission main from near upper reaches of Doodhganga to Kralpora Water treatment Plant: Internal Environmental Examination, (Oct 2013) <http://jkera.org/DocLibrary/PDFFile/818.pdf> and <http://jkera.org/DocLibrary/PDFFile/805.pdf>

¹¹³ See Contractor Details uploaded at <http://www.jkera.org/ERAFWeb/DetailContractorProjects.asp?ContractorID=Pratibha%20Industries>

¹¹⁴ JK ERA, Monthly Progress Report August 2010, No. 57, MPSIRJK, ADB Loan 2151 – IND, in a table listed as Annexure 1B, page 44. http://www.jkera.org/DocLibrary/PDFFile/504-MPR_Aug_10.pdf,

JKCCS spoke to ERA officials, in specific relation to the flood vulnerability caused by this particular project. Initially, Mr. Malik Basarat, the Project Manager, ERA-JKUSDIP, rather surprisingly denied that the project was an ERA project at all. Fortunately, another engineer present during the meeting, intervened, volunteering information that the project was indeed an ERA project, and that he himself had been involved in its execution. This information disclosure was greeted with some consternation by the other engineers and officers present. When questioned as to why the bund was 'sand filled' rather than concretized after laying of the pipeline, he replied that 'it was a standard practice,' and strongly denied the suggestion that it could lead to weakening of the embankment. On asking for Environmental Impact Evaluation/Studies, JKCCS was informed that it did not form part of the current Loan Tranche, that no such project documents relating to previous tranche projects were available with ERA, and such information should be sought from the private consultants or executing agencies to whom the work had been outsourced. JKCCS was informed that the agency concerned was a New Delhi based firm, though documents subsequently appeared to show that it was in fact a Mumbai based contractor.

Jehangir Chowk-Rambagh Flyover and the Mehjoor Nagar Bridge

ERA's Jawaharnagar-Rambagh Expressway Corridor project has been the subject of strenuous criticism from urban planners and engineers, for its faulty conceptualisation, disproportionate costs, dislocation of historic shops and homes, exacerbation of Srinagar's traffic problems, deterioration of road surfaces, and violation of the city Master plan.¹¹⁵ During the recent floods, the huge unsecured construction site on one of Srinagar's arterial roads, connecting the city to the Airport, became completely inundated, effectively cutting off the city's main southern access route. The project has been mired in litigation over relocation of displaced persons, and other delays.¹¹⁶ Even in February 2015, that is almost five months after the flooding, the road along the flyover, especially at the Exhibition Ground crossing, is a mess of abandoned and mud caked equipment, flood damaged, half-built and uprooted concrete pillars, huge pot holes, and abysmal drainage, and becomes water logged with the slightest rainfall.¹¹⁷ Urban planner Rafique Khan, who has been a long standing and vociferous critic of the project, stated in a recent interview:

'The overhead bridge adds two lanes in each direction, and will take out at least one moving traffic lane at the ground level. Traffic flow is like water flow. Traffic on the overhead will be like having one three inch diameter pipe connected to six one inch pipes. The overhead bridge will only save some minutes of travel time for the "lal bati" sahibs [high ranking state officials with vehicle beacons]. I doubt it will solve the traffic problem. I had suggested creating a new network of streets for the area to add more traffic lanes, including widening the existing street adjacent to the old Rashamkhana complex and connecting it with a new bridge across the Flood Channel to the old Airport road.'¹¹⁸

The project is classified as a 'category B' according to ADB Safeguard Policy Statement, and requires only an Internal Environmental Evaluation, (IEE) rather than an independent Impact Assessment. The IEE was conducted by the JK ERA in October 2013, and is available on the ADB and ERA websites.¹¹⁹ The document raises very serious questions about the methodology and basic evaluation criteria adopted in carrying out such studies. In consideration of the applicable legislative and policy framework, despite referring to 17 National and State level laws including relatively minor legislations such as the 'Jammu and Kashmir Preservation of Specified Trees Act of 1969 and Rules of 1969', no mention is made of the Jammu and Kashmir Development Act, and the Srinagar Master Plan thereunder, which is the primary governing legislation relating to infrastructure planning and land use, and of which the project is in violation. This appears to be a deliberate act of omission, as statistics from the Master plan

115 Rafique Khan, Defacing the city, Greater Kashmir, 24 Apr 2012, <http://www.greaterkashmir.com/news/2012/Apr/24/defacing-the-city-14.asp> See also response from an ERA official, Khalud Muzaffar, Jehangir Chowk Flyover a viable Project, Greater Kashmir, 2 May 2012, <http://www.greaterkashmir.com/news/2012/May/2/jehangir-chowk-flyover-a-viable-project-13.asp>. See also, Ashraf Fazli, 'Skewed bridge construction is Dracula's return from the grave' Greater Kashmir, 2 Nov 2012, <http://www.greaterkashmir.com/news/2012/Nov/2/skewed-bridge-construction-is-dracula-s-return-from-the-grave--14.asp>.

116 Jehangir Chowk flyover hits another road-block, Kashmir Images, 3 Sep

2013, <http://www.dailykashmirimages.com/news-jehangir-chowk-rambagh-flyover-project-hits-another-road-block-47780.aspx>

117 Rambagh road dilapidated, Greater Kashmir, 16 Feb 2015, <http://www.greaterkashmir.com/news/2015/Feb/16/rambagh-road-dilapidated-28.asp>.

118 Majid Maqbool, In Kashmir, instead of building new roads, the existing buildup areas are destroyed to widen existing roads [interview with urban planner, Rafique Khan], Greater Kashmir, 11 Nov 2014, <http://www.greaterkashmir.com/news/2014/Nov/11/in-kashmir-instead-of-building-new-roads-the-existing-buildup-areas-are-destroyed-to-widen-existing-roads--4.asp>, Rafique A Khan, JCRB flyover: 3-yr project or 30-yr disruption? Greater Kashmir, 7 Feb 2014, <http://www.greaterkashmir.com/news/2014/Feb/7/jcrb-flyover-3-yr-project-or-30-yr-disruption--15.asp>

119 Initial Environmental Examination: Jammu and Kashmir Urban Sector Development Investment Program—Construction of Elevated Expressway Corridor (Flyover) from Jehangir Chowk to Rambagh and Natipora in Srinagar City, Jan 2012, <http://adb.org/sites/default/files/projdocs/2012/41116-033-ind-iee-01.pdf>

are cited repeatedly throughout the document in other contexts. Any modification of land use under the Master plan is required to be authorised by the Srinagar Development Authority, through a Government Order. No mention is made of this statutory requirement, or whether such permission has been sought for the project. Specially funded federal projects, such as those under the ERA, appear to function as a law unto themselves, ignoring urban planning, flood control and municipal regulations, and concerned authorities at will. When the state itself commissions and executes such massive unauthorised projects, local urban and disaster planning is rendered meaningless, and the executive capacity to deal with private violators, is undermined and diminished.

In evaluating the region's natural hazards, while considerable attention is devoted to the region's seismic vulnerability, the area's vulnerability to flooding is minimised, despite an earlier mention of Srinagar being located in the Jhelum flood plains. Instead the document states, 'The Sub project area is located in the central business district, Srinagar where floods are not a regular phenomenon, owing to its topography and the presence of natural drainage in the form of the river Jhelum and numerous water channels.'¹²⁰ The document praises Srinagar's drainage facilities, and fails to mention the concerns in relation to the possibility of floods in the near future that had been expressed in official circles, including the Minister for Flood Control. Most surprisingly, it makes no mention of the 'Green Drain', a colonial era sewage line, laid to drain surrounding areas of Numayish, and the waters of the former natural water courses in the area.¹²¹ In the Summary of Anticipated Environmental Impacts (p 41), none of the evaluation criteria, whether it is geology, hydrology and drainage or land use, indicate any anticipated adverse impacts, which are long term, or cannot be mitigated. The Summary lists a series of short term and local mitigation measures, including that 'The site surface has been engineered and shaped in such a way that rapid and efficient evacuation of runoff is achieved', (pages 41-42) which non-ERA officials and experts categorically state were not accurate. In complete contradiction to the actual facts, the Report further states: 'The subproject site (i) is not located in areas prone to water-logging and flash flood; [...] (iv) has no water courses occurring within the site.'¹²² It should be noted that the flyover in fact is located, within 150 metres of the flood spill channel at Barzulla, and the project includes the building of two major bridges over the Flood Spill Channel at Rambagh.

Most glaringly the IEE document severely underestimates the huge disruption of traffic the project would cause on one of the most high volume roads in the city, and the need for adequate alternative routes, and traffic management.¹²³ This disregard for foreseeable impacts on the local population was to prove disastrous during the September floods. Early in the construction the inadequacies and flaws in the traffic management plan of the project necessitated the diversion of traffic from the Airport Road to a detour which was constructed along the bunds of the Flood Spill Channel, from Jawaharnagar to Mehjoornagar, and across an old timber bridge on the channel. This bridge, already in a poor condition, was rendered highly unsafe due to the diversion of high volumes of heavy traffic because of the flyover project.¹²⁴ Thereafter, a new, low concrete bridge/ road alongside the old bridge had to be designed and executed on a 'war footing' as a 'subsidiary/ ancillary', component of the flyover project, in Tranche 3 of the JKUIRD.¹²⁵ During the floods, this low bridge acted as a major obstruction in the channel bed, and was ultimately washed away, causing damage downstream. It was widely seen as one of the primary causes of the tremendous damage in Mehjoornagar, Kursu, Rajbagh, Alochibagh, and Jawaharnagar. An ERA environmental expert who spoke to JKCCS on the condition of anonymity, admitted that the building of the road was a major 'bed diversion' and was never treated with adequate seriousness, due to the 'high profile' and 'high prestige' nature of the flyover project. He referred to the construction as a 'mistake' and stated that environmental

¹²⁰ Initial Environmental Examination: Jammu and Kashmir Urban Sector Development Investment Program—Construction of Elevated Expressway Corridor (Flyover) from Jehangir Chowk to Rambagh and Natipora in Srinagar City, Jan 2012, at page 16
<http://adb.org/sites/default/files/projdocs/2012/41116-033-ind-iee-01.pdf>

¹²¹ Farooq Ahmed, Jehangir Chowk Flyover construction buried Srinagar's only Green Drain, 17 March 2014
<http://www.greaterkashmir.com/news/2014/Mar/17/jehangir-chowk-flyover-construction-buried-srinagar-s-only-green-drain-41.asp>

¹²² Initial Environmental Examination: Jammu and Kashmir Urban Sector Development Investment Program—Construction of Elevated Expressway Corridor (Flyover) from Jehangir Chowk to Rambagh and Natipora in Srinagar City, Jan 2012,
<http://adb.org/sites/default/files/projdocs/2012/41116-033-ind-iee-01.pdf>

¹²³ M. Hyderi, Unplanned JCRB flyover work takes City traffic, Greater Kashmir, 4 Aug 2014, hostage
<http://www.greaterkashmir.com/news/2014/Aug/4/unplanned-jcrb-flyover-work-takes-city-traffic-hostage-32.asp>

¹²⁴ Syed Imran Hamdani, Mehjoornagar Bridge unsafe, Greater Kashmir, 6 May 2014,
<http://www.greaterkashmir.com/news/2014/May/6/mehjoor-nagar-bridge-unsafe--33.asp>

¹²⁵ See Office Order No. 80 J K ERA of 2014 dated 23-05-2014, available at
<http://jkera.org/DocLibrary/PDFFile/884.pdf>

assessment studies, not just on this project, but other ERA constructions, though superficially compliant with ADB specifications and employing 'multi sector' experts were merely 'a formality' and generally extremely inadequate. He referred to an instance where a contractor had been fined Rs 90 Lakhs for not complying with the safe-guards policy, as the only instance in his recollection where the measures were taken to ensure safeguards.

The Internal Environmental Evaluation for the new Mehjoornagar Bridge, was separately done in April 2014, and shows a familiar pattern of non-disclosure and non-application of mind. There is no mention of the fact that the bridge was necessitated primarily due to the traffic problems caused by another ERA project. Rather absurdly, the document states 'No watercourses are adjacent/traversing to the subproject sites. However, the proposed new Bridge at Jawahar Nagar is on flood spill channel (the spill channel usually remain dry throughout the year and only carries excess discharge of River Jhelum in peak rainy season i.e May-June).' (p 15) Under the heading of Anticipated Impacts the report states, 'Planning principles and design considerations have been reviewed and incorporated into the site planning process whenever possible thus environmental impacts as being due to the subproject design or location were not significant.' (p ii) In what appears to be a direct reproduction from other project documents, it states 'The subproject area is located in the central business district, Srinagar where floods are not a regular phenomenon, owing to its topography and presence of natural drainage in the form of river Jhelum and numerous water channel', (p 20) though the project is in fact not located in the Central Business District at all, but adjacent to (flood prone) residential areas. It seems common-sense that the spill channel, being an important flood safety mechanism to carry away floodwaters from the city, should have made assessors more rather than less cautious about constructing a major bed diversion inside it, and a road along its embankments. Experts have also pointed out that the low height, and building of concrete load bearing pillars within the channel were serious technical flaws in the project, which was hastily and improperly executed because of the seriousness of the traffic problems being caused on the Airport road due to the flyover construction. No mention is made of the requirement of an NOC from the Flood Control Department, or the provisions of the Water Resources and Management Act which prohibits such constructions, in the listing of applicable laws and policies, which appears as a verbatim reproduction, in all JK ERA-ADB environmental documents, no matter what the nature or scope of the project concerned. The Flood Control Department stated in a recent RTI response, that it had granted a 'conditional NOC' to the project. However no details were provided about the nature of conditions imposed.¹²⁶

The callousness of JK ERA's attitude towards the tremendous risks its activities pose to Kashmiris is only a single illustrative example of the pathologies of Jammu and Kashmir's occupational governing structures at large. ADB's stipulations regarding stringent documentation, made the evidence of casual irresponsibility, usually obscured behind highly opaque official procedures and policies, relatively easy to ascertain. How many other such politically motivated, environmentally disastrous, 'reconstruction' projects exist through out Kashmir? What has been their cumulative cost to its people? These questions will remain unanswered, in the absence of detailed studies. No doubt, thoughtless private constructions, and the destructive desire to convert all available land and water resources into real estate have contributed to the disaster vulnerability of Srinagar and other urban areas. But these explanations are too partial, and conveniently excuse public policy from responsibility. A more powerful cause of the destruction from the recent flooding has been the explicit and indirect intents of federal, state, and local governments to create militarised, politically compliant and controllable spaces, populations and governing structures. These occupational policies and practices seek to erase India's history and politics of violence, injustice and discrimination, by forcibly integrating the disputed region of Jammu and Kashmir into a nationalist economic and development paradigm. Since the floods of September 2014, there has been a spate of news reports and editorials demanding public accountability for official acts of omission and commission. Despite this, and proactive judicial intervention by the Srinagar Bench of the High Court, problems of unauthorised and unsafe constructions, and endemic corruption appear to have continued unabated, and have even arguably accelerated.¹²⁷ This is not surprising, since nothing has fundamentally changed about the entrenched political economy of occupation or the undemocratic structures of public responsibility within which these institutions continue to function.

¹²⁶ RTI reply dated 23.02.2015, by Er. Arif Ahmed Mir, Public Information Officer, Irrigation and Flood Control, on file with JKCCS

¹²⁷ See M. Hyderi, Master Plan violations assume new heights, Greater Kashmir, 10 Feb 2015,

<http://www.greaterkashmir.com/news/2015/Feb/10/master-plan-violations-assume-new-heights-20.asp> ; Syed Imran Hamdani, Encroachments galore on river banks, Greater Kashmir, 25 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/26/encroachments-galore-on-river-embankments-34.asp>

Chapter 4: Flooded Lives: Evaluating the Impact of the Kashmir Floods

The floods of September 2014 were universally viewed as a serious humanitarian disaster, and given the devastating impact on the region's public health care and water supply system, a looming health and sanitation crisis, a subject of particular concern amongst the international humanitarian community.¹ The floods were described as not just a 'national' but an 'international' disaster by J & K Chief Secretary, Iqbal Khandey, on 29 September, 2014 at the first official press conference held by the state administration, almost three weeks after the flooding.² The United Nation's offer of humanitarian aid made immediately after the floods, was however tacitly declined by the Indian Prime Minister, who made no public acknowledgment of it, instead offering Indian aid to flood affected regions in Pakistan Administered Kashmir.³ Ambassador Kathleen Stephens of the United States also announced that her country intended to provide USD 250,000 to select NGOs through the US Agency for International Development (USAID), but India declined the offer.⁴

The public controversy over the decline of international offers for help,⁵ must be read in light of India's historical objections to 'internationalizing' any aspect of Kashmir, including restricting the activities of the UN Military Observers Group on India and Pakistan⁶ and disallowing independent human rights and humanitarian evaluations and aid, through a narrative of the 'domestic' and 'internal nature' of all of Kashmir's problems, and an emphasis on 'normalcy' even in the face of grave humanitarian and human rights crises.⁷ During his first post-flood visit to the region at the festival of Diwali, (he also visited the region on 6th September 2014, when the flooding was reaching its peak) Prime Minister Modi met and applauded the services of Indian armed forces stationed in Siachen, holding only cursory meetings with state government officials and political party delegations in Srinagar,⁸ and making no public acknowledgement of the sufferings of ordinary Kashmiris. The Rupees 745 Crore relief package announced on the eve of his visit was greeted with widespread disappointment and anger in Kashmir.⁹ The floods caused 648 deaths –and an estimated \$18 billion [approx. Rupees 11195.1 crore] in damage, according to insurance broker Aon Benfield, (including Pakistan Administered Kashmir) of which Indian Jammu and Kashmir region, suffered 284 deaths and an estimated damage of \$16 billion (approx. Rs 9951.2 crores). According to EM-DAT, the International Disaster Database, this is the most expensive natural disaster in India's history, surpassing the \$11.6 billion price tag (2014 dollars) of the July 1993 monsoon floods.¹⁰

This chapter attempts to foreground the lived experience of flood ravaged Kashmir, outside of India's nationalistic and militarized narrative frames and posturing. It presents an overview of the magnitude and nature of damage and loss suffered, and highlights field-work based case studies of particular affected villages, and public health institutions.

1 See for instance, Oxfam India, <http://www.oxfamindia.org/humanitarian/details/28/Jammu-%26-Kashmir-Floods-%3A-Our-response>; Medics sans Frontiers's assessment of J & K Floods, 24 Sep 2014, <https://www.msfindia.in/msfs-assessment-jk-floods>. See also, Rita Paul, The Kashmir Healthcare Crisis - 'Patients Have Been Dying' Says Doctor, Huffington Post, 5 Dec 2014,

http://www.huffingtonpost.co.uk/rita-pal/kashmir-healthcare_b_5937370.html?; Homeless in Kashmir, Vox Kashmir,(n.d) <http://thevoxkashmir.com/homelessinkashmir/2-delayed-response/>

2 Naseer Ganai, J-K: Government makes appearance a month after devastating floods, Mail Today, 30 Sep 2014, <http://indiatoday.intoday.in/story/jammu-kashmir-floods-government-makes-appearance-a-month-after/1/393384.html>

3 PTI, Jammu and Kashmir floods: United Nations system stands ready to help India, Pakistan, DNA, 9 Sep 2014 <http://www.dnaindia.com/india/report-jammu-and-kashmir-floods-united-nations-system-stands-ready-to-help-india-pakistan-2017144>; See also, Mehrunissa Wani, When Humanitarian Aid isn't welcome, Forbes.com, 17 Sep 2014, <http://www.forbes.com/sites/mwani/2014/09/17/when-international-humanitarian-aid-isnt-welcome-a-case-study-kashmir/>, html , Agencies, As floods crisis spreads, Modi offers assistance to Pakistan, Dawn, <http://www.dawn.com/news/1130449>, 7 Sep 2014

4 Homeless in Kashmir, Vox Kashmir,(n.d) <http://thevoxkashmir.com/homelessinkashmir/2-delayed-response/>

5 Mehrunissa Wani, When Humanitarian Aid isn't welcome, Forbes.com, 17 Sep 2014, <http://www.forbes.com/sites/mwani/2014/09/17/when-international-humanitarian-aid-isnt-welcome-a-case-study-kashmir/>, html

6 United Nations Military Observer Group on India and Pakistan, <http://www.un.org/en/peacekeeping/missions/unmogip/background.shtml>

7 On the 2005 earthquake, see Vox Kashmir, (n.d) <http://thevoxkashmir.com/homelessinkashmir/wp-content/uploads/2014/10/fullsizerender.jpg>; On human rights activists, see India disallows HR activist's Kashmir trip, Kashmir Observer, 18 Aug 2014, <http://www.kashmirobserver.net/news/top-news/india-disallows-hr-activists-kashmir-trip>

8 PM Narendra Modi announces 745 crores for Kashmir flood victims; Opposition calls package a joke, DNA, 23 Oct 2014, <http://www.dnaindia.com/india/report-pm-narendra-modi-announces-745-crores-for-kashmir-flood-victims-opposition-calls-package-a-joke-2028578>

9 PM Narendra Modi announces 745 crores for Kashmir flood victims; Opposition calls package a joke, DNA, 23 Oct 2014, <http://www.dnaindia.com/india/report-pm-narendra-modi-announces-745-crores-for-kashmir-flood-victims-opposition-calls-package-a-joke-2028578>

10 Jeff Masters, Top ten Weather stories of 2014, 23 Dec 2014, <http://www.wunderground.com/blog/JeffMasters/comment.html?entrynum=2884>

The Impact of Flooding An overview

A study by the Head of Department, Earth Sciences, University of Kashmir, Dr. Shakil Romshu found that out of 1760 sq. km. in the floodplains of the Jhelum basin (in Indian and Pakistani Administered Kashmir) 912 sq km were flooded. The inundation levels recorded in the flood plains were the highest in the archived hydrological history of Kashmir, the report stated,¹¹ with several habitations in Srinagar city inundated up to 20 feet. The JK-Envis Report by the State Government's Department of Ecology, Environment and Remote Sensing, based on remote sensing rather than ground data, found that in all 557 sq. kms of area was inundated. According to the report, out of this 444 sq km was Agricultural land, 20 sq. km was Horticultural land, 67 sq.km built up area, 3 sq.km forest area, 21 sq.km 'wasteland', and 2 sq km fell in the category of 'others'. An approximate population of 22 lakhs was affected, covering 287 villages.¹² The official death toll in the floods in Indian Administered Jammu and Kashmir was 284, with 46 deaths reported in Srinagar District, 9 in Kulgam, 8 in Anantnag, 6 in Budgam, 4 in Pulwama, 4 in Bandipora and 2 each in Ganderbal, Shopian and Kupwara. 159 bodies were recovered from flood-hit areas in Jammu division, while 44 others, were washed away in a bus at Rajouri and presumed dead. The initial official assessment of damage stated that the floods had affected over 15,00,000 families in 5,794 villages across the state. It stated that around 3,44,607 structures had been damaged, including over 2 lakh in Srinagar alone. 90,000 heads of cattle perished. Crop loss was reported in 6.52 lakh hectares (16,11,127 acres) of land, besides huge losses to the public and private infrastructure, including roads, bridges, schools and hospitals. The Chief Minister appealed the Indian Federal Government for a package of Rs 44,000 crores, after receiving detailed departmental estimates of the losses. The following summary has been prepared drawing from official figures and press reports.

South Kashmir

Around 300 villages were submerged and around 10,000 families rendered homeless in the South Kashmir districts of Kulgam, Pulwama and Islamabad (Anantnag), by flash floods and inundation according to official figures. The worst affected district was Kulgam, where more than 121 villages were affected by floods, rendering around 3000 homeless. Four villages in Kulgam district, namely Aarigatnoo, Chamgund, Kelam Gund and Zanglipora were completely washed away by flash floods in the Vaishav, which also altered its course. 52 villages were officially designated as 'worst affected', with substantial damage to homes, livestock and lives, including Mirhama, Achthal, Chehlan, Aadipora, Arigutnoo, Chamgund, Kaimoh, Khudwani, Rehpora, Redwani, Ghat, Havoora, Mishpora, Wanpora, Vadipora, Shamsipora, Sealipora, Kujur, Brazloo Jageer, Dumbdaloo, Tengan, Rampora, Nawbal, Gandbal and Nowpora.¹³

Pulwama district also faced severe losses with 77 villages submerged and damage to nearly 2000 houses.¹⁴ The most affected villages were Gulzarpora and Beighpora in Litter area of the district, where around 200 and 92 houses respectively, were completely damaged by the floods. Kakpora and Pampore areas of the district were also highly affected, especially the villages of Kandizaal, Chursu, Lelhar, Marwal, and Khadermoh. Mudslides and flash floods were recorded in Akharwana, Batpora, Shaltaekna, Pusul and Jangalnarda, as the Rambiara and Romshu nallahs became torrential. Shopian district remained less affected and only some villages around Rambiara Nallah were affected by flash floods.¹⁵

11 See Shakil Romshu, What triggered the Kashmir floods, 18 Oct 2014,

<http://www.greaterkashmir.com/news/2014/Oct/18/what-triggered-the-2014-kashmir-floods--5.asp>

12 ISRO and Department of Ecology and Environment and Remote Sensing. (2014) A Satellite Based Rapid Assessment of Floods in Jammu and Kashmir, September 2014. http://www.jkenvis.nic.in/pdf/jkenvis_floodreport.pdf

13 Khalid Gul, Widespread devastation in south Kashmir, Greater Kashmir, 19 Sept 2014 <http://www.greaterkashmir.com/news/2014/Sep/18/widespread-devastation-in-south-kashmir-13.asp>

14 For a survey of the impact in 77 Pulwama villages, See Annexure 3

15 Khalid Gul, Widespread devastation in south Kashmir, Greater Kashmir, 19 Sept 2014 <http://www.greaterkashmir.com/news/2014/Sep/18/widespread-devastation-in-south-kashmir-13.asp>

Field Notes from Lelhara, Pulwama

The village of Lelhara, situated on the left bank of the Jhelum, near the point where it is joined by the waters of Laeth Kul/Laar Kul and Romshi Nallah, consists of about 700 multi-generational households. Spread over 11 mohallas or neighbourhoods, it is a traditionally flood prone area, and has previously suffered floods in 1992, 1996, 2002, 2006 and 2007. Villagers in the area repeatedly stated that the area was unsafe for habitation, and that they wished to be relocated. They also stated that the village lies on the route of the proposed flood channel between Dangarpura (near the Sangam) and the Wular Lake, and would be completely submerged, should the proposal materialize. The previous year they had learnt of the cabinet's apparent approval of this plan from the newspapers. The village lies between the riverbank, and the high railway embankment, and the railway embankment was blamed for the unprecedented force with which the waters broke the bunds in the area. Locals also stated that the widening of the National Highway and raising of its embankments, on the river's right bank, had caused the waters to exert a great deal of backward pressure, on the already weak left bank, leading to flooding. The village has only one road connecting it to the surrounding Karewas and highlands in Malangpora, Lethpoa, Piglana, Sombura, Pulwaama, and Neva, which were cut off, due to the levels of flooding, along the railway line. Once the waters began to rise, they assisted local flood control officials, in monitoring sloughing's and overflows. However locals stated that after the Sangam gauge was submerged, flood control officials disappeared from their beats.

The impoverished Hanji community of about 80 households living in Dar Mohalla, on the river banks, engaged in sand excavation and fishing, was among the worst effected, and many families were still residing in their boats (khistis) at the time of JKCCS's visit to the area on 17th October 2014. The community lost several of their boats, their only means of livelihood. Waters in the area, started rising on the evening of 5th September 2014, and rose to about 15 feet. At about 9 pm, residents of Dar Mohalla were told to evacuate by the local Tehsildar. Despite their homes being flooded, and their boats being their only refuge, about forty boats (which can carry about 20 people at a time) were requisitioned by District Administration, and their owners ordered to help in rescue efforts in surrounding villages which are home to mainly agriculturalists (zamindars). Lalhera zamindars (marginal farmers) were evacuated using boats, makeshift rafts, and floatation devices such as thermocol rolls, to the railway bund near Kakapora, which was the only structure which was un-submerged, in comparison to its low lying surroundings. Local youth from Lalhera engaged in large numbers in rescues in the fast flowing waters. Villagers walked along the bund for distances of almost 8 kms upto Pohua, which was the nearest point with road connectivity. From there the civil administration had provided a bus service to Pinglana. Langars (community kitchens) were organised in Kakapora, Pinglana and at various points along the bund, by community volunteers and local Masjid committees. Almost every house in the village was damaged, with about 30-40 being in a state of collapse. About 40 families were living in tents, received through aid agencies, including the ICRC. The waterlogging in the area, could only be reduced after making cuts in the railway bund, using their own JCBs. Schools (4 High Schools, 1 Higher Secondary, 1 Middle School and 1 Primary School) in the area had begun functioning around 22nd September, and were providing some relief in terms of school books, and food aid through NGOs. No rescues were done by any state agencies, though helicopters flew over the area, and dropped food and water, after about 5-6 days of the floods. Villagers stated that most of these packages fell into the water. The Tehsil offices, including the flood control department sub division at Kakapora, remained submerged for several days. The Station House Officer at Kakapora Police Station was himself stranded, and rescued by locals. At the time when JKCCS visited, electricity supply had been restored (around 4th October 2014) but the water supply was still highly erratic. Villagers were depending on water pumps donated through aid agencies. On an earlier visit, rescue workers told JKCCS an Oxfam team, testing water turbidity, found that the drinking water in the village was not even fit for cattle to consume. A village committee, comprising of 16 members (with representatives from each of the 11 mohallas in the village, including the marginalised Dar Mohalla) had been set up, to co-ordinate the equitable distribution of relief and donations.



Top: Scenes of utter destruction in Lalhera.

Second: School books dry on top of a tent, a family of six lived in this tent.

Below Left: Community volunteers protected the bunds during flooding.

Below Right: Destroyed boats, belonging to the Hanji community line the river banks. These were used in community organized evacuations.

Central Kashmir

Out of 8 tehsils in Budgam, which along with Srinagar District makes up the central region of the valley, 5 tehsils including Baghat-i-Kanipora, Narbal, Magam, Beerwah were affected. Out of 154 villages 85 were submerged. The Deputy Commissioner of Budgam said that 37,085 families of the district were affected, most of them were from Baghat-i-Kanipora.¹⁶ According to information from the Deputy Commissioner's office obtained by JKCCS, 137 villages in Srinagar district limits were affected by the flooding, with 105 villages facing submergence. The total number of families affected due to the submergence of villages was 2,17,700, of which 34,397 were affected by flash-floods, flooding and landslides. The total number of deaths reported was 46, while figures for injuries were unavailable. 95,394 houses were reported as damaged, of which 33,374 houses were classified as 'pacca house damaged fully', 42,721 were classified as 'pacca houses damaged severely', 18,964 as 'pacca houses damaged partially', 295 as 'kaccha houses damaged fully' and 40 as 'kaccha houses damaged partially'. 58,540 other non-residential structures were reported as damaged, including 4597 cowsheds, and 49,216 shops and other establishments. 9,625.86 acres of paddy crop was damaged, and 3100.85 acres of vegetable and horticultural crops, including orchards. 586 cows, 115 bulls, 53 calves, 30 horses and 3495 sheep were reported as having perished.

Field Notes from Narbal, Budgam:

Located between the Flood Spill Channel and Sukhnag Nalla, Narbal, in Budgam, is an example of the rapid growth of Srinagar, into its peripheral marshes, in this case the Narkara and Hokersar wetlands. The area was home to a rural community of paddy farmers, settled after the building of bunds during Bakshi Ghulam Mohammad's tenure in the 1950s. After the 1965 Indo – Pakistan war, when Pakistani 'raiders' devastated the area, it was redeveloped, and resettled. Since the building of the National Highway and Bypass, in the 1970s, the area began to be rapidly urbanised, with 'draal' middlemen, landfilling paddy fields and converting them into residential colonies and real estate. It is now a semi urban suburb of about 1500 houses, occupying about five square kilometres, and housing a mix of salaried professionals and government servants, along with a few remaining small agriculturists, vegetable growers and orchard owners. The area falls within an official 'no build' zone, being a part of protected wild life areas, and there is a ban on new constructions, and repairs which is however frequently violated. The area experienced two rounds of flooding in early September, the first a slow with rise of the waters in Sukhnag Nallah around 3rd -4th September, and thereafter the sudden and complete flooding caused by the breaches in the Srinagar Flood Spill Channel, on 7th September. With no administrative support, or oversight, locals from the community began organizing themselves for the impending disaster from the 4th of September. The home of Hamid Bukhari, a community leader, teacher and later aid and rescue volunteer, located in Sheikh Mohalla, neighbourhood of about 400 households in mainly pucca houses, began functioning as an emergency centre, and base camp for volunteer youth. The first task was to protect and strengthen the over flowing bunds, with sand bags. About two hundred and fifty people, including women and children from the area were involved in monitoring the water flows for about thirty five hours, with about ten – fifteen young men remaining on overnight guard. One woman was injured, by a sand bag during this community flood control.

From the 2nd -3rd September, regular announcements began to be made from the local mosque, giving updates of the water levels, and asking residents to evacuate women, elderly and children, and asking for men to volunteer with flood control at the bund. Residents contacted the DC office, and the local flood control sub divisional office at Narbal, but were given only about 1000, empty sand bags, which they filled themselves. Instead of being involved with these flood control measures, flood control officials were calling up locals for the latest information and updates. They also used their own equipment, to cut down trees, and use the logs to reinforce the bund. When the bund on the flood channel breached in the early hours of 7th September, a wall of 8-10 feet of water rushed into the area, and volunteers were forced to flee for their lives. Rescues had to be conducted in the fast flowing waters, with the bare minimum of equipment or trained rescuers. Many rescuers suffered injuries. Several Tehsil level administrative offices, including the primary health centre, the Munsiff's Court etc. became inundated, though the Tehsil Headquarters remained partially functional through the flooding. A large community kitchen (Langar) was set up on its premises, with help of local revenue officials (Patwari/ Tehsildar) using contributions from the local mosques, and community at large. An army camp (29 RR) located in Narbal was evacuated before the second round of flooding. Personnel from a BSF camp, which was located in the same building

16 J and K Now, 85 villages submerged in Budgam; over 37 thousand families affected in recent floods, 2 Oct 2014, <http://www.jandknow.com/news/10023774-85-villages-submerged-in-budgam-over-37-thousand-families-affected-in-recent-floods>

as the local flood control department, had briefly helped locals, on 7th September, and loaned them a boat. They were also seen taking photographs. After two hours, it appears that operations were called off and personnel were not seen outside the camp. The camp was also probably evacuated. Locals stated that they had received no other help in rescues from any state agencies – SDMA, NDMA, paramilitary or police.

The entire area, about 7 sq kms around Narbal, upto Mazhaama, became inundated, and cut off from the road to the District Headquarters Budgam, as well as the Highway to Srinagar. Almost every house suffered structural damage, with about 300 being officially designated as 'fully damaged', i.e. where the roof had collapsed. 10- 15 poultry farms in the area were completely flooded, and about 200 heads of livestock lost. Residents told us that only two horses in the village had survived the floods (out of about 40), but one was blind, and the other lame! Several pedestrian bridges across the flood channel were washed away. At the time of the JKCCS visit, in early October 2014, the 1 m long breach in the bund had still not been repaired. People were living in unsafe homes, or with relatives, and a handful of families were living in tents provided by International Committee of the Red Cross (ICRC). The Deputy Commissioner Budgam, had still not visited the area. Electricity had been partially restored, a few days earlier and the highway to Srinagar was functional, though the road to Budgam continued to be closed. Relief supplies including for fumigation of the health centre, (3000 litres of Phenyl), medicines, milk, and food were being organised, and provided to families by local volunteers, through private voluntary donations, with Syed Ahmed Bukhari, of the local Hanafiya Masjid committee, performing a coordinating role. Two surveys of the damage had been carried out, first by a Patwari and thereafter by Engineers from the Roads and Buildings department. Residents expressed extreme frustration with the survey methodology, and stated that while the first had designated almost every structurally damaged and unsafe house as fully damaged, the second had only listed those houses which had completely collapsed. Residents had approached the Deputy Commissioner about the discrepancies and unfairness of the survey, but had not received any official response.



Left: Community volunteers distribute rice, and milk.

Right : A volunteer carries a sand bag, across the makeshift bund, during the flooding.

Bottom : A resident stands amidst the ruins of his home.

Such houses were often officially designated as 'partially damaged', since the roof was intact. Photos courtesy Hamid Bukhari.

North Kashmir

In the Bandipora district, Sonawari and recently created Sumbul tehsil, known as 'the rice bowl of Kashmir' suffered the worst damage, with orchards and paddy crop worth crores of rupees destroyed. Besides, 130 houses collapsed in Shahgund area alone. Zalpura, Nowgam, Shadipora, Ganastan, Odina, Shahgund, Naidkhai, Gundjehangir, Vijpora Chak Ganastan, Mustafabad, Dangarpura, Vijpora, Tenggpora, Sumbal town were badly affected, with 95 percent loss to houses, paddy and orchards, as water over flowed the National Highway, and the overflow from Srinagar's water bodies came into the area from the South¹⁷

Notes from Nowgam, Sumbul –Sonawari, Bandipora

The Nowgam village Panchayat area comprises of eight wards, (Mohallas) in the low lying Sumbul Tehsil, a part of the extensive (former) wetlands in the Wular Lake catchment area, which was reclaimed by extensive bunding during the Bakshi period. It is almost entirely devoted to paddy cultivation, along with cultivation of maize, vegetables, and rearing of livestock. Poultry farming has also been recently started. Families living by the river bank, also engage in sand excavation, and fishing. The Nowgam Panchayat, has a total population of about 12,000 people, with the Mohalla of Nowgam Payeen, which lies on the river bank, consisting of about 500-600 households in 300 houses being the worst affected. About 4956.8 acres of crops, almost ready for harvest were lost. [Revenue classification 'Gunteji' – 18,000 kns (1858.8 acres of paddy and 371.7 acres of maize); Revenue classification 'taxu' 1610.9 acres of paddy and 247.8 acres maize). About 100 houses had collapse in 'Nowgam A', and around 35 houses in Nowgam Payeen alone. About 11,000 kns of paddy and maize belonging to residents of Nowgam Payeen were also destroyed. Villagers estimated that almost 25% of the total livestock had been lost. Residents told JKCCS, that the waters in the Ferozepur Nallah, had turned flashy and begun to overflow on the 6th -7th September. Community organised efforts at flood control began as being residents of a flood prone basin, they had previously experienced floods in 1995-6, and in the early 2000s. Locals counted as many as 9 serious mud slides, but managed to secure the bund until the night of 8th -9th September, with no official help despite repeated SOSes. The bund broke in Zalpura in neighbouring Sonawari Tehsil, at about 1:30 am and about 15 feet of fast flowing waters gushed into residential areas. Almost 100-150 people suffered injuries, in attempting to escape the gushing waters. They walked along the protective bunds, and rode on tractors and tippers, and reached nearby high lying areas including Andarkot, (2 kms away), Wakura, Parihaspora and Udina and Sumbul. The camp at the Government Degree College, Sumbul had provided food and shelter to almost 5000-6000 people. The civil administration, provided cooks but supplies were raised by local Imambaras (mosques) and communities, aided by Non-Governmental organisations which already had a presence in the area such as IGSSS (Indo Global Social Services Society). The cooks were found stealing food supplies and were removed. A community drive to collect bread was launched, and food and water distributed door to door.

A nearby highland area, at Sher-e- Kashmir Agricultural University campus Manasbal was rendered inaccessible as it is under military occupation. The local police post at Nowgam, with four or five police men, had already been evacuated to Sumbul, the Tehsil Town, two days ago. A CRPF unit (15 Bn) stationed in the village also abandoned their posts. The Army Camp at Sumbul was similarly evacuated and did not undertake any civilian rescues, or provide any relief supplies. There was one death from drowning of a local rescue volunteer, Fayaz Ahmed Dar (aged 25) in Sumbul after becoming entangled in an electric wire during a rescue. Five rescue volunteers were seriously injured in Dangarpura, a neighbouring area while conducting evacuations. A young woman, Asmat Wani (aged 22 years) from Nowgam died of a cardiac arrest, while being rescued. When JKCCS visited the village in early October 2014, water supply had still not been restored in Nowgam Payeen. Women had to walk 2 kms to main Nowgam in order to obtain drinking water. Electricity too had not been restored, though the road to Sumbul, on which bridges had been washed away had been recently restored. No surveys except those carried out by voluntary and aid workers from NGOs had been carried out, and the extra rations promised by the Deputy Commissioner, for the month of September, had not been disbursed

17 Parray Irfan, North Kashmir's rice bowl badly hit in floods, Greater Kashmir, 02 Oct 2014
<http://www.greaterkashmir.com/news/2014/Oct/2/north-kashmir-s-rice-bowl-badly-hit-in-floods-50.asp>



Flooded Girls Secondary School, and destroyed rice fields, in Nowgam, Bandipora , 12 October 2014

In Baramulla, Official figures stated that 538 villages were affected while 38 villages were completely submerged in the flash floods including in Ferozepur Nallah and Hathpaky stream. According to official figures, two people lost their lives in Tangmarg area while around 1.6 Lakh families were affected by the flood. The worst affected areas in the district were Pattan, Boniyar, Narawav Tangmarg and Sopore. As per the official figures, the floods damaged 33 bridges and 53 culverts in the district and around 122.7 km of road length was badly damaged.

Field Notes from Gund Ibrahim, and Methipora, Pattan, Baramulla.

Gund Ibrahim, is settlement of about 500 multi-generational households, located near the Sukhnag Nallah, and on the banks of the Rambagh Flood Spill Channel. The occupational profile is mainly agricultural, with many residents supplementing their income, with poultry and livestock rearing, and small orchards. The village was on alert from the 3rd-4th September, and as in all areas located along the Bakshi Bund which has seen a history of flooding, the community began reinforcing and raising the bunds, by that night. The flood control sub divisional authorities/ civil administration had provided them with about 10,000 empty sand bags, which they used. The local Tehsildar had been repeatedly requested for boats to carry out evacuations, but he stated that no boats were available. Breaches and overflows in the bunds, began occurring on the 8th-9th of September. Villagers counted four major breaches, in the close vicinity of the village. On 9th September, at about 5 pm, the bund suffered a major breach about 2 kms away and about 8-10 feet of water rushed into the village, destroying everything in its path. The sand bag protection proved completely inadequate and they were washed away. Locals attributed the flood prone nature of the area, to an engineering flaw in the design of the Flood channel. They stated that the Flood Channel which was around 250 feet wide, met with the narrow Sukhnag Nalla (about 100 feet wide) at Zaalpora, and continued along its narrow stream for about 1.5 kms until Naidkhayi. This sudden narrowing of the channel bed, had resulted in tremendous backflows, and pressures on the bunds upstream, causing breaches. The villagers also complained that the Roads and Buildings Department frequently built low pedestrian bridges of about 75 feet wide, which only spanned the deepest part of the flood channel, rather than the entire width. This had caused several bridges, including the village's main road connectivity to collapse, when the waters became torrential. The central part flood channel had been dredged in the previous years, but instead of using the dredged materials to raise and strengthen the low embankments, the materials had been carried away and sold to private contractors, locals complained. The low height of the bund, especially around Sengpora was also a cause of complaints. They also pointed to substantial tree plantations by the Rakhs and farms Department, in the neighbouring Nawgam Circle, as causing a problem. The Masjid made announcements when the bund was breached, and people began to flee the waters, taking whatever they could. They sought refuge on the Bakshi bund, and in camps set up in Panchayat halls, awkaf (mosque) halls, government schools in neighbouring higher grounds in Deunara, Zangam and Ahmedpora. Families were split up, in the chaos, and only began to return to the abandoned village around 25th September. One resident informed JKCCS, in early October 2014, that his fifteen member family, was still living in six different locations. All rescues and evacuations were by the community. The local Army camp at Zangam, located about 5 kms, was located on higher ground, and had not been evacuated. The residents had requested them for boats, but were refused. A Major from the camp had carried out a brief inspection, prior to the worst of the flooding, but was not seen thereafter.

Residents estimated that around 619.6 acres of paddy fields, 61.96 acres of orchards, and 24.78 acres of vegetable gardens had been totally submerged. In addition 2 poultry farms, with 3000 chickens and their feed stock was destroyed. Two apple crate factories (for packing the apple crop) two threshing machines, 400 heads of livestock, including about 200 sheep, 56 goats and 42 horses were lost. Several motor bikes, and tractors were also washed away. The Patwari had only made an informal oral survey, when JKCCS visited the village, but no formal survey had been carried out. Villagers were afraid to begin substantive repairs, until the formal survey, fearing that they would not be enumerated. The village community had begun a process of a detailed, people's survey, in order to maintain a record. [See images below]. Electricity had been restored two days, before but through community efforts after repeated complaints had gone unheeded. Villagers had built and erected their own electric poles, and restored fallen lines. A nearby iron and concrete bridge had been washed away, and road connectivity to the village had been restored on 20th September. Water supply had still not been fully restored, and residents were dependent on the weekly tanker, sent by the government PHE department, which however did not come to the village itself, but across the bridge over the flood channel. They displayed the water from the supply which had been restored to the village taps the previous day, which was a deep murky brown in color, and apologized to the researchers for not being able to even offer them a glass of drinking water. JKCCS also met families from neighbouring Methipora still residing on the bund of the flood channel, in tents. They had

been flooded suddenly late at night on 7th September, when water flowed in from Hamdania colony, located in the Bemina wetlands of Srinagar, and the whole village was submerged up to waist level, within twenty minutes. There was no time for warnings. About five to seven boys who had been helping raise bunds, were washed away, when the bund broke, but were fortunately rescued. They stated that during 7th -9th of September almost 3000 locals from neighbouring villages had sought refuge on the bund. A community kitchen was run by the residents of Sengpora, who had also helped with rescues. The village had lost about 495.68 acres of paddy fields, 247.8 acres of surrounding orchards and 111.52 acres of vegetable gardens. They mentioned that one person from their village, who had previous contact with the Army (as a supplier) was evacuated by boat, after about 4-5 days of the flooding. The rescue was conducted clandestinely late at night, so that other villagers would not be aware of it.



Top Left: Destroyed Apple crop in Harinara Pattan

Top Right: A page from the community survey of destroyed livestock and poultry, Gund Ibrahim, stamped by the Block Office, Sengpora;

Bottom Left : Families live in temporary shacks and tents on the Flood Spill Channel bund, at Methipora, Pattan, 12th October 2014.

Bottom Right : Many flimsy pedestrian bridges, like this one, built only over the deepest part of the Flood Spill Channel, were washed away

Sector-wise Impact Assessment

The following estimates are based on media reports and press statements by concerned ministries. According to a media report, losses in the Education Sector in Kashmir division amount to Rs 91 Crores. The report further states that the total number of schools affected in Kashmir division is 1096 with 495 school buildings being categorized as fully damaged and 601 partially damaged. The South Kashmir district of Anantnag was the hardest hit in terms of number of school buildings damaged during the deluge. 182 school buildings in Islamabad were damaged during these floods, followed by 174 in Budgam, 169 in Pulwama and 122 in Baramulla. Ganderbal with 17 school buildings damaged was the least affected of all the districts in Kashmir division. In Srinagar, the number of damaged school buildings was 64. The figures also revealed that 85,147 book-sets of students in Kashmir division have been washed away or completely damaged during these floods and majority of these students have expressed their inability to appear in exams that were scheduled in October 2014. Even by the last week of October (2014),¹⁸ most of the schools were still undergoing the process of cleaning, while some school buildings in Srinagar served as relief camps. Majority of the schools affiliated with the Jammu & Kashmir State Board of School Education were thus forced to conduct their final examinations in March (2015) instead of November (2014).



A child paddles by on a makeshift raft, outside the still flooded Higher Secondary School, Nowgam, Bandipora in early October 2014.

18 Haroon Mirani, Kashmir Floods:Rs 165 crore loss in Edu sector, Greater Kashmir, 19 Oct 2014
<http://www.greaterkashmir.com/news/2014/Oct/19/kashmir-floods-rs-165-crore-loss-in-edu-sector-53.asp>.



School books, certificates and documents dry in the compound of Government Boys' Higher Secondary school, Batmaloo, Srinagar

According to initial estimates of ASSOCHAM (The Associated Chambers of Commerce & Industry of India), an apex trade association, the September floods have caused an immediate loss of Rs 5400–5700 crores to the state's Economy. The initial estimated loss to hotels, trade, agriculture-horticulture, roads and bridges in the Jammu and Kashmir regions is Rs 2,630 crores. Besides, high-cost infrastructure like Railways, power and communication in the hilly terrains suffered a loss of Rs 2700-3000 crores, the industry body estimated.¹⁹



Srinagar's commercial district, Lal Chowk at the height of the flooding. Source: Al Jazeera news

¹⁹ PTI, Over Rs.5, 000 Crore loss to J&K due to floods: ASSOCHAM, The Hindu, 14 Sept 2014
<http://www.thehindu.com/news/national/over-rs-5000-crore-loss-to-jk-economy-due-to-floods-assochem/article6409726.ece>.

In terms of Public and civilian infrastructure the flood affected about 1700 villages in Kashmir division, with heavy damage to the basic infrastructure of the state. A media report described 390 villages as fully submerged and 1,225 houses as partially submerged. 'The worst hit is the housing sector which has witnessed damage to 15 percent infrastructure,' said the industrialist Shakeel Qalander, member of Kashmir Centre for Social and Development Studies (KCSDS). The Society, which is an amalgam of experts from fields like economy, academics and business, said of 20,50,000 houses in Jammu and Kashmir as per 2011 census, at least 3,00,000 houses have got either fully or partially damaged. "On an average we have calculated that every affected house has suffered a damage of Rs 10 lakh including the household items," said another member of the formation.²⁰ As per the estimates of the Roads & Buildings Department (R&B), the floods have damaged 1700 KMs of road network and 271 bridges in Kashmir division.²¹ For restoring and reconstructing public infrastructure, State Government has sought Rs 6481 crores assistance from Central Government. Besides, this hundreds of public offices, including Panchayat and community halls, Tehsil offices, Health Centres, Courts and police stations, at the sub district, district and state level, including its Secretariat, State assembly High Court, General Post Office, Forest Department Offices, and Srinagar District Saddar Court were submerged. The massive damage to official documents, files, revenue, court and service records, library collections and archives (in a place where official documents are often mysteriously lost in cases involving human rights violations), provoked concerns of sabotage, and deliberate destruction of documents on the pretext of the flooding by officials. In several courts, guards (Srinagar High Court), court staff, and local bar associations (Bijbehera), worked overnight as waters were rising, to save documents and records. The state Government issued guidelines on reconstructing official records damaged by flooding.²²



Piles of documents, books and damaged furniture lie outside the Srinagar High Court

20 Muddasir Ali, Kashmir economy down by a trillion, Greater Kashmir, 19 Sept 2014

<http://www.greaterkashmir.com/news/2014/Sep/18/kashmir-economy-down-by-a-trillion-38.asp>.

21 Khalid Gul, 1700 KM road length, 271 bridges damaged by floods, Greater Kashmir, 03 Oct 2014,

<http://www.greaterkashmir.com/news/2014/Oct/3/1700-km-road-length-271-bridges-damaged-by-floods-46.asp>

22 Reader Correspondent, JK issues guidelines on records damaged by floods, Kashmir Reader, 06 Oct 2014,

<http://www.kashmirreader.com/jk-issues-guidelines-on-records-damaged-by-floods-22723>

Agriculture and Horticulture: Crops to the tune of Rs 3,674 Crores, were damaged according to a survey carried out by Jammu and Kashmir Agriculture department. Pulwama district suffered the maximum damage in terms of damage to agricultural produce, with losses estimated to be Rs 1104 crores. The amount includes Rs 778 crores losses to Saffron crop as flood-water inundated Pampore town of Pulwama.²³ The Horticulture Sector, consisting of vegetable and orchard crops incurred an estimated loss of Rs 1565 Crores.

Tourism: A Newspaper Report revealed that in the last week of October tourist arrivals in Kashmir had gone down steeply, 'Around 60-70 percent reservations have been cancelled in Kashmir', it stated.²⁴ The valley is estimated to have earned Rs 1,520 crores from trade, hotels and restaurant services in the season of 2013-14. The crucial September-November season was literally washed away by the floods. Another media report stated that airlines and hotel cancellations were 100%. Mohammad Yusuf Chapri, President of the Houseboat Owner's Association told JKCCS that 15 houseboats were completely destroyed by the floods, while serious damages were caused to the other houseboats on the Dal Lake.



Tourist photographs in 'Kashmiri costume' left to dry at Nehru Park, in the Dal Lake

Transportation and Telecommunication: As per a media report, the floods caused an estimated Rs 200 Crore loss to automobiles and car showrooms, with more than 15,000 vehicles hit by the floods. The telecommunication sector was one of the worst affected sectors during the floods, with losses running into crores of rupees. The state owned BSNL telephone exchange in Srinagar was submerged, as well as mobile towers, transmitters and other equipment belonging to almost every service provider. Cell phone signals could only be received in selected highland areas of the city. The Indian army donated a limited number of cell phones, and wireless sets to the state administration. An ISRO (Indian Space Research Organisation) team sent to the valley set up Disaster management modules after about a week, with satellite connectivity through four V-sats, allowed state officials, functioning out of temporary offices set up at the Military airport at Srinagar, at the Governor's Residence at Raj Bhavan, Hari Niwas on Gupkar Road, and the Civil Secretariat, and limited landline connectivity. Aircel was the only service provider which was able to provide some connectivity to its customers through the floods, under its newly introduced 3G internet scheme.

²³ PTI, Crop losses in flood-hit Valley pegged at Rs. 3,674 Crores. The Economic Times, September 22, 2014, http://articles.economictimes.indiatimes.com/2014-09-22/news/54199351_1_agriculture-sector-crore-worth-rs

²⁴ P S Bali, JK Tourism trade in depression, Greater Kashmir, 23 Oct 2014, <http://www.greaterkashmir.com/news/2014/Oct/23/jk-tourism-trade-in-depression-30.asp>

The Health Care Deluge

During any disaster, the public health system is crucial to the provision of essential humanitarian services, and a co-ordinated emergency response. Each disaster and its context are different, yet many share similar health sector vulnerabilities. The World Health Organisation has recognised the need for crisis management procedures and policies to be built in to the health system to create resilience.²⁵ The National Disaster Management Act, 2005, too states the health sector plays a vital role in post-disaster management. When the floods hit the valley, many primary health care centres and district level facilities became flooded, and all became cut off from vital medical supplies. Five out of seven of Srinagar's largest hospitals (all except SKIMS Soura located on higher ground) which form the core of tertiary health care in the state, providing its only affordable source of specialized, and sub specialized care and surgical capacity, in the fields of paediatrics, neo-natology, obstetrics, orthopaedics, oncology etc., became inundated, leaving the Srinagar centric tertiary health care system in the entire valley paralysed for weeks.

Patients admitted in hospitals are not in a position to take care of themselves, and should be rescued first, in any state of emergency, but the ill, injured and new born in Srinagar's hospitals were left to fend for themselves, ignoring the basics of humanitarian response, that of responding to the most vulnerable- pregnant women, infants, and the hospitalised and disabled first. Jammu and Kashmir has faced other major natural disasters in the past, including the 2005 earthquake, the 2010 Ladakh flash floods, and various severe snow storms over the years, providing ample impetus for the incorporation of disaster management policies and protocols in health care. Despite this, the health care system in Jammu and Kashmir appears to be entirely oblivious to disaster and emergency humanitarian concerns. The following account of what transpired in the medical facilities in Srinagar, and the District Hospital, Budgam is compiled from interviews with doctors and health care workers.

The Health Care system in Kashmir Division falls under the supervision of two departments, the Department of Health and the Department of Medical Education. Tertiary care is provided by the Sher-i-Kashmir Institute of Medical Sciences (SKIMS) and by the associated teaching hospitals of Government Medical College, Srinagar comprising of Shri Maharaja Hari Singh Hospital (SMHS), Lala Ded Hospital (LD, specialising in gynaecology and obstetrics), GB Pant Children's Hospital, Barzulla Bone and Joint Hospital, Chest Diseases Hospital (CD) and Psychiatry Hospital, which are administered by the J & K Ministry for Medical Education. All of these, except for the Psychiatry Hospital, and the Chest Diseases Hospital, became inundated, along with another large facility, the Jhelum Valley Corporation hospital at Bemina. The Ministry of Health manages other public health infrastructure at the following levels: District Hospitals, Sub- District Hospitals, Community Health Centres (CHC's), Primary Health Centres (PHC's), Allopathic Dispensaries (ADs) and Sub Centres. In the absence of any large multi speciality private hospitals the population of the state is over-whelmingly dependent on the public health care system. The only tertiary care hospitals of the valley which cater to its population of 70 Lakhs, are all public hospitals based in Srinagar. For instance, a doctor told JKCCS, a head injury patient from Gurez, in Baramulla district, close to the Line of Control, must be transferred to SKIMS, Soura, in Srinagar for specialised treatment, as district hospitals do not have the medical facilities necessary to deal with such injuries. Serious medical/surgical/paediatric emergencies are only treated at Srinagar's tertiary care hospitals. JKCCS was repeatedly told by health workers that District Hospitals are woefully dysfunctional, and make routine referrals to the tertiary hospitals in Srinagar, especially after 4:00 pm, when these hospitals are turned into maternity care facilities only. The resources of District Hospitals remain underutilized creating enormous dependence and pressure on tertiary care facilities in Srinagar, which routinely admit two patients to every officially enumerated hospital 'bed'. The distance of these hospitals from rural areas means that visiting hours are difficult to impose, as relatives ('attendants') who accompany the patient for their medical treatment, often stay over night, in the hospital premises.

The pattern of submergence in Srinagar's major hospitals, many of which are disastrously located on river banks or in low lying areas, was similar: frantic calls were made by hospital administrators to the government officials, followed by reassurances from the state representatives that help was on its way, then sudden inundation of the ground floors of these hospitals leading to power failures and break down of oxygen plants. The Orthopaedic Bone and Joint Hospital was among the first buildings in Srinagar to go under water, as Doodhganga, a major tributary of river Jhelum, spread across Barzulla, in Srinagar. At other low lying hospitals, even when the waters were rising in

25 Bayntun, C., Rockenschaub, G., & Murray, V. (2012). Developing a health system approach to disaster management: A qualitative analysis of the core literature to complement the WHO Toolkit for assessing health-system capacity for crisis management. *PLoS currents*, 4.

their compounds, after almost forty-eight hours of continuous rain, there was no emergency control room, evacuation plan or disaster management drill to deal with the foreseeable emergency. For instance at SMHS, a hospital boat belonging to its Department of Social Medicine, was being used to ferry students and hospital staff from their on-campus residences since 4th September due to the flooding, yet no evacuation assistance was provided by the government, and no evacuations of even critically ill patients to other facilities was carried out when roads were still open. Lack of electricity backup along with permanent damage to vital diagnostic equipment, including oxygen supplies, led to patient deaths across these hospitals. According to a news report, at GB Pant Children's Hospital, 11 neonatal deaths were reported, owing to power and oxygen failure. More than 800 people, including hundreds of children and infants were trapped in this paediatric specialist facility. Nazir Ahmed Dar, an orderly at the hospital, who handed over the children's bodies, wrapped in blankets, to army rescuers through the second-story window was quoted in a news report as saying, 'I was handing down dead babies. I was thinking if help didn't come soon, I'd be handing down more.'²⁶

GB Pant, located in the Badamibagh cantonment area, was the only major hospital where armed forces were involved in rescues. In the rest of the hospitals, people trapped managed to escape only with the help of local community volunteers. At SMHS, community based volunteers from a local aid organisation 'Athroul' distributed food packets, and later helped evacuate hundreds of patients. No help was provided by the civil administration, despite repeated SOS messages. In Khyber Hospital at Khanyar, rescue volunteers used boats to carry patients and nurses to safety through chest deep waters. In Anantnag, the Syed-ul Sadaat trust organised community kitchens for several days at the Maternity Care Hospital, Sherbagh and the (Mirza Beg) District Hospital, Janglatmandi, to feed the large numbers of patients and family members, who were stranded when road connectivity to South Kashmir was lost. Even after the flooding, government hospitals continued to depend on community donations and medical relief supplies. At the Humhama relief camp, visited by JKCCS on 26th September 2014, community based volunteers were seen handling emergency requests from doctors at government hospitals, for antibiotics, surgical gloves and baby food, as official supplies were not adequate. Community volunteers at Syed-ul Sadaat Trust, Anantnag told JKCCS on 20th September 2014, that they had been approached by the Chief Medical Officer, and Medical Superintendent of the District Hospital, to procure specific medication such as Oxyflaxin, as well as multi-purpose antibiotics, and chlorine tablets, which were not available in sufficient numbers through official channels.

Doctors who were on duty during the flooding in inundated Srinagar hospitals told JKCCS that during the flooding the hospital corridors and wards were the site of angry protests, confusion and utter despair. Agitated family members (referred to as 'attendants') of the patients at Kashmir's only tertiary maternity care hospital, Lal Ded (LD), became extremely aggressive, and fought with the doctors on duty, blaming them for the situation. A senior doctor from LD told JKCCS, that attendants became particularly enraged when they spotted helicopters rescuing army personnel from the several army and paramilitary camps nearby. In these volatile circumstances, the courage, fortitude and resilience of individual health care workers was exemplary. They not only had to treat their patients under extremely difficult conditions, but also had to guarantee their survival or face the wrath of already highly agitated families. Doctors who were on duty that weekend told JKCCS of the overwhelming sense of helplessness, grief and guilt they still felt, at being responsible to so many desperate people, who trusted them with their lives, but who they were unable to adequately help or reassure. When they spoke of the deaths that occurred in their hospitals, due to the lack of electricity, oxygen and medical supplies, or in evacuating the critically ill, they talked of not being able to 'save' their patients, despite 'trying their utmost'.

For Srinagar patients in need of emergency medical care during the first weeks after the floods, SKIMS, Soura and the 25 bedded private nursing home Ahmed Hospital provided the only respite in the city. As both the primary and tertiary health care system broke down, smaller and flood-safe health care facilities experienced unprecedented patient intakes, causing huge shortages and operational difficulties. For instance, the District Hospital at Baramulla, treated around 37,000 patients in the month of September,²⁷ when major facilities in Srinagar were closed. SKIMS remained the only functional tertiary care hospital in the valley for about a month, and became over burdened. 'There has been a threefold increase in the number of patients including emergency cases visiting the hospital

26 Nida Najar and Betwa Sharma, Hospitals in Kashmir struggle after flooding, deepening a health crisis; The New York Times, Sept 19, 2014 http://www.nytimes.com/2014/09/20/world/asia/hospitals-in-kashmir-struggle-after-flooding-deepening-a-health-crisis.html?_r=0

27 Altaf Baba, With Srinagar Hospitals flooded, Baramulla hospital shows the way; Greater Kashmir Oct 04, 2014 <http://www.greaterkashmir.com/news/2014/Oct/4/with-srinagar-hospitals-flooded-baramulla-hospital-shows-way-55.asp>.

since the devastating floods inundated the valley,²⁸ Dr Showkat Zargar, head of SKIMS was quoted as saying in a news report. Given the magnitude of the disaster, and unsanitary conditions caused due to prolonged inundations, many disaster experts thought an outbreak of epidemics and other communicable diseases was inevitable. Health professionals working in the peripheral health institutions, and on a voluntary basis across relief camps in flood affected communities, played an important role in ensuring that this did not happen.

Early official estimates revealed that the health sector has suffered losses of over Rs 200 Crores. Former Minister for Health and Medical Education Taj Mohiuddin said 'In SMHS hospital alone, the figure of losses is over Rs 106 crores. The flood water has ruined and damaged vital diagnostic equipment, such as MRI, CT scan, X-ray and other diagnostic equipment's have got damaged completely. It is very difficult to get them repaired.'²⁹ Researchers from JKCCS visited some of these hospitals in the first week of October and found premises still littered with piles of damaged medical supplies, discarded hospital linen and un-usable medical equipment. Doctors told JKCCS that the official estimate was a gross under valuation, citing the magnitude of infrastructural damage, renovation and rebuilding costs and the long term impact on these hospitals, and to the general standards of specialized public healthcare. They stated that, to restore the hospitals to their pre flood capacities would require at least six months. A draft on Hospital Safety in the National Disaster Management Guidelines states that every hospital in the country should have a fully functional and regularly tested Hospital Disaster Management Plan.³⁰ These critical medical facilities could have been saved and losses to infrastructure minimized had there been any disaster management plans in place.

SMHS Hospital, Srinagar



SMHS Compound and Karan Nagar Police Station marked on a Google Map

²⁸ Imran Muzaffar, SKIMS symbolizes healthcare disaster; Greater Kashmir, 21 Sept, 2014.

<http://www.greaterkashmir.com/news/2014/Sep/21/skims-symbolizes-healthcare-disaster-33.asp>

²⁹ Shabir Ibn Yusuf, JK's health sector suffers huge loss: Minister, 25 Sept 2014,

<http://www.greaterkashmir.com/news/2014/Sep/25/jk-s-health-sector-suffers-huge-loss-minister-33.asp>.

³⁰ National Disaster Management Guidelines, Hospital Safety, (Draft), December 2013.

The Shri Maharaja Hari Singh Hospital (SMHS) established in early 1900s, is one of the major General Hospitals in the state of Jammu & Kashmir. Located in Karan Nagar, Srinagar, SMHS Hospital caters to more than six thousand patients per day, while also being a teaching institution imparting undergraduate and post-graduate medical education. Associated with the Government Medical College Srinagar, it has an official capacity of about 500 beds and offers primary and secondary medical care in various specialties and sub specialties.

By the evening of 4th September, water had started accumulating in the hospital compound. A boat that belonged to the social and preventive medicine department was being used to ferry students from the hostel to the main building. A doctor on duty on 6th-7th September recalled that by late night on 6th September announcements were being made in the local mosque that the water levels were going to rise, and by the early hours of 7th September water had begun seeping into the threshold of hospital building. There were about a thousand people present in the hospital, including around 300 patients, attendants, hospital staff, and doctors. At around 7:00 am the next day, the Principal of GMC and associated hospitals, Dr. Rafiq Pampori, came to the hospital along with the Medical Superintendent to assess the situation. At that time there was around one foot of water on the ground floor of the Hospital. The Principal called the Secretary (Health & Medical Education), Gazanfar Husain and conveyed his concerns that SMHS could get flooded and to send immediate help. As the water levels rose, he called the Minister for Health as well as the Commissioner to help out with evacuation, within hearing of doctors and residents present there. The SHO of Karan Nagar Police Station, in whose jurisdiction the hospital is an important institution, was also seen briefly in the morning, inspecting the water levels.

By 8:30 am, patients from the ground floor were being moved to the first floor. An elderly patient from the surgical ward with multiple complications died while he was being shifted. At around 11:00 am, a sudden torrent of water gushed into the ground floor, rendering non-functional the telephone exchange, oxygen concentrator plant and generator, all located on the ground floor. In addition the Drugs Store, Hospital Canteen, and eight wards got submerged. By 12 noon the city power supply failed, and with no generator back up, critical monitoring equipment stopped working. Dr. Pampori, who was still at the hospital premises was observed frantically calling officials, to arrange for trucks so that patients could be evacuated. The Principal and Medical Superintendent had earlier assured patients and hospital staff that the District Administration had promised him boats, and that they would be evacuated soon. By about 4:00 pm, with no evacuation in sight the attendants had become agitated and were on the verge of manhandling the staff. Dr Pampori too was manhandled, and left the premises, promising to return with help.

By Sunday evening, the hospital had run out of its stock of medicines. The oxygen tanks from the surgical ICU, which were the only source of oxygen in the hospital were running low and would only last till Monday morning. Volunteers from a local NGO, Athrout, arrived at the hospital later that evening. They also brought packets of food, and bottles of water, which they threw into the hospital through the windows. They had arranged for a truck to evacuate the patients stuck at the hospital. The truck was parked on higher ground near Pathar Masjid so patients had to get to the truck in a boat from the hospital building. The doctors set up a triaging system, to send the critical patients first, as only eight people could be taken at a time in the boat. There were scenes of desperation and chaos, and doctors had to ensure that patients were identified by 'tokens', so that the most critical patients were evacuated first. Patients had to be evacuated through a narrow second floor window, with volunteers braced along the high hospital walls. The boat and crowds were managed by the community volunteers and the relief workers from Athrout. Doctors gave these volunteers a list of medicines that were needed urgently at the hospital. A few critical patients were evacuated through a small window, and adjoining wall, before darkness fell.



Patients and their families waiting in the corridor to be rescued.

The night between 7th-8th September was the most difficult period for the hospital staff, which recalled it as passing in a blur. Critical patients were in great distress and gasping for breath due to limited oxygen supply. Doctors had to provide treatment under candlelight, and without basic equipment or support staff. They doubled up as paramedics, given the overwhelming patient needs, and the shortage of staff, many of whom had left when their homes in South Kashmir had been flooded, or who were not able to report for duty because of the break down in road connectivity. One doctor recalled a severely diabetic patient in ward 9, who had been prescribed glucose hourly, and whose insulin dosage had to be constantly monitored. But they had run out of insulin, and could not monitor her blood glucose as there was no laboratory or electricity to run the equipment. Hospital staff was hoping that Athrout volunteers would come in the morning with oxygen cylinders as the hospital's cylinders could provide oxygen only till 3:00 pm. However, the Athrout volunteers couldn't make it to the hospital in the morning. An employee in the X-Ray unit along with his brother helped in evacuating a 4 year old critical patient from the surgical ICU. The boy was in respiratory distress, and had been manually respirated through the night by doctors. Once he reached the slightly drier area near Pathar Masjid, a doctor tried to provide CPR to the child, but unfortunately, he did not survive. According to a staff member, as many as 13 patients lost their lives, either directly or indirectly. Lack of oxygen and power supply were cited as the factors that caused the death of four to five patients.

Karan Nagar Police Station, located across the street from SMHS Hospital, was empty by 7:30 pm on Sunday, 7th September. The SHO at the Police Station is responsible for the hospital, and usually maintains close contact with

hospital authorities. He did not inform the staff at the hospital when the police station was evacuated. There were three to four policemen stationed at the hospital, for providing security and dealing with medico-legal complaints, including at the time of flooding, but according to the staff members, they did not help in evacuations. They were mostly concerned with taking care of their own weapons while frantic rescue operations were ongoing, and did not leave their room, doctors commented. Some CRPF personnel from the nearby camp at Shaheen Bagh also occupied the top floor of the hospital. Locals allege that these CRPF personnel took the small boat that belonged to the hospital, because on Monday morning, 8th September, neither the CRPF men nor the boat could be spotted in the hospital compound.

By 10:30 am on 8th September a large crowd of family members, and patients had gathered on the rooftop of the hospital, waving red blankets, and hospital linen to the rescue helicopters which were hovering and circling overhead. They could see that CRPF personnel were being evacuated from Shaheen Bagh Camp. They also saw rescue activities at the Deputy Inspector General's Office, which was visible from the room. A doctor who was present told JKCCS that a large group of women medical students had gathered on the rooftop of the 'girls hostel', which is located right behind the main hospital building, and were using red dupattas to signal their distress. The helicopter sorties continued throughout the day, but no one other than community volunteers helped the hospital. Being stranded for more than 48 hours with limited food and water, while watching rescues of non-civilians, attendants grew angry, and protests against the doctors, the authorities, and India were frequent.

Later that day, a group of young resident doctors broke into the cardiology laboratory, and managed to get a few tin sheets. Using stretchers and the flimsy tin sheets they created a bridge from the window in the main building to the high boundary wall. Patients and others started walking along the ten-foot high boundary wall, up to the bridge/main road, in a human chain. It was extremely dangerous as a torrential stream flowed right behind the boundary wall and if a person lost balance, he would fall into the swiftly flowing nallah. By the evening a majority of the patients and staff members were evacuated. Some staff members and patients who hailed from far flung areas, stayed back in the hospital as they didn't know if roads leading to their hometown were safe to travel or not. In the Community Health Centre, an outreach unit of the Psychiatry hospital, located next to the Emergency wing of the Hospital, a psychiatric health worker remained at the department building for seven days, along with a Chowkidar (security guard) until he could officially hand over the keys to a hospital administrator, as he did not want to leave the building premises unattended. He stated that on the night before he finally left his post, he tried to beat the hunger pangs by chewing on paper. Though there were only three in-patients admitted in the hospital, being mentally ill, they were particularly panicked, and he had to counsel them, and ensured their safe evacuations by volunteers. He spent large parts of his days after these evacuations on the roof of the empty building, watching and occasionally cursing the 'chopper drama' and smoking his highly rationed quota of cigarettes.



Left: A critical patient being evacuated by local volunteers through the window leading to a makeshift bridge made out of sheets of tin. Right: Medical Students being evacuated in the Social and Preventive Medicine Department's boat.

Meanwhile in the women's hostel, 200 medical students were stuck on the first floor. By Tuesday, September 10th morning a team of doctors came to the hospital to relieve some of the duty doctors and help in evacuations, along with the Principal, Dr. Pampori. They helped to evacuate the young women, using the same route, of the stretcher bridge and hospital wall. The Principal had organised a school bus for their transportation. Local volunteers arranged for their stay in the houses of locals in the neighbourhood, while others stayed at Darul-uloom Ilahiya at Buchpora, Soura, an orphanage and welfare organisation run by Dr Pampori. Stranded female students from Jammu were also airlifted to the Srinagar airport in air force choppers.

JKCCS visited the hospital premises on 1 October. The hospital compound looked like a war zone, as it was full of heaps of shattered glass, IV lines, hospital linen and destroyed medicines, but visible efforts at making the hospital functional were ongoing. The first round of cleaning and washing off the mud had already been done by crews of community volunteers, and when JKCCS visited, hospital cleaning and fumigation crews were hard at work. According to the Principal, Dr. Pampori, OPD and Casualty of the Hospital were re-opened on 27th September. However only short stay patients were being admitted and the In Patient Department was scheduled to be re-started only in some time, doctors working at the hospital told JKCCS on 1st October.



Left: Damaged centrifuge machines lying in the hospital compound. Right: SMHS workers cleaning the hospital premises.

Hospital Authorities have estimated losses of over Rupees 100 Crores to the hospital.³¹ Vital Diagnostic and Laboratory Equipment have been rendered useless. The technology heavy Radiology Department, Gastroenterology Department, and Medical ICU, were among the worst hit units in the Hospital. Funds have been allotted to the hospital to make important purchases, media reports stated.³² Narendra Modi, Prime Minister of India announced a total relief package of Rupees 175 Crores for the renovation of six major hospitals in Kashmir, including SMHS, a figure that doctors at the hospital said was barely enough to meet the cost of the damage and reconstruction to SMHS alone.

31 Shabir Ibn Yusuf, JK's health sector suffers huge loss: Minister, 25 Sept 2014
<http://www.greaterkashmir.com/news/2014/Sep/25/jk-s-health-sector-suffers-huge-loss-minister-33.asp>.

32 Mudda sir Ali, SMHS hospital: Out of Service, Greater Kashmir, 01 Oct 2014
<http://www.greaterkashmir.com/news/2014/Oct/1/smhs-hospital-out-of-service-25.asp>

Lala Ded Hospital, Srinagar



Lala Ded Hospital along the Banks of River Jhelum.

Lal Ded (LD) Hospital, located on the banks of river Jhelum at Wazir Bagh, is a 700 bedded Maternity Hospital associated with the Government Medical College, Srinagar. It provides exclusive emergency services and interventional care in the field of obstetrics, gynaecology, and infertility, with facilities for ante-natal and post-natal care for women. With a staff of about 80 doctors, LD Hospital is the biggest tertiary care hospital of the valley for these specialities.

LD Hospital was scheduled to host an international conference in the first week of September 2014, but the staff busy with preparations had little inkling of what would befall them. 6th September was the last normal functioning day of the hospital, before the floods. The entire staff was on duty, during working hours (i.e. 10:00 am to 4:00 pm), that day. After regular duty hours, 18 doctors, 300 patients and around 400 family members along with the paramedical staff were present in the hospital. Later in the evening, when breaches were being reported across the city, there was a sense of alarm in the hospital, which is located on the bund of Jhelum, by then flowing torrentially, and rising fast. By that night a small stream of water had found its way into the hospital premises through a leak in the bund. Hearing these reports, the Medical Superintendent (MS), Resident Medical Officer (RMO) and Head of the Department (HOD) came to the hospital to assess the situation by about 10:30 pm. Hospital staff helped in reinforcing the bund with sandbags. The minister for Irrigation and Flood control and the DC also visited the hospital, reassuring the members of the staff that they were safe and everything was under control. Principal, GMC and associated hospitals, also came to the hospital to evaluate the situation that evening.

After midnight, there was a power failure in the hospital. The generators provided a backup for five to six hours, but then the oxygen supply stopped. The first casualty was reported immediately from the Neo-Natal ICU. As the water level rose in the hospital compound, the ground floor was evacuated and all the patients were moved to the new block. By 4:00 am on Sunday, 14-15 caesarean deliveries had been carried out on an emergency basis, while there was still generator back up, on the most at-risk patients. The situation in the hospital was quite tense by now with water levels steadily rising, and the power failure affecting the oxygen plant and all electronic equipment in the Operation Theatres. By 7:00 am, water started gushing into the ground floor and within 30 minutes, the entire floor was submerged, which rendered the hospital dysfunctional. Its lifeline, the Casualty Ward, Blood Bank, Oxygen Plant, Central Sterilisation Plant and Ultra Sound Department are all situated on the ground floor.

Dr. Shahnaz Taing, HOD Obstetrics & Gynaecology recalls that even in such desperate times, the staff tried to maintain a semblance of order by going on with regular routines and duties. On Sunday, 8th September she went on her regular round with her junior staff to review the prognosis of patients. Meanwhile, as at SMHS, hundreds of

attendants had gathered on the rooftop and were waving blankets to the helicopters hovering in close vicinity. Military choppers could be seen rescuing armed forces and paramilitary personnel from the camps nearby, and were also seen air-dropping food supplies. By this time, the attendants were quite agitated. With no help from the administration in sight, managing tempers had become a challenge for the hospital staff. Relatives had heard rumours that a news channel (NDTV) had reported that packed food was being sent to the hospital, and they thought that the hospital staff had monopolised these supplies. Fortunately later in the afternoon two local boys came to the hospital in a small boat. The staff collected money and these boys got candles and biscuits, which were distributed among the patients and their attendants. To keep everyone hydrated, the hospital staff distributed dextrose saline water among the patients and their attendants. The patients were told that in case of delays in changing their IV lines, due to the severe shortage of staff, they must not wait and should drink the extra packets that were distributed. Patients were also served raw rice mixed with sugar.

In the early morning hours of Monday, once there was daylight, a particularly high risk patient was operated upon. The doctors decided to take a calculated risk to perform a complicated Caesarean section, without essentials like electricity for anaesthesia delivery, oxygen supply, monitors, sterilising equipment, and operation theatre lights. Everything had to be done manually. Unfortunately, the baby did not survive. On that weekend six other Caesarean deliveries were conducted under candlelight, and according to the doctors on duty, it was only a miracle that all the mothers and their babies survived in such difficult conditions. With no incubators for premature babies, mothers were taught how to swaddle their infants, and bind them to their bodies to keep them warm and safe.

By Monday afternoon, almost all of the women in labour had delivered, or had caesareans, and some of the patients and attendants started leaving on their own, walking along the bund, and across the footbridge near the SPS Museum. The Medical Superintendent, who had left earlier along the same route to obtain help, formed an evacuation plan for the remaining patients. With the help of local volunteers, a human chain was formed to help with the evacuation, and a camp at the commercial building of local politician Altaf Bukhari, on the opposite side of the bank, was identified as the destination. Mothers were counselled to tie their babies with dupattas around their abdomens, and to walk slowly, without panicking. Residents from the other bank of the river vividly recall the strange sight of a queue of such women with babies tightly strapped to themselves, slowly walking in a single file along the broken embankment. Altaf Bukhari, opened his commercial building to the evacuees from LD. At a community kitchen and camp organised by Altaf Bukhari with volunteers, they ate cooked rice and drank tea – for the first time in three days. Some remained there for more than a week, as there was no way for them to get home.

Being the lone tertiary maternity care Hospital in Kashmir, LD could not afford to stay shut for long. As a doctor told us, 'everything else can wait, but babies will come when they have to, floods or no floods.' By 17th September, doctors from LD started work at a temporary operation theatre and unit set at the Sanat Nagar Maternity Hospital. Doctors who resided in that area also volunteered at the hospital. Around thirty C-sections were performed at this facility. Another unit of LD was started in wards 91 and 92 of the Bone and Joint Hospital, Barzulla, where close to 100 caesareans were performed. Doctors from LD also offered to volunteer at the neighbouring District Hospital, Budgam, which was overwhelmed with the sudden influx of urgent cases. The hospital finally re-opened in its own building on 29th September. Even as visibly damp walls reeked of the flood just gone by, and debris littered the campus, the entire staff resumed work to bring the hospital back to its normal functioning capacity. However, the blood bank supplies and equipment and unreliable power and oxygen supplies meant that many critical patients were being referred to SKIMS, Soura.

The JKCCS research team first visited the hospital in the first week of October and the hospital compound was still filled with broken beds, sand bags, stretchers, piles of unusable medicines and IV lines. On our second visit, during the third week of October, a doctor told us that the oxygen plant and the centrifuge machine in the blood bank still had problems, and even HIV Eliza Tests could not be conducted in the hospital at that time. Doctors estimated that the hospital was working at about thirty per-cent of its normal capacity. They expressed unhappiness at this, saying that their hospital was designed to cater to the most critical of patients and they had never thought that they would see a day when they would have to send a patient away somewhere else for treatment. The fumigation of the entire hospital had been completed under the supervision of the Srinagar Municipal Corporation (SMC). Private relief and donations, some organised by doctors in their private capacities, were still supplementing the inadequate official supplies. The doctors however refused to comment about the controversy regarding the governments refusal of offers of medical aid from Oxfam and other international organisations



Damaged hospital linen, medical supplies and furniture in the compound of Lala Ded Hospital.

Ahmed Hospital, Srinagar

Located on the Nowgam bypass, in the outskirts of Srinagar, Ahmed Hospital is a multi-specialty nursing home that has four functional operation theatres and conducts about four-six operations per day. When this 25 bedded private nursing home became almost the only default tertiary care hospital catering to Srinagar, doctors had to resort to the methods of Avicenna – Father of Early Modern Medicine. As intake during the floods reached three to four times the normal, sheets were torn into strips, sterilized and used as bandages for surgeries, and wards were set up in hospital corridors.

By the evening of 7th September most of Srinagar was under water, and south Kashmir was completely cut off from Srinagar. Most referrals were sent from the local and sub-district health centres, as people were not able to reach the city. In the next three days, the hospital functioned on a war footing, with faculty rooms converted into casualty wards, and even as operation theatres for minor surgeries. Mattresses were laid on the floors in almost every available space, to accommodate as many patients as possible. Announcements were made in the local Nowgam mosque, specifying that Ahmed Hospital was willing to conduct treatment and surgeries for free, in case patients could not pay. The hospital staff sent messages to other doctors from different specialties to help out. Residential colonies in adjoining Hyderpora, Sanatnagar and Rawalpura, are home to many medical professionals, and with a majority city hospitals where they worked being inaccessible, they volunteered in large numbers at Ahmed hospital, as well as at medical camps set up in relief camps in the area. In that week, there were around twenty such doctors who volunteered full time at Ahmed hospital, joining the regular staff doctors. Paramedical staff residing in the neighbourhood volunteered as well.

Close to a hundred surgeries were performed in three days, after which the hospital completely ran out of supplies, and space for post-surgical patients in recovery. The staff tried to manage the situation by discharging patients almost immediately after surgery, giving them a list of basic dos and don'ts. The owner of the hospital was interviewed by NDTV and ETV, popular news channels, through which he made an appeal to the viewers to send medical supplies. According to an anaesthetist employed at the hospital, donations started pouring in from the very next day, from friends, NGOs, community organisations, and the Kashmiri diaspora. Ahmed Hospital functioned as a replacement for LD, the lone maternity care hospital of Srinagar for that week, and became a referral point for pregnant women from across the city. According to Dr Iqbal, from Sunday onwards about 82

caesareans were conducted in the hospital.³³ In such circumstances, when surgeries were being conducted round the clock, and patients were recovering in corridors and make shift wards, the risk of infections was very high. In order to keep the hospital sanitary, doctors, nurses and staff members themselves took turns to sweep and clean the floors of the hospital. Five days later, the administration of Ahmed Hospital requested the staff of the Maternity Hospital at Sanat Nagar to dedicate one bed in that facility to surgeries conducted at Ahmed, and the pressure eased slightly. As other surgical facilities became available around the end of September, for instance at Barzulla Bone and Joints Hospital, the number of patients began to reduce. Despite the hospital lacking a ventilator, three seriously ill patients, who suffered from chronic obstructive lung diseases, survived. Sadly, a relief volunteer, who was seriously injured in a road accident while distributing relief, died at the hospital due to a critical head injury. JKCCS was told by doctors at Ahmed Hospital that even in such a desperate situation, there was no interaction between the hospital authorities and the civil administration. In fact some of the volunteer doctors and staff members continued working even when their own houses were submerged. One of the doctors opined that there should be strict directions to the district hospitals to deal with unnecessary load at the district level itself, and not make referrals to tertiary care hospitals so that the capacity of the district hospitals can be utilized to their fullest.

District Hospital, Budgam

Located on a slightly hilly terrain in Budgam, the District Hospital of the Department of Health normally caters to more than fifty villages and almost 500-600 patients per day. It offers multi-specialty facilities as well as some sub-specialties like gastroenterology, cardiology and urology. On 7th September when a doctor on duty at Budgam hospital realized that the number of labouring mothers being admitted to her ward was unusually high, she asked the attendant, 'Why have you brought your wife, all the way here to Budgam? You could have taken your wife to LD'. He replied angrily saying, 'Doctor Saab, don't you know? The entire city is under water. LD and SMHS have submerged. The only functioning hospital near Srinagar is this one.' That is when the full enormity of the medical emergency she was in the middle of, she says, hit her.

By the morning of 8th September, there were more than a thousand patients waiting to be treated at the District Hospital Budgam. The ground floor of the hospital had turned into a general waiting area for crowds of accompanying family members, as well as patients waiting for treatment. There were only a few staff members present in the hospital, many of who had stayed in the hospital after their night shift on Sunday. A few of the staff managed to reach the hospital in an ambulance sent to pick them up, via an alternative highland through Gogoland (site of a notorious torture centre) as regular transportation on the Indira Gandhi Airport Road which leads towards the hospital was disrupted. On that day, there were only four doctors present in the hospital, along with a skeletal support staff. None of the specialised surgical nursing staff that help run the two operation theatres could report for duty. An Ambulance was also sent to pick up the Medical Superintendent (MS) of the hospital from her house in Hyderpora but she refused to report to the hospital, saying that she needed to first see to her own flooded residence. The levels of flooding in the area were not critical, with about two-three feet of water reaching gardens and houses. She was later placed on suspension, after reporting for duty almost a week later.

There are four large wards in this hospital, including a general casualty ward and a specialised ward for post-operative care. Out of the two surgical theatres, one is attached to the labour ward and is used mostly by the gynaecology department. From 8th September onwards, there was a particularly heavy inflow of maternity patients, as LD hospital became entirely dysfunctional. According to a duty doctor, it felt like their District Hospital had turned into a Maternity Hospital overnight, with women in labour being constantly admitted, and deliveries being carried out round the clock. The hospital administration had decided that 'cold' non-emergency surgeries would be postponed, and non-critical patients were discharged, and only emergency cases were admitted. Out of

33 Jammu & Kashmir: After Floods, an ordeal to get water in Srinagar, the Economic Times, 11 Sept 2014

<http://economictimes.indiatimes.com/news/politics-and-nation/jammu-and-kashmir-after-floods-an-ordeal-to-get-water-in-srinagar/articleshow/42274491.cms>

the two operation theatres, one was given exclusively to the gynaecological unit. Two of the pregnant women, who were classified as 'high-risk' due to their previous medical history, would have been processed for Caesarean deliveries in the normal course. However the gynaecologist who could carry out the operations was not able to make it to the hospital because of the floods. The duty doctors working in the gynaecology unit took a decision to closely monitor these patients. Meanwhile, in the six-bedded labour ward, mattresses were laid on the floor as well as in the corridors to accommodate as many women as possible. There were three patients assigned to each bed, and two to every mattress in the ward. By afternoon, the patients' caretakers and family members had started to become agitated. A group of them barged into the labour room and there was a heated confrontation. Doctors tried to counsel them, and calm them down with reassurances that despite the terrible conditions the best possible care was being taken of their loved ones. One doctor recalled how she had tears in her eyes when a desperate father-to-be, told her that if it came to a question of the life of his wife or his unborn child, she should not hesitate in saving his wife.

The Resident Medical officer (RMO) of the hospital, who was present at the hospital throughout, and was in charge in the absence of the Medical Superintendent, had been in contact with the Deputy Commissioner (DC), Budgam as well as local military officials, for evacuating critical patients to SKIMS, Soura. By 6 pm on 8th September, two serious head trauma patients and about ten to eleven high-risk pregnant women, accompanied by hospital staff, were sent to the helipad at Srinagar airport so that they could be evacuated to SKIMS, on the basis of information provided by the DC that arrangements for their airlift in a helicopter had been made. One of the two head trauma patients, a young boy, died at the airport, and there was a long wait for the others. Eventually they were informed that the airlift would not be possible, as the helicopters were short of fuel. They returned to the Budgam hospital, and were then sent to Ahmed Hospital in the ambulance for treatment, as doctors had heard that many surgeries were being performed by volunteer doctors there. It was decided that post-surgery, these patients would be sent back to the district hospital at Budgam, for post-operative care, since Ahmed Hospital was already overwhelmed with patients. As telephone lines were not operational, all coordination between the hospital administrations, took place through written notes or oral messages conveyed by the ambulance driver, who worked tirelessly throughout the period. When diesel ran out he used his private connections to obtain fuel, but kept the vehicle running.

On Tuesday, 9th September, a high-risk woman in labour was rescued from Bemina by community volunteers, and was brought to the hospital without anyone attending to her. She was then sent to Ahmed Hospital for immediate treatment. The staff of district hospital was asked to send medical supplies, such as surgical gloves, syringes, bandages and sutures, along with their surgical patients, as Ahmed Hospital's stocks were running very low. By that evening, District Hospital Budgam had itself run out of medical supplies. A staff member recalls that by the third day they did not even have disposable gloves. Local community leaders in Budgam, organised a collection drive, and procured some basic supplies for the hospital. A langar was also started for the patients in Budgam as well as for the staff. The next day, the Director Health Services visited the hospital premises and told the staff members that a team of 10 doctors has been sent by the Central Government and they would work at the hospital and aid the staff in dealing with the heavy inflow of patients. However, when they arrived they told the local staff that they had been told not to work beyond 8 pm, as the state could not make any 'security arrangements' for their safety. The already overworked hospital staff, some of whose own homes were flooded, had to take care of all housing, transportation and other needs of the deputed teams, as the administration did not provide any logistical support. These doctors also felt that there was enough manpower and expertise available at the hospital itself. Instead of human resources, the hospital would have been better served with replenishing their stocks, and ensuring regular supplies so that they would be able to bear the extraordinary patient load.

In a span of three days, more than 70 deliveries were conducted in the hospital. On Thursday, 11th September, four gynaecologists (two from the team from Ministry of Health and two employed at the hospital), started dealing with high risk maternity cases at the hospital itself, and no more maternity referrals were sent to Ahmed Hospital. Owing to the high number of admitted patients, the hospital's regular weekly fumigations were not being carried out even by the first week of October.

The 'normalcy' narrative

Doctors working at these hospitals, repeatedly told JKCCS that state response to the medical emergency caused by the floods had been extremely disorganized and mismanaged. Teams of doctors from various Central Government hospitals across India were deputed to work in different hospitals in Kashmir. According to a senior doctor at SMHS, the state should have prioritized the restoration of basic infrastructural facilities and medical supplies at the local level, instead of sending outside teams, at considerable cost, as there was enough manpower (doctors and paramedical staff) available to treat patients in Kashmir itself. In fact, local doctors employed at several of the flooded hospitals were already volunteering at community camps, and at other functional facilities, and could easily have been assigned duties by the administration to do this work in a more organised way, instead of a purely voluntary basis. A doctor provided the instance of a group of psychiatrists from NIMHANS, Bangalore sent to Srinagar, in the week after the flooding, when large parts of the city were still inundated, and the medical priority were basic first aid, respiratory complaints, maternal health and general medicine. No official even met them at the airport, and they were completely at sea as to what they were expected to do. They returned back within a few days, completely frustrated with the systemic mismanagement and waste of resources. A doctor employed at SMHS told JKCCS, that most of the local doctors working in this hospital were available for duties by the time the outside teams arrived, and could have managed the load of ward patients during the daytime, but that they were short staffed at night as local staff had been performing back to back night duties. Another issue that caused consternation among medical fraternity was the state government's highly publicised anti-measles vaccination drive, announced shortly after the floods. A number of doctors criticized this campaign, as one of the first health-related responses of the state, since there had been no reported outbreak of measles, and there was no need to prioritise mass vaccinations. They said that this drive had been launched merely to 'keep up appearances' that the state was being proactive, when it was in fact not medically necessary, and resources could have been better utilised elsewhere.

The state's response towards the health sector in the aftermath of the floods was guided by an urgency to portray 'normalcy', and minimise the need for international humanitarian interventions, when things were clearly far from normal. Researchers from JKCCS first visited several hospitals in early October, and most of the doctors interviewed said that the hospitals were functioning at 30% of their capacity, perhaps even less. At SMHS, in the first week of October, the cleaning and fumigation process was still going on, and the surgical theatres had not been reopened. Stairways and corridors were damp, and caked with mud. At LD Hospital, even by the second week of October, the oxygen plant, generator back-up, and blood bank had problems and shortages, which made the admission of critical patients impossible. JKCCS Interviews with senior doctors were interrupted on more than one occasion by medical staff, or junior doctors, inquiring about availability of certain blood types, or whether particular patients needed to be referred to SKIMS, due to the lack of necessary equipment or blood products. In interviews doctors cautiously referred to the insurmountable official 'pressure' to paint a picture of things being back to 'normal routines' and health care system being fully functional, but asked not to be quoted by name, or identified by the names of their hospitals. By the first week of October, only short-stay admissions were made in SMHS and LD Hospital, yet public statements were issued by health administrators about these hospitals functioning as per normal (pre-flood) routines.³⁴ Dr. Pampori, the Principal of SMHS and its associated hospitals (and the chief administrative officer) informed JKCCS that there were no recorded flood related deaths in the hospitals under his supervision, as only 'drowning' cases could be medically classified as such, and moreover, during the worst of the flooding, the hospitals were not admitting any patients. When questioned about reported deaths caused due to electricity and equipment failures during the floods, he stated that these deaths at the hospitals could not officially be counted in the flood related death figures. He refused to speculate on morbidity figures associated with the flooding. The official line was clearly to de-emphasise the impact of the floods on hospital mortality and morbidity rates.

That it was state policy to deny the existence of a health care crisis after the floods, when in reality the overburdened health care system had almost broken down, and would take years to recover, is perhaps best illustrated with one particular incident involving the World Health Organization (WHO). On 29th September 2014,

³⁴ GMC Principal clarifies, Greater Kashmir, 02 Oct 2014, <http://beta.greaterkashmir.com/news/kashmir/gmc-principal-clarifies/178092.html>

WHO India issued a one-page reply to six questions posed by a medical journalist, Dr. Rita Paul of Huffington Post, regarding the health care situation in Jammu and Kashmir. In a press statement issued in response, the Kashmiri medical fraternity (represented by various associations), stated that the WHO India reply was entirely based on Ministry of Health and Family Welfare, Government of India inputs, which were factually incorrect, and a misrepresentation of the dire situation on ground. WHO India's response mentioned that 58 mobile health clinics were setup in Srinagar and 4 mobile hospitals were functional in the city. However none of these mobile health clinics and mobile hospitals could be identified by field researchers, health or relief workers. The WHO response further mentioned that Srinagar's maternity hospital was fully functional and that the Bone and Joint Hospital had already reopened, when in reality LD Hospital was reopened on 29 September and was only partly functional at the time. The medical fraternity appealed to Dr. Margaret Chan, Direction General, WHO, providing a point wise evaluation of the response by WHO India and asking for an independent international evaluation of the health crisis in Jammu and Kashmir, including the removal of restrictions on financial aid for the health sector. An appeal was also made seeking the intervention of international health community under the universal human right to the enjoyment of the highest attainable standard of physical and mental health, to help with the serious health care crisis in Kashmir.³⁵

³⁵ Press Statement issued by Doctors Association Kashmir (DAK), Resident Doctors Association of SMHS, Associated Hospitals (RDA), Kashmir Voluntary Doctors Organization (KVDO), Association of Pharmacy Graduates of Kashmir (APGK), Jammu and Kashmir Chemists and Druggists Association (JKCDA) and Jammu Kashmir Coalition of Civil Society (JKCCS) on October 4, 2014.

Chapter 5 Rescue, Relief, Resistance

Considerable Indian media attention has been devoted to the role played by military and paramilitary forces in rescues and relief, aided in large part by a proactive press relations effort on the part of the armed forces, including daily official press briefings, and military escorted journalistic access to rescue missions and flooded areas. As printing presses, and newspaper offices in Srinagar became flooded, the vibrant local news outlets, which ordinarily provide a popular alternative to Indian media, were unable to publish print editions for almost two weeks. With minimal Internet connectivity access to reliable news, information, crucial during emergencies, was severely restricted. The social media, and International press did a commendable job in providing some inkling of what was happening on the ground, but the Indian media, particularly television news channels, tended especially in the early days to rely almost exclusively on militarised official accounts. If the news is indeed the first draft of history, the official version of the 2014 floods, where the local community is cast exclusively as helpless victims, and the armed forces as gallant rescuers is one most Kashmiris would have trouble recognising as their own. This chapter seeks to provide a redrafted counter narrative to this official discourse, through an oral history of the floods, voiced by survivors, rescuers, local journalists, and relief workers

Civil Administration in Disarray

The complete absence of civilian government was repeatedly alluded to in interviews to JKCCS, as one of the definitive features of the flooding. It continued in the water-logged aftermath that lasted three long weeks, with water levels ranging from one or two feet, to eight to eighteen to twenty feet, and road connectivity and telecommunications bordering on the non-existent. Journalist Muzamil Jaleel, of the Indian Express vividly described the prevailing situation in one of his early dispatches from the land 'where no one is in charge of anything'.

'The rescue operation isn't led by anyone because there isn't any communication between officials. The people have no means to contact anybody in the government. The Army, Air Force and NDRF are functioning on their own. The cellphones of almost all government officials are defunct. Director of Health Services (Kashmir) Saleem-ur Rahman, for example, said he could not contact his officials. The only network functional is Aircel; government officials use BSNL or Airtel. All government offices are shut, as are the civil secretariat and the high court. The state police's control room is being run from a DIG's car where a few officers use wireless to communicate among themselves. On Tuesday night, police managed to send a few radio updates to the public.'¹

Even the Chief Minister, Omar Abdullah was compelled to acknowledge the complete breakdown of his administration. In an interview to an Indian television channel, on 11th September, he stated, that he had 'no government' for the first 36 hours. 'My secretariat, the police headquarters, the control room, fire services, hospitals, all the infrastructure was underwater [...] I had no cell -phone and no connectivity. I am now starting to track down ministers and officers. Today I met ministers who were swept up by the floods.'² News reports stated that the first crucial days after the floods struck Srinagar, the Chief Minister was functioning with the aid of only two of his senior functionaries, Chief Secretary Iqbal Khanday, and Director General of Police K Rajendra.³

An insider's account by an anonymous high ranking bureaucrat in the state administration, titled 'Tragedy of Errors' published in Greater Kashmir, provides telling details of the state of anarchy and absurdity at the highest administrative levels, including at the daily briefing meetings presided by the Chief Minister with 'civil and military brass', at the state administration's first temporary operational headquarters at the Military air base, in Humhama (which shares its compound with the civilian Srinagar Airport). At one such meeting the Chief Minister was informed about an FCI (Food Corporation of India) godown at Lethpora, Pulwama, whose storekeeper was not traceable. The Chief Minister directed that the concerned Deputy Commissioner break the lock in presence of a judicial magistrate and distribute the rations. It was later learnt that the district administration lost three crucial days in locating an available magistrate in whose presence the lock could be opened⁴. In another incident involving

1 Muzamil Jaleel, Where no one is in charge of anything, The Indian Express, 10 Sept 2014

<http://indianexpress.com/article/india/india-others/where-no-one-is-in-charge-of-anything/>

2 Ellen Barry and Nida Najar, Embrace of Social Media Aids Flood Victims in Kashmir, New York Times, 12 Sept 2014,

<http://www.nytimes.com/2014/09/13/world/asia/embrace-of-social-media-aids-flood-victims-in-kashmir.html>

3 Sameer Arshad, CM Omar Abdullah was left with only two officials when floods struck J&K, The Times of India, 15 Sept 2014,

<http://timesofindia.indiatimes.com/india/CM-Omar-Abdullah-was-left-with-only-two-officials-when-floods-struck-JK/articleshow/42516610.cms>

reports of the looting of a state granary (for which the Chief Secretary publically held the local Superintendent of Police responsible), no action was taken against the police officer, after a meeting between the 'Police Chief' and the Chief Secretary.

Local accounts from the community corroborated the state of chaotic administrative incapacity and apathy outlined in the article. For instance, residents in Bijbehara told JKCCS that the local Fire and Emergency Services (FES) refused to commission their high capacity dewatering pumps, stating that they required a written order from the Director, FES (in Srinagar, from which South Kashmir was then entirely cut off) to allow them to be used. Finally, after appeals to the local Deputy Commissioner the pumps were commissioned, but they soon ran out of fuel as the FES had inadequate stocks. The local community raised Rs. 60,000 in order to procure the diesel on the open market. However this too was insufficient, as the pumps consumed 12 litres of diesel per hour, and there were severe fuel shortages. Thereafter, after further public appeals, a local sub-judge ordered that a large drum of seized diesel, lying in the Court's custody, be released for emergency use on his personal assurance. Crucial days were lost in this process.

The head quarters of the civil administration was subsequently shifted to the VIP Guest house Hari Niwas, (formerly a notorious torture/interrogation centre) on Gupkar Road, after they were provided two satellite phones by military authorities. From the very inception, the official priority seems have to been to project 'normalcy' at any cost. According to the 'Tragedy of Errors' a piece written by the anonymous bureaucrat, on 16th September, it was officially decided that the administration should begin functioning from their own offices at Civil Secretariat from the 18th 'to show to the people that government exists' and to 'instil confidence among people', even though road connectivity was precarious, and the area was still known to be under high levels of submergence. The bus carrying the entire top state bureaucracy, including the Chief Secretary, broke down near the Sanat Nagar Junction after traversing heavily water logged stretches on their long detour around the city. After travelling some distance on foot, they managed to find another Tempo Traveller but soon encountered an angry crowd blocking the road, protesting against the non-distribution of relief rations. They hurriedly asked their driver to take a U turn, and finally arrived at their destination via a still longer alternative route. Access to the civil secretariat however proved impossible as waters were still gushing down the street.⁵ They then went to the Secretariat at the Assembly Complex next door, where they held their curtailed daily meeting, having wasting a large part of the day in transit. The next day they returned to Hari Niwas, from which they then functioned. Other instances of a complete lack of direction, planning and accountability detailed in the article include an incident involving a high ranking officer 'disappearing' to have lunch at the nearby Lalit Grand five star hotel, precisely when he was required to brief a visiting Indian Union Minister; and more seriously, the mistaken appeal to have the floods declared a 'national calamity' under the National Disaster Management Act, instead of the 'Special Relief Package' which it was eligible for. If uncorrected this would have adversely impacted the Central funds available for relief and rehabilitation. Fortunately, the error was noticed just in time, and a special delegation was flown to New Delhi to rectify the mistake.⁶

After the publication of the piece, Greater Kashmir received a defamation notice from the State Government, diminishing the possibility of any such illuminating whistle blower accounts in the future. Residents of Gupkar Road witnessed a huge evacuation effort at the Circuit House, with all state officials being evacuated in government cars, along with their families and large quantities of luggage, from around 7:30 pm on the evening of 6th September. The VIP movement of cars to and from the Gupkar area to the Circuit House continued well past midnight.

According to officials who spoke to JKCCS, two out of the ten Deputy Commissioners in the Kashmir Division did not report to the District Headquarters, as they were attempting to ensure the safety of their own flood affected families. Officials also pointed out that as district level heads of the civil administration, responsible for liaison with the local armed forces and police on a day to day basis, all Deputy Commissioners' offices are equipped with wireless radio capabilities, as a back up to terrestrial communication systems. However, wireless radio operators did not report for duty during the crucial first few days, leading to a complete break down of intra and inter-district co-ordination and communication. Absenteeism rates in government offices, even after the abatement of the

4 Anonymous, Tragedy of Errors, Greater Kashmir, 03 Oct 2014
<http://www.greaterkashmir.com/news/2014/Oct/3/tragedy-of-errors-10.asp>

5 See also box on Sutrashahi, for a description of the flooding in the immediate vicinity of the Secretariat and Assembly complex which affected a local residential community.

6 Tragedy of Errors, Greater Kashmir, 03 Oct 2014
<http://www.greaterkashmir.com/news/2014/Oct/3/tragedy-of-errors-10.asp>

flood-waters, remained high, and on 24th September the State Government was compelled to issue a circular asking employees to rejoin their duties or face suspension.⁷

The command and control structure of the state Police establishment too underwent a visible collapse. Muzamil Jaleel, of the Indian Express described the situation, in the immediate aftermath:

'All government offices are shut, as are the Civil Secretariat and the High Court. The state police's control room is being run from a DIG's car where a few officers use wireless to communicate among themselves. On Tuesday night, police managed to send a few radio updates to the public. In the morning, IGP Abdul Gani Mir was roaming around in civvies near Sadar police station. A few policemen had tried to halt anxious people from rushing towards inundated neighbourhoods, got into a scuffle and had to retreat inside. Several other police officers walked around in civvies.'

According to an official who spoke to JKCCS, 12 to 15 Deputy Superintendents of Police (DSPs), 7 Superintendents of Police (SPs), a Deputy Inspector General of Police, and an Inspector General of Police were themselves hit by the submergence and unable to report for active duties. The Additional Director General of Police (Armed), S.M Sahai, who had additional charge of the State Disaster Relief Force, was trapped in the flooded Police Control Room in Shaheed Gunj, and was evacuated three days later along with other high ranking officials, by the NDRF. The Deputy Inspector General of the State Disaster Relief Force, (which is manned by personnel of a designated battalion of the J&K Police) too was stranded in the Inspector General's offices in the police lines, a senior police official informed JKCCS. The main headquarters and stores of the SDRF battalion, located in the low-lying Baghat- Barzulla area, was inundated in the first phase of the flooding on 4th September. Stranded police officials of the SDRF, themselves had to be rescued by the NDRF, which were subsequently deployed, thus delaying civilian rescues. Of 35 police stations in Srinagar, all but 6 were affected by the flooding, rendering them dysfunctional. The armed policemen normally visible on almost every street corner in Srinagar, were conspicuous by their absence, as policemen went 'undercover' fearing the wrath of crowds of rescue workers and survivors on the streets, agitated at the complete absence of state backed rescue and evacuation efforts, and the discriminatory rescues by the armed forces. According to a community volunteer, one policeman actively participated in community led rescue efforts in his locality in downtown Srinagar, but in his civvies, stating that 'at least during this disaster, he was with the people.' A Station House Officer in Bijbehara was rescued on a tyre tube, according to locals. A former DGP was rescued from an attic in Rajbagh by a veteran journalist. A resident of the VIP enclave of Gupkar Road stated that a Sub Inspector from the Kothibagh Police Station, was seen standing on the street at the head of the Gupkar hill. He informed locals that an SP and DIG of Police were brought to the City Forest Hotel (Sarovar Portico) by the SHO of Ram Munshi Bagh Police Station at around 3 am. Officials involved with these movements and manoeuvres however refused to publically announce or disclose to locals exact details of what was going on, except to say that they were following orders. These highly visible official movements in the area also added to the sense of generalised panic on the streets.

Despite these hurried last minute evacuations, several of Srinagar's senior VIPs were stranded or missing when the floods struck the city. On 7th September several senior bureaucrats, including chief secretary Khandey, three senior judges, besides Chief Justice M.M. Kumar, as well as the state's intelligence chief B. Srinivasan were rescued from neck high waters from Church Lane, by jawans of the CRPF's 79th Battalion and taken to the adjacent Badamibagh cantonment, along with around 40-50 hired help who had been left behind by government ministers, and for whom they worked, and who had been officially evacuated the previous night.⁸ News reports stated that a senior minister was rescued from an office near Rambagh after some days, while the family of a junior minister was rescued a day after Srinagar was flooded.⁹ There were also several reports of senior ministers leaving the city altogether, and departing for Jammu at the height of the crisis.¹⁰

7 Press note dated 24th September 2014, 'Attention Government Employees', issued by Director Information J&K.

8 Jyoti Malhotra, Clueless in Kashmir, India Today, 18 Sept 2014
<http://indiatoday.intoday.in/story/kashmir-floods-omar-abdullah-government-rescue-operations/1/383682.html>

9 Muddasir Ali, JK Govt slept over repeated warnings, Greater Kashmir, 9 Oct 2014
<http://www.greaterkashmir.com/news/2014/Oct/9/jk-govt-slept-over-repeated-warnings-52.asp>

10 Javaid Malik, Ministers, officials fled Valley in flood: Azad, Greater Kashmir, 26 Sep 2014,
<http://www.greaterkashmir.com/news/2014/Sep/27/ministers-officials-fled-valley-in-flood-azad-41.asp>

Survival and Rescues

As the streams of water from broken bunds gushed into the city in the early hours of 6th September, most civilians who (unlike high ranking officials) had received no specific warnings or evacuation orders, were caught unawares. A young survivor from the Indira Nagar area, adjacent to the Badamibagh Cantonment, described the process of being trapped by the rising waters, and the interminable wait to be rescued, and her subsequent journey to the nearby community run relief camp at Woodlands school, in an interview in early October:

'It had been raining incessantly from the 1st or 2nd of September and our area which gets frequently water logged, was already under 2-3 feet of water. There was about a foot of water in our garden by the 3rd of September, and we were getting calls from friends in South Kashmir, that we should not take it lightly, because of what they had already experienced. My family had stocked up on enough food supplies for a few days, thinking that access to the market would be difficult because of the water logging. This was not unusual. On 4th night, when the water was entering our compound, we moved some of our belongings, a few books, a carpet or two, and some pieces of furniture to the stairs to the first floor. Our house had a relatively high plinth, of about five feet so we felt that we would be safe. We heard from a neighbour, who was a civilian contractor in Badamibagh cantonment, that inside the cantonment they had evacuated some buildings, and were employing local labourers to raise their bunds using sand bags. On 5th September there was a lull in the rains, and we heard on the Sonwar Masjid loudspeaker (which was monitoring and making announcements) that the water levels had fallen by about 4 feet. We thought the worst is over. The whole family, including my grand-parents, who normally slept on the ground floor, had relocated to the first floor. The elders went to sleep that night, thinking we had taken all the precautions we could. I was on the phone and the internet till late, following updates, which seemed to be optimistic, and telling my friends in South Kashmir that they were panicking unnecessarily.

At about 3 am, my sister and I woke up to the sound of the Masjid at Sonwar making repeated announcements saying that the water levels in the Jhelum were very high, and the river was in danger of overflowing its banks. They were asking people to evacuate the ground floors of their houses. At about three thirty, there was a long detailed announcement on the Masjid loudspeaker, stating that Shivpora (the neighbouring locality) was very badly flooded. They were praying for the residents. We started getting a strong smell of kerosene or petrol, and when we looked out of the window we saw that the water in our garden, was now about two or three feet high, and was covered with a shiny oil slick. My father was still asleep, and I was wondering whether to wake him up, and tell him about the smell.

Just then, at about 4 am, there was loud sound of cascading water, like a huge waterfall. We looked out and saw a wall of water about ten or twelve feet high, was rushing down our alley towards our front gate. Later we realised that this was when the bund had broken near the GB Pant hospital. At that time, of course there was no time at all to react, our garden wall broke, and the waters gushed into our house. The air was filled with screams and shouts of 'Khudaiya!' 'Bachao!' My father ran down the stairs and picked up some eatables, juices and dry fruits, and a gas cylinder. Within 7 minutes, the water had filled the ground floor up to the ceiling. Our sofas, fridge, gas cylinders, everything was floating in the water and bumping around. We turned off the main electrical switch, even though the electricity was already off. As we were moving things up the stairs, the power inverter exploded, and everything went dark.

Our house has two storeys, The top storey is a small attic which is used to store water tank and household junk, and which is only accessible through a rickety flight of steps. The waters kept rising, and by 7 am, the first floor too was getting flooded. The waters were rising slowly, but were about fifteen to eighteen feet high. We were all crowded into the attic, watching what was going on. It was very hot and claustrophobic. Neighbours were shouting to each other, giving news. We tried calling Radio Kashmir, and after many attempts finally got through. Though they aired our distress call twice, no help arrived. Next door to us was a Nepali family, with seven children. They were all on their tin roof, as their house only had one floor. At about 10 or 10:30 am we saw our first rescue boat. It was a large red boat, with enough place for about twenty thirty people, but it had only three people on it. They were locals from Sonwar (the adjoining largely VIP/ High security residential area, partly under the Cantonment Board). My

father asked them to help the Nepali family, and they said they would come back, but no one came back. There were no more boats, until about 2 or 3:00 pm.

At about 11:30 am we saw the first helicopters flying overhead. They were flying straight over our locality, coming from the Cantonment and headed towards, the Children's Hospital. People on all the roofs were waving at them, my mother ran into the house and got four different dupattas, one for each of us, which we kept waving frantically. In the neighbouring house someone was waving a rainbow coloured umbrella to catch their attention. They were flying so low, that we knew they could see us. We could see the soldiers, peeking down at us. Some people later said that they had even seen them clicking photographs, but they did not rescue any one from our locality, not even the non-Kashmiris. We later heard that they had air lifted some non-Kashmiris, from a nearby hotel, which is used extensively by the army.

We saw some local boys from Sonwar, on a shikaara boat at about 3 pm. We started shouting and crying. They said, 'Please don't make us panic, by shouting. Stay calm! We are rescuing the people on the single storey houses first, and then we'll come back. There are more shikaaras at the bund. Don't panic. Help is coming.' Then we realised that our shouting was not helping them, because they were already under so much pressure. A little later we saw a JK River Police Boat. They went straight to the house of a former SHO (Station House Officer) who had been killed during the militancy, and rescued his family. We also saw about ten to twenty people being rescued in a JK Tourism Boat with a Swan logo. I think they were tourists, from a neighbouring hotel. Our house is located on the road to the Woodlawn school, where the rescued people were being taken, because part of it is located on higher ground (Gupkar hills). So we had a good view of what was going on. We saw many non Kashmiris (possibly tourists or others associated with the army establishment) being rescued on boats. But many non local people were still sheltering in the top floors of the high-rise buildings nearby, mainly hotels like Broadway, Akbar Inn and Rishi Mahal close to the cantonment. Some people were also on top of the GB Pant hospital. We saw some olive green military boats, but they were all operating in Sector C of Indira Nagar, and in Batwara, where many people associated with army, such as contractors stay, but not in Sector A and B, which is mostly civilian locals like us, and many Sikh families. At about 11:30 am we saw the first helicopters flying over-head. They were flying straight over our locality, coming from the Cantonment and headed towards the Children's Hospital. People on all the roofs were waving at them, My mother ran into the house and got four different dupattas, one for each of us, which we kept waving. Some people said that they had seen them clicking photographs, but they did not rescue any one from our locality, not even the non-Kashmiris. We later heard that they had air-lifted some non Kashmiris, from a nearby hotel, which is used extensively by the army. We saw two boys float by on a Sleepwell mattress. Boys were using whatever they could – cricket bats, sticks, wind screen wipers for oars, rolls of foam, and tyre tubes as floats. We saw hundreds of liquor bottles, which must have been from the army canteen floating past as well. The whole area was reeking of alcohol, and petrol.

At about six pm, as it was starting to get dark, a small rickety boat, which had three people in it, two people (possibly Hanji boatmen) rowing, and one local volunteer supervising them, stopped near our house. At first it seemed there would only be space for my grand parents, but somehow they made space for my sister, my mother and me. The volunteer helped us into the boat from our first floor window. But when my father tried to get on, a lot of water started coming into the boat and it was about to capsize. He has terrible hydrophobia so he hurriedly got off again. One of the rescuers handed me a small bowl (katora) and told me to start bailing out the water from the boat. The water was flowing into the boat from everywhere, and we were terrified it would capsize. None of us knew how to swim. We were told to hold on to a fallen high-tension cable, and to pull the weight of the boat, as they rowed. That's how we managed to finally reach the bund, near Woodlands school.

There were at least five hundred people there, people who had been rescued, people waiting for news, awaara (no-good) boys from Sonwar, who were helping with the rescues. My (teenaged) sister and I usually try to avoid them when we walk on the streets, but I have never been so glad to see them. The family was taken to the Woodlands, my mother and I insisted on remaining outside waiting for my father. Finally about an hour later, my father was rescued by another local boat and brought to where we were, and we went to the camp. We were served Tehri (a mixture of rice and spices) and tea, by some local Sikh volunteers. There was no official involvement in the camp, and it was run only by volunteers and even they were not organised under any one group. They were all locals helping out in whatever way they could. My sister was crying continuously and didn't want to eat, but they insisted that everyone had to eat something. We stayed the night in a class-room, with about eight other people from our area. The volunteers gave us candles and blankets.

We heard a lot of stories about what was going on, as everyone was talking about what they had seen and heard. Everyone said that the army was only rescuing people they knew, or people who had some informal association with the military. One person related how a paralytic man in Iqbal colony that he had met, told him that the army rescuers had specifically stated that they had no orders to save Kashmiris. They had taunted him, and said 'Where is your Pakistan now?' Some of the Sikh families settled in Sector C, were only rescued 4-5 days later, we heard from our neighbours. On Tuesday we left the camp and went first to stay at our old house in Sonwar, and then shifted in with some relatives. We are still living there. The whole locality is a mess. Like a ghost town. There is so much garbage. There is some dispute between the Municipality and the Cantonment board as to who has responsibility for the clean up. It will be a while before we can go back. Maybe after winter? It will take a long time, for the walls to dry out and the house to be repaired. We have heard that our house was broken into, and our TV and gas cylinder was stolen. We have lost everything, that we didn't manage to save on that first night.'

Some families chose to remain in the top storeys of houses in their inundated localities; feeling that they were safer in their own flooded homes. One survivor from SK colony in Qamarwari, a new development close to the by-pass, which saw about eighteen to twenty feet of water, spoke to JKCCS and described the experience of living in a largely abandoned neighbourhood. She had no electricity, or telephone connectivity, and limited water and food for about three weeks.

'My mother was adamant that we should not leave the house, even when the waters came into our first floor. She said, 'Where will we go? The whole city is flooded. We will just wait it out.' There were four of us, in the house. Kashmiris have lived through many curfews, and blockades (including a prolonged blocking of the National Highway in 2008), so no matter how poor the house-hold, we always have rice in our stores. We knew we would not starve. We shifted to our neighbours three-storey house for safety on the first day, via the roof of our annexe, but then we returned to the second floor of our own house on the third day, after the water levels had stabilised. A relative came on the fourth day, in a boat he had hired, but my mother insisted that we were fine, and we would not leave. We set up a temporary kitchen on the second floor. My brother had got engaged on the 3rd of September so we had a huge traami of wazwaan, (a ceremonial collective platter prepared at celebrations, with enough food for feeding, in this particular case, sixteen people) which had been prepared for distribution to relatives, but which we had not been able to send because of the rains. We survived on this food, and on eating Tehri (spiced rice) everyday. I don't think I can ever eat wazwaan again, without remembering those terrible days and nights.

The nights were particularly terrifying. There was no electricity, and it was pitch dark. The inverter battery was being used only to charge our phones, not for lighting. Anyway, the phones were useless, but we still kept trying to get in touch with people, to find out news about our relatives and friends. Most of the houses had already been abandoned, and we were the only family remaining in the immediate neighbourhood. The only thing you could hear at night was the howling of stray dogs and the shouts of neighbourhood patrol that had been set up to guard against thieves and intruders, by some mohalla (neighbourhood) boys. The guard would go around on a boat shouting 'Hoshiyaar! Khabardaar! Jaage Raho' (Beware! Stay alert!). The local mosque would also make announcements against thieves, reminding us that it was a sin to steal, especially in times of distress. There were many outlandish rumours of thefts—like a gang of thieves wearing jackets made of fan blades, but we never heard any confirmed accounts of looting or robbery. But all this added to the terrifying atmosphere, when we didn't know what the next day would bring. We would stay awake the whole night, have tea at four a.m, and then sleep through the day, only getting up for a meal in the early evening. The whole neighbourhood was stinking unbearably, from the hundreds of cattle, which had died in the military dairy farms, about a kilometre away, and also the carcasses of stray animals. We had to keep our windows closed.

One night, early in those two weeks, when there were still many people waiting to be rescued in the houses around ours, we heard some terrifying screams and shouts late at night. Everyone came out to their balconies and windows see what the matter was. The screams were coming from an under construction house, nearby. It turned out that some families (not from the neighbourhood, perhaps some migrant workers) had sheltered on the partly constructed second storey to be safe from the waters. When one of them wanted to go to the toilet and had climbed down the stairs, they saw that more than fifty stray dogs were sheltering on the first floor.

From the second day itself, local boys had come, from the downtown side of Qamarwari and conducted rescues, distributed water, medicines and packets of food. We had to ration our water, as there was only one full overhead tank, and no water supply. So the rule was no baths, and only few mugs a day for cleaning ourselves. The most difficult time was when I had my period, and had to manage in those circumstances. We also got some drinking

water bottles from Indian NGOs, and an NDRF team, after a few days. We would throw down a plastic bag, tied to a rope and the relief workers would put the supplies in it. Most of the rescues in the neighbourhood were by local boys, even though the huge Tattoo grounds camp is just a stone's throw away. We later heard, that even the jawans from Tattoo grounds were not rescued by the military. The helicopters came and airlifted the officers, but the jawaans were left to fend for themselves. We heard that they had also joined the locals in shouting slogans against the military helicopters, when they realised they were not going to be air lifted, but this may just be a rumour. I also remember that there was one big boat, which could carry thirty forty people, but most of the rescuers were on make shift rafts and tubes. After about a week, Army and NDRF boats started coming, but by the time most people who wanted to leave had already been evacuated. One of the NDRF life rafts had a camera man on the boat, and were distributing food stuffs and water. I know of only one rescue by a military boat, in my neighbourhood of a Punjabi family. They had specific instructions to find this family, and went around the area asking people for the address, which was written on a piece of paper. There were helicopter air drops of food and water, from around the third or fourth day as well, but most of those were falling in the water. They had not bothered to wrap the food in plastic packets, so it was unusable. One of our neighbours, had an ill person in the house, and wanted to leave. They kept waving to the helicopters to signal their distress, but they were ignored.'

In the immediate aftermath of the floods, in every part of the valley it appeared that the people had finally declared their freedom from the government. A young community volunteer in her twenties, who participated in several rescues around Srinagar told JKCCS,

'It was the first time in my life I saw the city streets, free of uniformed men. It was an odd feeling, seeing all the empty bunkers, and police posts. They had disappeared at a time when they should have been helping in the rescues. But at the same time it was freeing, to know there were no guns watching us, no one to stop us from helping each other. We were on our own and the city belonged to us. We would sink or swim together. I caught myself wondering, what would happen if they never came back.'

At a time where no one was in charge of anything, almost every disaster management function of the state: from providing warning and information, sand-bagging the bunds, evacuation, rescue, food and water supplies, emergency shelter, maintaining records, ensuring law and order, medical aid and providing for basic sanitation, and traffic management was run by the people and for the people, through voluntary and community based groups, including existing mosque committees, youth groups, and trade associations, as well as spontaneous bands of unaffiliated volunteers who joined rescue and relief efforts, in every affected locality, especially from those areas which were not as badly hit. According to a Rapid Assessment Report, which surveyed 26 relief camps across the city, immediately after the floods, only 1 relief shelter reported rescues by the army and 2 relief shelters by the NDRF. An overwhelming 96% of the total of 37,450 people surveyed were rescued by the local volunteers.¹¹ Civilian rescue volunteers, who spoke to JKCCS constantly emphasised how in contrast to the military rescues, they did not discriminate between Kashmiris and non-Kashmiris.

The following account is reconstructed from over twenty rescuer narratives, from community based relief workers, mainly from Srinagar. In the first round of flooding that hit Southern parts of Srinagar and its suburbs between 2nd-4th September, with waters from the Suknal Kul, people were evacuated from Hamdania colony in Bemina, and Narbal, Budgam and brought to Kashmir University by community based volunteers. The waters had already reached the first storey levels. People had begun 'rescuing themselves', coming out of their homes, with whatever belongings they could salvage, in an attempt to escape the waters by 6th September. By 6 am on 7th September, as the second round of more widespread flooding caused by a series of breached embankments hit, there was chaos in the city, as waters rose to about six feet, even in Lal Chowk and Hari Singh High Street, in the central business district, which had never seen such high water levels in living memory. People had begun 'rescuing themselves', coming out of their homes with whatever belongings they could salvage, in an attempt to escape the waters by 6th September. They went to the homes of relatives in relatively flood-safe down-town areas, or began seeking refuge in Masjids, community and marriage halls, and government schools in relative highlands, such as the shrine of Makhdoom Saab (located on Kohi Maran hill) or Takht-e-Sulaiman (Shankaracharya hill). Masjids made announcements asking for donations of rice and commodities. Through the day, volunteer groups of youth from the locality were also formed, mainly with the aim of distributing food among the displaced people in their own

¹¹ Kashmir Volunteers in Delhi: Flood Relief and CSA. (2014) Kashmir Floods: Rapid Assessment Peoples' Report <http://www.scribd.com/doc/241324957/Kashmir-Floods-Rapid-Assessment-Peoples-Report-1#scribd>

areas, or in affected localities. Makeshift camps, and community kitchens began to spring up by the afternoon of 7th September in these spaces, to provide food and water to the survivors. Door to door collection drives, for rice, bread and funds for provisions began to be organised by local mosque Auqaf committees, religious or social welfare trusts and Bait-ul-Mals (wings of the mosque committee, responsible for managing donations in cash or kind.) As volunteers, mainly young men, ventured out into the affected areas, (initially with the aim of distributing food) and more and more refugees began to stream into relatively drier parts of town especially the Old city or down town, and the localities around the By-pass where flooding was relatively mild, they realised that they had a mammoth rescue mission on their hands. By mid morning of 7th September people who had remained in flooded areas that straddled much of the city, including areas of Qamarwari, Bemina, Rajbagh, Kursoo, Jawaharnagar, Mehjoornagar, Chhatabal, were trapped, as water levels became too high and dangerous to wade through safely.¹²



A child's swing used in community rescues in Sutra shahi in central Srinagar

¹² Memoirs of the floods include Shanaz Bashir, When the floods hit Srinagar, Fountain Ink, 25 Sep 2014, <http://fountainink.in/?p=6214>, Uzma Falak, Through an attic Window, Himal South Asian, 30 Sep 2014, <http://himalmag.com/kashmir-floods-reflections>, Ashwaq Masoodi, So little time between hope and death, The Atlantic, <http://www.theatlantic.com/international/archive/2014/11/so-little-time-between-hope-and-death-kashmir-flood/382796/>, Mohammad Junaid, Diary of a Flood, (unpublished manuscript, on file with JKCCS)

Community based rescue teams used whatever resources and skills they could organise locally to conduct rescues, with no official coordination or interventions. For instance, in Anantnag, members of a local trekking and mountaineering club were extremely active in local rescues, helping evacuate more than two hundred people, using billet ropes and other mountaineering equipment. In Dal Lake, a group belonging to a rowing team of the Civil Defence Committee (an organisation set up by J and K Police for community based policing, which is largely dysfunctional except for its participation in Sports tournaments, as J and K Police) used their training in swimming and rowing to independently organise rescues in Pandrettan and Pantha Chowk from 5th September, until they heard news of their own homes being under water, and returned to the lake to rescue their families. Rescue teams were formed in mohallas, (neighbourhoods) by groups of local youth, relying on the mohalla/ mosque (auqaf) committee, for logistical support and relief supplies. The Hanji (boatmen) community which largely live on boats, or in river bank neighbourhoods, played a particularly important role in providing boats and skilled man power in rescues, before the official life rafts and boats were deployed. For instance, in Bijbehera, large khistis used for transportation and sand excavation, manned by Hanji boatmen, operated continuously, ferrying almost fifty to hundred people at a time, from inundated left bank villages, across the river to safer areas. In places such as Rajbagh, and Qamarwari in Srinagar, where water levels remained very high for weeks, Hanji boatmen also served as a regular means of commuting, and transporting supplies to people who had elected to remain on the upper floors of their homes, or for people who wanted to check on homes that they had been forced to abandon. There was some reported and rumoured criticism of their role, in using the crisis to charge exorbitant rates for crossings, and rescues.¹³ However members of the community who spoke to JKCCS denied this, attributing the reports either to isolated instances, or social prejudice, and justifying the charging of normal rates once the emergency had passed, as it was their only source of livelihood. These communities live on water bodies or low lying water banks, and their own homes and boats had been severely damaged by the flooding. Many of their boats were also officially requisitioned for rescues, and JKCCS heard frequent complaints from the community that they were improperly used by the authorities, and returned in an unusable state, or in some cases not returned at all. They were not compensated. Dilapidated and broken rowing boats were dumped on the Boulevard, alongside the Dal lake, by authorities and remained there for weeks, long after the waters receded.

Volunteers from 'down town' areas of Old Srinagar were particularly active in rescues through out the city. A volunteer from the downtown area of Ali Kadal not affected by the flooding, described to JKCCS how he became a rescuer almost accidentally. The volunteer is an RMT (Registered Medical Trainee) trained in First Aid and basic emergency responses, and a member of Tawfeed Forum, a registered trust, formed by group of young men from the locality, which does outreach work in the community, and supports poorer families, through zakaat (obligatory Charity) donations, working closely with the mosque committee and Mohalla Committee in the area. He stated:

'My house is on the East bank about ½ km away from the river, but on a slightly higher area. By Friday (5th Sept) we were watching the waters rising in the Jhelum, with alarm. The water levels were already level with the bund, but we still did not think, that they would rise to such an extent. That evening, I got a panicked call from a friend who lives on the bund in Darish Kadal, on the other (lower) bank of the river. He said water was entering into his house, and he needed a vehicle to help evacuate his family and belongings. I borrowed a tipper [pickup truck] from my cousin, and we drove there. There was a lot of chaos, on the streets, as low lying areas were already heavily water logged, and people were trying to move to safer areas. When we reached Darish Kadal, the waters were waist high. We loaded the tipper with his TV, and Fridge and made two trips back and forth, transporting the family and some of their belongings. That was the first rescue. That was how it all began.

The next day [Saturday 6th Sept] our group along with the community elders, decided that we would take prepared food packets (of Tehri – a dish of rice and spices and in this particular case boiled eggs) to affected areas, to distribute. The mosque had organized the preparation of Tehri, and we were helping in packing it into boxes. We had no idea at that time that this relief distribution effort would actually turn into a full scale rescue operation. We only planned to go to an affected area, and start distributing the packets at some central point. We had been getting calls, every few hours about the rising waters from contacts and friends around the city, and at about 4 pm a group of about 20-25 boys set out with the food packets, and headed to the Qamarwari- Bemina area. When we reached there, we saw that in some places the waters were 10-12 feet high, and the currents were very strong. We would get a call, saying water has started coming into the houses on a particular alley and by the time we would reach it, the

13 See for instance Saima Bhat, Flood Money, Kashmir Life, 13 Oct 2014, <http://www.kashmirilife.net/flood-money-66447/>

waters would already be 6 feet high. The vehicle had to be parked on the main road, as the alleys inside the locality had become fast flowing streams. All kinds of things-- logs of wood, trees, household belongings, and furniture were floating in the water. Sometimes it was hard to tell the depth of the water, because we would see someone, only covered up to the knees, then realise that he was actually standing on the roof of a car, not on the ground. People were stranded on the upper floors and were begging for help. Many of us could not swim, but it was a 'do or die' situation. We began wading into the waters, using the BSNL pipes, and telephone cables for support so that we would not be washed away. We formed human chains and helped people reach the main road. We returned via the Tengpora- Hyerpura route, where we also saw a lot of chaos, people with all their belongings walking.

The next day, [Sunday 7th Sept] we had a meeting, and separated the group into a rescue team, formed of those who could swim, or were equipped with tubes and life jackets, and a relief team in charge of supplies. Some people stayed back at our central base, which was the Budhgir Government Boys High School, where we would bring back families who had no relatives, or nowhere else to go, as their relatives' homes were also under water. 9 families (about 37 people) lived in the school for more than a week, where the local Mohalla Committee co-ordinated the logistics for food, shelter, providing them with bedding etc. One family was from Jharkhand another was from Kargil. Everyday we would pick a different area, leave in the morning, and return at night. During the course of the week, we went to SMHS hospital, Chhatabal, Lasjan, Darish Kadal, Qamarwari, and Bemina. Chhatabal, which is a working class neighbourhood, close to the riverbank was the worst hit neighbourhood I visited. People were in a pathetic condition, they had little enough to begin with, and now they had been left with nothing.

It was difficult work. I remember in Qamarwari I saw a woman on the roof of a house, indicating that she needed water. The flood waters were over head high, so first I had to climb onto a wall, then I managed to jump on to the roof of a floating car, then hung on to a gate, walked along another wall, then the roof of two three neighbouring houses, all with a bucket with some bread and a bottle of water, tied with a rope. Finally I had to throw the bucket to her. I missed several times, but finally succeeded. In Qamarwari, people had set up a rope and bucket system, so that supplies which could be only reached to the houses close to the main road could be passed along to the houses in the interior. Since I didn't know swimming, I would use ropes or tubes. People were using all kinds of makeshift floats. I even saw one young boy, using an abaaya (woman's gown like exterior garment) which had filled with empty bottles and was floating like a balloon! At Darish kadal I saw a boy, who had tied Frooti Bottles all over himself as a float.

We would also join in and co-ordinate with other groups already working in an area. For example, I volunteered for two days with Athrout, a local NGO that was doing rescues from SMHS hospital. There I saw a dead body being brought out on a hospital food tray. After 3-4 days, a friend who had been at Lala Ded hospital called me. His wife had delivered a baby on Friday. A group of us went there and brought him and his wife along with some other patients back to our area. About 4-5 patients stayed at my home, because I knew basic medical aid, like changing dressings and giving injections. They had brought along some syringes, bandages, and basic medicines with them, and that really helped me to help others as well. In the Qamarwari military dairy farm, there were more than three hundred cattle tied up. Many had died where they were harnessed, but we tried to save the ones that were not tied. We would help direct them in a line, because they would follow the lead of the first cow, who was led to the bridge at Tengpora. They were in a pathetic state, bellowing in fear. It was my first experience at being a cowherd. I personally rescued 13 cows! We saw many helicopters flying overhead, but there were no air lifts in the areas which we visited, which were mainly poor and working class neighbourhoods. It was all a big drama, for the television cameras. There were some air drops of food, biscuit packets and such like, but people were refusing to take the relief, and throwing them back at the copters in anger.'

Several city areas, such as Rajbagh and Kursoo had been rendered completely inaccessible by the early hours of 7th September, and terrifying rumours of casualties in the thousands circulated through the city, along with televised images of well known land marks under water. A student activist turned rescue volunteer, from the Southern Bypass suburbs of Srinagar [which were not critically affected, and therefore formed a major source of rescues and relief] told JKCCS, that in the initial days, no one could get to any point in the city North of Tengpora bridge on the Airport Road, where water levels were about 17 feet. He stated that the army was in control at Tengpora Bridge, where they had a bunker previously. They had also set up some make shift tents, and some survivors were sheltering there, as well as in trucks parked along the bridge. The rescuer narrated:

'On the 8th, my brother swam up to the Tengpora bridge using a tyre tube, and spoke to the Major in charge there. He requested him for some boats to go beyond, into Bemina. The Army officer said 'I have five thousand requests,

and only five boats. Out of which one boat is not working. What can I do?' Each boat was being sent into Bemina for rescue with three army people, and three or four people were being brought back. We knew there were thousands still stranded, but we could do nothing.'

Journalist Muzamil Jaleel recounts a similar incident, in one of his ground dispatches for Indian Express. He writes, 'Mudasir Altaf has flown from Delhi and is pleading with NDRF men near Solina [another dry patch, to the South] to spare a boat for him. His wife Anjum Sahar had given birth to a boy four days ago, a caesarian operation. 'The last time I spoke to her on phone, she told me the water had reached the top floor. My baby doesn't have a name yet. My three-year-old son too is there. They are in a yellow house near Militia (an Army camp),' he said. 'Please give me a boat. I want to go and see how they are. They have no water to drink. There is probably nothing to eat either.' But the NDRF has no boats to give'.¹⁴

A volunteer from the Humhama camp, close to Srinagar's Airport, described how volunteers from the south of the city near the by-pass, were finally able to reach the cut off flood-affected areas in the city.

'For the first two-three days, our group from the [Humhama relief] camp would go to the Rajbagh / Jawaharnagar Bund, with water and food supplies, as no news or people were coming out from there at all, and we feared the worst. But no boats were available for rescue, as they were desperately needed in South Kashmir as well. No khistis or shikaaras at all were available for almost two days. From Monday, (8 Sept) a few boats started coming in, both from outside Kashmir, and also from other areas in Kashmir. We even dismantled and planned to use a door from the house, as a raft, but this was not possible at the Rajbagh bund as the water was too fast flowing. In other places, within localities, and in narrow neighbourhood alleys, volunteers used anything they could find – thermocol rolls, tyre tubes, wooden logs, doors, Sleepwell (rubberised foam) mattresses, kerosene drums, Syntex water tanks, basically anything that could float and carry the weight of a human being. Someone spread the information, which they had heard on [Survival TV Show] 'Bear Gryllis' that eleven empty one- litre bottles, could carry the weight of a human being, and I heard that one person constructed a life jacket made of bottles. I saw people who had made floats out of empty mineral water bottles tied in a large empty sack. Many of the rescuers did not know how to swim, but were wading into the waters, using floats. Truckloads of youth came from various unaffected upland areas, like Ompura [Budgam]. People were using trucks, buses, tippers, tractors to take survivors to the nearest relief camps. The mosques had put out a call, and every able-bodied young man in the locality volunteered, either in relief or in rescues. I was told about an argument where a eleven or twelve year old boy from Ompura too climbed on to the truck, but had to be persuaded that he was too young to participate, but he was adamant! I saw one young rescuer, (in Lasjan, another badly affected area), probably just a teenager, who had made a boat out of a flat tin sheet, bending it in half. He had filled it with water bottles, and went into the area, throwing the bottles to people stranded on the higher floors. If young children could do this, why not the army?

Our group [loosely affiliated to the local mosque] finally managed to organise two boats from Narbal late on Sunday. From Monday morning, [8th September] onwards we started going into Jawaharnagar and conducting rescues, but it was after a delay of two days. The condition of the people in Rajbagh and Jawaharnagar that we saw was pathetic. They were still trapped on their attics and second floors with hardly any water or food, and no guarantee of when help would reach them. We tried to do what we could, but there were too many people, desperate for help. We could only help a few people. We would try to come back to a spot, but on the way we would meet others who were even more desperate. We tried to rescue the elderly, and children first, and those without second floors or attics. But we also tried to make sure that family members stayed together. Because there was no co ordination, or announcements about the evacuation, people were in a state of panic. One woman with her child tried to jump into our boat, in Ikhrajpora, causing it to almost capsize. There was a lot of chaos at the bund, as it was crowded with relatives, and people desperate for news. Anytime a boat would come back, people would pounce on it for news. They would sometimes try to commandeer the boat, and take it over.

The helicopter rescues had started the previous day, but the helicopters were reserved for airlifting their own people, bureaucrats and tourists. The boats were for the other locals. This was very clear, from the beginning. The helicopters were dropping some food supplies, but people were more desperate to leave. They were afraid that the waters would rise further, or their houses would collapse and they would drown. The army also started rescues from the Rajbagh bund, in some boats, the next day, (9 September) but they were very inefficient and bureaucratic. They would say 'we have to wait for our officer' and refuse to begin work at daylight, unlike the civilian rescuers.

¹⁴ Muzamil Jaleel, Missing: A word J&K is so used to takes on new connotation, Indian Express, 10 Sep 2014, <http://indianexpress.com/article/india/india-others/missing-a-word-jk-is-so-used-to-takes-a-new-connotation/99/>

They would not start before nine a.m., and would stop exactly at five p.m. They had an instruction to rescue tourists first, that was well known. They would fill their boats with soldiers, so that only one or two civilians could be rescued at a time. Their boats headed straight for tourist buildings like guesthouses and hotels. That was their protocol. They even said it publically on the TV. That's fine, those were their orders, they are an armed force, should follow their orders. Even if I was stranded somewhere in a foreign land, without any family or support, I would want my government to rescue me, as a priority. They claim Kashmir is an integral part of India, but in the crisis it was clear who is a 'real' Indian and who is not. I have no problem that they rescued their own people first. We are not their citizens nor do we want to be, so why should we complain? But they told all those desperate people that they would be coming back, and never returned for them. They tried to show on television that they were rescuing locals. They would show the same pictures, of an old Kashmiri man being air lifted again and again, and say 'Look what a great job we're doing!' That was what made people angry. Believe me, if they had publically announced, 'We are only going to rescue Indians and collaborators, and you Kashmiris are free to go your own way. You are nobody to us,' there would have been rejoicing on the streets.'

Until the third day, [9th September] rescuers from the southern bypass areas of the city told JKCCS that local teams attempting to reach the city from the south were also being stopped by CRPF at the Barzulla Bridge and not being allowed to venture beyond that point into the flood waters of Bemina-Batmalloo area, as they only had makeshift 'jugaad' boats, which were unsafe in the deep waters. A rescuer stated:

'The CRPF was sending in their own boats, but they would go in with a team of ten fifteen men, sometimes including a camera person, and only rescue three civilians. On Thursday [11 September] people finally got fed up, and we assaulted some of the jawaans, captured several CRPF boats and started rescuing people ourselves in their boats. We started bringing back fifteen people on the same boats. Unlike the army personnel, who would themselves sit in the boat, we would load only survivors on the boats, and the rescuers would wade or swim, pushing it along holding onto the fallen high tension cables, for support. The waters were freezing cold, and after one or two rounds our bodies would be numb. Some of the women from the locality were making Kahwa (Kashmiri tea) with a lot of sugar, and serving hundreds of survivors, relatives and rescuers. We would get warm, and rest, and take turns at wading into the waters from morning to evening, and still there were people in the interior areas, who we could not reach. People were desperate, but the soldiers were busy taking photographs of everything, taking down people's names in a list. They could have at least offered them some water, before completing the formalities, as the survivors were still shaking with fear and cold, but the CRPF would literally pull them off the boats like they were cattle.'

While a large majority of rescue volunteers, who worked on the streets and affected localities (in contrast to caring for extended families and displaced relatives at home) were young men, as is commonly observed in disasters across the world,¹⁵ several women were also part of rescue teams¹⁶. JKCCS spoke to one such young woman. She narrated:

'I was at home for the first three days, after the flooding. My mother had still not returned from [her workplace], and we were extremely anxious, waiting for news of her. A friend had called me and told me about a relief and rescue camp, operating from the Parraypora Government Girls School, which was being run by some Kashmiri volunteers from Delhi as well as locals from nearby, with which several of my friends were involved. The day after my mother returned home [9 September] I began volunteering there. They had a basic system set up by the time I joined: there were separate teams for rescue, relief, stocking inventory, and documentation. It was a relatively well equipped set up – with life rafts, and life jackets for the rescue team, not from the very first day, but from the third or fourth day, when outside volunteers [Indians and Kashmiri diaspora] and supplies such as boats and equipment had started coming in. There were some boys from [Tyndale] Biscoe School, who were trained in rowing, so they were in charge of the steering, but no one had prior experience in rescue operations. We learnt very quickly on the job.

There was some initial reluctance to let women join the rescue team. The men thought that women would be liabilities and would not be able participate in the heavy lifting [of supplies and the life raft], and all the climbing/throwing involved, but another young woman and I insisted that we wanted to participate. They soon realized that brute strength is not the most important thing needed for rescues. On the first day itself we encountered a young 7-8 month pregnant woman, who was having a panic attack, and who had to be rescued from Bachhpura, [near Dal Lake]. Having a woman on the team could actually be a real asset in situations like that;

15 <http://www.nnewh.org/images/upload/attach/1883Not%20Just%20Victims%20ENG.pdf> and chil

16 Irfan Mehraj, Braving the deluge- women who risked their lives for others, Authint Mail, 23 October 2014, <https://www.authintmail.com/2014/feature/braving-deluge-women-who-risked-their-lives-others-121132>

because we could counsel and comfort her in a way the men could not. We made it a point to ensure that we carried things that women need, but are usually ignored -- like sanitary napkins, and women's undergarments, -- when we were distributing relief. Besides this of course we carried the usual things—water, easy to cook food – rice, lentils, instant noodles, disinfectants like Dettol, because the water was so unsanitary. The most in demand item, rather unexpectedly, was baby food, something that a masculine view of what is required in an emergency had missed. We conducted evacuations, based on SOSs received at the camp, and also distributed relief, mainly in Bacchpora, Rajbagh, Jawaharnagar, Kursoo, and Maisuma. We saw a lot of strange things, like once we maneuvered the raft into a narrow lane in Jawaharnagar, and when we were coming back, the three storey house that had been standing at the corner just minutes ago, had collapsed. Another time, in Gogjibagh, I saw an Audi car, balanced vertically on top of a Ferrari. The narrow alleys and lanes were very difficult to navigate in, especially because of submerged tin roofs, electric poles, barbed wires and things like that. Sometimes we had to wade into neck deep, stinking waters, especially in inner city areas like Maisuma. One volunteer on the team got injured, and required stitches, when a wall he had climbed to pass on relief supplies to people stranded on an upper floor collapsed. After that it was decided that we should not climb on top of walls and roofs, because these structures had become highly unstable with the water logging. After that, there was even less reason for not allowing women on the team. People on the upper floors of houses had created little rafts made of tin sheets, and would float them down to our boat, and we'd fill them up with supplies and they'd draw them back up. Sometimes, we would use buckets to pass them supplies. Along with evacuations, and relief distribution, a lot of times we transported people, from one part of the neighbourhood to another, because boats were the only access in these areas for almost a month.

In Maisuma, we got into some trouble once, and were mobbed because one of the men on the team was seen clicking photographs, which made the locals very angry. He was accused of making fun of the survivors [Mazaak bana rakha hai]. I think the women on the team really helped in de-escalating that situation. We explained the importance of documenting the work done by Kashmiris, because the entire media narrative was that only army was doing rescues. Their anger was understandable. The Indian media portrayal was so biased and besides, we were a team of relatively privileged looking middle class people, with life jackets and a boat full of supplies, in areas where people literally had lost everything. We always spoke in Kashmiri, and tried to keep our heads covered, though that was not always possible! We tried very hard not to have a saviour complex, because people were already so angry.

After about a week, the NDRF and military boats started showing up. There was an unnatural concentration of them in [elite neighbourhood] Rajbagh. We never saw them in any of the poorer inner city neighbourhoods. I remember on one occasion our boat and an NDRF boat, became stuck going in opposite directions in the same narrow lane in Rajbagh. The men in the other boat started yelling at us, 'We're doing the work. Why have you people come here?' But they had been nowhere to be seen, when evacuations were really needed. They only showed up later, when the worst had past, and started handing out supplies to any and everyone who passed by, especially at the Rajbagh bund. Because we were women, we'd attract attention. They'd pick on us, and try to hand us bottles of water, insisting we take them, even though we obviously were not in any need of relief.'

Militarised Rescues

The combined Armed Forces humanitarian assistance mission in response to the floods was named Mission Sahayata (Assistance) and the Army's Northern Command's humanitarian assistance to civil authorities was named Operation Megh Rahat (Cloud Relief). Mission Sahayata, under the Army's XV Corps, was overseen by the Integrated Defence Staff headquarters, at Badamibagh Cantonment Srinagar. Communications equipment for BSNL was airlifted by the military from Bangalore on 8th September to help restore telephone services, though officials said the operation could take three days to accomplish,¹⁷ and non-official phone connectivity took almost a week to partially restore. The Army began to give daily press briefings from 3rd September on the flood situation, about the numbers of rescues, which were faithfully reported in the Indian press, with no corroboration from local sources. On 3rd September, the Army spokesperson stated that flood rescue operations started on September 2nd. According to Army briefings, by September 4th eight major columns were put to service, and over 400 people were taken to safety. By September 5th, there were 70 major columns and 12 engineer teams operating in Kashmir and by that night over 5,000 people were rescued.¹⁸ On 8th September, the army spokesperson announced that 12,500 people had so far been evacuated to safety by the Army.¹⁹ On 9th September, he stated that Armed Forces and NDRF had rescued 42,587 persons and that about 100,000 troops were involved in the operations. Other official news sources stated that over 1, 10,000 persons had been rescued so far by the Armed Forces from different parts of Jammu & Kashmir, including 30,000-35,000 rescued by NDRF and Indian Air Force.²⁰ On 11th September the official figure was over 77,000 rescues, out of which 17,000 civilians were rescued in Srinagar and adjoining areas. On 12th September the figure rose to more than 96,000 people, and thereafter progressively to 1,42,000 people (13th September), 1,84,000 people (14th September), 2,26, 000 people (15th September), and finally stabilised at 2,37,000 on 18th September, when the rescue operations were called off. On 20th September, in a hearing on a Public Interest Petition before the Supreme Court, the Army counsel disclosed figures of 2,08,000 rescues by the Army, 28,000 by the CRPF and said that nearly 53,000 stranded passengers were airlifted by the Indian Air Force from various locations.

In a widely publicised operation, Army personnel rescued maternity patients and new-born children from the G.B Pant Children's Hospital on 8th September. They were evacuated to the Army's 92 Base hospital next door. A news report stated, 'At a time when almost the entire healthcare infrastructure in Srinagar city has been rendered ineffective by the devastating floods in Jammu and Kashmir, the Army's 92 Base Hospital here has saved the lives of more than 300 people including 35 newborns. The army doctors, without caring about their own houses and families affected by the floods, have been working day and night at the 600-bed facility, the biggest army hospital in the entire Kashmir Valley'.²¹ Local accounts by doctors and paramedics at the G.B Pant hospital however suggested that the hospital was left to fend for itself for the first 60 hours.²²

The Army themselves had to re-group, as low lying areas of Badamibagh cantonment, the headquarters of Srinagar-based XV Corps, were submerged and suffered extensive damage.²³ A civilian contractor who was employed in the Cantonment told JKCCS, that while some establishments such as the Headquarters of the Sub Area Commander at Batwara Chowk, and Transit camp, Pandretten, had been shifted on 4th September to higher ground within the cantonment, the damage caused to the low lying staff quarters (about 30-40 buildings housing 80 families), Supply depot, Helipad, Army Hospital, Ordnance Stores, Military Engineering Supplies Workshop, Canteen and several other support and logistics related buildings was extensive. News reports suggested that the

17 Mail Today Bureau, Disaster unforeseen, impact underestimated: Scale of Kashmir's floods dwarfs heroic relief efforts, Mail Online, 8 Sep 2014, <http://www.mailonline.com/india/disaster-unforeseen-impact-underestimated-scale-kashmir-s-floods-dwarfs-heroic-relief-efforts-death-toll-hits-200.html>

18 Army rescues 11,000 people in J&K, 100 columns deployed, Oneindia.com, 6 Sep 2014, <http://www.oneindia.com/india/armyrescues-11000-people-in-jk-100-columns-deployed-1516778.html>

19 Press Trust of India, Jammu and Kashmir Floods: Army steps up rescue ops, 160 feared killed, Deccan Chronicle 8 Sep 2014, <http://www.deccanchronicle.com/140908/nation-current-affairs/article/armed-forces-step-jammu-and-kashmir-flood-rescue-operations>

20 Live updates on Jammu and Kashmir Floods, 10,000 people rescued so far, many still await help, India Today, 11 Sep 2014, <http://indiatoday.intoday.in/story/live-jammu-and-kashmir-floods-kashmir-floods-rescue-operations/1/382096.html>

21 Press Trust of India, J&K Floods: Army Hospital saves lives as health infrastructure crumbles, DNA, 20 Sep 2014, <http://www.dnaindia.com/india/report-jammu-and-kashmir-floods-army-hospital-saves-lives-as-health-infrastructure-crumbles-2020083>

22 Rouf Bhat, The night at GB Pant Hospital when Srinagar drowned, Authint Mail, 21 Sep 2014, <https://www.authintmail.com/2014/feature/night-gb-pant-hospital-when-srinagar-drowned-154955>

23 Vasundhara Sirnate, Kashmir Diary, When Srinagar sank, The Hindu Centre for politics and public policy, <http://www.thehinducentre.com/the-arena/current-issues/article6574493.ece>
Press Trust of India, Over 1,000 army men, families stranded in Kashmir, Firstpost, 10 Sep 2014, <http://www.firstpost.com/india/1000-army-men-families-stranded-kashmir-1706107.html>

first priority for the armed forces was securing their own arms, ammunition and personnel rather than civilian rescues. For instance, in Kakapora, Pulwama, where a boat carrying armed forces personnel capsized along with their arms and ammunition, a large contingent of soldiers were engaged in massive combing operations the next day to recover their guns, even as civilians remained stranded in need of rescue and relief.²⁴

From across the valley, people's version of events in general disputed the official figures and media accounts of military rescues, stating that the numbers appeared to be unreasonably high, and to be increasing at an impossible rate. The armed forces' claim, widely carried by the Indian media, has been that instead of aiding and assisting the civilian government, [as mandated by the Disaster Management Policy and international humanitarian protocols] the armed forces were forced to step into the vacuum created by the complete administrative collapse, and exclusively carried out government functions including rescues and relief. Locals however emphasised that the army was busy rescuing and securing its own encampments and personnel for the crucial period of the first 24 hours after the disaster, and rescues were largely by community volunteers. The only list of names of evacuees made public by the Army, contained 881 names, despite claims that over 2 lakh civilians were rescued by armed forces.²⁵ There were reported discrepancies in even this limited list, such as names of persons actually rescued by community volunteers being included²⁶. An interviewee told JKCCS that one possible explanation for the huge reported numbers of military rescues was that the list included not just the evacuees rescued as an emergency response, but those that the armed forces assisted in commuting to their submerged homes to check on their safety, or on family members who had chosen to remain behind, after the emergency had passed. 'I would go to Jawaharnagar every few days to check on my sister's house, though we ourselves had evacuated her family on the second day, using a shikaara when there was no army or CRPF to be seen. Later, there were several CRPF/NDRF boats, which would transport people like me who were visiting the neighbourhood, from the bund into the interior areas. People who had returned back to the top floors of their homes, or had remained behind would also use boats to get supplies. Our names were recorded before taking us on the boats. It doesn't mean we were rescued by them, we rescued ourselves.'

The official military line was that instead of only aiding and assisting the civilian government, [as mandated by the Disaster Management Policy and international humanitarian protocols] the armed forces were forced to step into the vacuum created by the complete administrative collapse, and were required to carry out all civilian government functions including rescues and relief.²⁷ Locals however emphasised that due to the flooding of several army and encampments, particularly in Srinagar, (Badamibagh, Militia Grounds and Tattoo grounds) the armed forces were frantically busy evacuating and securing its own encampments for the crucial period of the first 24 hours after the disaster, and first responses and rescues were largely by community volunteers. In certain cases, as in the case of personnel from 90 Bn CRPF and 1 RR Indian Army personnel at the SICOP camp at Bijbehara, and the personnel from 50 RR at Kakapora, civilian rescuers were involved in evacuating marooned armed forces personnel.²⁸

While locals acknowledged that some rescues were conducted by the armed forces, they stated that this was according to a strict official rank-based priority, and not on a first seen first saved basis. These militarised rescues, failed to prioritise the most vulnerable populations like hospital patients, as mandated by humanitarian laws and protocols. There were several published eye-witness accounts, corroborated by interviews by JKCCS, that unlike civilian rescues and relief efforts, military rescues were often highly selective, and based on previous information about specific persons to be rescued in a particular area.²⁹ In general, the first to be rescued were members of the armed forces themselves, thereafter other non-civilian officials such as police, and bureaucrats, followed by

24 Wahid Ahmed, When troublemakers turned saviors for army, Greater Kashmir, 26 Sept 2014, <http://www.greaterkashmir.com/news/2014/Sep/26/when-troublemakers-turned-saviors-for-army-36.asp>

25 Jammu and Kashmir Floods: List of people rescued by Indian Army, NDTV, 10 Sept 2014, <http://www.ndtv.com/india-news/jammu-and-kashmir-floods-list-of-people-rescued-by-indian-army-661920>

26 Mohammad Junaid, in Diary of a flood, (forthcoming, on file with JKCCS) writes how journalist Parvaiz Bukhari's name was published in the Indian Army's flood relief website, although he was rescued by locals.

27 Abhimanyu Singh, Army picks up pieces as J&K Government disappears, The Sunday Guardian, 13 Sept 2014, <http://www.sunday-guardian.com/news/army-picks-up-pieces-as-jak-government-disappears>

28 Waheed Ahmed, When 'troublemakers' turned saviors for army, Greater Kashmir, 26 Sept 2014, <http://www.greaterkashmir.com/news/2014/Sep/26/when-troublemakers-turned-saviors-for-army-36.asp> and Muhammad Suhail, When Bijbehara youth helped evacuate trapped troopers, Rising Kashmir, 01 Oct 2014, <http://www.risingkashmir.com/when-bijbehara-youth-helped-evacuate-trapped-troopers/>

29 Shahnaz Bashir, When the deluge hit Srinagar, Fountain ink, 25 Nov 2014, <http://fountainink.in/?p=6214>

tourists, other Indian migrants and finally Kashmiri civilians. Even amongst non-Kashmiris, a hierarchy appeared to be at work, as migrant labourers found themselves unwelcome at officially run camps, and in state organised air evacuations from Srinagar airport. Relief workers from Humhama, located close to the Srinagar airport told JKCCS that migrant workers crowding the camp at the airport had been baton charged by police, and were later fed and sheltered at the local camps. While private airlines stepped in to organize evacuations for tourists from Srinagar, sometimes free of cost, migrant workers, often the poorest and most vulnerable non-locals, were evacuated either by cargo planes, or left to fend for themselves seeking sanctuary in community run camps. Many interviewees told JKCCS that the armed forces were not conducting any civilian rescues, until 9th September, which is not till the first 72 hours after the worst of the flooding in Srinagar. From 8th September, there was Indian Air Force helicopter airlifting from flooded military, paramilitary and official establishments, and some tourists. Food and water drops were organised in certain (mainly central) Srinagar areas, but several of these packages went into the water, or were found to be of expired goods, causing widespread anger and protests.³⁰

Embedded Disaster Journalism

Besides daily news briefings, within a day of the floods the armed forces flew in professional photographers to document its relief efforts, JKCCS was reliably informed. Camera-men were frequently reported as being present on helicopters, and on rescue and relief boats, taking up vital space. This was in addition to embedded journalists who flew in from Delhi, and went straight to the military airbase next door to the airport, from where the Air Force's rescue and relief helicopter sorties were being conducted. The Army PR apparatus was extremely active on the social media as well. The Indian army's Facebook page and Twitter account received over 7,000 distress posts with details of people requiring urgent evacuation. Army Headquarters stated that it forwarded all these posts to its Northern Command on WhatsApp. The command headquarters then forwarded them to commanders on the ground via satellite phones as the Army's internal communication lines were down as well, according to Army sources.

Kashmiri journalists on the ground, stated that there was a discriminatory attitude at play with regard to allowing journalists access to the military rescue efforts, as well as in the space allocated to reportage which criticized militarized rescues in the Indian press. JKCCS heard several accounts testifying to the co-dependence of the media and military. A Kashmiri journalist working with a national newspaper told JKCCS that Indian television journalists tended to monopolize the available seats on the air force helicopters at the air base, often making repeated trips. He stated that to his knowledge journalists from CNN-IBN and Times Now had been on 5-6 sorties each. On one occasion, when he approached the Indian Air force Press Relations Officer, Gerard Galloway, for a seat on a helicopter rescue mission, he was specifically asked if he would be doing a 'positive' story. When he replied that he would report only what he witnessed, the PRO replied, 'Why would I carry you, when I could carry a sack of rice instead?' He stated that he reported on this incident, and provided JKCCS with a copy of his dispatch, but his newspaper did not carry the story. Another Kashmiri journalist, stated that a report filed by him was edited by an Indian daily to only focus on the 'human interest' story (about a father looking for a place to bury his dead infant) eliminating mentions of the military's failure to conduct rescues at hospitals. Local journalists described how Indian journalists were seen posing for personal photographs with helicopter pilots and military rescuers at the air base. An individual who had flown in from the Middle East to locate his missing parents, and had managed to organize a space for himself on a helicopter rescue mission (by approaching the then Indian Defence Minister) was explicitly asked to provide a news byte acknowledging the help he had received from the armed forces, before he was allowed aboard the helicopter. Ironically, when he finally managed to reach his parents' flooded house by helicopter, after providing the required laudatory message, his parents refused to leave the top storey saying they would rather drown in their home than abandon it. A rescue worker described an incident involving a media crew

30 Waheed Ahmed, When 'troublemakers' turned saviors for army, Greater Kashmir, 26 Sept 2014, <http://www.greaterkashmir.com/news/2014/Sep/26/when-troublemakers-turned-saviors-for-army-36.asp>

from India TV which he saw in Beighpora, Pulwama. When he asked one of the journalists in the media team, if they were following the army rescue mission, the journalist replied, 'No, we chose the location where we want to film. We are not following them, they are following us!'

Not surprisingly, the Indian media coverage displayed an extraordinary focus on the militarized rescues, and an editorial slant towards seeing the Indian forces as 'saviors' despite Kashmiri 'ingratitude'. The floods were read as a vindication of their presence as an occupying force, since they had saved 'Kashmir' while the local administration had failed them. In a special hour-long programme, NDTV editor Barkha Dutt framed the debate in terms of whether the floods would be 'a turning point in India's relationship with Kashmir'. She repeatedly tried to praise the commendable army rescue efforts and question the Kashmiri resistance to army presence, in a live interview with Hurriyat leader Mirwaiz Umar Farooq, even as she ignored the crowds in the background shouting 'No! No! The army did nothing'.³¹ In a debate moderated by TIMES NOW's Editor-in-Chief Arnab Goswami, a guest stated that the Indian army stands 'vindicated' for the estimated '60,000 thousand deaths in the valley', because it had saved more than these numbers in the floods.³² CNN-IBN Live reported that the defence and security forces had emerged as the heroes of the people of Jammu and Kashmir. 'The much 'hated' Indian Army is doing a commendable job across the flood-hit Kashmir Valley... These brave men have been risking their own lives to save the people, fully knowing that the same people whom they saved might throw stones and hand grenades at them once the situation returns to normal [...] The same Army and other security forces are now being hailed as saviours of the marooned Kashmiris. Everybody is sending distress messages to the Army pleading with the soldiers to rescue them', a report stated.³³ And further, that 'The rest of India is hoping that the heroic, humanitarian efforts of our defence forces will change the perception of the local Kashmiris about our military, which is demonized by various vested interests'.³⁴

Two cartoons, one by a Kashmiri political journalist 'Zahoor' and the other which appeared in the Indian press, tellingly illustrate the contrasting media frames. The first, shows the working of a military-media rescue crew providing aid to a drowning Kashmiri, while the next illustrates faceless Kashmiris in bizarre karate-outfit costumes on hill tops, shaking raised fists as helicopters and army boats hover close by, and a Kashmiri is airlifted.



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31 NDTV, The Buck Stops here. Army at the heart of Rescue, Turning Point in Kashmir?

<http://www.ndtv.com/video/player/the-buck-stops-here/watch-armed-forces-at-heart-of-rescue-a-turning-point-in-kashmir/337536>

32 Hafsa Kanjwal, India turns Kashmir floods into PR stunt, Al Jazeera, 20 Sep 2014

<http://america.aljazeera.com/opinions/2014/9/kashmir-floods-indiarescuereliefeffort.html> See for the show in question, The News Hour, Debate—Forces-The Real Heroes, Times Now, <http://www.timesnow.tv/Debate-Forces---Real-Heroes---2/videoshow/4463981.cms>

33 IBN Live, Indian Army turns saviour, wins the praise of flood-hit Kashmiris, but will the perception change? CNN-IBN, 10 Sep 2014, <http://ibnlive.in.com/news/indian-army-turns-saviour-wins-the-praise-of-floodhit-kashmiris-but-will-the-perception-change/497758-3-245.html>,

34 Fahad Shah, Using flood rescue for vested interests, The Hoot, 17 Sep 2014, <http://thehoot.org/web/Usingfloodrescueforvestedinterests/7782-1-1-15-true.html>



Cartoon accompanying a report titled 'A band of unsung heroes in Jammu and Kashmir The army is carrying out tasks that state governments should have done'³⁵

The Indian television news coverage was not only biased but also factually incorrect, based apparently entirely on sources in the armed forces, with no attempt at independent fact checking. For instance, CNN IBN Live reported, 'The All Party Hurriyat Conference, the umbrella body of the Kashmiri separatists, which thinks that it is the sole representative of Kashmiri people, is missing from the action. Not a single leader of the Hurriyat has so far come out to help the agencies in relief and rescue operations.'³⁶ In fact, several of the largest relief efforts, including the Islamiya School and College, Gojwara, the relief camp at Kashmir University and the camps associated with Jamia Masjid and seven affiliated mosques in Hyderpora, were initiated and supported by the Hurriyat leadership. Hurriyat leaders were seen at various relief camps, and flood affected areas in the city by locals who spoke to JKCCS. In interviews to JKCCS, survivors and rescue volunteers, and researchers, acknowledged the significant role played by these organisations. The absurdity of the army 'sources' being unreflectively reported as 'news' is evident in an almost farcical news report filed by Pranav Kulkarni of the Indian Express, which while describing a 'dangerous' military rescue operation in 'separatist stronghold' Lal Chowk, stated that soldiers were shot at, that they 'disguised' themselves, by removing their shirts and shouting 'Azad Kashmir' [the slogan is in fact Azaadi] along with an angry crowd, and a 'Maulvi'.³⁷

The coverage raised serious questions of media ethics in disaster reportage, by endangering lives and engendering counter productive rumours, speculation and misinformation, at a time of widespread panic and chaos, when reliable, verified information was an urgent need. For instance, JKCCS learnt that misinformation on the NDTV news ticker about the complete evacuation of the GB Pant Children's Hospital by the army, led to the Deputy Superintendent not going there immediately, until after several neo-natal deaths had occurred. Similarly, doctors at Lal Ded Hospital told JKCCS how patients and attendants became enraged and were on the verge of assaulting them, after hearing rumors that NDTV had stated that food packets were being distributed at the hospital, which they believed doctors had monopolized and not distributed to them. The anger against the biased media reportage, made the work of local field journalists, functioning without the aid of armed military escorts extremely

35 Livemint, A band of unsung heroes in Jammu and Kashmir, Mint, 11 Sep 2014,

<http://www.livemint.com/Opinion/9dWdlpallXIWMniyTx6prK/A-band-of-unsung-heroes-in-Jammu-and-Kashmir.html>

36 IBN Live, Kashmir Floods- Defence forces' heroics expose separatists, 'intellectuals', CNN-IBN, 9 Sep 2014,

<http://ibnlive.in.com/news/kashmir-floods-defence-forces-heroics-expose-separatists-intellectuals/497480-3-245.html>

37 Pranav Kulkarni, Shouted for 'Azad Kashmir' and laughed at it later, Indian Express, 14 Sep 2014,

<http://indianexpress.com/article/india/india-others/shouted-for-azad-kashmir-and-laughed-at-it-later/>

difficult. Several journalists, told JKCCS how the sight of a camera, frequently angered volatile crowds, and described how they had to face hostile reactions and on one occasion a mild assault, while reporting from the streets. Besides the lack of connectivity, functional newspaper bureaus and support staff, and the complete absence of official (nonmilitary) sources, journalists also braved grave physical dangers and risks. Sidiq Shafat, a Kashmiri photo journalist working for Dainik Jagran, lost his life while on the job. His body, with cameras still slung around his neck was discovered days later. Several journalists continued to report even as their own homes were under water and their family members missing or out of contact.³⁸

One young reporter described the ethical dilemmas of being a disaster journalist to JKCCS:

'It was a strange situation. Almost every story I filed in the early days was a first person eye witness narrative, as none of the usual officials to get 'quotes' or data from were available. There were no press notes or briefings, no office at all. It was just me and my notebook. Even when I went to look for my relatives, to evacuate them, I was busy taking mental notes about what I was seeing, to file in my next story. As a journalist you are always one degree removed from what you report, observing things. You are trained in journalistic objectivity. But at times, while covering the floods, there was no difference between the journalist, and the story; no distance between being an observer, and a participant. When you see a child crying for water, you can't say I am just a journalist. I carried chlorine tablets and medicines in my back pack, and distributed them when I went to those areas. Usually I accompanied a local rescue team. At the same time, I was always aware that I had a job to do.'

Those whose homes were in non-flooded areas, opened their homes to visiting journalists, with one photojournalist hosting as many as 17 journalists from outside of Kashmir at his home in Sanat nagar.

While the Indian media continued to focus on the militarized humanitarianism of the soldiers turned 'saviours', the local press repeatedly presented a counter narrative focussing on the courage, creativity and heroism of 'local heroes'. In the face of trenchant public criticism of the national media for their blatantly biased coverage, the political and army establishment, rather disingenuously and belatedly, went into damage control mode, and attempted to appropriate these stories of community heroism. The Chief Minister Omar Abdullah thus stated, on October 22nd, 'If police, Army, CRPF and BSF saved lakhs of people, then if I say that the youth of Srinagar saved lakhs too, it won't be wrong. We perhaps do not know your names and would not ever, but we salute your efforts and hard work. I take the opportunity to thank you on behalf of the people you saved and on my and my government's behalf,' The State Government also announced bravery awards for volunteers who rescued people during the deluge. In another interview he actively critiqued the media's coverage of militarised rescue efforts, stating 'I think there was too much effort to publicize the rescue and relief. Perhaps, with hindsight, we could have done with less of it. People saw rescue operations as a publicity stunt when every rescue boat had a camera crew on it and every rescued person had a microphone stuck in their face. At the end of the day, these boats were to pull people out and not to carry media people into areas from where people were being rescued.'³⁹

Despite being the loudest champion in its own cause, as evidenced by its self-congratulatory press releases and access accorded to embedded journalists, who for instance accompanied the highest ranking army officials on a boat ride inspection through the flooded city, the army also eventually attempted to distance itself from the obviously biased and one sided media representation, after strong critiques from within the media began to emerge.⁴⁰ The Chief of Northern Command of the army, Lt. General DS Hooda for instance denied the operation of 'embedded journalists', acknowledged the bravery of the local community rescuers, and even the lack of 'sensitivity' of the media reportage. He stated 'Because there was no support elsewhere, they associated themselves with the rescue agencies. There was no concept of embedded journalists.' Countering claims of selective and discriminatory rescues, in Srinagar, where he stated that the 'Army does not operate' except in the 'Badami Bagh Cantonment and the area of the airfield' the Lt General said the rescue operations were mainly

38 See for instance Muzamil Jaleel, Jammu and Kashmir floods: In Srinagar, torn between being brother, nephew and reporter, Indian Express, 11 Sept 2014, <http://indianexpress.com/article/india/india-others/in-srinagar-torn-between-being-brother-nephew-and-reporter/>

39 Varghese K. George and Zahid Rafiq, Situation in Jammu and Kashmir after floods still bleak, The Hindu, 26 Sep 2014 <http://www.thehindu.com/news/national/situation-in-jk-after-floods-still-bleak-says-omar/article6446259.ece>

40 Seema Kazi, Kashmir Floods: Letter to Barkha Dutt, Kashmir Dispatch, 18 Sep 2014, <http://www.kashmirdispatch.com/blog/180926389-kashmir-floods-protest-letter-to-barkha-dutt.html>.

Fahad Shah, Using flood rescue for vested interests, The Hoot, 17 Sep 2014, <http://thehoot.org/web/Using-flood-rescue-for-vested-interests/7781-1-1-1-true.html>

Hafsa Kanjwal, India turns Kashmir floods into PR stunt, Al Jazeera, 20 Sep 2014, <http://america.aljazeera.com/opinions/2014/9/kashmir-floods-indiarescuerelieffort.html>.

Ajai Shukla, Kashmir floods- Army gains where media fails, Business Standard, 15 Sep 2014, http://www.business-standard.com/article/opinion/ajai-shukla-kashmir-floods-army-gains-where-media-fails-114091501335_1.html

conducted by 'Kashmiris' from Srinagar based Jammu & Kashmir Light Infantry Centre. [At Militia Grounds] and that it was 'hardly likely that soldier of Jammu and Kashmir Light Infantry would discriminate against the Kashmiris in carrying out the rescue mission.'⁴¹ However, a defence related website 'global security.com' illustrates the communalised and divisive distinctions that lie at the heart of the military occupation. It states 'Despite the aversion of Kashmiris for joining Army, the J&K Light Infantry has a sizeable number of Muslim soldiers and officers. Much of the Army's Jammu and Kashmir Light Infantry Regiment and Jammu and Kashmir Rifles Regiment are made of recruits from Poonch, Rajouri and Doda villages [in Jammu], 'not the 'local' 'Kashmiri boys', as claimed by the Lt. General. He also acknowledged 'the assistance of local volunteers who have contributed immensely.' Denying the biased media reportage, he said 'The media is not biased. They report as they see it. Could they have been a little more sensitive in their reporting? Having seen the [critical] discourse that is appearing in the social media, I would go with the view point that a little more sensitivity was required.'

Relief

According to a Rapid Assessment Report, which surveyed 26 relief camps across the city, a total of 26 relief shelters in highly affected parts of Srinagar housed 37,450 people. Out of the 26 relief shelters studied, 7.7% received food supplies from NGOs while 92.3% of the relief shelters received food supplies from community donations. Around 200 pregnant women were reported to be present in these shelters. In a Rapid Impact Assessment report published by KVDFR, similar findings in terms of an overwhelming preponderance of local grass roots level relief work and an absence of state backed initiatives was observed.⁴²

The following observations, about community relief in Srinagar and South Kashmir, are based on the interactions between researchers from JKCCS with survivors and community workers at over twenty relief camps, and conversations with relief workers who had previously worked at community kitchens and camps, many of which had been closed by late September as displaced survivors returned to their homes, or to other more permanent shelters. In addition, a group of volunteers from a youth group called Downtown Volunteers, visited and conducted videotaped interviews with relief workers, rescue volunteers and survivors from around fifty camps. These too have been relied upon in the following account.



A young survivor at one of the relief camps in a school in downtown Srinagar.

41 Aijaz Ashraf, Exclusive: Lt Gen who led J&K rescue says, "Past cannot be swept away by floods", Firstpost, 26 Sept, 2014 <http://www.firstpost.com/india/exclusive-lt-gen-who-led-jk-rescue-says-past-cannot-be-swept-away-by-floods-1730825.html>

42 Kashmir Volunteers in Delhi: Flood Relief and CSA. (2014) Kashmir Floods: Rapid Assessment Peoples' Report, <http://www.scribd.com/doc/241324957/Kashmir-Floods-Rapid-Assessment-Peoples-Report-1#scribd>



Women volunteers at the community kitchen in Humhama

Residents in the non-flooded parts of the city responded immediately to news of the flooding. There was a general pattern in the way each relief camp was set up. Announcements in the local mosques followed by meetings of the Mohalla Committees led to the formation of relief camps with basic facilities for food and shelter, at local community halls or public squares. In the initial phase, residents of these areas pooled in money and contributed resources like large utensils, and dry rations like rice, wheat, spices and pulses. In some areas professional cooks were hired. At times, where there was no place to organise shelters a system was set up to house displaced families in homes. Almost every home in unaffected areas acted as an informal community based source of relief and shelter, housing relatives, friends or strangers. Large numbers of survivors from flooded areas were brought to these camps, using any means of transportation available by rescue volunteers. As the numbers increased rapidly, a loose network was formed for the provision of supplies. Unaffected villages in Budgam, Shopian acted as suppliers of rice and wheat. Many of these camps had a rescue team, consisting of local youth and an organizing committee, composed of neighbourhood elders or community leaders. Women frequently volunteered at community kitchens, and in organising tea for the exhausted returning rescue workers, or worked in their own homes caring for survivors. While rescue teams ventured out into the flooded parts of the city, the organizing committees looked after the Langar (community kitchen) and shelter arrangements.

At a relief camp in Humhama Chowk, the Langar served around 1500 people for each meal. One of the organizers, Mr. Shaban told JKCCS that on hearing about the plight of migrant workers, who were stranded at the airport and were being prevented from entering the official shelter facilities set up there, and had even been lathi charged by police, he sent volunteers to the airport to inform them that food was available at the camp in Humhama. He told JKCCS, 'About 90-95 % of the almost 2000 people sheltering at the camp were migrant workers from Bihar, and other parts of Northern and Eastern India. The authorities (CISF,BSF and Airport Police authorities) had set up a camp at the airport, but they were over crowded and they did not allow these migrant workers to enter that camp, since it was only for middle class tourists and visitors. When they came to our camp, on Tuesday, having been promised air lifts by their [largely military] rescuers, and then having to starve and face beatings and abuses at the airport, they started shouting slogans, 'Modi Murdabad!' thinking that this would appease us, for food. We told them they did not have to do all this. We sent packages of cooked food to the airport. We have lists of all these things.'

Community organisations frequently faced official impediments in accessing large public spaces required for running the camps and shelters. For instance at government run Allama Iqbal Marriage Hall at Sanat Nagar, volunteers were denied access and got into a fight with the caretakers of the Hall. There was a public protest,

accompanied by stone pelting, to use it as a temporary shelter for the flood. The victims finally managed to force officials to open the gates of the compound which houses two large community halls, and several rooms. Around 5000 people were fed lunch as well as dinner, during the early days here. This camp housed numerous families for more than a month, supported exclusively by voluntary community based donations and service.

Community organisers repeatedly emphasised how the camps did not discriminate based on religion or nationality, in contrast to official rescue and relief efforts. A majority of survivors at the camp at the Gurduwara at Bhagat, Barzulla and in Rainawari for instance were local Muslims. Everyone ate together at the community kitchens. An organiser at the Jamia Masjid at Hyderpora, recalled a young pregnant tourist from Gujarat who was in particular distress. They immediately collected money from the committee members and an air ticket was arranged for her, to return home. The Gurduwara at Baghat, Barzulla, was a melting pot of cultures for people of the Muslim and Sikh communities.

Kashmiris residing in other states of India, along with private organizations, NGOs, educational institutions and a large number of voluntary donors responded immediately to the disaster. Relief collection camps were set up across the country and tonnes of essential supplies were collected and sent to Kashmir. Coordination and information was largely based on social media platforms on the internet, which became a vital link when telecommunication lines were down.⁴³ In the week following the disaster, when road routes within Jammu and Kashmir were non-functional, even drinking water bottles in huge quantities were sent from outside the state. Indigo, a private airline, played an instrumental role in ferrying relief materials to Kashmir, as a part of its Corporate Social Responsibility agenda. For almost two to three weeks after the floods, several airlines followed suit and carried relief packages for free. However, many survivors reported discriminatory treatment and harassment by airlines at the overcrowded and over whelmed airport. Meanwhile an internal relief network was established in Kashmir, with a large community volunteer base. Relief packages received at city camps were distributed by volunteers in the flooded areas of the city to survivors who had chosen to remain in their homes. With the government machinery having completely broken down, civil society organizations, such as Akhhuwat, adopted neighbourhoods for helping survivors in the monumental task of clearing the rubble of collapsed houses, and reconstructing their damaged houses, almost as soon as the waters receded. In that month of September, one could only see local boys and girls helping out people in different localities unlike the usual white 'ambassadors and government jeeps which otherwise would be speeding on the streets of this valley. After a request from Jammu and Kashmir chief minister Omar Abdullah, the Amritsar based Shiromani Gurdwara Parbandhak Committee (SGPC) that had sent 25,000 food packets to Srinagar on 12th September, doubled the number by sending 50,000 food packets through an Indian Air Force plane the next day. These were supplied to the Gurudwara at Rainawari⁴⁴

At almost every camp that JKCCS visited, it was observed that the already socially and economically marginalized were further disadvantaged when it came to disaster vulnerability. For instance, when the team visited the women's shelter at the Islamiya school, Gojwara, several weeks after the flooding, most of the women who had yet to find alternative shelters belonged to women headed households, including divorced or widowed women. JKCCS also met a young Indian migrant worker couple with an infant, who stated that they had no means to return home, and no where else to go. Similarly in the first week after the flooding, when JKCCS visited Sanat Nagar Camp for the first time, the team was shocked to see a familiar face – Tahira, the Spokesperson of the Association of Parents of Disappeared Persons, a 'half widow', whose husband was a victim of enforced disappearance, and who was estranged from both her maternal and marital family, residing in the camp as her house in Ikhrajpora had collapsed. She had lost all her possessions and been rendered completely destitute. One of her two teenage sons had missing for six days as he was separated from her during the frantic rescues. The lack of news about her son, had brought back the traumatic memories trauma of the disappearance of her husband, and she was severely distressed and anxious. Her son found her after three days.

Kashmiri Diaspora, settled across the globe, actively participated in the relief efforts, sending supplies and volunteers. Student volunteers from colleges across India, particularly from Delhi formed a strong network of support, and were particularly active on the social media in raising funds, organising donation drives, and

43 For examples of the social media's role see the articles listed in BBC, Indian papers highlight social media's role in Kashmir flood rescue, BBC news, 10 Sep 2010. <http://www.bbc.com/news/world-asia-india-29137892>

44 Aseem Bassi, Golden Temple kitchen in full swing for Kashmir, Hindustan Times, 14 Sep 2014 <http://www.hindustantimes.com/amritsar/golden-temple-kitchen-in-full-swing-for-kashmir/article1-1263836.aspx>
See also, Sukhdeep Kaur, J-K floods: When waters rose, Muslims in Srinagar rescued Pandits, Hindustan Times, 16 Sep 2014, <http://www.hindustantimes.com/floodfuryhitsjk/when-waters-rose-muslims-here-first-rescued-pandits/article1-1264405.aspx>

transmitting information. Various organizations formed by non-resident Kashmiris in faraway countries organized fund-raisers on a large scale, and sent supplies and donations to organisations with FCRA (Foreign Contributions Registration Approval) clearance, and already operating in Kashmir. Initiatives like 'Revive Kashmir', Australian Kashmiri Association, and Kashmiri Volunteers in Delhi for Flood Relief, and the efforts of Kashmiri students in Hyderabad, are some examples of the collective efforts by non-resident Kashmiris to assist the flood survivors in the valley. Some groups adopted affected families and directly aided them to rebuild their lives.

State Interference in Community Relief Efforts

There were some unconfirmed allegations that the Indian army was taking control of all the relief material that was being sent by Kashmiri diaspora from the United Arab Emirates, Europe, the United States and other parts of the world at Srinagar Airport and then airlifting the same material for distribution.⁴⁵ As with rescues and medical relief efforts, highlighted elsewhere in this report, the predominant focus of the armed forces and the official machinery (when it returned to life) appeared to be on 'perception management' rather than a genuine engagement with emergency response. For instance, the Armed Forces stated in a press release that they had established 19 relief camps in Srinagar and Jammu region. 'In Srinagar region, camps were established at BB Cantt, Avantipur, Old Airfield, Sumbal, Chattargam and Jijamata Mandir, where thousands of rescued people are being sheltered' the release stated. Like the 137 camps claimed to have been set up by district administration, which local newspapers noted appeared to be 'invisible'⁴⁶, and the 58 government established mobile hospitals whose existence was denied by the medical fraternity, these army relief camps overwhelmingly located in cantonment or militarised areas (BB Cantt, Avantipur, Old Airfield) appeared to be largely a publicity exercise. It should also be noted that contrary to the press release some of these areas (Sumbul, Awantipora, Chhatagam) are not in Srinagar at all.

Towards the end of September, the government created new rules for relief distribution and transportation. A rescue volunteer stated 'The first thing the administration did on limping back to life was to start blocking civilian non state relief, and claiming credit for our efforts.' Tonnes of relief remained stranded at the airport, as bureaucratic red tape obstructed relief aid workers from accessing these much-needed supplies. Private airlines abruptly stopped transporting relief consignments for free, with almost no advance notice. A 'No objection certificate (NOC)' was required to be procured from the state's Resident Commissioner in New Delhi, or Srinagar's Deputy Commissioner, for bringing in relief material. According to a media report, for the transportation of relief material via trains the authorities had put a rider that the goods are to be addressed to district or divisional administration of Jammu. But once the dispatch reached Jammu, the administration denied that it's being taken to Kashmir. A Lucknow-based humanitarian group Jamit-e-Shababul Islam had dispatched relief material comprising of 800 bags of rice and hundreds of blankets via train to Jammu, wherefrom it was supposed to be transported to Srinagar in trucks. However the volunteers who were scheduled to receive the consignment, stated that the consignment was never handed over to them.⁴⁷

Another incident involving Oxfam India, illustrated the state's apathy towards the plight of survivors, at the cost of 'perception management' and projecting a narrative of normalcy. According to a media report, around 50 community water filters with capacity to provide safe drinking water to around 25,000 people were stuck in Jammu for want of clearance certificate. Finally when Oxfam got the clearance certificate, the administration in Jammu was requested by the volunteers of Oxfam to allow the trucks to proceed towards Srinagar, but they were told to approach the Special Officer- in-charge Relief, Jammu, Mr. Babu Ram. Oxfam employees were quoted in news reports as stating that Mr. Babu Ram told them to hand over the relief material to officials for further distribution through official channels. Oxfam employees objected to this co-option and argued that they had a wide network of community based workers in Kashmir and would like to do oversee the distribution themselves. According to Oxfam employees, they then approached Mr. Bipul Pathak, who has been specially assigned the job of coordinating relief for Kashmir. He told the Oxfam officials to approach Deputy Commissioner (DC) Jammu Ajeet Kumar Sahu for issuance of necessary clearance certificate. They approached Sahu for clearance certificate who denied it on the grounds that the consignment was meant for Srinagar and not Jammu. Oxfam India officials then proceeded by road towards Kashmir valley for issuance of necessary clearance certificate. Further, another relief consignment

45 Gowhar Geelani, Media's mean PR to use rescue ops as integration tool, Rising Kashmir, n.d., <http://www.risingkashmir.com/medias-mean-pr-to-use-rescue-ops-as-integration-tool>

46 Sheikh Saleem, Govt. sets up 137 'invisible' relief camps, Rising Kashmir, 20 Sep 2014, <http://www.risingkashmir.com/govt-sets-up-137-invisible-relief-camps/>

47 Syed Imran Ali Hamdani, Jammu admin grabs Srinagar relief midway, Greater Kashmir, 26 Sep 2014, <http://www.greaterkashmir.com/news/2014/Sep/27/jammu-admin-grabs-srinagar-relief-midway-14.asp>

which had come by train was lying in the 'Safe House' of the Sales Tax department at Jammu Railway Station. Oxfam India stated that the consignment contained certain perishable items along with medicines and hygiene kits meant for free distribution in south and north Kashmir. They said that these consignments were designed on the basis of assessment reports received by Oxfam India from their volunteers who were already working in Kashmir valley. Oxfam India told a local daily that 2500 sheets of tarpaulin along with foam sheets, blankets, buckets and sanitary material were on their way from various parts of the country for free distribution in Kashmir but given the hurdles being created by the government, these were unlikely to reach the deserving in time.⁴⁸

A relief volunteer from Humhama, involved in the coordination and distribution of relief through a social media based 'SOS' system, stated that initially, Indigo Airlines was the first to announce that it would be airlifting relief supplies for free, as part of the Corporate Social Responsibility programme. Other private airlines, and national carriers followed suit. In the initial days, there was a lot of lack of communication and coordination at the Srinagar end, due to the non-working of phones, and unfamiliarity with the system of cargo shipping. He said:

'Supplies were lying in the airport unclaimed. Certain consignments went missing, especially rafts. Three of the rafts sent to us went missing. Another time, 17 consignments were sent, but only sixteen arrived. On 13th-14th there was about Rs. 30 lakhs of aid just lying in Srinagar airport. Officials would say, we can't hand it over since it is not in your name. At other times, passengers who had been requested to carry in 100 kgs of supplies, would just leave it at the airport because we were not allowed to collect it, and there were no officials present to facilitate. No one was being allowed to receive the consignments inside the airport. When one relief worker arrived from Delhi on 13th September, she told us that there were no trolleys inside the airport for the passengers many of whom were carrying heavy consignments of supplies. A few policemen were seen lounging at their posts, but the airport was otherwise empty. When passengers noticed a large number of trolleys outside, they found that the main gate to the airport had been locked, and the policeman who had the keys could not be located for ten minutes. Outside, hundreds of people trying to leave Srinagar, were waiting for available flights. Airport Police had no record of any consignments received or handed over prior to 14th September. But, by 17-18th September, the system had become more organised. People learnt the system, and personally started accompanying the cargo load, and flying back the same evening, just to ensure that it could reach the proper channels. Around 19 or 20th September, contemporaneously to the Armed Forces' calling off rescue operations, Indigo announced that only government aid, and aid from registered organisations will be lifted. Further bureaucratic road blocks were put in place, as relief vehicles had to be parked some distance away from the Airport, and an NOC from the local police in charge of Airport Security at Humhama had to be obtained, before goods could be taken out. Later Air India announced that they would not be giving free cargo to anyone. On 19th September only 10% of the aid could make it through, and on 20th September only about 20% (around 7 tonnes).'

Following a public outcry about the problems at the airport, Chief Minister Omar Abdullah said on 24th September that his government had decided to allow 'self-certification' by groups, organizations or persons, that relief material being brought in by them for the flood-hit State would not be sold in the market. 'Noting problems faced with genuine relief (material), this order has been modified to allow for self-certification by groups /organizations/ individuals bringing in relief material,' he posted on his Twitter page. 'While this provision may also be misused by some, in the larger good I felt it absolutely critical to remove this bottleneck as soon as possible' he added. Justifying the earlier directive, Abdullah said that 'order regarding relief NOC was intended to check unscrupulous traders bringing in regular supplies in guise of relief for sale in markets [...] Unfortunately, some cases were brought to light prompting the Finance Minister to issue this order.'⁴⁹ Volunteers working at the Parraypora Girls High School relief camp, told JKCCS, that their New Delhi based volunteers, had to scramble to get a registration as a 'Registered Society' in the name of "Kashmir Volunteers in Delhi for Flood Relief" almost overnight, only in order to bypass the bureaucratic hurdles created in transporting relief supplies and donations.

48 GK News Network, Water filters donated by Oxfam India stuck in red-tape, Greater Kashmir, 25 Sep 2014

<http://www.greaterkashmir.com/news/2014/Sep/26/water-filters-donated-by-oxfam-india-stuck-in-red-tape-42.asp>

49 Press Trust of India, NOC not required now: CM, Greater Kashmir, 25 Sep 2014

<http://www.greaterkashmir.com/news/2014/Sep/26/noc-not-required-now-cm-41.asp>

Resistance

Rescuer and survivor's narratives, which were ubiquitous as people began to meet and ask each other 'zindaa ho?' [so, you're alive?], after the flooding, were often shot through with strains of eschatology, and the famed Kashmiri black humour. Such narratives frequently focussed on the floods as a 'punishment' for the exploitation of the natural world, and the river Jhelum. In a related and sometimes humorous vein, the fact that the six (downtown) police stations which are viewed as the most politically insurgent, were among the least affected areas, was seen as a reward for their loyalty to the Kashmiri cause. After gruelling days spent conducting rescues, rescue volunteers often regaled each other with absurd incidents that occurred during the day. One story for instance, involved a woman from Qamarwari, insisting that a life jacket that was being offered to her, be put on her cow. Others described how the oddly incongruent sight of women from upper class neighbourhoods, leaving their homes in wet and mud spattered clothes sometimes without any footwear, had worn every article of their heavy gold jewellery in their possession at the same time, so as to keep it safe. Residents of Narbal laughingly told JKCCS, that by the 'Grace of God', two of their horses had managed to survive – one was deaf, the other blind! Another frequently circulated joke involved a case of mistaken identity during a military rescue. The Air force was in the process of air-lifting a Sikh gentleman, when they asked him from where [in India] he was. On hearing that he was from Baramulla (where many Kashmiri Sikhs are from) he was promptly dropped back on to his roof! Community volunteers from predominantly working class downtown areas, conducting rescues in inundated Rajbagh [an elite neighbourhood, and perceived to be snobbish] reportedly were heard shouting, 'Oye Rajbagh-wale! Come down! The cheap downtown loafers are here to save you!' These stories became an important resource for surviving through those otherwise dismal and despair filled days.

From the initial days of the floods, there were also angry protests and sloganeering by volunteers and survivors, against the forces of Occupation: the Indian state, the state government, and the Indian Armed forces. As one community worker stated, even in normally staid and pro-establishment Rajbagh, people were shouting for 'azaadi' (freedom). Through out this report, numerous incidents of public protests, and anger have been highlighted.



Protesters shout Azadi, and Anti India and Pro Pakistan slogans at Gojwara Chowk, after Friday Prayers on 12 September. [Screen Shot from a video clip on file with JKCCS. Faces have been blurred.]



Rescue Volunteers shout slogans in the still flooded Qamarwari Chowk.
 [Screen Shot from a video clip on file with JKCCS. Faces have been blurred.]

These small but ubiquitous protests took place all over the valley, and continued till late September, when such everyday expressions of dissent became policed once again. The Indian national media concentrated on incidents of 'stone pelting' at relief helicopters, which it attributed to 'isolated' 'separatist' elements, rather than to the generalized spirit of freedom and defiance that was palpable everywhere on the streets. Other than the stone pelting, and throwing back of air-dropped relief, which occurred in numerous places around the city, agitated crowds constantly protested the biased media coverage, and in certain instances there were unfortunate attacks on working journalists. Other forms of protest against militarized and mediatized relief and rescues, included the prominent waving and placing of green Islamic flags in various areas to deter helicopters from dropping relief, and the appearance of graffiti and posters through the city, at relief camps and elsewhere, which said 'We don't need Indian Choppers', and the old favourite 'Indians go back' and 'Go India! Go Back!'. 'Kashmiris have been allowed to drown by the administration', and 'India has shown its true colours', and other similar outraged sentiments were expressed by everyone from government officials to survivors and rescue workers to JKCCS. Interviewees also variously expressed how the rescue and relief efforts embodied resilience, courage, inclusiveness, generosity and Kashmiri pride and self-reliance. A rescue volunteer described the esprit de corps through a slogan he had heard- 'Self Help is our duty, Self Determination is our Right.' Another creatively re-engineered a popular azaadi slogan about sacrifice and Kashmiri self-hood: Joh Kashmir ko sailab se bachaya, Woh Kashmir hamara hai (The Kashmir we saved from the flood, That Kashmir belongs to us).

Conclusion

As this report was being finalized, in the last week of March 2015, water levels in the Jhelum valley reached flood alert levels again. Submergence, landslides and over flows were reported from low lying and river bank areas.⁵⁰ While an evaluation of the state response is outside the scope of this study, news reports stated that the elections in December 2014, declared by the Election Commission of India, (in the face of opposition by the J and K government)⁵¹ hampered the ability of the administration to deal effectively with the urgent works relating to restoration and repairs of flood damaged embankments.⁵² The increasing disaster vulnerability of J and K, and its relationship to the political construction of militarized 'normalcy', of which elections are a crucial element, was on view again.⁵³ Experts⁵⁴ and official bodies, including the J and K State Economic Survey had, in their post September flood evaluations, identified Jammu and Kashmir as a chronically flood vulnerable region, and recommended urgent remedial measures such as dredging and building of an alternative flood channel. These measures were not taken. This report has attempted to highlight the social, historical and political underpinnings of the flooding of Kashmir. It has emphasized that unless structural factors such as the militarization of land and water resources, and the functioning of militarised governance and political economy, are taken into account, little will change with respect to the region's increasing disaster vulnerability. Recent events add force to this contention.

There is very little that is 'natural' about a 'natural' disaster. Wherever natural disasters occur they are always entangled with political and historical forces, which are inseparable from the proximate environmental factors that are identified as their cause. Socio-economic and political vulnerabilities are exacerbated by natural hazards, and it is these that define an event as a disaster or a catastrophe. This Report provides us with several insights into the contemporary as well as historical functioning of the Indian occupation which are otherwise normalised. It highlights how the Indian occupation operates not just through military control over territory but through the control of space, media narratives, governance structures and the economic development paradigm in Kashmir.

As an occupied territory, Indian Administered Jammu and Kashmir's natural resources are under the sovereign and military control of India, which prioritises its own national security risks over the disaster risks of the local population. Under International Humanitarian and Environmental Law, occupying powers are required to exercise 'guardianship' over the natural resources of the territory they occupy, and are prohibited from causing extreme and disproportionate damage to the environment during warfare and armed interventions. In particular, Article 54 (2) of Protocol 1 of the Geneva Convention prohibits the destruction, removal and disablement of civilian objects indispensable to the survival of the civilian population, including agricultural areas, drinking water installation and irrigation works. The massive occupation of land and water resources in Kashmir, is inimical to this principle. The occupation of Jammu and Kashmir has entailed a massive military deployment, and the construction of militarised development infrastructure, which have caused untold environmental destruction. The report has found that in several specific instances, such as the Jammu Baramulla Railway line project, and the physical occupation of civilian flood control infrastructure by the military, the overt and covert militarisation has considerably added to the region's disaster vulnerability, and the expendability of Kashmiri lives and property.

The political ecology of the occupation of Kashmir which is located in the fragile Himalayan Hindukush region has international dimensions and consequences. The region stretches across several national borders and is source of the world's largest rivers that sustain half the world's population. It is a global environmental and natural resource whose protection and preservation goes beyond narrow national security interests and demands the

50 See Wasim Khalid, Why the Ghost of Last Year's Flood Still Walks the Streets of Srinagar, Caravan, 2 Apr 2015, <http://www.caravanmagazine.in/vantage/why-ghost-last-year-flood-still-walks-streets-srinagar#sthash.MjDz4ozA.dpuf>

51 See for instance, BJP, Congress, PDP imposed polls on flood-ravaged Kashmir: Omar, India Today, 30 Nov 2014, <http://indiatoday.intoday.in/story/omar-abdullah-assembly-elections-jammu-kashmir-floods-bjp-congress-pdp-imposed-polls/1/404509.html>

52 Arif Shafi Wani, 'Government hasn't learnt lessons from September floods', Greater Kashmir, 31 March 2015, <http://www.greaterkashmir.com/news/2015/Apr/1/-govt-hasn-t-learnt-lessons-from-september-floods--30.asp>

53 See for instance, PTI, Jammu and Kashmir people have shown their faith in Indian democracy: PM Narendra Modi, Economic Times, 13 Dec 2014 http://articles.economictimes.indiatimes.com/2014-12-13/news/57012275_1_jammu-and-kashmir-indian-democracy-jk-people; See also, for a critique: Sanjay Kak, Ballot Bullet Stone, Caravan, 1 Sep 2014, <http://www.caravanmagazine.in/reportage/ballot-bullet-stone>

54 See Experts Brainstorm 2014 Kashmir Floods at National Seminar, Centre for Dialogue and Resources, <http://www.cdr-india.org/>. Individuals present at the meeting told JKCCS, that the possibility of flooding in the snow – melt months of March and April, when water levels in the valley's water bodies are high, was specifically discussed at the conference, which was attended by Dr Muzaffar Ahmad, Member, National Disaster Management Authority, Mr A. B. Pandya, Chairman, Central Water Commission, Mr Wajahat Habibullah, Chairman National Institute of Technology, Srinagar, Dr Pawan Kotwal, Principal Secretary, Irrigation and Flood Control and other officials from the J and K and Indian government.

urgent attention of the international community. The adverse consequences of the militarisation of the Siachen glacier has been the subject of some international concern, but the huge ecological costs of the general militarisation and weaponization of the region, including the laying of land mines, and the building of encampments, roads, electrified fences, and other military infrastructure, which is constantly intensifying in alpine forests and meadows, close to the Line of Control between India and Pakistan has gone largely unremarked upon. India has repeatedly failed to discharge its international law obligation to act as a custodian of the civilian and environmental resources of Kashmir. The intensive militarisation of this ecologically fragile zone has a direct bearing on the disaster vulnerability, not just of its population but of the South Asian sub-continent at large. The militarisation prevents the carrying out of independent scientific research that is an imperative first step to preventing the occurrence of future disasters. Besides the direct consequences of militarisation, the expropriation of fertile orchards, fields, meadows and forests have resulted in the adoption of environmentally destructive livelihood strategies by displaced and impoverished local populations.

- The occupation of huge stretches of ecologically fragile lands particularly in highland areas around urban settlements, has led to an anomalous and disaster risk ridden growth of cities into progressively lower lying areas. No plan for the safe and sustainable growth of the region's cities and towns is possible unless these areas are demilitarised

- Despite the existence of multiple agencies, authorities, policies and regulations, disaster governance in Indian administered Jammu and Kashmir has failed. While corruption and administrative apathy and negligence have been frequently blamed for destructive development, the underlying relationship that these bear to basic lack of democracy and political legitimacy must be taken into account. This report has demonstrated how the magnitude of suffering caused by the floods of September 2014 was compounded by the criminal negligence and executive incapacity of the local administration which operates as a surrogate of the Indian government in this complex occupation. While the Indian state and military authorities have sought to wash their hands of their culpability in causing this disaster, by exclusively blaming the civilian state administration, the present occupational framework of public finances, militarised governance and complete control over Kashmir's natural resources prevent the exercise of Kashmiri sovereignty over its own land or natural resource policies, as particularly exemplified by the nationalised control over its hydro power resources.

- There has been no independent or official enquiry into the accountability of state actors including the military, civilian disaster-management and flood-control mechanisms, and planning agencies. The complete imbrication of Jammu and Kashmir's governance structures within the framework of Indian national security and national integration makes such an independent investigation almost impossible within the existing framework. It is of particular concern that international funding agencies such as the Asian Development Bank (ADB) have been actively colluding with the Indian state in promoting environmentally unsustainable and disaster vulnerable practices. The World Bank has recently sent a team to evaluate the impacts of the floods at the request of the J and K government. The India headquarters of the World Health Organisation when asked by an international journalist about the state of medical emergency responded with a reply apparently based solely on inputs provided by the Government of India. International bodies and financial institutions have a responsibility towards recognising the status of Jammu and Kashmir as an internationally disputed territory. Complex emergencies, which occur in a zone of an active armed conflict and political dissent require a greater degree of sensitivity to local needs, and cannot be responded to solely within the frame of the national and security interests of a hostile occupying power. In evaluating the devastating impacts of the floods of September 2014, this report has found that the Indian state in J&K is overwhelmingly focussed on presenting and preserving the narrative of normalcy. Thus International and community based relief and humanitarian aid was actively blockaded in order to minimise the perception of the international dimensions of the humanitarian and medical crises.

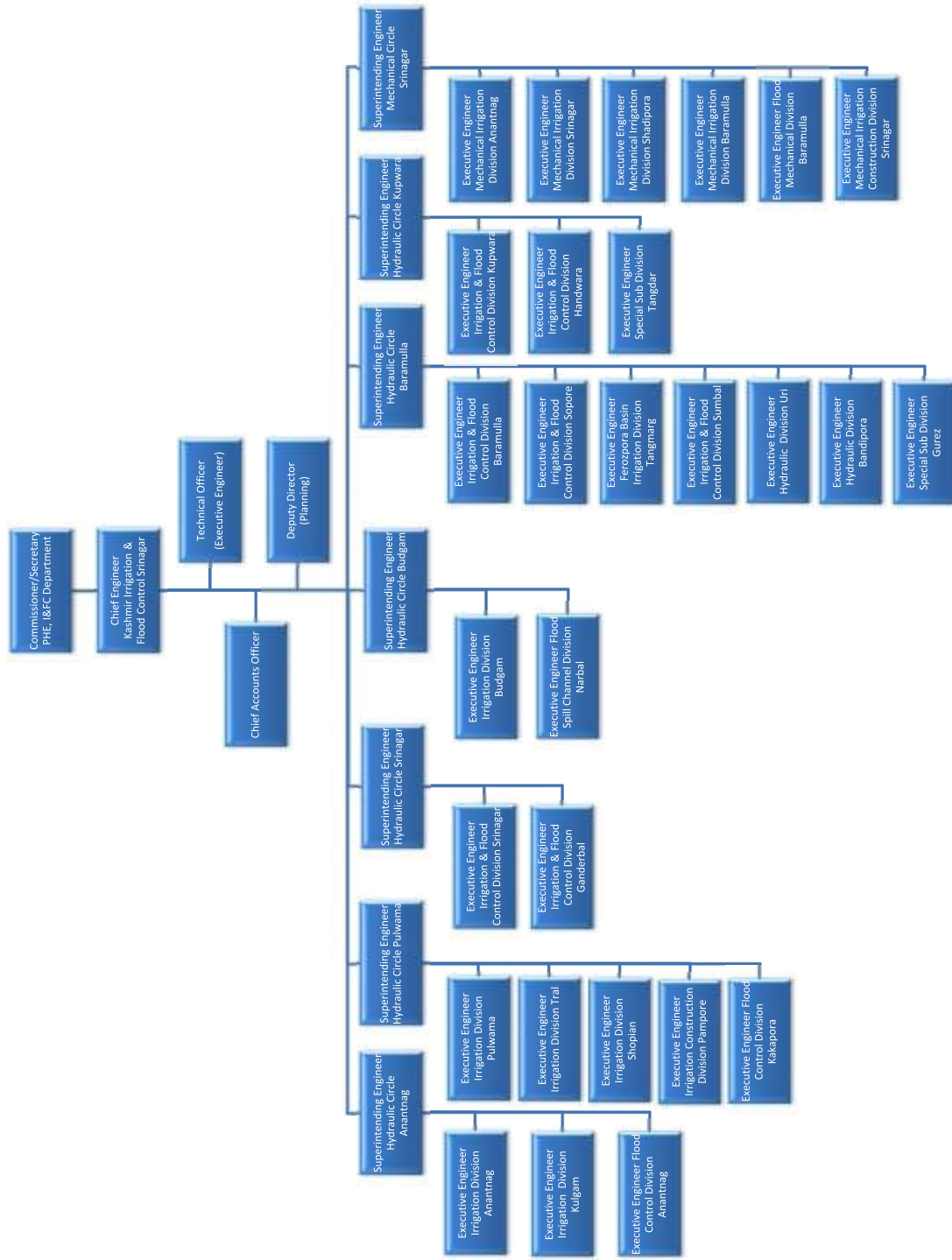
- Militarised humanitarian rescues and relief in this conflict zone must be understood keeping in mind the contested Indian sovereignty over the region, and the Indian state's need to exert its military and political hegemony over the population, through both direct and indirect means. This report has found evidence of discriminatory and selective rescue and evacuation by the armed forces. The failure to prioritise the rescue of the most vulnerable sections of the civilian population, including hospital patients, infants and pregnant women is contrary to internationally recognised protocols of emergency response. The delayed rescues of these populations almost certainly resulted in higher hospital mortality and morbidity rates, which were unremunerated in the official death toll, that focussed only on the number of deaths due to the direct consequences of the flooding such as from drowning, land slides, and house collapses. The failures of state backed rescue and relief efforts warranted

at least as much media attention as the official rescue figures and narratives of militarised heroism. The report has raised serious ethical concerns about disaster journalism especially in the context of an armed occupation and conflict. The dominant Indian media narrative, which relied exclusively upon military and state sources without taking into account the factual realities on the ground, unreflexively reproduced nationalist and militarised ideologies propagated by the state, in some cases seriously endangering the lives of victims.

· This report recognises and celebrates the extraordinary solidarity and resilience of the occupied Kashmiri people in the face of complete abdication of state responsibility. Without community based efforts at every stage – from warnings to evacuations and emergency responses – the human losses due to this disaster would have undoubtedly been far greater.

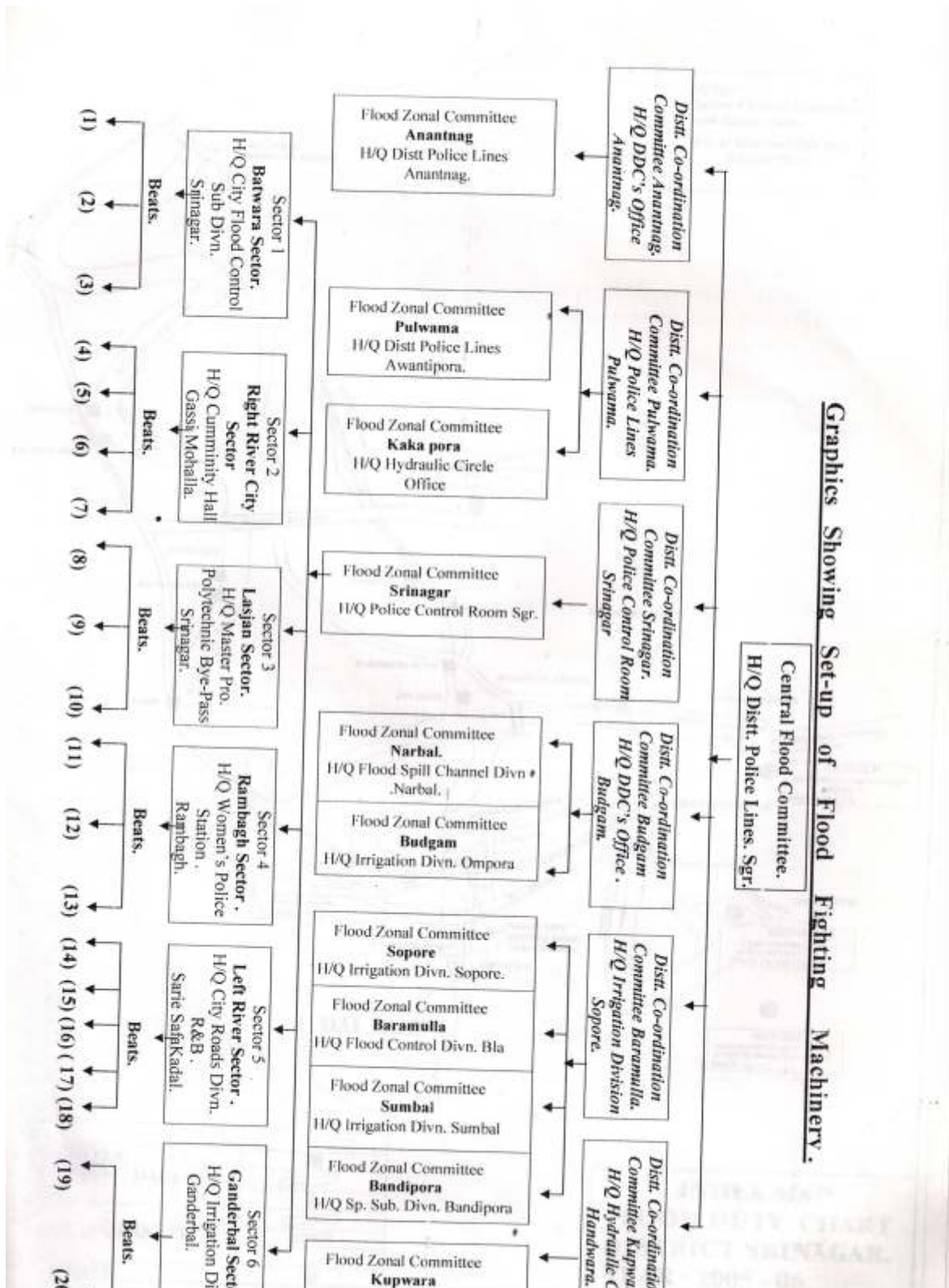
Annexures

Annexure 1



Organisational Chart of Kashmir Irrigation and Flood Control Department

Annexure 2



Annexure 3

Excerpts from the survey on Flood affected villages in Pulwama Target Survey: Fully Damaged, Partially Damaged houses

TOTAL NUMBER OF HOUSEHOLDS IN 70 VILLAGES = 22,406
 TOTAL NUMBER OF FULLY DAMAGED HOUSES =1356
 TOTAL NUMBER OF PARTIALLY DAMAGED HOUSES =6854
 AVERAGE FAMILY MEMBERS IN A FAMILY IN RULAR AREAS = 6
 Total number of people affected by Flood in these 70 Villages = 13, 4436
 Total number of people with fully damaged houses =8136
 Total number of people with partially damaged houses= 41124

Impact of Floods

- Full damage to vegetable and maize crops
- Paddy and fruit crops have suffered huge losses,
- Potential loss of seeds and tools
- Loss of Cattle and Cow sheds
- In the worst affected villages there has a major impact on household level food stocks, with water logging causing damage to dry rations, and flash floods washing away household assets.
- People in these villages are buying and cooking food daily, maintaining limited storage of food supplies. Flooding has caused major loss of livestock.
- People In these villages have were rescued and given temporary shelter in Schools, Mosques, and residential houses of nearby unaffected areas
- Pulwama Town had many such temporary relief camps in Schools and Mosques and given sufficient emergency food materials.
- People displaced due to floods in these villages have now moved back to their villages, 60% of the households with full damaged houses have taken shelter in their own village either in a temporary tent or in a nearby neighbors house living with limited stocks with 2 to 3 families in a single place
- 10% of the households in the villages as of 19 Sep have taken refuge in a local school or government building in their own villages
- 30% of the households in these villages have taken shelter in their relatives houses in the unaffected areas/ houses
- Local mohalla committee in every village is providing food to the worst affected families
- Most of the villages were not accessible and no emergency relief was reached
- Locals in most of these villages show resentment for not being provided any help
- Livelihood of People in these villages with agriculture/horticulture is largely affected, shopkeepers in these villages have suffered huge losses leaving thousands of people Jobless
- Some small scale factories like chicken farm, Rise-Machine have suffered heavy losses

Recommendations

1. There is immediate need of Bedding, warm clothes, blankets and medical aid, shelter
2. The above list mentioned partially damaged houses, which means only a small amount of crack in the wall or some damage to house which is still standing, since many households in these partially damaged houses have cleaned the houses and are living there but during our survey our team inquired that people in these houses have entered without consulting any expert (Example, PWD) which could declare the house Ok for the living, there has been few incidents in post floods some partially damaged houses were fully destroyed resulting in escalation of death toll
 There is also an apprehension that there is potential risk in these partially damaged houses in coming winters due to heavy snow
3. There is a need of awareness camp about potential risk of diseases, some of the people in these villages with skin allergies or stomach pain have not consulted any doctor

This Survey was conducted by a local voluntary group in Pulwama, Roots of Chinar List compiled and prepared by Owais Wani

Local help of volunteers, Sarpanchs, Nambardar and Village heads have helped in the assessment

Dated 27-09-2014

Annexure 4

Relief Camps visited by Downtown Volunteers & JKCCS Researchers

Name of the Camp	Location	Organizers	General Comments
Aford Relief Camp	Aford Office, Parray Pora	Muzamil Yaseen and other volunteers	<ul style="list-style-type: none"> A small group of people went to Rajbagh, to rescue some family members and in the process started rescuing other people. For three to four days, rescues were undertaken in the most flooded areas of the city. When all communication lines had broken down, a flood helpline was created for SOSes and people from across the world contacted the volunteers to give them the location of those who were stuck. Later, this camp served as a collection and forwarding Centre. Huge quantities of supplies were organized and dispatched to the relief camps and flooded neighborhoods.
Alfalah People's Trust	National Highway, Bijbehara, Anantnag	Members of Alfalah People's Trust	<ul style="list-style-type: none"> Functional from 4 September to 12 September, this camp had around 50 volunteers. They had divided themselves into teams for rescue and organizing shelter. Load carriers, trucks, and boats made out of rubber tubes were used to rescue people. 20-25 men were rescued from the CRPF and RR Army Camps in the locality. Police men were also rescued from the Bijbehara Police Station including the SHO of the police station. As per the records of this camp, 24,000 people were provided assistance – for food, clothing, shelter and drinking water. 48,000 plates of cooked rice were served per day, during those nine days.
Allama Iqbal Community Hall	Sanat Nagar	Locals of Sanat Nagar/Rawalpora.	<ul style="list-style-type: none"> This camp was functional for more than a month. Organizers had to fight with the caretaker of the hall to use it as a camp after the floods. This camp was divided into an organizing and rescue team. Shelter was provided in the marriage hall, while medical relief tents were setup in the compound of the Community Hall. In the initial phase, about 6000 to 7000 people were provided shelter. Families which required accommodation for over a week, were given notebooks to keep a record of the distribution of essential supplies.
Bait-ul-Maal Committee	Jamia Masjid, Hyderpora	Members of the Masjid Committee and local volunteers	<ul style="list-style-type: none"> This camp was functional for 13 days. With a huge volunteer base, rescues were conducted in the flooded parts of the city, while some of the other volunteers looked after shelter arrangements for those who had been rescued.

Bait-ul-Maal, Hassi Bhat, Rainawari	Rainawari	Bashir Ahmed Shera Bashir Ahmed Chowdary (President Masjid Sharief Madni)	<ul style="list-style-type: none"> • Accommodation was provided in the masjid itself, with one floor exclusively for women and small children. • As per the records of this camp, initially 8,000 people were served food and drinking water. • For families who did not want to leave their homes in the flooded areas, this camp sent packed food through their volunteers. • A small Medical Centre with 6-7 doctors, was also setup in the neighborhood. • Under the supervision of the local masjid committee, this camp provided food, shelter and clothing to about 300 people. • With a team of 50 volunteers, rescues in the neighboring areas were undertaken as well.
Community Hall Khalif Pora	Khalifpora, Khanyar	Showkat Ahmed Masjid Shareif Khalifapora, Khanyar	<ul style="list-style-type: none"> • The camp was started by a small group of volunteers, who ventured out into the flooded parts of the city like Rajbagh, Jawahar Nagar, Dalgate etc. • To provide for 500 people, initially the stock of bait-ul-maal was used and later supplies were sent from Kangan, Ganderbal, and Ladakh. • Ladakh Muslim Coordination Committee provided bedding and ration to the organizers of this camp.
Darul Khairat	Islamia College, Haval	Awami Action Committee (Mirwaiz Umar Farooq)	<ul style="list-style-type: none"> • This camp began functioning on 6th September. On the first day 2,000 bags (containing essentials like wheat, rice, oil, and spices) were distributed in the flooded parts of the city. • About 150 volunteers of the Awami Action Committee's Youth Wing divided themselves into four groups: Organising, Rescues, Relief and Langar. • People in thousands were provided shelter at the college premises.
Falaah Committee, Barbarshah, Naqashpora	Barbarshah, Naqashpora	Falaah Committee, Gh. Mohd Bhat (9906435006)and General Secretary, Hafiz-ullah, 8715015389	<ul style="list-style-type: none"> • 240 families were provided shelter in the masjid and neighboring residential buildings. • Non-locals were also given shelter.

Govt. Girls Higher Secondary School, Soura	Soura	Abdul Aziz Mir, President of Masjid Committee.	<ul style="list-style-type: none"> Patients from Lala Ded Hospital were accommodated in the botanical garden of this school. Doctors from the neighboring areas volunteered to check these patients. Dr. Showkat Zargar, Director SKIMS, sent doctors to the camp along with some medicines. Locals helped in getting supplies. A truck of supplies was also sent from Delhi.
Gurduwara Chattipadshahi – Kashmir Relief Co-ordination	Kathi Darwaza, Srinagar	Sardar Shetal Singh, Manager Gurudwara.	<ul style="list-style-type: none"> Around 4,000 people were given shelter at the Gurduwara. With a team of 60 volunteers, rescues were undertaken in the flooded areas of the city. Tractors were used to rescue people. During rescue, last rites of three non-Muslims were performed who had died during the floods. Tehsildaar visited the camp on 29-09-2014 with rice, blankets, biscuits, and Maggi and 4 quintals of rice were provided by Rainawari Police station.
Gurduwara, Bhagat, Barzulla	Bhagat, Barzulla	Gurduwara Prabandh Committee	<ul style="list-style-type: none"> Members of the Gurduwara Committee sent their teams to the flooded areas of the city for rescue operations. On 6, 7 and 8 September, 10,000 people were provided shelter and food in the Gurduwara premises. This camp was functional for about a month and the Langar served thousands of people. A medical camp was also set up in the Gurduwara premises. Sanitation was taken care of by the Gurduwara volunteers.
Helping hands of Islam	Hazari Bagh, Rainawari	Mr. Mohammad Lateef	<ul style="list-style-type: none"> Primarily, were involved in rescue operations in Rajbagh, Padshahi Bagh, and Bemina. After a few days, started distributing supplies from our office at Rainawari.
Kathi Darwaza Community Hall	General Bagh, Kathi Darwaza	Masjid Committee of Masjid Sharief Zanoorain	<ul style="list-style-type: none"> 500-600 people were given shelter at the community hall. They had an organizing committee and a rescue team. A team of 10 boys rescued people in Maisuma, Batamalo, Abi Guzar and Rajbagh. Local Residents donated their personal bedding to the community hall. Supplies were sent from Kangan, Bandipora, and Leh. A woman in the last month of her pregnancy, who had been rescued from Abi Guzar, was taken to JLMN Hospital as her labor pains started at the camp.

Kral Masjid, Surteng, Rainawari	Rainawari	Mohammad Sidiq Bhat	<ul style="list-style-type: none"> This camp functioned for around 16 days. People rescued from various parts of the city were given shelter in the Darasgah in the locality. Around 90 tramis were served per meal, initially. A team of 20 volunteers worked round the clock to ensure that flood victims were being taken care of.
Markazi Coordination Committee for Natural Calamities	New Airport Road, Humhama, Near Asthan Masjid	Shaban Ali Mohammad and other members of the Masjid Committee	<ul style="list-style-type: none"> This Camp was functional from 8 September to 20 September' 14. Initially was setup as a medical relief camp, but later started providing food to those who had come from far flung areas. A couple of doctors volunteered at the camp as well. Ladies in the neighboring areas helped in preparing huge quantities of food. Volunteers would take cooked food to the airport, to feed the casual laborers who had been rescued from different parts of the valley, but had no access to food and water.
Masjid Committee, Reshanhar	Nawa Kadal, Srinagar	President of Mohalla Committee, Farooq Ahmed, along with other members.	<ul style="list-style-type: none"> A relief camp was started by the Mohalla Committee of Reshanhar, Nawakadal, to provide food, clothing and shelter to those displaced by the floods. A big consignment consisting of essential supplies was sent to KVDRF Hyderabad.
Masjid Hassan Riyaza Committee	Khanyar	Mr Ali Mohammad Das, vice president masjid committee.	<ul style="list-style-type: none"> This Camp functioned for 10 days. Initially, locals contributed portions out of their own ration. Later supplies were sent by Darul Khairaat. Close to 500 persons were given food and shelter. Young boys from Dal Lake rescued people stuck in their water logged homes.
Muslim Hidden Hands Saída Kadal, Srinagar	Govt. Hr. Secondary School ex-Polytechnic, Saída Kadal, Srinagar.	Mohammed Ashraf Beigh, President Mohammed Yusuf Beigh, Vice-President.	<ul style="list-style-type: none"> This camp was functional for a period of 25 days. This camp mostly undertook rescue operations in Bemina, Qamarwari, Rajbagh, Safa Kadal. According to one of the volunteers, about 100 persons were rescued each day and were then provided food and clothing at this camp.
Masjid-e-Salfia	Kralkhud, Nai Sarak	Organized by Locals	<ul style="list-style-type: none"> Volunteers of this camp, rescued people in the adjoining areas. They did not receive any aid from the government.

Nagar Shah Masjid	Ganpatyar	Ghulam Mohammad Bhat	<ul style="list-style-type: none"> This Camp was functional for 8 days. With a team of about 50 volunteers, food kits were prepared every day and delivered to those whose houses were under water.
Shaheen Public School		Shakeel ah. Hafiz (Principal - Shaheen Public School).	<ul style="list-style-type: none"> This camp had a team of 100 volunteers, divided into four groups. Out of these four groups, one of them was involved in rescue, while the other three worked for providing relief to the floods victims. There were locals as well as non-locals who been rescued from the flooded parts of the city, in this camp. One person from UP was given cash to go back home. The principal of the school asked his ex-students to provide bus service to the flood victims. A painting competition was also organized for kids.
Shopian Health Aid	Central Bait-ul-Maal Committee, Shopian	Members of Bait-ul-Maal and local volunteers	<ul style="list-style-type: none"> Volunteers collected donations within the locality and sent huge packages of clothes, and food to the badly affected neighborhoods. Traders, and locals contributed money and bought medicines, chlorine tablets, disinfectants, masks etc. They also received donations from a student body at JNU. Volunteers went to different villages and briefed the people about the usage of disinfectants, chlorine tablets and maintenance of hygiene.
Welfare Committee, Sathu Baala,	Barbarshah	Mohd. Altaf Bhat	<ul style="list-style-type: none"> This camp had a team of about 30 volunteers. 200 people were provided accommodation by the organizers of this camp in commercial buildings and the Masjid of the locality. The Committee conducted a survey on their own and revealed that the number of damaged (Fully) houses were 6 and partially damaged was 38.
Youth Coordination Committee Camp	Ompora, Budgam	Youth Coordination Committee Auga Committee	<ul style="list-style-type: none"> This camp was functional for 17 days, from 8 September to 23 September'14. They had a rescue team and an organizing team. Volunteers went to the city to rescue people. A big langar was also setup, which served around 1200 people per meal, in the initial phase. People came in great numbers from south Kashmir, bennina and other areas of the valley. Residents provided shelter to people who had been rescued.

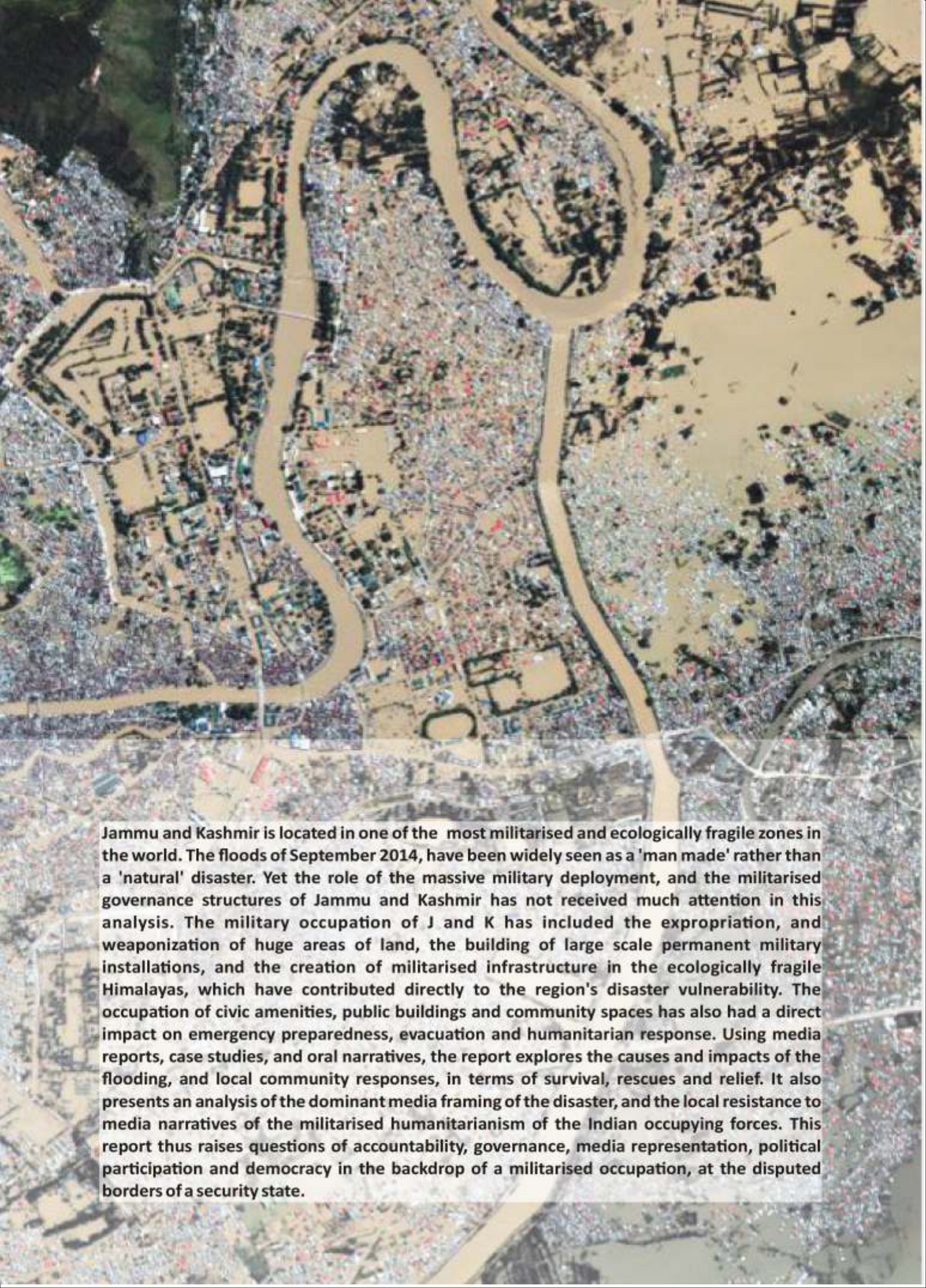
Annexure 5

Local Charity & Volunteer organisations

S.No.	ORGANISATION	LOCATION
1	Community Relief procurement and distribution center near Sheikh ul Alam Airport	Humhama
2	Athroul,	Nawa Kadal
3	Muslim Baitul Mal,	Gojwara
4	Aash Bait ul Mal,	Gojwara
5	Tawheed Forum,	Aali Kadal
6	Cultural Society of Youth)	Bohri Kadal
7	Al Muawin,	Nowhatta
8	Helping Hands of Islam,	Nowhatta
9	Imam Khomeini Community Center,	Alamgari Bazar
10	Imam Khomeini Memorial Trust	Alamgari Bazar
11	Imdad Foundation,	Zadi Masjid, Sakidafar
12	Masakeen Charitable Trust	Soura
13	Bait ul Mal Bilal Colony Soura	Bilal colony Soura
14	The Unity	Hyderpora
15	Base Camp	Hyderpora
16	Relief Call Center	Hyderpora
17	J&K Yateem Foundation	Bohri Kadal
18	Firdous Educational Trust for Orphans	Firdousabad, Batmallo
19	Save Kashmir a helping hand	
20	Shah Hamdan Community Center, With	Chalpan kocha, Koes bagh
21	Khani Kahi Mohalla Chowk, Auto stand	Fatih Kadal, Kalashpora
22	Hakani Masjid, Banni Mohalla	Fatih Kadal
23	Darul Ulom Osmaniyyah	Chinkra Mohalla
24	Masjid Hanfiyah	Chotta Bazar
25	Kashmir Pharma Welfare Trust	Chotta Bazar
26	Bait ul Maal, Chotta Bazar	Chotta Bazar
27	Al Huda	Zainder Mohalla
28	Shah Ismail Shaheed Trust	Zainder Mohalla
29	Bait ul Mal, Masjid e Abu Bakar	Daddi Kadal, Tanki pora
30	Merci Kash	Noor bagh
31	Killa Masjid	Shaheed Gunj
32	Sheikh Imam u din Masjid	Shaheed Gunj
33	Nager Masjid	Ganpatyar, Malyar
34	Astan e Batmol Sahib	Kral Khud
35	Salfiya Masjid	Kral Khud, Nai Sadak Masjid
36	Gadudbagh Masjid Committee	Gadudbagh, Habba Kadal
37	Bagwanpora Masjid Committee	Sathu

38	Markaz Ibn I Abbas, Darul uloom Shareef	Barbarshah, Nakashpora
39	Falah Committee Sathu	Barbarshah , Nakashpora
40	Masjid Committee	Upper Sathu Barbarshah
41	Mohalla Committee	SulemanTeng, Malli Teng, Dalgate
42	Syed Miran Shah Masjid (Takdar Mohall	Alamdard Colony Nowpora
43	Ray Teng Relief	Rayi Teng,
44	Kathi Masjid, Marriage hall	Kathi Darwaza
45	Hussaini Welfare Organisation	Hassanabad
46	Masjid Qadiri, Sultani Arifeen School	Kathi Darwaza
47	Bait ul Mal , Masjids e Zanureen	General Bagh, Kathi Darwaz
48	Aash Baitul Mal, Masjid e Musaib Bin	
49	Masjid Shareef Wazapora for Darul	Waza Pora
50	Masjid e Khanda Bhawan	Near Bonvent School, Nawa Kadal
51	Masjid e Reshanhar Nawa kadal	Nawa kadal
52	Alama Bukhari Masjid	Sakidafar
53	Bait ul Maal Baba Dawood Mishkati	Ganderpora, Eidgah (at Shaheen public
54	Samaj Sudhar Committee	Noor bagh
55	Masjid e Dannah Mazar	Saffa Kadal
56	Darsghah Mohammadiya	Waniyar, Rathpora
57	Imdad Foundation , Zadi Masjid	Zadi Masjid
58	Islamic Relief Trust, Lattar Masjid	Safa Kadal
59	Youth Welfare Committee, Sheikh	Charim Gari Mohalla , Shah Kadal,
60	Emergency Relief	Tagbab Saeb
61	Welfare Committee Mukhdoom Sahib	Bachi Darwaza, Mukhdoom Sahib
62	Emergency Relief	Nawa Bazar
63	Mool (roots)	Ganderbal
64	Masjid Sathu Balla	Barbar Shah
65	Baitul Maal Jamati Islami	Zaindar Mohalla
66	Masjid Committee Imam-ud-din	Shaheed Gunj
67	Intizamia Committee Bagwan pora	Habba Kadal
68	The Unity	Nigeen Hazratbal
69	Hussaini Khedmatgar Committee	Alamgiri Bazar
70	Masjid Hamzah	Gadood Bagh Habba Kadal
71	Masjid Committee Syed Mohammad	Babapora Habba Kadal
72	Base Camp	Hyderpora
73	Mohalla Committee, Nowpora Alamdar	Nowpora Alamdar Colony
74	Baitul Maal	Bilal Colony Soura
75	Masjid Committee Nai Sadak	Nai Sadak
76	Mohalla Committee Malyar, Habba	Malyar Badiyar, Habba Kadal
77	The Unity	Makhdoom Sahib

78	Bait ul Maal, Baba Dawood Mishkati	Ganderpora ,Eidgah
79	Masjid Committee Ganpathyar	Ganpathyar, Habbakadal
80	Mohalla Committee	Ganpathyar
81	Bait ul Maal Palhalan	Palhalan
82	Baitul Maal Pattan	Pattan
83	Baitul Maal Goshbugh	Goshbugh
84	Baitul Maal Ussan	Ussan



Jammu and Kashmir is located in one of the most militarised and ecologically fragile zones in the world. The floods of September 2014, have been widely seen as a 'man made' rather than a 'natural' disaster. Yet the role of the massive military deployment, and the militarised governance structures of Jammu and Kashmir has not received much attention in this analysis. The military occupation of J and K has included the expropriation, and weaponization of huge areas of land, the building of large scale permanent military installations, and the creation of militarised infrastructure in the ecologically fragile Himalayas, which have contributed directly to the region's disaster vulnerability. The occupation of civic amenities, public buildings and community spaces has also had a direct impact on emergency preparedness, evacuation and humanitarian response. Using media reports, case studies, and oral narratives, the report explores the causes and impacts of the flooding, and local community responses, in terms of survival, rescues and relief. It also presents an analysis of the dominant media framing of the disaster, and the local resistance to media narratives of the militarised humanitarianism of the Indian occupying forces. This report thus raises questions of accountability, governance, media representation, political participation and democracy in the backdrop of a militarised occupation, at the disputed borders of a security state.