



**CASE STUDIES:
IMMEDIATE FLOOD RESPONSE
AND RELIEF EFFORTS**

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EXECUTIVE SUMMARY

In July 2010, excessive monsoon rains and weather conditions resulted in widespread flooding, which has affected all four provinces of Pakistan, as well as the Agencies, Gilgit-Baltistan and the Kashmir region. The rapid spread of floods has caused unprecedented damage to livestock, agriculture and the economy, and has precipitated a humanitarian crisis that has left over 17.5 million persons affected, according to the National Disaster Management Authority.

To help stakeholders participating in the flood relief effort, this paper analyzes the challenges posed by the flooding, researches immediate relief efforts and measures taken by stakeholders in selected cases of severe flooding. These immediate relief efforts constitute the initial or preliminary stage of disaster management and span the time period between the first week and the second month following the disaster.

To adequately address all facets of immediate response efforts, this paper assesses the following sub-areas identified as critical and immediate needs: (a) healthcare and disease prevention; (b) food, water and nutrition; (c) security; (d) evacuation and logistical rescue support; (e) temporary housing and shelter; (f) sanitation; (g) delivery of emergency provisions and aid; (h) clothing; (i) agricultural rehabilitation; and (j) education. This initial stage of disaster management precedes the reconstruction and rehabilitation planning phase, as well as the initiation of programmes to reinforce community coping strategies and establishment of early warning mechanisms.

The cases selected for comparative research and analysis (attached as Annexure-A), on the basis of geographical relevance, population density, scale of destruction and population demographics are as follows:

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|------------------------|---------------------------|
| (1) Pakistan (1992); | (4) Pakistan (2005) ; |
| (2) Bangladesh (2004); | (5) Guatemala (2005); and |
| (3) India (2005); | (6) India (2008). |

It was found, based on extended analysis of steps taken immediately by stakeholders following the afore-mentioned instances of severe flooding, that the ideal responses were based on political and logistical expedience, organizational efficiency, rapid and timely response from international and local donors to relief needs and effective collaboration between United Nations agencies, local municipal authorities, International NGOs, local NGOs and the national government.

This paper proposes recommendations based on best practices identified from the selected case studies, which can provide benchmarks and standards for all stakeholders presently involved in the immediate relief efforts in Pakistan. If implemented correctly, the relief efforts being conducted at present can serve as an effective prelude to the rehabilitation and reconstruction phase of disaster management – ensuring a more inclusive and participatory approach to post-disaster public policy.

BACKGROUND AND OVERVIEW OF 2010 FLOODS

The following table provides a comparative look at the selected floods and the corresponding estimated damage in terms of population displaced, number of reported deaths, number of reported injured, area affected, households affected and economic damage:

	Pakistan (1992)	Bangladesh (2004)	Guatemala (2005)	India (2005)	Pakistan (2005)	India (2008)	Pakistan (2010)
Population Displaced	3.3 million+	4 million	3.5 million	4.5 million+	NR	4.5 million+	6.0 million+
Deaths	2,600	898	669	1,161	520	2,744	1,645
Injured	NA	NA	386	147	NA	NA	2,366
Area Affected (sq. km)	19,408	31,133	36,000	NR	433,500	464,300	160,000
Households Affected	350,000	858,202	34,968	NR	102,000+	NR	722,508
Estimated Economic Damage	\$1 billion	\$7 billion+	\$985 million+	\$3.5 billion	\$2.4 billion	\$10 billion+	15 billion+

* All figures are estimated and are based on OCHA, Dartmouth Flood Observatory and government data.

Since 1947, Pakistan has witnessed 67 instances of floodingⁱⁱ. Of these, three – in 1992, 2005 and 2010 – have been the most damaging, affecting over 20 million Pakistanis in sum and causing estimated economic losses of over \$15 billion.

Exceptionally high rainfall and the ensuing pressure on Pakistan's riverbeds have resulted in a flood of unprecedented and enormous proportions. According to government data, 73 of 122 districts of the country have been affected – in varying degrees – by the floods. All four (4) provinces of Pakistan – Khyber Pakhtunkhwa, Punjab, Balochistan and Sindh – have been affected, in addition to the regions of Gilgit-Baltistan, Azad Jammu and Kashmir, and the Federally Administered Tribal Areas (FATA). By September 1 2010, the National Disaster Management Authority (NDMA) had estimated that 17.6 million persons had been affected with 900,000 settled in temporary government camps in Sindh aloneⁱⁱⁱ. The provincial breakdown of the humanitarian crisis, based on United Nations figures, was as follows:

	Population Affected	Deaths	Injured
Khyber Pakhtunkhwa	4.366 million	1,105	1,135
Gilgit-Baltistan	8,561	183	60
Punjab	8.20 million	103	350
Sindh	3.741 million	133	749

Azad Jammu & Kashmir	245,000	71	87
Balochistan	1.06 million	48	98

*All figures are based on NDMA statistics.

The most vulnerable groups within the affected population – children and pregnant and lactating women (PLWs) – amounted to 14% and 8% of the total number respectively^{iv}. According to the WHO, those affected are under threat of waterborne diseases, acute diarrhea, respiratory infections, dengue fever, skin diseases and malaria. An acute shortage of medical facilities is also reported as 402 public health facilities are reported to have been destroyed^v.

The floods have also caused widespread damage to the country’s infrastructure: the International Organization of Migration (IOM) estimates that 1.2 million homes across 160,000 sq. km of land have been affected in sum. In Sindh alone, according to the Government of Sindh Provincial Disaster Management Authority, 5,026 villages in 16 districts have been affected, covering an area of 2.87 million acres of land and destroying over 200,000 cattle. Across the country, 6,643 schools are reportedly being used as temporary shelters for the displaced^{vi}. With over 10,000 schools damaged or converted to shelters, UNICEF estimates that 2 million children will go without schooling this summer^{vii}. The table below shows the extent of damage to houses in affected areas:

	Houses damaged
Khyber Pakhtunkhwa	181,433
Azad Jammu and Kashmir	7,069
Gilgit-Baltistan	2,820
Punjab	500,000
Sindh	470,910
Balochistan	75,261

*All figures are based on NDMA statistics.

Agricultural damage, in addition, has been severe. The onset of the floods coincided with the harvest of key standing crops – such as rice, maize, vegetables and sugarcane – and with the Rabbi wheat planting season, which begins in September and October. The severity of the losses is demonstrated by UN findings from Khyber Pakhtunkhwa, where 71% of the rice crop is submerged, resulting in 100% production losses; 45% of the maize crop and 26% of sugarcane was also reported submerged. In affected areas of Punjab, 82% of standing crops have been destroyed^{viii}. This devastation was particularly damaging to the flood-affected population, of which 80% rely on agriculture for subsistence^{ix}.

The table below shows the damage in affected regions to standing crops:

	Crops destroyed (Area/hectares)
Khyber Pakhtunkhwa	443,116
Azad Jammu and Kashmir	75,676
Punjab	1.517 million
Sindh	998,561
Balochistan	627,992

*All figures are based on FAO statistics.

In total, it is estimated that 1.5 million acres of rice, 1.1 million acres of cotton, 347,000 acres of maize and 255,000 acres of sugar have been affected^x.

In response to the flooding and damage, the United Nations launched a Flash Appeal for \$459.7 million for the Pakistan Initial Floods Emergency Response Plan (PIFERP)^{xi}, of which 64% – \$292 million – has been funded^{xiii}.

The July 2010 flooding, as evidenced in the table and based on latest available data, is significant for it constitutes the most damaging instance of flooding – in terms of damages to the population – both in Pakistan and the subcontinent region at large. According to the Government of Pakistan’s National Disaster Management Authority, the population affected by the 2010 floods – estimated at over 14.5 million – outnumbers the estimated population affected in sum by the 2005 Kashmir earthquake, the 2005 Katrina cyclone in the United States, the 2008 Nargis cyclone in Myanmar and the 2004 Indian Ocean Basin Tsunami^{xiii}. On 9 August 2010, the United Nations declared that the “number of people suffering from the floods in Pakistan could exceed the combined total in three recent mega disasters – the 2004 Indian Ocean Basin Tsunami, the 2005 Kashmir earthquake and the 2010 Haiti earthquake”^{xiv}.

STAKEHOLDERS	
Government	National, provincial, local and municipal administrative authorities; National Disaster Management Authority (NDMA); Provincial Disaster Management Authorities; Pakistan Poverty Alleviation Fund (PPAF) and others.
Civil and Military Defence	
International Organizations	UN Disaster Management Team (UNDMT), World Food Programme (WFP), World Health Organization (WHO), UN Children’s Fund (UNICEF), Food and Agriculture Organization (FAO), UN Development Programme (UNDP), UN Department of Safety and Security, UN-HABITAT, UNDAC, UNHCR and other relevant UN Agencies;, International Organization of Migration (IOM); International Medical Corps; JICA; World Bank, ADB; USAID; ECHO; Dfid; Swiss Agency for Development and Cooperation.
INGOs	Islamic Relief, Life for Relief and Development, Bill & Melinda Gates Foundation, The Mohammed bin Rashid Charity and Humanitarian Foundation, Save the Children, ACTED, Care, Doctors Worldwide,

	IHH Turkey, ActionAid, Concern, Cordaid, Danish Church Aid, Hope87, ICMC, CIDA, Merlin, Oxfam, Alliance 2015, Malteser International, Johanniter International, American Refugee Committee International, Caritas, HHRD, Direct Relief, American Institute for Research, Irish Aid, ICRC and others.
Local NGOs and Individuals	SRSP, Cordaid, CDO, RIPOIT, SWD, NRC, RSPN, MWDO, GSWO, BES, MWT, Alghafar Foundation, Association for Human Development, Awami Development Organization, Awaz Foundation, Dahi Taraqhiati Samaji Council, Dase Development Organization, Hayat Foundation, Human Development Organization, Kissan Foundation, NEDO, Public Welfare Organization, Sayya Foundation, SDIPK, Tipu Foundation, Youth Development Organization, Aleiman Development Organization, STEP, Women Social Organization, Sangtani WRDO, Aware Girls Peshawar, BEST, CERD, RAHBAR, Aurat Foundation, Khwendo Kor, SSTD, RANNA, HASHAR Foundation, Society for Uplifting Community, Plan Pakistan, SWEET, Bismallah Welfare Society and others.
International Donors	United States, Saudi Arabia, UK, ECC, Australia, CERF, Norway, Sweden, Japan, Germany, Turkey, Denmark, China, Spain, Austria, Switzerland, Netherlands, Finland, Canada, Kuwait, Oman, Belgium, Bahrain, France, UAE, Morocco, Italy, Russia, Brazil, South Korea, Afghanistan, Algeria, Indonesia, Malaysia, Iran, New Zealand, Luxembourg, Qatar, Ireland, Mauritius, Egypt, Czech Republic, Slovakia, Greece, Nepal, Singapore, Estonia, Thailand, Poland, Hungary, Sri Lanka, Slovenia, Azerbaijan, Iceland, India and Montenegro.
International and Multinational Corporations	

IMMEDIATE RELIEF PROGRAMMES

Oversight, Planning and Needs Assessment:

The primary response body for the Government of Pakistan is the National Disaster Management Authority (NDMA). The NDMA, alongside deployed United Nations Agencies, is currently providing direction and oversight to the Clusters responding to the following sectors: (a) agriculture, (b) camp management/coordination, (c) community restoration/early recovery, (d) education, (e) emergency shelter, (f) emergency telecommunications, (g) food, (h) gender, (i) health, (j) information management, (k) logistics, (l) nutrition, (m) protection, and (n) water, sanitation and hygiene. These Clusters incorporate local NGOs, government and municipal authorities, international NGOs and UN agencies to provide concerted relief in allotted regions. Clusters are deploying implementing organizations to conduct rapid and needs assessments, in addition to utilizing Multi-Cluster Rapid Assessment Mechanisms (McRAM). The WFP, for example, is leading a food needs assessment while UNICEF – alongside partner NGOs and local authorities – is conducting education assessments in Khyber-Pakhtunkhwa and Gilgit-Baltistan^{xv}. Needs assessments are also being conducted by INGOs, which have deployed assessment teams across the country; ACTED and Alliance 2015 partners, for instance, has identified 483,000 extremely vulnerable households in affected regions.

Procurement of Aid and Donations:

64% of the \$459.7 million United Nations Flash Appeal, according to OCHA figures, has been covered by international and local donors^{xvi}. Additionally, the Government of Pakistan has initiated the Prime Minister's Relief Fund to encourage local donations. Due to mistrust in government accountability, the fundraising efforts of local NGOs and Army camps are proving more successful in eliciting aid in the form of cash and critical need items.

Early Evacuation, Relief and Security Operations:

Major relief, rescue and search operations were conducted by the armed forces; the Pakistan Army established temporary relief camps and provided logistical support to the NDMA, Clusters and NGOs. Additional helicopters and immediate relief provisions are being provided by the United States military and USAID. Security support for United Nations agencies is also being provided by the United Nations Department of Safety and Security (UNDSS). The Emergency Shelter cluster, comprising of 40 aid agencies, coordinated by the IOM, is working with the NDMA to provide shelter for 1.13 million victims; additional shelter provisions are being procured for 2.5 million additional persons^{xvii}. The current overall coverage is estimated at 14%, with over 115,500 tents and 90,800 tarpaulins to over 160,800 households^{xviii}; however, needs may grow exponentially if IDPs leave host family support due to insufficient provisions. Relief camps for displaced persons are also being maintained by local and international NGOs, religious organizations and provincial governments. Logistics support is being coordinated by the Logistics Cluster, in collaboration with the armed forces, WFP, UNHAS and Joint Aviation Operations Group^{xix}. UNDAC and WFP are leading emergency telecommunications cluster in various cities and are providing emergency response training in Islamabad to relief workers. Registration of displaced persons is being conducted by NDMA in collaboration with the Protection Cluster.

Food, Water and Nutrition Needs:

The Food Cluster has provided emergency rations in 37 districts to 2.65 million beneficiaries^{xx}, though it is constrained by limited access, logistical restrictions and unfulfilled donor pledges. The WFP is reporting a shortage of \$90 million in its food assistance operation^{xxi}. Support has been provided by INGOs such as Islamic Relief, which is providing clean water to 3,150 people daily, food packs for families, cooked food and household kits; ACTED has provided 232 MT of food rations to 2,703 households. The WASH cluster, alongside the Government of Pakistan, has provided drinking water to 2.55 million people through tankers and repaired tubewells; water purification tablets, bottled water, soap, jerry cans and water purification plants have also been provided^{xxii}. The WASH and Food Clusters are initiating inter-cluster linkages with Health and Nutrition Clusters, though the relief effort is constrained by information management gaps and procurement delays. The Nutrition Cluster has also been deployed to conduct assessments for the most vulnerable groups – children and pregnant or lactating women (PLWs).

Health and Disease Prevention:

The Government of Pakistan has instituted a Steering Committee headed by the Federal Secretary of Health to streamline health relief efforts in coordination with the Health Cluster^{xxiii}. The Cluster has treated 3.7 million victims to date, providing medicines for 3.4 million and has established 60 diarrhea treatment centers^{xxiv}. With the UNFPA, it has provided emergency reproductive health services and consultations

to 59,664 victims. An expanded immunization programme has simultaneously been launched in Peshawar, Charsadda, Nowshera and D.I.K to vaccinate vulnerable children. The International Medical Corps (IMC) is providing psychosocial treatment to individuals in relief camps through its support staff. Medical workers have also been deployed by international donors, such as the Government of China to assist current efforts. The provision of medical aid is being constrained by a lack of funding and availability of female practitioners to treat the 100,000 at-risk women identified by Save the Children. 3.7 million consultations have additionally been conducted by the USAID Disease Early Warning System (DEWS) in four provinces^{xxv}; DEWS and WHO reported that 13% of victims have acute watery diarrhea, 18% had skin infections, 13% victims of acute respiratory tract infections and 2% are suffering from malaria^{xxvi}. INGOs, such as HHRD and the UAE Red Crescent, are operating health facilities in affected regions. The Protection Cluster, led by UNFPA and UNHCR teams, is establishing welfare and psychosocial support centers for victims.

Child Support and Education:

95 Temporary Learning and Recreation Centers have been established in relief camps by UNICEF in collaboration with local authorities for 12,782 children^{xxvii}. Additional psychosocial support is being provided by the Protection Cluster, which is also coordinating with NDMA to protect at-risk children. UNICEF has also recommended the establishment of child friendly spaces and creation of public awareness campaigns on abuse and domestic violence.

ANALYSIS

The case studies – outlining in considerable detail the immediate responses of implementing stakeholders to incidents of major flooding – provide snapshots of various aspects of the short-term disaster management process. In examining and analyzing the measures adopted by responsible stakeholders in these situations, this paper seeks to highlight key issues critical to the successful implementation of immediate relief efforts:

1	Rapid mobilization of government bodies, relevant ministries and response groups
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The case studies point to the critical importance of state institutions in organizing, coordinating and directing disaster management. In all six (6) case studies, the rapid response of national governments played an important part in mitigating risks and creating an institutionalized disaster response system. The measures taken by the Government of India during the 2008 floods, in particular, showed that a government-led relief effort can be successful if driven with urgency and efficiency. The National Disaster Management Authority, in that instance, was deployed alongside the defence forces at the initial stages of the process, assisting in evacuation and relief efforts. In this way, the Authority was involved as an implementing and oversight body throughout the disaster management process. A parallel role was played by the National Coordinator for Disaster Reduction (CONRED) in Guatemala.

An effective government-led strategy, therefore, incorporates the existing institutional framework, urgent resource mobilization, clarity in roles and responsibilities of

relevant ministries and, most importantly, the political will to initiate an urgent response.

2	Increased delivery capacity through collaboration between NGOs, international organizations, INGOs and state institutions
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The successful provision of relief items, particularly in response to food insecurity and health risks, was largely dependent upon collaboration between implementing stakeholders in the field. In all the cases studied, the operations carried out by United Nations agencies, such as the WHO and WFP, greatly supplemented and even led relief provision to affected populations. In addition, the grassroots action initiated by NGOs and INGOs – such as the training of volunteers by CARE to support relief camp management during the 2008 India floods – supplemented government efforts.

Harnessing the ability of NGOs and INGOs to stir grassroots action and encourage community participation through collaboration visibly increases the delivery capacity of the government. The initiative taken by the Government of Bangladesh's NGO Affairs Bureau in providing a multiparty platform for engagement may provide a benchmark for future disaster management efforts, for it raises the possibility of effective resource allocation and a more participative strategy. A second option in this regard is the UNDMT initiative during the 1992 Pakistan floods to coordinate efforts between the Asian Development Bank and stakeholder NGOs.

If supported by a logistical network that enables information sharing and knowledge management, collaboration between NGOs and the state apparatus can be particularly effective. The role of the UNV in Guatemala in creating and maintaining a database of accessible information is an example. Such measures can prevent duplication of relief programmes and raise the possibility of beneficiary-led relief initiatives – strengthening the process of disaster management.

3	Integration of local stakeholders for participatory assessment and implementation
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Successful integration of stakeholders at stages raises the possibility of effective implementation. Within the disaster management process, the most effective approaches are seen to (i) find contextual information through detailed assessments, (ii) raise beneficiary participation, (iii) mitigate short-term risks of flooding and (iv) institute livelihood support programmes through decentralized governance structures. The practice of establishing village committees for disaster management in Bangladesh through collaboration between NGOs and local authorities, for example, is acknowledged to have empowered women and affected communities in rural areas.

This strategy, however, requires effective local and municipal institutions, supplemented by locally active NGOs and international organizations. Through the decentralization of authority to local territories, the disaster management process benefits from localized knowledge and community ownership.

4**Effective management, prioritization of emergency needs and vulnerabilities**

The successful distribution of relief items, particularly in response to health risks, sanitary requirements and food insecurity, was seen to be critical in all cases studied. In most instances, United Nations agencies were able to use the results of rapid assessments to identify critical need areas and successfully manage distribution activities. During the 2008 India floods, for example, UNICEF and Relief Commissioners – in order to address high-need regions – agreed to concentrate relief operations in two (2) districts of Andhra Pradesh and one (1) district in Karnataka. In this case, prioritization based on rapid assessments allowed implementing stakeholders to effectively distribute resources.

Successful management and prioritization was evident in government-led initiatives as well. The Ministry of Food and Disaster Management in Bangladesh, for example, was able to address multiple needs, including the disbursement and allocation of aid. Through the MoFDM, the Government of Bangladesh distributed up to 2,650 MT of rice and food provisions, while supplementing these efforts with the establishment of a Vulnerable Group Feeding Programme. In prioritizing high-need areas and managing existing ministries, the government of Bangladesh was able to establish safety nets for the affected population.

5**Strategic Long-term Disaster Management Planning**

Effective strategic policy planning, as evidenced in the Guatemala and 2008 India case, was driven by the view that the immediate relief operation represented just the opening phase of a longer disaster management process. The role of the National Planning Secretariat (SEGEPLAN) and the National Strategic Planning System (SINPET) during the immediate relief operations signified a strategic inclination to prepare the ground for the second phase – reconstruction and rehabilitation – to commence immediately after emergency relief had been provided to affected citizens. Both agencies were provided mandates to conduct evaluations of damages and needs, and to elaborate plans for the second phase of the process.

By initiating the second phase of the disaster management process, the implementing stakeholders were able to forecast requirements and prepare accordingly. The most important benefit of long-term strategic planning is the possibility it provides of harnessing the reconstruction process into sustainable development for affected regions.

RECOMMENDATIONS

All stakeholders in the disaster management process must focus on rapid implementation of necessary actions to meet the critical needs of the victims. To ensure that the immediate relief provision phase is successful in this aim, it is recommended that the following measures be taken within the next two (2) months:

1	Increased Inter-Cluster coordination
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The scope and areas of concern for Clusters established by local and international stakeholders overlaps greatly in most instances. At present, the inter-cluster coordination model has only been adopted by the Food, Nutrition and WASH clusters. The coordinating or lead Agencies of the remaining Clusters must take similar steps to increase collaboration. By establishing procedures for constant communication and partnership, these Clusters will raise their capacity to deliver relief services. Furthermore, implementing stakeholders will receive access to specialist organizations in cases where more than one aspect of relief needs to be addressed.

2	Creation of Rapid Response Teams and Task Forces
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The NDMA must collaborate with Clusters, security authorities and implementing stakeholders to establish specialized rapid response teams or task forces to monitor and counter specific areas of concern. One such high-need area, as identified by UNICEF and the Protection cluster, is child welfare and protection. Initiatives such as the *Sambal* project established in India during the 2008 floods – to trace separated families, ensure reunification, prevent child trafficking, raise awareness of abuse and provide psychosocial support – must be replicated. These rapid response teams will supplement the efforts of Clusters and provide swift counter-measures to problems.

Rapid Response Teams or Task Forces must also be created to address emergency reconstruction and repair requirements, such as the need to repair damaged tubewells to provide clean water to affected areas or repair damaged sanitation facilities and latrines. The operation of these Teams or Task Forces must be facilitated and their effectiveness raised by launching help lines, regional contact points, warning systems and awareness campaigns.

3	Creation of locally-owned crisis management programmes
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The creation of locally-owned programmes driven through direct participation from recipients of aid is critical to the success of the disaster management programme. If established properly and without bureaucratic control, participative programmes will contribute greatly to the empowerment of the affected population and to the social recovery of affected communities. Village committees for disaster management should be created, along the lines of the Bangladesh model, with the authority to influence decisions made by local authorities, Clusters and implementing stakeholders in the specified area.

4	Economic, financial and livelihood support programmes
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The dependence of 80% of the affected population on agriculture has created a vast employment gap, which has in turn diminished the purchasing power of affected persons. The national and provincial governments, therefore, must design an immediate financial relief package that helps affected persons minimize their dependence on food aid and other relief provisions. As recommended by Save the Children and UNDAC, cash-for-work programmes must be incorporated into economic relief initiatives. In addition, microfinance services must be provided to facilitate economic recovery and ease the burden on relief camps and aid disbursing agencies.

Simultaneously, livelihood support programmes – as seen during the 2004 Bangladesh floods – must be instituted to provide critical support to farmers and laborers. This is particularly important in this case, for a missed wheat harvest in September will further entrench existing acute food dependency.

5	Social and community support programmes
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A rapid assessment report from Save the Children on the situation in Muzaffargarh revealed that middle and lower-middle income groups were settling in unsanitary conditions and were refusing to accept food donations. This social condition reflects a need for local implementing stakeholders to create programmes responsive to specific societal and community traditions. Other social support programmes recommended by Clusters and assessing NGOs include the creation of domestic violence awareness programmes, Child Friendly Spaces, Women Friendly Spaces and targeted psychosocial support workshops.

6	Training programmes for volunteers and relief workers
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Implementing stakeholders, Clusters and Disaster Management Authorities must create training programmes to better utilize volunteer services. Training courses in relief camp management, assessment support, research and reporting, and aid disbursement must be initiated to channel volunteers to high-need areas and regions.

6	Nationally-owned and long-term flood relief programme
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Finally, the National Disaster Management Authority (NDMA), the government, local and provincial authorities and the armed forces must take steps to ensure that the disaster management process is nationally-owned and signifies a long-term commitment by the state to the affected areas. The immediate relief provision phase, to this end, must signify a long-term strategic disaster management plan that

incorporates reconstruction, rehabilitation and sustainable economic and social development.

To ensure this, NDMA must raise coordination and communication between Provincial Disaster Management and municipal authorities; successful measures taken to provide relief must be piloted and implemented in all provinces and regions. Secondly, resources obtained through local and international donations must be pooled nationally and disbursed according to regional requirements. Third, volunteer services from Pakistani citizens must be facilitated and a national media campaign should be launched to encourage greater civil society involvement. Finally, aid disbursement and state relief efforts must be conducted transparently and with accountability to reduce the existing trust deficit between the state and potential donors.

CONCLUSION

The research and analysis conducted for the purposes of this study overwhelmingly indicate that there are multiple imperatives that will influence the direction of any immediate relief operation – political, social, economic, logistical, organizational and moral. While the challenges that countries and populations face in the wake of such disasters are immense, fundamentally sound policies can help mitigate ramifications for affected populations. By recognizing needs, challenges, imperatives and raising delivery capabilities, implementing stakeholders can maximize delivery of critical-need provisions, instate early warning systems and lay the ground for rehabilitation and reconstruction in affected regions.

ANNEXURE-A: RELEVANT CASE STUDIES

I. PAKISTAN (1992)

During the 1992 monsoon season in Pakistan, heavy monsoon rainfalls and extreme weather conditions resulted in widespread flooding in the country. The areas most heavily affected by the disaster were northern Punjab, the northern areas and the Azad Jammu and Kashmir region. All four provinces, however, were impacted in varying degrees by the weather conditions and floods. The Office for the Coordination of Humanitarian Affairs estimated that a total of 9.299 million people were affected across the country. 2,600 persons were reported to have been killed^{xxviii} as the flood affected 12,672 villages, damaging 960,000 houses^{xxix}. Estimated economic damage included agricultural losses of up to \$22.8 million and infrastructural damage of \$513 million^{xxx}.

STAKEHOLDERS	
Government	National, provincial, local and municipal authorities.
Civil and Military Defence	
International Organizations	UN Disaster Management Team (UNDMT), World Food Programme (WFP), World Health Organization (WHO) and other relevant UN Agencies; Asian Development Bank (ADB); International Development Authority (IDA).
INGOs	Caritas Germany, Catholic Relief Services (CRS) and others.
Local NGOs and Individuals	
International Donors	Afghanistan, Australia, Brunei, Canada, China, Denmark, Egypt, France, Germany, India, Iran, Japan, Jordan, Maldives, New Zealand, Nigeria, Saudi Arabia, South Korea, Sri Lanka, Sweden, Switzerland, Turkey, UAE, USA, EEC and the United Kingdom.

IMMEDIATE RELIEF PROGRAMMES
<p><i>Oversight, Planning and Needs Assessment:</i></p> <p>The Government of Pakistan declared a state of emergency in areas affected by the floods. During the crisis, the United Nations Resident Coordinator acted as the primary oversight body for United Nations Agencies operations in the country. A disaster management team was convened, linking the government with United Nations agencies and international donor representatives. This oversight body was responsible for preliminary assessment of damages and immediate humanitarian needs in the aftermath of the floods.</p> <p><i>Procurement of Aid and Donations:</i></p> <p>To supplement government funding and raise delivery capacity of relief efforts, the United Nations Disaster Management Team, in collaboration with NGOs, the ADB and donor representatives, conducted an assessment of gaps between allocated funding and actual requirement. The Government of Pakistan, in initiating the Prime Minister's Relief Fund, intimated a need for supplemental donations from the international community and citizens of Pakistan. A United Nations resolution sponsored by twenty-five (25) countries was adopted, calling for increased financial assistance to Pakistan^{xxxi}.</p>

Early Evacuation, Relief and Security Operations:

The Pakistan Army and Navy were engaged to conduct rescue and evacuation efforts in collaboration with local authorities. In addition to rescue operations, the military forces acted as primary agents in the preliminary disbursement of temporary shelter equipment, blankets, clothes and food to victims of the flood.

Food, Water and Nutrition Needs:

The World Food Programme (WFP) acted as the coordinating body – in collaboration with local authorities, international and local NGOs – to provide food, nutrition requirements and clean water. The WFP and relevant partners were reported to have distributed 6,125 MT of wheat, 163 MT of butteroil and 612 MT of pulses^{xxxii}. Additional critical need items included sugar, powdered milk, wheat flour and cooking oil.

Health and Disease Prevention:

The World Health Organization (WHO) conducted a needs assessment of health and disease risks. In collaboration with local authorities, the WHO dispatched 10,000 medical kits to victims and at-risk individuals^{xxxiii}.

II. BANGLADESH (2004)

In late June and early July during the monsoon season of 2004, record-high rainfall caused water levels in the Meghna, Jamuna and Padma rivers of Bangladesh to peak. On 13 September, the Meteorological Department reported 341 mm of rainfall in 24 hours – the highest amount recorded in 50 years^{xxxiv}. The subsequent breaching of the banks in these rivers resulted in flash floods in the north and west-central districts of the country. The effects of the floods were widespread and severe, affecting 41 of 64 districts in the country – two-thirds (2/3rd) of the land mass of Bangladesh, including the capital, Dhaka – and 25% of the entire population^{xxxv}.

The ramifications of the natural disaster were unprecedented in severity for the people of Bangladesh. It was estimated that the floods affected 33 million people and 6.8 million families^{xxxvi}. Immediate and rapid spread of waterborne disease compounded the misery of the flood victims, as cases of diarrhea, pneumonia, malaria, drowning, hepatitis, dysentery, respiratory and eye diseases were identified, in addition to acute food insecurity^{xxxvii}. Infrastructural damages included the destruction of 13,541 kilometres of road and 25,000 houses^{xxxviii}. Agricultural damage was similarly severe as 1.4 million hectares of crops were destroyed and 20,674 livestock lost^{xxxix}. What added to the impact on the economy of Bangladesh was the muted response from the international community. Total damage caused by the disaster was estimated by the World Bank to be \$2.28 billion^{xl}. Only \$62.5 million were contributed by international donors – constituting just 30% of the United Nation’s Flash Appeal of \$210 million.

STAKEHOLDERS	
Government	National, provincial, local and municipal authorities; Ministry of Food and Disaster Management (MoFDM); Directorate General of Health Services; Department of Emergency Health Preparedness.
Civil and Military Defence	
International	UN Disaster Management Team (UNDMT), World Food Programme

Organizations	(WFP), World Health Organization (WHO) and other relevant UN Agencies; UK Department for International Development (DfID); Japanese International Cooperation Agency (JICA); ADB Bangladesh Resident Mission (BRM); European Commission Humanitarian Aid Office (ECHO).
INGOs	Oxfam, ActionAid, Adventist Development and Relief Agency (ADRA), International Federation of the Red Crescent/Cross (IFRC), Emmanuel Hospital Association (EHA) and others.
Local NGOs and Individuals	Concern Bangladesh, AKK, RACINE, MAPLE, Mohila Unnayan Foundation (MUF), Christian Aid and others.
International Donors	

IMMEDIATE RELIEF PROGRAMMES

Oversight, Planning and Needs Assessment:

In response to the flooding, the Government of Bangladesh mobilized an Inter-Ministerial Disaster Management Coordination Committee and, in collaboration with the World Food Programme (WFP) and the ADB's Bangladesh Resident Mission (BRM), constituted a local consultative body – the Disaster and Emergency Response Group. Both bodies were accorded responsibility for oversight of relief provision, rapid assessment and for the coordination of ministerial responses to multi-sectoral crises. In addition, the Government's NGO Affairs Bureau was assigned the task of facilitating coordination, joint planning and monitoring of activities between ministries and active NGOs. A Flood Relief Control Room was instituted by the Government to coordinate with and disseminate information to district units and stakeholders. Finally, to prepare the ground for ADB's expeditious rehabilitation response, the BRM established an in-house Flood Monitoring Unit to maintain contact with implementing agencies. The United Nations Disaster Management Team (UNDMT) acted as the coordinating and oversight body for UN agency operations.

Procurement of Aid and Donations:

The United Nations issued a Flash Appeal of \$210 million, of which \$62.5 million (30 percent) was received. The primary aid disbursement and allocation body for the Government of Bangladesh was the Ministry of Food and Disaster Management (MoFDM), which allocated \$77,800 for relief efforts, \$66,200 for housing assistance and \$17 million for income-generating activities, in collaboration with the United Nations Development Programme (UNDP)^{xli}.

Early Evacuation, Relief and Security Operations:

The Bangladesh Army, police and local security agencies were deployed by authorities to provide initial relief and evacuation assistance, as well as to prevent looting, theft and other crime during aid disbursement operations. To coordinate provision of relief items, the Government established MoFDM emergency response committees at local levels and emergency shelters in 5,000 locations to provide shelter for 1.7 million homeless persons^{xlii}. These MoFDM committees were to collaborate with local village disaster response committees^{xliii}, designed to provide greater ownership of the disaster management process to the local population and female victims of the flood.

Food, Water and Nutrition Needs:

The MoFDM, in addition to aid allocation, distributed 2,650 MT of rice and biscuits to affected persons. To supplement this distribution, the Government of Bangladesh established a Vulnerable Group Feeding Programme, in collaboration with the WFP, as a safety net for victims^{xliv}. Through three (3) partner NGOs, the WFP distributed 12.2 MT of nutritious food in the initial stages of the relief operation, allocated on the basis of 75gm./person/day. The involvement of INGOs in the provision of food relief was critical; the IFRC, for example, initiated an Emergency Relief Phases in partnership with the European Commission Humanitarian Aid Office (ECHO), of which the first objective was to distribute emergency rations (consisting of 2,700 MT of rice, 675 MT of daal and 270 MT of cooking oil) to families^{xlv}. A further objective of this phase was to provide agricultural inputs to 30,000 families with access to land within 4 months of the relief process^{xlvi}.

Health and Disease Prevention:

The World Health Organization (WHO) and Emmanuel Hospital Association (EHA) provided technical and managerial support in health relief efforts to the Bangladesh Center of Health Preparedness and Response. Additionally, the Government activated the Directorate General of Health Services for the purposes of health surveillance, dispatch of necessary medical supplies and for health awareness programmes. The Disease Control Unit was also dispatched to control spread of disease and illnesses and establish an early warning system to support health intelligence. The Department of Public Health Engineering supplemented these efforts and the 3,400 medical teams mobilized through Environmental Health Interventions to construct and rebuild tubewells and latrines. Relief programmes from Oxfam and the Bangladesh Red Crescent Society further buttressed the provision of emergency medicines, healthcare and sanitation to over 114,000 families in affected regions^{xlvii}.

III. INDIA (2005)

The monsoon season of 2005 was exceptionally unforgiving to India as severe flooding hit Southern Gujarat, Saurashtra, Arunachal Pradesh, Maharashtra, Assam, Orissa and Karnataka in two (2) separate incidents of flooding. Economic damage, estimated at \$2.3 billion dollars, included agricultural losses of approximately 550,000 hectares of crops, over 26,000 lost cattle and 200,000 hectares of farmland in Maharashtra. In total, the floods affected 18 districts of Southern Gujarat and Saurashtra, 153 villages in Assam, 2,300 villages in Maharashtra and 4 districts in Karnataka.

The nature of the disaster complicated relief efforts, which had to be spread out over a period of three months to serve affected populations in two separate regions of the country. Heavy rainfall and extreme weather necessitated the evacuation of 500,000 people in Gujarat, 49,000 in Madhya Pradesh, 500,000 in Assam, 500,000 in Arunachal Pradesh and 110,000 in Karnataka^{xlviii}. In Orissa, it was estimated that 1.48 million people were affected by the July floods. A total of 1,161 people were reported killed in the cumulative disaster. The spread of waterborne diseases, inadequate sanitation, food insecurity and lack of shelter for the displaced made it necessary for stakeholders to commence large-scale immediate relief operations.

STAKEHOLDERS	
Government	National, provincial, local and municipal authorities; National Disaster Management Division (Ministry of Home Affairs); Relief and Rehabilitation Department; Army and Border Roads Organizations.
Civil and Military Defence	
International Organizations	UN Disaster Management Team (UNDMT), World Food Programme (WFP), World Health Organization (WHO), UN Children's Fund (UNICEF) and other relevant UN Agencies.
INGOs	Church World Service (CWS), ACT and others.
Local NGOs and Individuals	Indian Red Cross Society and others.

IMMEDIATE RELIEF PROGRAMMES	
<p><i>Oversight, Planning and Needs Assessment:</i> The National Disaster Management Division (NDMD) of the Ministry of Home Affairs was mobilized to conduct rapid needs assessments and propose recommendations for disaster management. Simultaneously, the Relief and Rehabilitation Department was instructed to release extra funds for immediate relief. The NDMD, following the initial assessments, was responsible for maintaining information on relief camps and displaced persons. To coordinate NGO relief efforts, UNICEF established a facilitating group of NGOs through coordination with the Relief and Rehabilitation Department.</p>	
<p><i>Procurement of Aid and Donations:</i> The Government of India allocated a sum of INR 1,000 crores for immediate relief efforts. \$14.5 million were earmarked by the government for disbursement as cash assistance to relatives of victims and injured persons^{xlix}.</p>	
<p><i>Early Evacuation, Relief and Security Operations:</i> The Army, Navy and Air Force were deployed by the Government of India to conduct search, rescue and evacuation operations in flooded and landslide-affected regions; a Search and Rescue team was formed in collaboration with the Army and Border Roads Organization for this purpose. The military forces were also assigned the task of providing priority relief goods – such as rice, salt and nutritious food items – to affected persons in collaboration with local authorities. To conduct effective evacuations, provincial governments set up temporary shelters, relief and medical camps. In Orissa, 344,857 victims were evacuated into temporary shelters. The Madhya Pradesh District Administration established 19 camps for 12,000 evacuated persons. In Karnataka, 150 relief camps were maintained to provide for 85,500 people. In Maharashtra, 250 rural and urban camps were set up; however, in September 2005, the NDMD reported that 3,200 people were living in 44 camps.</p>	
<p><i>Food, Water and Nutrition Needs:</i> In addition to government-released funds, local NGOs were engaged in the distribution of food packets to affected people. The Indian Red Cross Society supplemented these food support efforts by providing emergency water purification tablets and medicines, in collaboration with UNICEFⁱ. The government also procured mass water treatment units to provide clean water to relief camps.</p>	

Health and Disease Prevention:

The Government of India dispatched 2,000 municipal employees for debris clearance in affected parts of Mumbai and city suburbs; 196 medical teams, consisting of one (1) medical officer and three (3) paramedical staff were also dispatched to affected areas^{li}. The World Health Organization (WHO) conducted disease and sanitation surveillance, subsequently dispatching 11 emergency kits with medicines for 10,000 people to last three (3) months. The government also initiated a hygiene awareness programme through media outlets and 1,162 medical teams.

IV. PAKISTAN (2005)

In the early part of the monsoon season in Pakistan, exceptionally high rainfall led to flooding in 24 districts in North-West Frontier Province (NWFP), the Northern Areas and 7 tribal agencies in the Federally Administered Tribal Regions (FATA)^{lii}. The eight (8) worst affected areas identified were Upper Swat, Upper and Lower Dir, Kohistan, Shangla, Battagram, Kaghan area in Mansehra and Thandiani in Abbottabad^{liii}. In the NWFP alone, 26,000 houses were destroyed and 76,000 damaged^{liv}. In sum, Pakistan suffered agricultural damages of 40,000 acres of crops^{lv}. It was estimated that the budget required for reconstruction and rehabilitation of affected areas would amount to \$5.6 million.

The 2005 floods, in terms of people and area affected, was the second-largest incident of flooding in Pakistan at the time, eclipsed only by the 1992 floods. A total of 7 million persons were affected in the 8 worst-affected districts^{lvi}. For the victims of the flooding, there were severe health risks: warnings were issued against the spread of waterborne diseases, malaria and acute respiratory infections. For immediate relief, road clearing equipment, food items, shelter and essential medical supplies were urgently required by implementing stakeholders. The relief efforts in the medium-term, however, were complicated by the large-scale destruction caused by the Kashmir earthquake in October 2005.

STAKEHOLDERS	
Government	National, provincial, local and municipal authorities.
Civil and Military Defence	
International Organizations	UN Disaster Management Team (UNDMT), World Food Programme (WFP), World Health Organization (WHO), UN Children's Fund (UNICEF), Food and Agriculture Organization (FAO), UN Development Programme (UNDP) and other relevant UN Agencies.
INGOs	Oxfam, Concern, Medicins Sans Frontieres (MSF) Holland, FOCUS, , International Federation of the Red Crescent/Cross (IFRC), International Islamic Relief Organization (IIRO) Saudi Arabia and others.
Local NGOs and Individuals	Pakistan Red Crescent Society and others.
International Donors	United Arab Emirates (UAE) and others.

IMMEDIATE RELIEF PROGRAMMES

Oversight, Planning and Needs Assessment:

The United Nations Disaster Management Team (UNDMT) conducted Joint Rapid Assessments of the disaster situation in NWFP and Kashmir, coordinating operations of UN agencies^{lvii}. A Joint International NGOs Mission carried out similar assessments in the province of Balochistan. In Punjab, the provincial government carried out an independent needs assessment and distributed relief goods to victims in the province. To prevent overflowing in the Akra Kaur Dam, the government carried out an emergency evacuation of downstream villages in response to fresh breaching of banks.

Procurement of Aid and Donations:

International donors were reported to have donated \$4.5 million for immediate relief provision^{lviii}. The Government of Pakistan, meanwhile, announced compensation packages ranging from \$67 to \$117 per household and between \$8 and \$16 for cattle owners^{lix}. Compensatory amounts of Rs. 100,000 were offered to families of deceased persons and Rs. 50,000 was awarded to each person injured in the floods and landslides. The NWFP provincial government also disbursed compensation amounting to Rs. 30,000 to victims^{lx}. The International Rescue Committee, in response to growing needs in highly affected areas, authorized a redeployment of resources to help victims in Upper and Lower Dir.

Early Evacuation, Relief and Security Operations:

Pakistani military forces were assigned to conduct evacuation, rescue and search operations in affected areas, as well as to provide logistical support for the delivery of immediate and critical-need relief items. The Government, in conjunction with local authorities and provinces, arranged for temporary shelter in public buildings, though the creation of relief camps was hindered by a shortage of tents and food supplies. The United Nations, however, reported that the distribution of relief items by the government, military forces and NGOs was timely and swift; the government supported FOCUS, an NGO distributing relief goods to affected persons in the Northern Areas. The UNDP mobilized its Bureau of Crisis Prevention and Recovery to distribute aid for logistical support and emergency needs. To supplement these relief efforts, UNICEF distributed blankets, utensils, tents, clothes and tarpaulin sheets in relief camps while UNESCO provided emergency support for the damaged education infrastructure.

Food, Water and Nutrition Needs:

The World Food Programme coordinated relief efforts in Punjab, Kashmir and NWFP, distributing 1,158 MT of wheat flour and 145 MT of edible oil were distributed to affected people^{lxi}. To analyze the extent of the destruction, the Food and Agriculture Organization (FAO) sent Crop and Livestock Assessment Missions to NWFP, AJK and Balochistan.

Health and Disease Prevention:

The government's Emergency Relief Cell was responsible for the provision of emergency shelter equipment, utensils, blankets, medicines and water purification tablets to affected persons. The World Health Organization (WHO) organized further provisions of emergency medicines.

V. GUATEMALA (2005)

In 2005, Hurricane Stan hit the coast of Guatemala, resulting in heavy rainfall, extreme weather and flash floods. In all, 251 out of 331 municipalities – one-third of the entire area – of the country were reported to be underwater. A total of 3.5 million persons were reported to be displaced as a result of the flood, with 669 dead, 844 missing and 386 hurt^{lxii}.

Guatemala incurred massive agricultural losses – estimated at over \$530 million – as a result of the floods, losing cattle, horticulture and major income crops, such as bananas, shrimps, sugar and short-cycle crop. As the death toll and economic losses mounted, the United Nations issued a Joint Flash Appeal of \$21.5 million on 10 October 2005. By the end of the month, international donors had met \$17.7 million in response to the call^{lxiii}.

The Guatemalan case is similar to the 2010 Pakistan floods in respect to the demographics of the population most heavily affected and subsequently at risk. The United Nations and the government’s National Coordinator for Disaster Reduction (CONRED) reported that poor and marginalized groups, especially children and migrant workers, were facing severe health risks from Hepatitis A, cholera, diarrheic illnesses, respiratory diseases and skin problems.

STAKEHOLDERS	
Government	National, provincial, local and municipal authorities; National Coordinator for Disaster Reduction (CONRED); the National Planning Secretariat (SEGEPLAN); National Strategic Planning System (SINPET); Executive Secretariat for the National Coordination for Disaster Reduction (SE-CONRED).
Civil and Military Defence	
International Organizations	UN Disaster and Assessment Coordination (UNDAC), World Food Programme (WFP), World Health Organization (WHO), UN Children’s Fund (UNICEF), Food and Agriculture Organization (FAO), UN Development Programme (UNDP) and other relevant UN Agencies; Economic Commission of Latin American and the Caribbean (ECLAC).
INGOs	CARE, Catholic Relief Services (CRS), ACT, Mercy Corps, Red Cross International, Save the Children, SHARE and others.
Local NGOs and Individuals	
International Donors	Sweden, United States, Cuba, France, Germany, Italy, Japan, Malta, Switzerland, Spain, Holland, Norway, Ireland, Canada, EC, Italy, Luxemburg, Japan, NZ, Finland, Monaco and the United Kingdom.

IMMEDIATE RELIEF PROGRAMMES

Oversight, Planning and Needs Assessment:

A mission of the 15 experts from the Economic Commission of Latin America and the Caribbean, sponsored by a \$3.54 million budgetary grant by the UNDP^{lxiv}, was assigned to conduct rapid evaluations of infrastructure damage, agriculture production and the habitat, in coordination with the Secretary of Planning. Environmental Risk Assessments were conducted by UN Disaster Assessment Coordination teams. The Vice Ministry of Infrastructure, in collaboration with the International Organization of Migration (IOM), carried out a population census to ascertain human losses. The Government of Guatemala assigned CONRED to support the elaboration of reports on the emergency situation and coordinate distribution of international aid, ECLAC assessment processes and the UNDP Bureau of Crisis Prevention and Recovery's Reconstruction Plan. The UNDP was responsible for conducting independent assessments at the municipal level. The United Nations Volunteers (UNV) was also deployed to create and maintain a database to coordinate NGO efforts. Simultaneously, the government mobilized the National Planning Secretariat (SEGEPLAN) and relevant Ministries to elaborate reconstruction and rehabilitation plans based on assessments of damages^{lxv}; the National Strategic Planning System (SINPET) would play a similar advisory role but with a greater territorial focus.

Procurement of Aid and Donations:

The United Nations issued an Emergency Flash Appeal to international donors, asking for \$21.5 million to support immediate relief efforts in Guatemala. For local donors, CONRED established donation points across the country^{lxvi}. The Coordination Center for Humanitarian Assistance was assigned responsibility of Maintaining donations at warehouses located on airstrips to support immediate relief and rescue operations.

Early Evacuation, Relief and Security Operations:

The Executive Secretariat for the National Coordination for Disaster Reduction (SE-CONRED) was assigned the task of conducting relief, search and rescue operations through coordination with local authorities. Emergency operations centers were activated in municipalities to support the SE-CONRED immediate relief provision. A Security Management Team was initiated, which was required to meet constantly to exchange information, by the government to monitor aid efforts and travel authorizations. The World Food Programme (WFP) assisted the SE-CONRED operations by carrying out a protracted Relief and Recovery Operation to 87,000 families in 15 affected provinces of 87 municipalities, airlifting food and soybean fortification mixes to victims^{lxvii}.

Food, Water and Nutrition Needs:

The Ministry of Health immediately instituted a Nutrition Vigilance Plan for flood victims to oversee food delivery. Regional Distribution Centers were created, which gathered information on the result of food distribution, organized brigades for shelters, trained volunteers and elaborated a diagnostic survey; a proposal to create Food for Work programs during the reconstruction phase was submitted in coordination with the FAO and WFP. The WFP announced a two-phase assistance programme, aimed at providing assistance to 365,000 families over a period of six (6) months – an initiative that required a budget of \$14.1 million to support rations of 2.8 kg and 2,100 kCal per

family^{lxviii}.

Health and Disease Prevention:

The Water and Sanitation sector conducted assessments and presented a plan, approved by the President, which sought to reestablish minimum sanitary conditions for guaranteeing the health of the affected populations and avoiding epidemic outbreaks. The PAHO and WHO were mobilized to conduct a detailed evaluation based on four (4) key aspects^{lxix}: (1) Guarantee on Health Attention, (2) Assessment of Damages to Health Services and Infrastructure, (3) Provision of Psychological Support and Mental Health, and (4) Prevention and Surveillance of Infectious Disease. A programme for psychosocial support and protection measured for women and unaccompanied children in shelters were instituted by UNICEF, in partnership with the Ministry of Education.

VI. INDIA (2008)

During the monsoon season of 2008, breaches in the Kosi embankment near the Nepal-India border, as well as extreme weather and heavy monsoon rainfall, led to widespread inundation and floods, which affected 19 districts in Orissa, 18 districts in Bihar and 25 districts in Uttar Pradesh^{lxx}. The floods caused unprecedented damage in the three provinces, damaging 5.978 lakh hectares of crops, destroying 206,691 houses and killing 108,850 cattle in Orissa; in Bihar, 3.40 lakh hectares of crops and over a million houses were destroyed and 877 cattle lost; and in the U.P., losses of 4.98 lakh hectares, 410,319 houses and 1.794 cattle were reported^{lxxi}. The floods also resulted in widespread misery for residents of affected areas, as evidenced by reports that showed 61.88 lakh were affected and 435,391 displaced in Orissa, 48.42 lakh affected and over a million displaced in Bihar, and 41.68 lakh affected and 163,802 displaced in the U.P.^{lxxii}.

STAKEHOLDERS	
Government	National, provincial, local and municipal administrative authorities; the Home Ministry; National Disaster Management Authority; National Disaster Response Force; Ministry of Health.
Civil and Military Defence	
International Organizations	UN Disaster Management Team (UNDMT), World Food Programme (WFP), World Health Organization (WHO), UN Children’s Fund (UNICEF), Food and Agriculture Organization (FAO), UN Development Programme (UNDP) and other relevant UN Agencies; International Federation Disaster Relief Emergency Fund.
INGOs	Church World Service (CWS), International Society of the Red Cross/Crescent, Emmanuel Hospital Association (EHA), CARE, ACT, Save the Children, Medicines Sans Frontieres (MSF) Spain, Islamic Relief Worldwide and others.
Local NGOs and Individuals	ACTED, Pratham, DanChurchAid, Church’s Auxiliary for Social Action (CASA), World Vision India, Christian Aid, Christian Relief Services (CRS), Caritas India, AidMatrix India, Discipleship Center (DC), Focus India, Indian Red Cross Society and others.
International Donors	

IMMEDIATE RELIEF PROGRAMMES

Oversight, Planning and Needs Assessment:

The Government of India mobilized the Revenue Department to assess damage to crops and property in the aftermath of the floods. Assessments and reporting of casualties and the disaster response requirements were also conducted through a trained National Disaster Response Team, in collaboration with the International Society of the Red Cross/Crescent and the International Federation. Sphere India, a platform group for local NGOs, was given a coordination mandate to collect information from partner NGOs^{lxxiii}, establish links with national and state governments and coordinate rapid assessments by NGOs in the field; the Common Rapid Assessments conducted found that required items were dry rations, kitchen items, candles/matchsticks, clothes/blankets, temporary shelter items, medicines, dignity kits, mobility items for disabled. The United Nations assigned its Disaster Management Team (UNDMT) as the coordinating body to oversee the work of operating UN agencies in the area; UNICEF was given an inter-agency coordination role^{lxxiv}. To facilitate a rapid response from local civil society bodies, CARE, an INGO, coordinated with local NGOs to provide training to volunteers and facilitated camp management. The government announced, following assessments, that it would adopt an owner-driven approach to planning and rebuilding involving members of the local community.

Procurement of Aid and Donations:

The Government of India initiated a programme to distribute \$4,000 to the kin of the deceased, displaced persons and injured victims.

Early Evacuation, Relief and Security Operations:

The Government, Home Ministry, the Army and the National Disaster Management Authority conducted large-scale rescue efforts: provisions included essential food, water and shelter supplies, boats, swimmers, Army personnel, helicopters and relief camps organized for 533,085 evacuated^{lxxv}. The government's National Disaster Response Force was immediately deployed in affected areas for support and relief efforts, coordinating the deployment of trained personnel. In Bihar, 5 Army columns and Ecological Task Forces (ETFs) were deployed in Bihar for relief support^{lxxvi}. Local state government also provided logistical support; the Andhra Pradesh authorities, for example, positioned volunteers to distribute blankets, clothes, kitchen sets and food. In Karnataka, the state government provided relief supplies in collaboration with local municipal authorities. The UNFPA assisted in distributing dignity kits – consisting of one (1) sari, one (1) *shalwar kameez*, three (3) packets of sanitary napkins, two (2) panties and one (1) old newspaper – to displaced persons.

Food, Water and Nutrition Needs:

The Government reported that, for 366,138 in relief camps, a total of 1,983,442 food packets and 2,756, 866 water sachets were distributed. The Red Cross/Crescent distributed family packs (including 2,500 stoves and 2,000 blankets and kitchen sets) to affected persons^{lxxvii}. These efforts were supported by trained state disaster response teams, which also helped conduct health risk awareness sessions in camps to reduce the risk of disease.

Health and Disease Prevention:

The WHO, partnering with UNDMT, the Ministry of Health and Family Welfare and local authorities, engaged in monitoring the health situation and in the establishment of medical camps, immunization facilities, chlorination campaigns; coordination with local medical colleges helped provide psychosocial support to victims. In total, 254 medical camps were reported to have been assembled. UNICEF, through coordination with Relief Commissioners, focused support on two (2) high-need districts in Andhra Pradesh and one (1) district in Karnataka, establishing a Behavioral Change Communication Cell in collaborating with UNV. Through partnership with NGOs, UNICEF was able to conduct health and nutrition assessments, and launched 'Sambal' initiatives to assist communities in creating a supportive and protective environment around victims to prevent trafficking and abuse, especially of children^{lxxviii}. The International Federation Disaster Relief Emergency Fund also conducted integrated assessments in selected villages through the deployment of five (5) teams; the Fund provided immediate assistance to 10,000 families – a total of 50,000 beneficiaries – and provided sanitation and water purification units. To cater to internally displaced children, the Discipleship Center provided play, educational equipment and psychosocial support in relief camps. A state government initiative, the Alternative Learning Spaces program^{lxxix}, was also established to provide educational facilities to children in collaboration with Pratham, a local NGO.

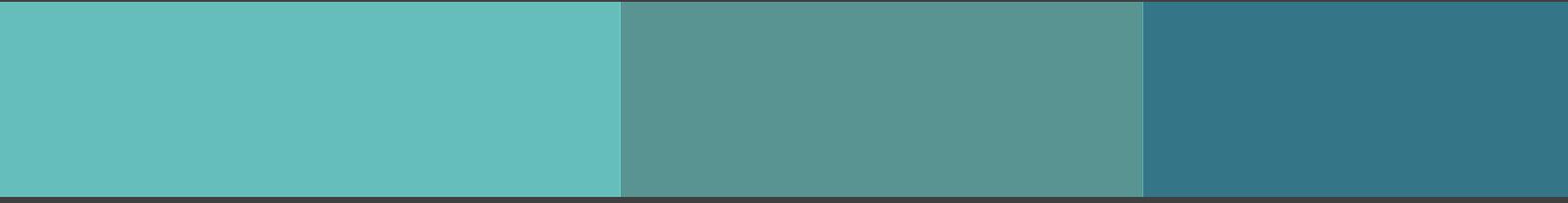
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