

Sexual and Reproductive Health in Crisis Situations- India's Case Study

Introduction

In 2015, Asia region reported most number of natural disasters globally. Within Asia, India reported the second most number of disasters after China.¹ 76 per cent of people affected by natural disasters globally are reported by India and China alone.²

Floods are a recurrent phenomenon in India. According to the UNFPA Asia and the Pacific, Disaster Risk Reduction Factsheet, India is one of the most disaster prone countries globally. With a varying severity and magnitude, the floods impact various parts of the country causing immense damage of public and private property, cattle, crop and human lives. In India, an average of 7.5 million hectare of land is affected by flood each year and approximately 1600 lives are lost.³ An indicative map showing flood prone areas in India is given in *Annexure 1*. State wise break up of the map is given in *Annexure 2*.⁴

The major causes of floods in India include inadequate capacity of rivers to contain within their banks due to high flows from the upper catchment areas, varying rainfall distribution, silting of the riverbeds, reduction in carrying capacity of river channels, erosion of beds and banks leading to change in river course, obstruction to flow due to landslides, synchronization of floods in the main and tributary rivers, and retardation due to tidal effects. Cyclones, cyclonic circulations and cloud burst also cause flash floods leading to huge losses. Poor drainage facilities, excess irrigation, and increase in ground water levels due to seepage from canals also accentuate the problem.⁵

Government Initiatives for Flood Management

For flood management, Government of India (GOI), appointed a high level committee on floods in 1957, the Ministers' Committee on flood control in 1964, the Rashtriya Barh Ayog (RBA) in 1980 and the Task Force on Flood Management/Erosion Control in 2004. Of all the committees, the RBA conducted the most comprehensive research on floods across the country, took into count the recommendations made by all other committees and submitted a report with 207 recommendations in 1980. Another report by Experts' committee was submitted in 2003 with 40 recommendations, called

¹ UNISDR. "2015 Disasters in Numbers." (January 2016) Accessed on 14th May 2020 <https://www.unisdr.org/files/47804_2015disastertrendsinfographic.pdf>

² Centre for Research on the Epidemiology of Disasters (CRED). "The Human Cost of Natural Disasters- A Global Perspective." (2015) Accessed on 18th May 2020 <https://The_Human_Cost_of_Natural_Disasters_CRED.pdf>

³ National Disaster Management Authority, Government of India. "National Disaster Management Guidelines" (January 2008) Accessed on 15th May 2020 <<https://ndma.gov.in/images/guidelines/flood.pdf>>

⁴ Ibid.,3

⁵ Ibid.,3

the RBA-2003. The task force on Flood Management also submitted a report on the status of implementation of all recommendations in 2004. *Annexure 3* provides a list of all past government initiatives on flood management.⁶ Addressing the gaps in flood management and accommodating the recommendations provided in both the report, the government of India established **Guidelines for Flood Management**. *Annexure 4* provides details on the approach to these guidelines.⁷

Flood Control, as a subject does not figure in any of the three legislative lists in the Constitution of India. Therefore, flood control is the primary responsibility of states (federal system).⁸

- The *National Disaster Management Authority (NDMA)*, the main body under the Government of India, is responsible for laying down the policies, plans and guidelines for disaster management. *The Disaster Management Authority Act of 2005*, laid down the institutional, legal, financial and coordination mechanisms at the national, state, district and local levels. There are several other national institutions and agencies for flood management.⁹
- At the state level, disaster management departments or commissioners manage the rescue and relief operations during floods. There is also *State Disaster Management Authority* headed by the Chief Minister of the state (which coordinates with NDMA). Even at the state level, there are several other institutions and agencies for flood management.¹⁰

Flood Prevention and Preparedness

- For flood prevention, preparedness and mitigation, flood management measures have been categorized into structural measure; which are physical in nature with the goal to prevent flood waters from reaching potential damage centers, and non-structural measures; which are implemented with the strive to keep people away.¹¹
- Medical preparedness in the guideline focuses on addressing after effects of floods on health – casualties, addressing water and vector borne diseases, infections and psychological trauma or stress. Hence the preparedness includes, creating awareness about illnesses and other health problems during floods, creation of medical response teams for first aid, identification of medical stores for medical kits including IV fluids, vaccines, anti-snake venom, anti-diarrhea medicines and first aid material, and preparation of disaster management plans by all hospitals.¹²

⁶ Ibid.,3

⁷ Ibid.,3

⁸ Ibid.,3

⁹ Ibid.,3

¹⁰ Ibid.,3

¹¹ Ibid.,3

¹² Ibid.,3

Flood Response

- For floods response, emergency logistics focuses on equipment like rubber boats, life jackets and other life safeguarding equipment. Additionally, the emergency logistics focuses on setting up of relief camps and identification of deceased.¹³
- Medical response in the guidelines focuses on emergency treatment at site of the flood, immediate medical treatment for those rescued from drowning, mortuary facilities and disposal of deceased bodies, protection of water sources from contamination, managing psychological effects and documentation of medical response.¹⁴

The national guidelines on disaster management –management of floods does not include measures on Sexual and Reproductive Health (SRH) in prevention, preparedness or response. As mentioned in this section, the approach does not focus on prioritizing the needs of vulnerable groups like women, children or elderly. Additionally, there are no provisions to provide designated safe spaces for women and children.

Sexual and Reproductive Health during Floods

During floods, the challenges faced by women and girls, pertaining to their sexual and reproductive health needs are magnified. Given the lack of space, facilities and basic necessities, women are unable to manage monthly menstruation in a safe, private and dignified manner.¹⁵ Additionally, in crisis situations, one in every five women in the childbearing age is likely to be pregnant. The risk of fatality and labor complications intensify during this time due to limited healthcare services.¹⁶ Other challenges include limited or no use of private and public toilets (since many are destroyed or submerged in water), rampant open defecation and compromised personal hygiene. Disasters also exacerbate the gender-based violence, including sexual exploitation and abuse.¹⁷

¹³ Ibid.,3

¹⁴ Ibid.,3

¹⁵ Sommer M., Schmitt M.L., Ogello T. et al. “Pilot Testing and Evaluation of a Toolkit for Menstrual Hygiene Management in Emergencies in Three Refugee Camps in Northwestern Tanzania.” (May 2018) Accessed on 17th May 2020 <<https://jhumanitarianaction.springeropen.com/articles/10.1186/s41018-018-0034-7>>

¹⁶ UNFPA. “Responding to Emergencies across Asia and the Pacific” (2020) Accessed on 15th May 2020 <https://asiapacific.unfpa.org/sites/default/files/pub-pdf/FINAL%20-%20UNFPA%20Responding%20to%20Emergencies%20%28Aug%202016%29_0.pdf>

¹⁷ Ibid.,16

“Gender-based violence prevention and response is needed everywhere, all of the time, but especially in emergencies; because unless you have measures specifically focusing on women and girls trying to prevent gender-based violence, it doesn’t happen- nothing happens. It really is a life-saving intervention.” – Ruth James, Gender-based Violence Specialist, CANADEM

Furthermore, serious barriers to Menstrual Hygiene Management (MHM) during emergencies are taboo, shame and secrecy associated with menstruation. Women and girls feel ashamed and uncomfortable to speak about their needs and challenges during these times.¹⁸

Methodology

This paper combines findings from secondary research and qualitative data collection in two states in India – Assam and Odisha. An extensive literature review has been undertaken to gather and assimilate evidence on – (a) causes and impact of floods in India; (b) government guidelines and measures on disaster management; (c) SRH service access challenges faced by women and adolescents during floods; and (d) service provision and state response during floods in two states in India. The primary data collection comprised of interviews with SRH experts in Assam and Odisha. The questionnaire for the interview (*Annexure 5*) was developed and designed by Feminist Alliance for Rights (FAR), Center for Women’s Global Leadership and Forum for Women, Law and Development.

¹⁸ Schmitt M.L., Clatworthy TD. et al. “Understanding the Menstrual Hygiene Management Challenges Facing Displaced Girls and Women: Findings from Qualitative Assessments in Myanmar and Lebanon.” (October 2017) Accessed on 17th May 2020 <<https://doi.org/10.1186/s13031-017-0121-1>>

SRH during Floods in Assam

Assam is the largest (population wise) northeastern state in India. It is bordered by Bhutan. The Brahmaputra and Barak rivers cover the northeastern states, particularly Assam. Due to heavy rainfall every year during monsoons, the state is prone to floods. As a result, the state had implemented short-term measures, like new embankments, gap closures, raising and strengthening of existing embankments, anti-erosion works, drainage development and raised platforms. For long-term measures, the state expedited work on eight major dams in the region and conducted surveys. The state also worked extensively to gather satellite images of different regions in the state to identify hazard zones. The findings show, floods between 1998-2007 affected 28.31 per cent of land in Assam.¹⁹ The Assam State Disaster Management Plan (ASDMP) lists the disaster management roles and responsibilities for all state departments. *Annexure 6* lists out the roles and responsibilities of Health Department during floods.²⁰ In this plan, there are no provisions for the health department to particularly work on SRH.

“In Assam, we have a history of insurgency, internal displacement caused by conflict and annual floods which just adds to the challenges in the region. The state is a protector in charge of maintaining law an order and security during such emergencies. When it comes to relief and response, it has the entire state apparatus to lead operations.”²¹

Assam faced one of the worst floods in 2017, which affected more than 15 districts. There were three recurrences of floods with sporadic rainfall.²² The study findings shared by our expert is based on an on-ground survey conducted post 2017 floods in three of the effected districts of Assam. The major findings of the survey revealed the following:

- In one of the districts, it was noted that some women, even in relief camps and temporary shelters, religiously followed menstrual taboos. Menstruating women were expected to keep a distance from men of the family and follow separatist customs like eating from separate utensils, washing their hair only after three days of menstruation and sleeping and sitting in isolated places. The notion of menstrual blood to be impure was continually practiced by women in relief camps.
- The separation of women from family members increased their risk of

¹⁹ Disaster Management Support Division, Indian Space Research Organization and National Remote Sensing Centre. “Flood Hazard Atlas for Assam State- A Geospatial Approach.” (July 2011) Accessed on 19th May 2020 <https://ndma.gov.in/images/guidelines/Assam_Flood_Hazard_Atlas.pdf>

²⁰ Assam State Disaster Management Authority, Government of Assam. “Assam State Disaster Management Plan.” Accessed on 19th May 2020 <<http://sdmassam.nic.in/pdf/asdmp.pdf>>

²¹ Bhattacharjee Mayuri. “Expert Interview.” 8th May 2020

²² ReliefWeb. “India: North-east (Assam and Manipur) Floods DREF Operations Final Report.” (February 2018) Accessed on 17th May 2020 <<https://reliefweb.int/report/india/india-north-east-assam-and-manipur-floods-dref-operations-update-n-mdrin018-final>>

kidnapping, abuse or trafficking. Additionally, it added unwanted mental stress for many women.

- Menstrual hygiene practices were often compromised in tough conditions of a shelter. Sanitary Napkins were distributed as relief materials by local humanitarian agencies but many women were not used to using sanitary napkins. They continued to make their own local arrangements to use old cloth.

The National Family Health Survey (NFHS-4) report on Assam sheds some light on usage of hygienic menstrual products by women between 15 and 24 years of age. According to the survey, 79 per cent use cloth, 29 per cent use commercially available sanitary napkins, 14 per cent use locally prepared napkins and 3 per cent use tampons.²³ This data reflects the standard practices around menstrual products in Assam.

Upon asking about the negative impact of floods on women's access to sexual and reproductive health services, health and other aspects of their lives, Mayuri explained, *"I will speak of my experience on menstrual health... Women often feel ashamed to ask for Sanitary Napkins if men are leading the relief efforts. Apart from this there is a feeling that menstrual health or sexual reproductive health are not survival issues such as food, water and shelter, therefore any deeper discussion on these topics is not encouraged."*²⁴

- Disposal of the used cloth remained an issue. Some women threw without washing the cloth due to lack of access to water. However, over 50 per cent of women preferred to wash their cloth before disposal and managed to create a private space within the relief camps.
- Of those who used sanitary napkins, 32 per cent burnt the soiled napkins, whereas 43 per cent buried them in secluded parts of the camp. More than 20 per cent disposed pads in plastic bags and weighed these down with pebbles so that it does not float in the flooded water.²⁵
- When asked about toilet use, one of the initial reactions were, *"we could not even eat, let alone use toilets."* Some women mentioned limited food supplies at the shelter while other claimed eating less to avoid using toilets. More than 40 per cent women practiced open defecation during the floods. Women avoided using toilets as there were limited facilities and there were no separate facilities for women, which was a compromise of their privacy and dignity. This was despite the guidelines by Assam State Disaster Management Authority to build separate toilet facilities for men and women.

²³ Ministry of Health and Family Welfare. "National Family Health Survey- Assam." (2015-2016) Accessed on 19th May 2020 <<http://rchiips.org/nfhs/NFHS-4Reports/Assam.pdf>>

²⁴ Idib.,21

²⁵ Bhattacharjee Mayuri. "Menstrual Hygiene Management During Emergencies: A study of Challenges Faced by Women and Adolescent Girls Living in Flood-prone Districts in Assam." (2019) Accessed on 10th May 2020

- Uneven distribution of relief supplies was also reported. Lack of proper bathing facilities led to skin and urinary tract infections among women.²⁶

“I started my periods the day the water started flowing in our house. Our priority was to be relocated to a safe location. Some local youths came to help us in the evening. I wanted to change my menstrual cloth but we didn’t have enough time. I was lifted up by one of the rescuers so we could leave faster. The temporary shelter was not far away from my house, so I decided to come back to get a clean cloth when the waters receded a bit. I was uncomfortable, as my cloth had got soaked. It was an added discomfort in the crowded camp. I could not think of anything else. When morning came I quietly went to my house and managed to find a piece of dry cloth. I kept the soiled cloth in a plastic packet and came back later to wash it.” – Sapna Das, 17 (describing the challenges of a menstruating women during an emergency)

Major gaps in relief measures related to SRH are documented by non-governmental organizations. *“I would say various NGOs do try to map out responses during floods and distribution of sanitary pads is one line item in their matrix.”²⁷*

Upon asking about legal frameworks being utilized, Mayuri responded, *“I am not aware of any legal framework being used in Assam to address the SRHR of women in crisis situations. Due to taboo nature of menstrual health legal recourse has not been explored yet. However, there are Sphere Standards which are based on a rights based framework, talk about addressing menstrual hygiene needs of women and lay down some minimum standards for it.”²⁸*

²⁶ Idib.,25

²⁷ Idib.,21

²⁸ Idib.,21

SRH during Floods in Odisha

Odisha is a south-eastern coastal state in India. The state has a 482 kilometers long coastline along Bay of Bengal. It is Mahanadi, Brahmini, Baitarni, Rushikulta, Vansadhara and Subarnarekha rivers that makes Odisha and the region prone to floods. Primary causes of floods in the region are cyclonic storms, heavy monsoon rainfalls and storm surges. Odisha is placed in the 6 most cyclone prone areas in the world. In the recent times, Odisha has been worst affected by cyclone FANI followed by floods, leading to 64 deaths and affecting 16.5 million people in over 18,388 villages. Due to this cyclone, power, telecommunication, infrastructure and road services were severely affected.²⁹

“Floods and cyclones hit Odisha almost every year. This worsens with the remoteness of certain locations as till now many parts of Odisha are in hilly terrain and without accessible roads.”³⁰

The Odisha State Disaster Management Authority (OSDMA), has ensured many measures towards a disaster resilient state.

“Odisha is one of the more prepared states in India when it comes to disaster management. OSDMA plays a proactive role in all disaster. Before the FANI cyclone, adolescent girls received sanitary napkin much before the schools were closed for cyclone.”³¹ However, there remain SRH challenges those need to be addressed. The experts reported the following negative impacts of the floods on women’s access to sexual and reproductive health:

- During floods, pregnant women suffered in terms of accessing sanitation services. In most of the flood prone areas, the toilets were constructed on a high platform (as a disaster resilient model). Thus, pregnant women faced issues with climbing up and accessing the toilets, especially because they needed to use the toilet more frequently.
- Public toilets during floods get either submerged or destroyed. Hence, the use of toilet gets limited.
- Additionally, accessing medical facilities is often a challenge for women. Given this, domiciliary deliveries are frequent, which could be life threatening under unhygienic circumstances. During floods, many government hospitals also got water logged. In those conditions, even the institutional deliveries were conducted in an unhygienic manner.

“.. however, post FANI period, many institutional deliveries increased as the health department was prepared for the post-emergency action. Frontline health workers played a major role in shifting pregnant mothers to hospitals.”³²

²⁹ United Nations India and World Bank. “Cyclone Fani- Damage, Loss and Needs Assessment.” (May 2019) Accessed on 21st May <<https://www.osdma.org/publication/cyclone-fani-2019-dlna-report/>>

³⁰Bhanja Bishakha. “Expert Interview.” 16th April 2020

³¹ Dr. Pradha Mamata. “Expert Interview.” 15th April 2020

³² Ibid.,31

- Access to toilets in relief camp remained a challenge. Disposal of sanitary napkins was in the open as there were no designated spaces for disposal. The use of incinerators was not possible due to the floods as most of them didn't function due to power cuts. Also, in some communities, there was a taboo related to burning of sanitary napkins so they openly disposed it in water bodies.
- During the distribution of relief material, caste and class politics played a role. The relief supplies were first provided to the rich and the poor remained neglected.
- Documentation remained a challenge. *“In my knowledge, there is not any studies in Odisha which can show the co-relation between calamities like flood and health of pregnant women and newborn babies. I am sure the risks of infection of both mother and child increases.”*³³

Recommendations

The state or national disaster management guideline does not address aspects of SRH explicitly. Even the relief support provided to women, pertaining to their health needs, is provided by non-governmental or humanitarian organizations. Given flood is a yearly phenomenon; pre-emergency preparedness must increase upon warnings from the meteorological department.

- Identification of marginalized households is crucial during floods. They should be provided targeted assistance, especially in women-led households. No discrimination based on caste or class should be followed.
- District wise medical plans should be prepared to address emergencies. Sexual and reproductive health elements must be addressed in the plans.
- As indicated in NFHS findings, women mostly use cloth in rural Assam and Odisha during menstruation. Hence, providing sanitary napkins during floods does not help them adapt their menstrual behavior and choices. Therefore, the medical kits provided to women during emergency, should include items of their need. Women should be surveyed on their preferences of menstrual product use.
- The medical staff should be trained on sexual and reproductive health and women frontline workers should be deployed to ensure women could comfortably receive medical support or relief kits.
- Disposal of menstrual waste is noted as a challenge in both states; hence proper disposal mechanisms must be established during relief work to ensure eco-friendly disposal practices. The disposal spaces should be identified near the relief camps so that women do not have to walk a long distance.
- Database of pregnant women must be maintained to ensure relief and medical support is reached first to women in third or fourth trimester, followed by other pregnant women. They must be shifted to hospitals for emergency care.

³³ Ibid.,30

- In the longer term, women self-help groups should be supported financially. Different skill building programs should be organized for women in a targeted manner.
- Relief or shelter camps designs should be revised to enhance the comfort of women. Separate spaces should be allocated for menstruating women, pregnant and lactating women. Visits by government departments must be made to ensure safety of women and adolescents in camps.
- Special care needs to be given to people affected with diseases like HIV/AIDs or infections like UTIs and RTIs.
- Gender sensitive approach must be incorporated in the state and national guidelines. Since most of these documents were written in early 2000s, SRH needs and importance are not highlighted. Comprehensive guidelines on addressing SRH needs of women and adolescents should be included.
- All above recommendation should also have a special focus on women with disabilities.

Assam Specific

“I feel there are opportunities to work more on menstrual health during crisis as there are regular consultations on menstrual health in the civil society and sometimes these are led by the government.”³⁴

- To address the taboos related to menstruation, awareness sessions should be held with the communities. Furthermore, trainings for the medical staff must include components of SRH.
- There is a need for separate toilet facilities for men and women. Women should have access to private spaces to manage their menstrual cycles with safety and dignity.
- Local solutions need to be devised with the community members to collectively address the challenges during floods. External WASH and MHM solutions are inappropriate for local populations. Hence, emergency strategies for women should come from them.

Odisha Specific

- Government of Odisha has provision for establishing alternative support infrastructure for addressing communication problems in difficult and inaccessible pockets for ensuring institutional delivery. The MAA GRUHA's (Maternity Waiting Homes) were established especially for people living in most difficult and inaccessible pockets to increase institutional delivery, which will ultimately minimize maternal and newborn mortality and morbidity. MAA GRUHA's are temporary homes for expectant mothers where they can wait for safe delivery preferably 7 -10 days before their expected dates of

³⁴ Idib.,21

delivery. On the onset of labor, they are shifted to nearby health facility having basic facilities for delivery. These Maternity Waiting Homes can also be used during disaster emergencies based on the early warnings by the meteorological department.³⁵

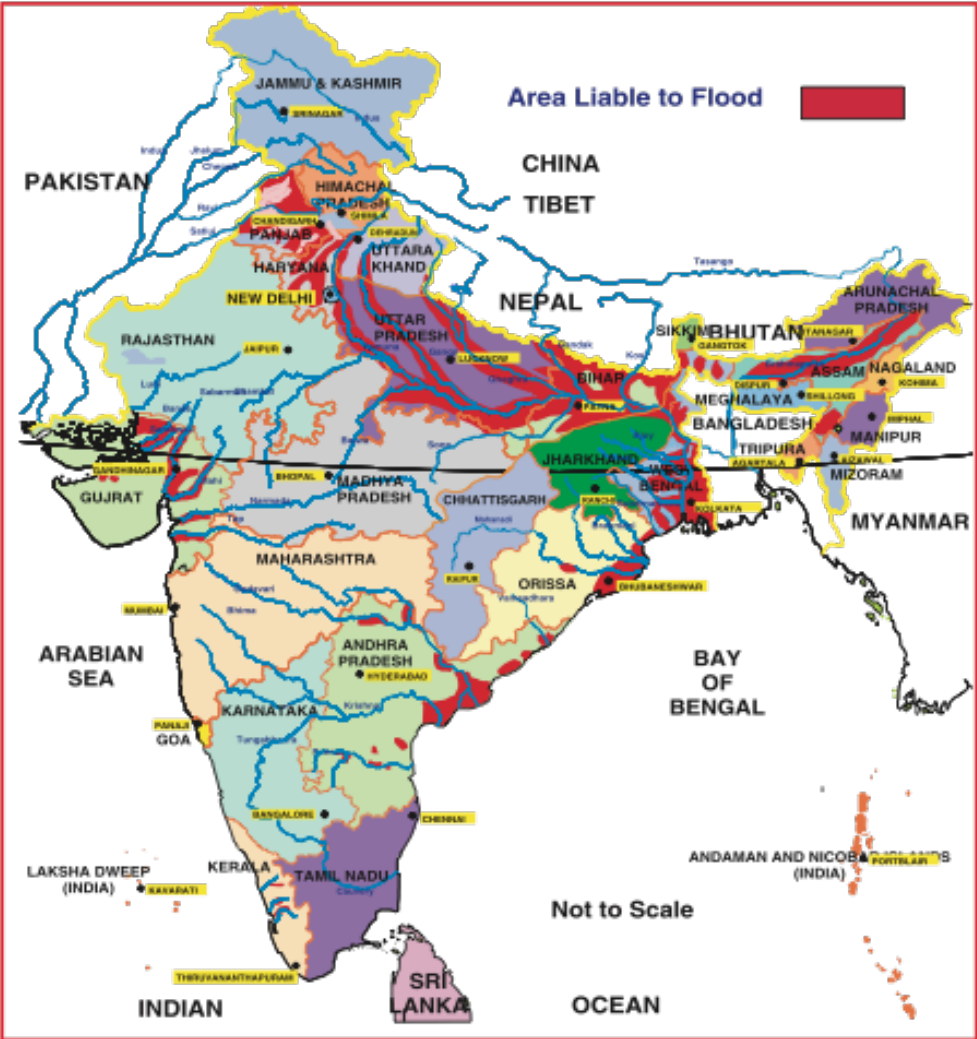
- Odisha's state disaster management policy (*see Annexure 7*) mentions under 3.3.6, "special needs of women will be adequately addressed."³⁶ This open-ended policy keeps the emergency support and relief work for women unaddressed in some cases or under-addressed in most cases. Specific guidelines on sexual and reproductive health must be included in the policy.

³⁵ Ibid.,30

³⁶ Odisha State Disaster Management Authority. "Towards a Disaster Resilient Odisha." (2014) Accessed on 21st May 2020 <<https://www.osdma.org/publication/disaster-resilient-odisha-osdma/>>

Annexure 1
Flood Prone Areas in India

AREA LIABLE TO FLOODS



Annexure 2
Flood Prone Areas in India- State-Wise Break-Up
(Area in lakh hectares)

Sl. No.	Name of States/UTs	Area prone to floods as assessed by RBA	Flood prone area as reported by States to the 11th Plan Working Group
STATES			
1	Andhra Pradesh	13.90	34.80
2	Arunachal Pradesh		0.82
3	Assam	31.50	38.20
4	Bihar	42.60	68.80
5	Chattisgarh	-	-
6	Delhi (NCT)	0.50	0.70
7	Goa	-	-
8	Gujarat	13.90	20.50
9	Har yana	23.50	23.50
10	Himachal Pradesh	2.30	2.31
11	Jammu & Kashmir	0.80	5.14
12	Jharkhand	-	-
13	Karnataka	0.20	9.00
14	Kerala	8.70	14.70
15	Madhya Pradesh	2.60	3.37
16	Maharashtra	2.30	3.30
17	Manipur	0.80	0.80
18	Meghalaya	0.20	0.95
19	Mizoram	-	0.54
20	Nagaland	-	0.09
21	Orissa	14.00	33.40
22	Punjab	37.00	40.50
23	Rajasthan	32.60	32.60
24	Sikkim	-	0.20
25	Tamil Nadu	4.50	4.50
26	Tripura	3.30	3.30
27	Uttar Pradesh	73.36	73.40
28	Uttarakhand	-	-
29	West Bengal	26.50	37.66

Annexure 3

Past Initiatives of Government of India

The Government of India (GOI) has taken a number of initiatives in the field of Flood Management and appointed many committees/working groups/task forces to look into the problem of floods and suggest remedial measures for their management. Some of the important committees/ working groups/task forces appointed and the policy statements made by the GOI are listed as follows:

1. The Policy Statement – 1954 and Supplementary Statement -1956.
2. The High Level Committee on Floods – 1957 and Policy Statement of – 1958.
3. The Ministers’ Committee on Flood Control - 1964.
4. The Working Groups on Flood Control for the Five-Year Plans.
5. The Rashtriya Barh Ayog – 1980.
6. The Pritam Singh Committee Report – 1980.
7. The National Water Policy -1987.
8. The Report of the Committee on Flood Management in the North-Eastern States – 1988.
9. The Report of the Committee on FM in the states of Bihar, West Bengal, Uttar Pradesh and Orissa – 1988.
10. The Regional Task Forces -1996.
11. The Experts’ Committee for Bank Erosion Problem of River Ganga-Padma in the Districts of Malda and Murshidabad in West Bengal -1996.
12. The National Commission for Integrated Water Resources Development Plan - 1999.
13. The Expert Group for Flood Management in Uttar Pradesh and Bihar – 1999.
14. The Working Group on Flood Control Programme for the Tenth Five-Year Plan – 2001.
15. Report of the Committee on Silting of Rivers in India – 2002.
16. National Water Policy – 2002.

17. The Expert Committee to Review the Implementation of the Recommendations of Rashtriya Barh Ayog – 2003.
18. The Committee for Identification of critical Anti-Erosion Schemes of Ganga Basin States for Inclusion in centrally sponsored scheme to be implemented during Tenth Plan – 2003.
19. Report of the Technical Group on Flood and Erosion Problems of North Bengal – July 2004.
20. The Task Force on Flood Management/ Erosion Control -2004.

Annexure 4

Approach to Guidelines

1. Though sufficient knowledge about floods and their management is available with different organizations and the communities and the problem of floods has been studied by a number of committees, task forces, working groups and commissions and recommendations have been made about the measures for their management, yet there are no set guidelines to be followed by the various central ministries and departments, state governments and other stakeholders, on the basis of which, they can formulate their flood management plans (FMPs). These guidelines have been formulated to address this gap.
2. With the enactment of the Disaster Management (DM) Act in December 2005 and constitution of the NDMA, there has been a paradigm shift from erstwhile relief-centric approach to the entire DM continuum with equal emphasis being given on preparedness, prevention and mitigation along with response and relief.
3. The FM guidelines emphasize on measures for preparedness, prevention, mitigation in the pre-floods stage and on prompt and effective response, relief and recovery during – and post floods stages.
4. The emphasis of the state governments has so far been on structural measures of FM requiring huge investment and long gestation period. They have not given due importance to non-structural measures, which are very effective in reducing loss of life and properties and do not require huge investment and can be implemented in a short time. These guidelines emphasize on their time bound implementation by the central ministries and departments and the state governments.
5. The guidelines recognize the fact that there is a lack of coordination among the agencies of the central government and the state governments as well as among the various departments of the state government. These also recognize lack of institutional framework for coordinating the efforts of various agencies and lay emphasis on setting up basin-wise organizations for FM and a National Flood Management Institute (NFMI) for training, education and research in FM. The mechanisms for inter-state and intra-state coordination have also been proposed.
6. The financial aspects for implementation of FMPs by the central ministries and departments and the state governments have also been covered in the guidelines.
7. The guidelines have been evolved with the active participation of all the stakeholders i.e the central ministries and departments, the state governments, academics, experts, NGOs, corporate sector and eminent people.
8. The timelines proposed for the implementation of various activities in the guidelines are considered both important and desirable, especially in case of those non-structural measures for which no clearances are required from central or other agencies. Precise schedules for structural measures will,

however, be evolved in the FMPs that will be formulated at the central ministries/states level duly taking into account the availability of financial, technical and managerial resources. In case of compelling circumstances warranting a change, consultation with NDMA will be undertaken, well in advance, for any adjustment, on a case-to-case basis.

9. The guidelines will lead to the formulation of FMPs by the central ministries and departments, the state governments and other stakeholders, implementation of which is expected to assist the process of minimizing vulnerability to floods and consequent loss of lives, livelihood systems, property and damage to infrastructure and public utilities and thus make India flood resilient.

Annexure 5
Questionnaire for Primary Research

Consultative session on the effects of Gender-Based Violence on Sexual and Reproductive Health and Rights in contexts of crisis and human insecurity
Kathmandu, Nepal

January 14, 2020

Guiding questions

1. Which situations of crisis and insecurity are affecting the region?
2. How do you see the role of the State in these situations?
3. How have these crises negatively impacted women's access to sexual and reproductive health services and as well as their health, other aspects of their lives and decision-making?
4. What has been documented and what remains neglected in terms of official responses?
5. What legal frameworks are being utilized? Is there the possibility of legal remedies and reparations?
6. What are the opportunities and gaps How is the backlash in the region impacting women's and girls' access to sexual and reproductive health?

Annexure 6

Disaster Management Roles and Responsibilities for Health Department, Assam

Department/Agency	Disaster Management Roles and Responsibilities
Health and Family Welfare Department	<ol style="list-style-type: none"> 1. Provide health and medical care in normal and disaster situations 2. Develop adequate health infrastructure in the state and implement programs towards improvement of health across all sections of the society 3. Deployment of medical response team in case of health emergency or disaster 4. Coordinate and transport necessary medical supplies to disaster prone areas 5. Undertake activities towards preparation of Hospital Contingency Plan for all major hospitals across the state 6. Conduct vulnerability assessment of all health facilities across the state and undertake preparedness and mitigation measures 7. Prepare mass casualty plan for the state (earthquake hazard, floods and epidemics) 8. Maintain ambulance network and networking among medical practitioners/medical institutions to facilitate quick mobility of doctors in rural areas (normal/emergency situation) 9. Undertake efforts and develop networking of hospitals for special care / mass casualty care 10. Provide training to hospital administration staff, doctors and paramedics in contingency planning, mass casualty care, networking arrangement 11. Conduct first-aid training programs with support of line departments/agencies of the State

Annexure 7

State Disaster Management Policy, Odisha

Section 3- Key Activities during the Response Phase:

3.3.1 Monitoring Committee(s): In the event of major disasters the Cabinet or a Cabinet Sub-Committee appointed by the Cabinet will take stock of the situation at regular intervals and take decisions with regard to broad strategies to deal with those. An official committee headed by the Chief Secretary will meet more frequently to monitor and deal with the situation. The SRC will coordinate with relevant departments and take prompt decisions in response matters. At the district level, the Collector will head a similar committee with concerned district level officials, experts and representatives of the Civil Society Organisations as members.

3.3.2 Objective of Relief: Relief activities will be designed to address the immediate needs of victims with special emphasis on the vulnerable. Care will be taken to ensure equity and fairness in relief distribution and avoidance of overlapping of efforts by various agencies.

3.3.3 Rescue & Medical care: The first priority after the impact will be to rescue and provide medical care to the people, who have been trapped, injured or marooned. If necessary, assistance of armed forces and other specialized trained groups will be solicited.

3.3.4 Relief Personnel: Officials and volunteers at various levels will be trained and updated on various aspects of emergency response and relief management. Often during prolonged periods of emergencies, relief personnel suffer from stress. Arrangements would be made for prompt and proper stress management of emergency personnel and volunteers. A database of trained personnel will be developed, updated and disseminated to concerned emergency management agencies.

3.3.5 Food & Shelter: Immediate need of food, including those for infants, potable drinking water and temporary shelter will be addressed at the earliest.

3.3.6 Health and Sanitation: All efforts including disinfection of contaminated water sources will be made to prevent outbreak of epidemic. The overall responsibility will vest with Health Department. Support from NGOs and UN organizations may be solicited. **Special needs of women will be adequately addressed.**

3.3.7 Trauma Counselling: Steps will be taken by Government and the Civil Society to counsel those who suffer from post-disaster trauma, especially women and children.

3.3.8 Surface Communication: Immediate restoration of surface communication and telecommunication will be accorded the highest priority. The Works, RD, Water Resources, H&UD departments, local self-government institutions will take up

immediate restoration of their infrastructure.

3.3.9 **Security:** Adequate arrangements will be made, if necessary, to provide security for smooth movement of relief materials. Security will also be provided in the relief camps. Cooperation of persons enjoying social esteem and local trained volunteers will be solicited.

3.3.10 **Information Sharing:** To ensure dissemination of information and to prevent spread of disinformation and rumour the SRC and the Collector will release bulletins and brief the Press from time to time keeping Govt. informed. The affected community will be provided with correct information for preventing panic.

3.3.11 **Rapid Damage Assessment:** The district administration and the concerned departments will make quick damage assessment even when the relief operations are going on. SRC will coordinate this.

3.3.12 **Transparency:** Transparency in relief, reconstruction and mitigation activities will be maintained by all agencies.

3.3.13 **Early transition to rehabilitation:** In order that human dignity is not compromised, efforts will be made to ensure a smooth and quick transition from Relief to Rehabilitation phase where food security needs would be combined with peoples' participation in creating and renovating community assets.

Annexure 8

Interview Participants

- 1) Ms. Mayuri Bhattacharjee
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