Bangladesh River and Monsoon Flooding

HCTT Multi-sector Rapid Needs Analysis

About this Report

<table>
<thead>
<tr>
<th>Nature of disaster</th>
<th>River and Monsoon Flooding</th>
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</thead>
<tbody>
<tr>
<td>Date of Disaster</td>
<td>19 July into August 2016</td>
</tr>
<tr>
<td>Location</td>
<td>Northern and central districts of Bangladesh, officially affecting 19 districts.</td>
</tr>
<tr>
<td>Methodology behind this report</td>
<td>At the request of the HCTT, CARE coordinated this Secondary Data Review utilizing Government information, inputs from clusters and other stakeholders in Bangladesh, and other publically available information including media reports. This information was reviewed and collated by ACAPS and then ground-truthed by the NAWG in Bangladesh during a meeting 7 August. Production of the report took place 6-8 August, 2016.</td>
</tr>
<tr>
<td>Date of this draft</td>
<td>8 August</td>
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<td>Cover photo</td>
<td>Mostafa Nurul Islam, SDVC, CARE</td>
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8th August 2016
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Crisis Overview

According to official government estimates from the NDRCC, as of 6 August almost 3.7 million people across 19 districts of Bangladesh\(^1\) have been affected by monsoon-induced floods that began around 19 July. Dozens of people have died as a result of the floods, mostly from drowning and snakebite, with the death toll continuing to rise.\(^2\) Most deaths are thought to be children. (Health Cluster, 04.08.2016).

As floodwaters caused rivers to rise, houses have been inundated and destroyed; household possessions and assets have been washed away along with standing crops. People have been displaced from their homes and currently reside in flood shelters, schools or whatever dry places they can find including rooftops and the high ground provided by embankments and roadsides.

At the time of writing official estimates indicate at least 250,000 houses have been destroyed or damaged (Shelter Cluster based on NDRCC reporting, 03.08.16). Riverbank erosion has resulted in a large number of houses and homesteads being washed away. As of 3 August NDRCC was reporting over 8,300 houses completely washed away and as of 7 August, DDM reported 16,770 houses/homesteads were completely lost with a further 65,156 partially impacted by erosion.

Although floodwaters are now receding in some areas, sit-reps from relevant government bodies show an increase in the number of people affected since monitoring of the situation began at the start of July.

Based on estimated numbers of affected people the districts which have experienced the greatest impact of the floods are:

<table>
<thead>
<tr>
<th>District</th>
<th>Number of people affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamalpur</td>
<td>849,451</td>
</tr>
<tr>
<td>Kurigram</td>
<td>652,154</td>
</tr>
<tr>
<td>Sirajgonj</td>
<td>553,981</td>
</tr>
<tr>
<td>Tangail</td>
<td>351,035</td>
</tr>
<tr>
<td>Gaibanda</td>
<td>276,305</td>
</tr>
</tbody>
</table>

Together, these 5 districts account for more than 70% of the affected people. Jamalpur, Kurigram and Gaibanda are of particular concern because, being in the north of the country, they experienced the flooding first and have been affected for the longest, they are also among the poorest districts in the country, all with over 30% of the population living below the lower poverty line\(^3\). All of these districts were also among the worst affected by the flooding in September 2014 affecting around 2 million people in north-western Bangladesh (JNA, 08.09.14).

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1. Although the official NDRCC reports as of 7th August list 19 districts as affected; DDM on the 7th August is reporting 17 districts affected (422 Unions within 75 Upazilas) and NGO and media reports name different districts making it clear that this remains an evolving situation. The full extent of damages or affected locations is not known.

2. NDRCC reports that 43 deaths have been recorded as of 7th August, although reports from the NHCRMC indicated the number of deaths was already higher at 71 (4.08.16 NHCMC) and DDM report 59 lives lost as of (7.08.2016).

3. World Bank, GoB, WFP Poverty Mapping based on 2010 data.
Most frequently noted immediate needs of the population in affected areas are drinking water, safe sanitation and emergency food however all sectors are affected and a coordinated multi-cluster/sector response is required as discussed below.\(^4\)

**Key Findings**

As illustrated in the table below in several districts 20% or more of the population is affected.

**Affected Districts and Population Figures 6\(^{th}\) August 2016**

<table>
<thead>
<tr>
<th>District</th>
<th>Total population as per census 2011 (enumerated)</th>
<th>Affected HH (NDRCC 6 Aug)</th>
<th>Affected population (NDRCC 6 Aug)</th>
<th>% of the Total Population that is affected</th>
<th># Extreme Poor affected (Lower poverty line*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAMALPUR</td>
<td>2,292,674</td>
<td>178,393</td>
<td>849,451</td>
<td>37%</td>
<td>290,512</td>
</tr>
<tr>
<td>KURIGRAM</td>
<td>2,069,273</td>
<td>157,908</td>
<td>652,154</td>
<td>32%</td>
<td>288,904</td>
</tr>
<tr>
<td>SIRAIGANJ</td>
<td>3,097,489</td>
<td>127,577</td>
<td>553,981</td>
<td>18%</td>
<td>125,754</td>
</tr>
<tr>
<td>TANGAIL</td>
<td>3,605,083</td>
<td>70,207</td>
<td>351,035</td>
<td>10%</td>
<td>63,186</td>
</tr>
<tr>
<td>GAIBANDHA</td>
<td>2,379,255</td>
<td>55,261</td>
<td>276,305</td>
<td>12%</td>
<td>83,720</td>
</tr>
<tr>
<td>LALMONIRHAT</td>
<td>1,256,099</td>
<td>49,860</td>
<td>249,300</td>
<td>20%</td>
<td>41,633</td>
</tr>
<tr>
<td>MANIKGANJ</td>
<td>1,392,867</td>
<td>45,454</td>
<td>227,270</td>
<td>16%</td>
<td>18,182</td>
</tr>
<tr>
<td>BOGRA</td>
<td>3,400,874</td>
<td>24,200</td>
<td>121,000</td>
<td>4%</td>
<td>8,107</td>
</tr>
<tr>
<td>SUNAMGANJ</td>
<td>2,467,968</td>
<td>20,720</td>
<td>103,600</td>
<td>4%</td>
<td>21,342</td>
</tr>
<tr>
<td>FARIDPUR</td>
<td>1,912,969</td>
<td>19,546</td>
<td>97,730</td>
<td>5%</td>
<td>19,351</td>
</tr>
<tr>
<td>RAJIBARI</td>
<td>1,049,778</td>
<td>16,074</td>
<td>80,370</td>
<td>8%</td>
<td>20,655</td>
</tr>
<tr>
<td>MADARIPUR</td>
<td>1,165,952</td>
<td>9,272</td>
<td>46,360</td>
<td>4%</td>
<td>8,067</td>
</tr>
<tr>
<td>RANGPUR</td>
<td>2,881,086</td>
<td>6,858</td>
<td>34,291</td>
<td>1%</td>
<td>10,322</td>
</tr>
<tr>
<td>MUNSHIGANJ</td>
<td>1,445,660</td>
<td>5,755</td>
<td>28,775</td>
<td>2%</td>
<td>4,489</td>
</tr>
<tr>
<td>SHARIATPUR</td>
<td>1,155,824</td>
<td>5,500</td>
<td>27,500</td>
<td>2%</td>
<td>9,460</td>
</tr>
<tr>
<td>DHAKA</td>
<td>12,043,977</td>
<td>4,923</td>
<td>24,615</td>
<td>0.2%</td>
<td>1,206</td>
</tr>
<tr>
<td>NILPHAMARI</td>
<td>1,834,231</td>
<td>3,840</td>
<td>19,200</td>
<td>1%</td>
<td>3,610</td>
</tr>
<tr>
<td>KUSHTIA</td>
<td>1,946,838</td>
<td>991</td>
<td>4,955</td>
<td>0.25%</td>
<td>40</td>
</tr>
<tr>
<td>CHANDPUR</td>
<td>2,416,018</td>
<td>159</td>
<td>795</td>
<td>0.03%</td>
<td>241</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>49,813,915</strong></td>
<td><strong>802,498</strong></td>
<td><strong>3,748,687</strong></td>
<td><strong>1,018,779</strong></td>
<td></td>
</tr>
</tbody>
</table>

\(^4\) These needs are the ones that are mentioned the most times in all of the information reviewed to produce this report.
People affected and people in need of assistance

Based on presently available information, it is difficult to make an accurate estimate of the number of people in need as compared to the number of people affected. This is a challenge common to all major disasters and relevant proxy indicators must be used. If the Lower Poverty Line is used as a proxy indicator for the percentage of people in need of immediate assistance, around one million people can be assumed to be in need (see above table). However it can also be assumed that the extreme poor will have borne the brunt of the disaster due to their poorer quality housing, the fact that they generally reside in the lowest lying areas and their limited reserves of assets to assist them to cope with shocks. This would imply that using the lower poverty line underestimates the number of people in need as it is likely that a higher proportion of poor have been impacted as compared to the rest of the population, however this approach provides a starting point for planning until more detailed assessments and beneficiary selection can take place.

It should also be noted that overall figures of the number of affected people at the district level could mask pockets of high impact and extreme need. In some Upazilas of Kurigram and Jamalpur the proportion of affected people is reported to be between 45-65% of the population; (Nirapad, 4.08.16).

<table>
<thead>
<tr>
<th>Summary of Key Findings</th>
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<tbody>
<tr>
<td><strong>Number of people affected</strong></td>
</tr>
<tr>
<td><strong>Number of districts affected</strong></td>
</tr>
</tbody>
</table>
| **Food Security & Livelihoods** | • Loss of HH food stocks and significant damage to HH food production has been reported.  
• Acute food shortages reported in some areas.  
• Reduction of number of meals per day already reported in some locations as a coping strategy.  
• Immediate need for dry/ready to eat food to displaced people without cooking facilities.  
• Lack of fodder for livestock (particularly cattle) may result in the loss of key productive assets.  
• Longer-term recovery will require support to HHs dependent on livestock, agriculture as well as day labourers. |
| **Health** | • Communicable diseases have increased including, acute watery diarrhea (AWD), acute respiratory infection (ARI), skin diseases and eye infections.  
• Health partners have identified the need to:  
  – Increase focus on health promotion  
  – Meet reproductive and psychosocial needs  
  – Ensure buffer stock is replenished |

5 These findings are discussed in detail in the cluster/sector sections that follow where sources are noted.
Work with partners on water quality assurance, sanitation and human waste disposal to reduce the risk of disease outbreaks.

**WASH**

- Districts where WASH has been impacted the greatest are:
  - Kurigram
  - Lalmonirhat
  - Sunamgonj
  - Gaibandha
  - Jamalpur.
- There is a shortage of drinking water due to submerged tube wells in many areas. DPHE report a total of 25,000 water points damaged.
- Sanitation has been seriously affected as toilets have been inundated across the affected area. Implied need for temporary latrines.
- DPHE and partners have begun responding with:
  - Water point rehabilitation
  - Latrine construction
  - Distribution of water purification tablets
- Hygiene practices need to be promoted to alert the population to how to avoid water borne diseases and a subsequent negative impact on childhood nutrition.
- Substantial post flood support will be needed to recover sanitation facilities.

**Shelter**

- People displaced by floods are staying on the nearest high ground to their houses. This includes rooftops, roads, embankments as well as in flood shelters and schools.
- Over 250,000 houses have been damaged or completely destroyed.
- 16,770 houses have been washed away due to river erosion and over 65,000 houses/homesteads have been damaged due to erosion.
- Erosion is reported to continue along the Padma River.
- Emergency shelter support is required to people currently residing in makeshift arrangements.
- Longer term recovery should focus on building houses more likely to withstand these events in future.
- Priority must be given to support families who have lost houses and land to river erosion.

**Nutrition**

- Disasters in Bangladesh have an impact on nutrition in the short and longer term, unless interventions are undertaken quickly.
- Flooding in similar locations in 2014 left 370,000 people acutely malnourished implying an increased vulnerability to this latest shock and the potential for their nutritional status to worsen.
- The lack of shelter with limited available space for breastfeeding and complementary feeding has an impact on infant/young child feeding.
- The increased vulnerability of the affected population combined with the inaccessibility of nutritious food can lead to a rise in under nutrition which is exacerbated by poor water quality, sanitation and hygiene if not addressed.

**Education**

- Key impacts of floods on education in Bangladesh are:
  - Physical impediment to accessing schools
  - Loss and damage of learning materials
- According to the Directorate of Primary Education (DPE) more than 1,500 schools have been directly affected by the floods; either inundated or being used as shelters.
- The longer it takes to resuming education during emergencies and natural disasters, the higher the risk of children dropping out from school.

**Early Recovery**

- The Early Recovery Facility’s (ERF) assessment estimates that 1.5 million people are in need of assistance towards recovery in the affected districts.
- The water flow was so fast and high that it washed away some raised homestead plinths in areas where these had been specifically constructed for people to withstand floods.
- Support is required for individual shelter and community infrastructure rehabilitation through CFW.

**Child Protection**

- Children are exposed to a variety of risks, as parents and care givers may not have time to adequately supervise them and they are not in school; The CP Cluster report:
  - Children staying in shelters without adequate care and facilities including food, water, hygiene, and education.
  - Children becoming involved in child labour and hazardous work in order to recover lost HH income.
  - Increased risk of trafficking.
  - Increased risk of drowning and exposure to animal bites.
- Adolescent girls have been found to be particularly at risk of physical abuse, SGBV, emotional ill treatment, and being unable to maintain proper hygiene. This is particularly because of the lack of access to toilets. Many are waiting until nightfall to go to the toilet increasing health and security risks.

**Sexual & reproductive health**

- Several of the affected districts already have poorer reproductive health indicators when compared to the national average.
- All of the currently pregnant women in affected will require maternal and new-born health services such as;
  - Antenatal care
  - Skilled birth attendance at delivery
  - Post-natal care
- Based on demographic data, services will be required for:
  - 31,288 currently pregnant women
  - 5,508 number of deliveries per month
- Preparations should be made for life saving minimum initial service package for reproductive health in crises.
There is a need to address the immediate requirements of pregnant and lactating women in most affected districts through targeted reproductive health interventions focusing on the most vulnerable.

**Gender Based Violence (GBV)**
- Vulnerability of women and girls to sexual violence, exploitation and abuse, and harmful practices like child marriage increases dramatically in disasters.
- There is a need for simple interventions like adequate separate, safe and well-lit toilets which can reduce the risks of violence against women and girls.
- 77% of ever-married women in Bangladesh have experienced some form of violence from their husbands in the last 12 months (BBS, 2011). Based on pre-crisis information:
  - 7,417 women aged 15-49 years may experience physical violence during a two-week long flood period.
  - 4,743 women aged 15-49 years old may experience sexual violence during a two-week long flood period.

**Communicating with Communities (CwC)**
- Communication infrastructure in the affected area (radio broadcasts, mobile networks) appears to be functioning.
- There is a gap in terms of key actionable information needed by affected populations. This includes information about:
  - Safety about returning to flooded and damaged homes
  - Identification safe drinking water and water treatment methods
  - How to avoid drowning
  - How to avoid and treatment for snake bite
  - How to avoid waterborne diseases
- Affected people need a channel to ask questions; raise issues and complaints; and provide feedback to humanitarian actors.
- Particular emphasis is required to ensure information is accessible to all community members regardless of age or gender.
- Clusters should integrate CwC approaches in responses in order to fully engage affected populations.

**Needs and priorities for intervention**
Because this report is based on a review of available secondary information it is not able to accurately rank priorities for intervention. The following list is a summary based on key priorities from the clusters, sectors and agencies that contributed to the report and on what can be learned from available secondary information pertaining to the crisis. These priorities not ranked.

Most often mentioned *immediate* needs:
- Access to drinking water
- Access to latrines for people who are displaced
- Emergency food (ready to eat food for people without cooking facilities and other appropriate food assistance for those having access to cooking facilities)
- Emergency shelter
- Access to health services
- Protection (including fears of looting and GBV)

It can be noted that in a survey of as much available information as possible (including media reports, NGO reports and cluster information) access to clean drinking water, sanitation for those displaced and emergency food were mentioned more times than any other needs and these issues have multiple implications on the affected population across other sectors including on health, protection and nutrition.

Medium-longer term priorities, which will need to be planned for immediately, include:
- Ensuring children can resume education as soon as possible
- Livelihood recovery (including agriculture and livestock)
- Housing repair and reconstruction (with a focus on HHs whose houses and land have been washed away)
- Recovery of community infrastructure (including roads, embankments, bridges, schools and any other public buildings that have been affected)

In general and based on lessons learned from previous floods in Bangladesh the needs as a result of flooding are considered to be relatively uniform across the affected areas. In the absence of an assessment based on primary data and information collected consistently from differently types of locations within affected districts it is not possible to differentiate between the specific needs and priorities at a district level. Response should be multi-sector and consider all sectors as impacted and interconnected.

<table>
<thead>
<tr>
<th>Priorities of Affected People: Giving people a voice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Although a community level needs assessment has not taken place, the SHONGJOG Multi-Stakeholder Platform on Communication with Communities works by contacting community radio stations, member agencies and reviewing newspaper articles to compile what affected people are saying about the floods impact on their lives. This information may not be representative of all affected communities but it does give some idea about their priorities and can be seen as indicative.</td>
</tr>
</tbody>
</table>

**Key findings include:**

In Kurigram communities report needing **food, drinking water and hygiene/sanitation** immediately as they are displaced and staying embankments. They also highlighted that farmers lost their crops and fisherman lost their equipment causing concern about their recovery. People in Chilmari Upazila claim that it could be the biggest flood they ever seen after 1988 flood if floodwater does not recede immediately.

In Gaibandha a helpline receives calls from affected people. **Protection concerns** are an issue with people worried about the potential looting at night by people who come by boat. Some families reported sending their young female members to their relatives houses in town to protect them from any gender based violence. **Dry food, drinking water and sanitation were also reported as immediate needs.**

In Bogra district people are reporting their **concerns about loss of livelihood** i.e. crops in the field as well as livestock as they were preparing for upcoming Eid. As flood water is reducing people are now affected by waterborne diseases and several case of diarrhea and skin diseases are reported.
**Humanitarian constraints**

Damage to roads, flooding of railway tracks and more dangerous conditions for water transport are likely to make accessing affected people difficult and increase the time taken to reach affected areas. Limited information is available on specific points where access is hampered at this stage.

**Limitations in this report and the need for future assessments**

This report is limited by the fact that it is based on available secondary data. While secondary data combined with the knowledge of stakeholders about the operational context is a valid way of understanding a disaster, it cannot provide the same kind of information as a coordinated assessment based on primary data collection. Some organizations have carried out assessments and these have been used wherever possible to contribute to this report.

Without an assessment that gathers information consistently from differently types of locations within districts it is not possible to differentiate between the specific needs and priorities at a district level.

Because key government information in Bangladesh including NDRCC and DDM sit reps as well as important weather bulletins is produced in Bangla there can be a delay in having accurate translations (as there is a scope of different interpretations of information by different users) of this information available to be used as part of a broader analysis of the situation.

In Bangladesh floods are a frequent occurrence and the general profile of needs that result from floods are well known. It is recommended that stakeholders use this pre-existing knowledge and experience to plan their response and combine this with targeted assessments to understand the viability of specific responses in particular locations. These could include but not be limited to:

- Market analysis to determine the utility of cash based responses
- An assessment of schools to determine rehabilitation needs
- Assessment of houses in worst impacted areas to determine reconstruction needs
- Nutrition monitoring
- Testing of water from water sources and an assessment to determine the overall number of water points needing rehabilitation.

Establishing baseline information on specific needs such as the number of water points damaged, schools in need of rehabilitation, other key community infrastructure in need of rehabilitation and number of people in need of food assistance etc. will be key to understanding the effectiveness of response and help in future responses for such recurring disasters.

As the situation may continue to evolve throughout the monsoon, **an on-going monitoring of the number and conditions of people displaced to shelters, embankments and other locations should be established to provide benchmarks in order to understand if the situation is improving or worsening as well as to ensure that immediate needs are met until recovery can continue.** The vast scope of the affected areas affected could be addressed by utilizing regular telephone assessments with government and non-government focal points.
Crisis Impact

Over recent days there has been an increase on the number of districts officially considered affected. The NDRCC report of 6th Aug claimed 19 districts are now affected.  

Outlook

The month of July saw 13% more rainfall than the previous year in all 8 Divisions of the country. Water is now reported to be receding in most areas and weather forecasts indicate that the higher than normal rainfall will now subside and that August should see a return to normal monsoon conditions (BMD Long term forecast 06.08.16). As flood waters begin to recede, particularly in the northern districts, reports are emerging of health concerns, particularly waterborne diseases. This normal August monsoon rain will take place in the context of existing flooding and it is unclear the impact this will have and how long it will take for water levels to return to normal. Bangladesh experiences an annual monsoon from April – October with 80% of annual rainfall occurring during this period (CDMP 2009 BMD). Further rain, even if it is of a normal level, is expected continue for several months. Indian weather forecasting also predicts normal to slightly above normal rainfall until mid-August and it is unclear if any overflow of water from India is likely to make the situation in Bangladesh worse (India Meteorological Department, 01.08.16).

The BMD’s long-term forecast for August predicts normal rainfall. And most rivers throughout the country are in steady or falling trend indicating the overall situation in relation to water levels is likely to improve. The stabilization, and even a decrease in the level of water, doesn’t necessarily indicate an improvement in the humanitarian situation or a reduction of needs.

The FFWC medium range forecast of river levels on 1 August indicates that:

- Brahmaputra-Jamuna is in falling trend and may continue to fall and flood situation in the adjacent areas are likely to improve.
- Ganges-Padma River is in rising trend and may remain steady.
- Rivers around Dhaka city may continue to rise.

As of 7 August the immediate outlook is:

- The Brahmaputra-Jamuna, the Ganges-Padma and Surma-Kushiyara are in falling state.
- The Brahmaputra-Jamuna, the Ganges-Padma and Surma-Kushiyara rivers may continue to fall in next 48 hours.
- Flood situation may be likely to continue improving in low lands of Serajganj in next 72 hours.
- Flood situation may be likely to continue improving in low lands adjacent to Rajbari, Manikganj, Munshiganj and Sariotpur districts in next 48 hours.
- Buriganga, Turag, Lakhya (Narayanganj) rivers around Dhaka City are in falling trend which may likely to continue in next 48 hours.

Indicating no significant concerns of rising river levels in the coming days.

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6 This is an increase from the 4th August when 17 districts were affected including 420 Unions under 75 Upazilas (NDRCC).
7 http://www.thedailystar.net/backpage/diseases-spread-floodwater-starts-receding-1265191
9 http://ffwc.gov.bd/
As of 7 August, out of 90 stations monitored, 9 were above the danger level as noted in the table below compared to 20 stations on 26 July and 18 stations on 31 July. Based on the location of the stations above the danger level, further flooding could occur in the downstream areas of central and southern Bangladesh towards the coast while the stations upstream are receding.  

<table>
<thead>
<tr>
<th>Station name</th>
<th>River</th>
<th>Rise(+) / Fall(-) (cm) during last 24 hours</th>
<th>Above Danger Level (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baghabari</td>
<td>Atrai</td>
<td>-14</td>
<td>+21</td>
</tr>
<tr>
<td>Elasin</td>
<td>Dhaleswari</td>
<td>-12</td>
<td>+65</td>
</tr>
<tr>
<td>Narayanganj</td>
<td>Lakhya</td>
<td>-15</td>
<td>+10</td>
</tr>
<tr>
<td>Taraghat</td>
<td>Kaliganga</td>
<td>-15</td>
<td>+47</td>
</tr>
<tr>
<td>Jagir</td>
<td>Dhaleswari</td>
<td>-14</td>
<td>+45</td>
</tr>
<tr>
<td>Goalundo</td>
<td>Padma</td>
<td>-9</td>
<td>+24</td>
</tr>
<tr>
<td>Bhagyakul</td>
<td>Padma</td>
<td>-16</td>
<td>+3</td>
</tr>
<tr>
<td>Sureswar</td>
<td>Padma</td>
<td>-15</td>
<td>+25</td>
</tr>
<tr>
<td>B. Baria</td>
<td>Titas</td>
<td>-3</td>
<td>+28</td>
</tr>
</tbody>
</table>

According to the FFWC table predicting water levels for the coming days, by 11 August only 4 out of 90 Locations are expected to be above danger levels. These are:

<table>
<thead>
<tr>
<th>Basin</th>
<th>River name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brahmaputra</td>
<td>Dhaleswari</td>
<td>Elasinghat</td>
</tr>
<tr>
<td></td>
<td>Old Dhaleswari</td>
<td>Jagir</td>
</tr>
<tr>
<td></td>
<td>Kalinganga</td>
<td>Taraghat</td>
</tr>
<tr>
<td>Ganges</td>
<td>Ganges</td>
<td>Talbaria</td>
</tr>
</tbody>
</table>

There have been concerns noted in some reports that flooding could become worse throughout the monsoon. A media report in July this year quoted the Minister of Disaster Management and Relief as saying that there was a forecast indicating that a large flood was likely to impact the country in the period from July-September (Dhaka Tribune). While some reports have compared the floods to the 1998 flooding (where up to 30 million people were left homeless) it is difficult to find clear evidence to support this however the full impact of the floods is still unknown. While reports indicate that floodwaters are receding in the north, there are 2 months of monsoon rain remaining and even if this rain is at a normal level there is the potential for the humanitarian situation to worsen.

While the impact of current flooding is clearly extreme in some affected areas, at this stage no further information on this predicted major flood has been found and the FFWC forecasts indicate the need for ongoing monitoring and preparations but not alarm.

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10 http://www.ffwc.gov.bd
Flood Inundation Map of Bangladesh
(Area Under FFWC Flood Forecast Model)
Valid for 7 August 2016
Prepared on 02 August, 2016

Source: http://ffwc.gov.bd/index.php/map/inundation-map/bangladesh-120hr-forecast
Sector Information

Food security and livelihoods

Background
For most of the affected districts the main livelihoods are agriculture based, daily wage labour or small business. Aquaculture does not represent a major livelihood activity; artisan fishing is not a common practice among riverine communities (draft HEA NW, July 2015).

These communities suffer from high levels of chronic poverty. The previous IPC acute analysis revealed a high level of acute food insecurity, indicating an underlying vulnerability to any shock including that which these floods present.

The food consumption pattern is poor with more than 30% of HHs in affected areas experiencing poor and borderline food consumption against a national average of 15%. Dietary diversity of women is particularly poor, with consumption of protein highly inadequate. Only 4% of children are meeting the minimum dietary diversity which compares poorly with the national average of 24% (BDHS, 2011).

Food insecurity is also associated with seasonality in the affected areas. Almost every year there is a shortage of food in October and November, this season is known as the *monga* season. Gaibandha, Lalmonirhat, Kurigram, Nilpharmari and Rangpur districts are severely affected by *monga*\(^{14}\). Sunamganj and Kurigram are classified in chronic IPC level 4 (severe food insecurity) while the other most affected districts are classified in level 3 (moderate food insecurity).

Impact and needs
Past experience with flooding in Bangladesh gives a good understanding of the impact on food security and livelihoods. Immediate food needs, particularly for those displaced and without cooking facilities will be a priority and this will be followed by longer term livelihood recovery needs.

The current needs as described in the sitreps compiled by the INGO-ESC (Sitrep, INGO-ESC Flood 03.08.16) and field observations (by Local NGOs and WFP) mention food assistance as one of the priority needs.

During flooding, cropland and homesteads are inundated with water causing severe damage to standing crops. Current (incomplete) information indicates these floods have destroyed partially 27,522 ha and fully 35,194 ha of standing crops. Main crops in the fields were *aus* rice (Kurigram), *aman* rice, jute and sugarcane (in Jamalpur and Sirajganj) and rice and vegetables (in other districts) (Nirapad, 4th August). This will have a serious impact on job opportunities for daily labourers.

There is no official D-form published (although these are being prepared by DDM) and information does not include the full impact on agriculture as yet. However some information indicates As of 1 August, at least 61,000 hectares of crops are flooded (ECHO 01/08/2016). In Lalmonirhat, Jamalpur, Gaibandha, Manikganj, Munshiganj, and Tangail, the affected population is reported to be facing acute food shortages (Daily Star 01/08/2016).

Reports suggest that sources of livelihoods have been destroyed, including fish farms and paddy fields, farmers have no seeds and there is a growing lack of fodder for cattle. Food

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\(^{14}\) Centre for social studies, Dhaka – Monga article
prices are expected to rise and shortages are likely in the flood-affected regions (GUK Documentation, Monitoring and Publication Cell 02/08/2016).

Frequently floods cause small and marginal farmers and agricultural daily labourers to lose their income and employment (Food Security Cluster - DFP, 10/09/2015). Floodwater brings large volumes of silt and sands causing cultivable lands to lose immediate productivity because of thick sand accumulation. As a result small and marginalized farmers are compelled to resort to day labour for income.

Households affected by flooding report the adoption of the following coping strategies:
- Distressed assets selling such as livestock;
- Migrating to non-affected areas to find work opportunities (e.g. as agricultural day labour, rickshaw puller, household help and non-agricultural day labour, reduction in meal frequency and size (Food Security Cluster - DFP-North West, 10/09/2015).
- Households are eating less than three meals a day (Oxfam 48 Hour Assessment, Kurigram, 3.08.16)

Oxfam has completed First Phase 48 Hour Food Security and Livelihood Assessment in 2 locations in Kurigram and Gaibandha. The degree to which these it findings represent the entire affected area is unclear and stakeholders should bear that in mind when interpreting them. Findings from the Oxfam assessments illustrate a significant impact on immediate food security including dietary diversity and also a significant impact on agricultural livelihoods if interventions do not take place quickly. Key findings from the Oxfam assessments of the 3rd August are given in Annex 1

**Response information**
- The GOB is providing assistance to the flood affected people that includes cash grant and food aid. GoB allocated 10050MT GR rice, BDT 42,450,000 GR cash and BDT 22,500,000 for dry food (NDRCC, 07.08.16). The government has started their immediate responses proactively. On 23 July, GoB distributed 4,000 packets of dry food in Kurigram, Gaibandha, Lalmonirhat and Nilphamari district. Each packet included rice- 5 kg, lentil- 1 kg, soyabean oil- 1 litre, suger- 1kg, salt- 1 kg, puffed rice- 500 gm, flattened rice- 1 kg, candle- 1 dozen and match box- 1 dozen.
- INGOs (CARE, Save the Children, Christian Aid, Action Contre la Faim, Muslim Aid, Islamic Relief and Caritas) are in the process of distributing food assistance to 12,121 households to a value over 36.45 million BDT (not including the cost of operation, i.e. logistic and staffing). This is likely to be a combination of food (in-kind) as well as unconditional cash grants. DfID Start funds and INGO’s own sources of funding are used for the response.
- BRAC is responding to 9,031 households to a total value of 1.51 million BDT with a combination of cash and in-kind food assistance.
- The Red Cross and Red Crescent Movement (BDRCS, with British Red Cross, and German Red Cross) is in the process of distributing dry & cooked food to 4,850 HHs in 9 districts and 5000 BDT for 1,720 HH (in Bogra). A DREF has been launched with the aim to provide food assistance (in kind and cash) for 8,000 households for one month.

**Recommendations**
Due to the impact on food security (access to food), it is recommended to support the most vulnerable flood affected households with food assistance – especially for the most vulnerable HHs to supplement the GoB intervention – which is not a complete nutritious

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15 Funding confirmed
food package, in terms of energy and food diversity. Farmers are reporting that a primary concern is to identify and procure seed or seedlings of suitable crop (based on the local crop calendar) and mobilize financial resources restart the crop cycle (Nirapad). Based on this cash support should be considered based on the readiness of the markets to meet needs.

The **early restoration of livelihoods and production assets are essential** steps towards recovery of the disaster-affected communities. This is particularly urgent for the affected population who are heavily dependent on agriculture, farming and day laboring.

The FSC has identified 7 **most affected districts** which should be prioritized for response: Kurigram, Gaibandha, Jamalpur, Sirajgonj, Lalmonirhat, Sunamganj and Bogra

The caseload will be based on the number of affected people and the lower poverty ratio per Upazila. Wealth ranking from the Household Economy Approach, North West, July 2016 may also be used.

**Information gaps and recommended assessments**

Markets usually bounce back quickly so a rapid market assessment is recommended to identify the applicability of cash support. Oxfam has carried out the First Phase 48-Hour Assessment in two locations (a selection of Upazilas in Kurigram and a selection of Upazilas in Giabandha). These assessments provide a rapid yet thorough overview of the situation in the locations assessment and stakeholders should consider the value of utilizing the same assessment approach to achieve comparable findings from other locations (Oxfam Food Security and Livelihoods First Phase Emergency). The Oxfam assessment indicated that, with some support, markets will be able to respond to needs.

There is no information regarding food insecurity (food consumption score, household dietary diversity and coping strategy index), which makes it difficult to determine the acute food insecurity level as well as the number of people in needs of food assistance.

**Type of assessments needed:** in-depth food security and livelihood assessment, EMMA / PHP assessment (recommendation from the Oxfam 48 Hour assessment).

**Health**

**Background**

A study by the Human Development Research Council in 2008 after the mega floods of 2007 found the following (UNFPA 2008):

- Non-availability of transport in and around flood-affected areas and disruption of communications seriously hindered women’s ability to access health facilities for deliveries.
- There were insufficient skilled/experienced personnel to assist delivery of babies.
- In roadside shelters, the situation was the most unacceptable. These places were dirty and unhygienic. People co-existed with livestock, and there was no place for delivery, excepting open spaces under the cover of bed-sheets.
- None of the pregnant women and lactating mothers received any relief related to reproductive care.

**Impact and needs**

In the last 10 days (25 July - 03 August 2016) National Health Crisis Management Centre and Control Room of DGHS have been closely monitoring the situation in affected areas.

Communicable diseases including, acute watery diarrhea (AWD), acute respiratory infection (ARI), skin diseases and eye infections are increasing.
The NHCMC (03.08.16) recorded a total of 4739 health related cases in the 15 affected districts:

- 2069 diarrhoea cases
- 463 ARI Cases (Acute Respiratory Infection – Pneumonia)
- 482 Skin diseases
- 329 Eye Infections
- 23 Snake-bite cases
- 312 Injuries from 15 flood affected districts

Media reports indicate that the incidence of water borne diseases such as diarrhoea, dysentery and skin diseases is increasing as water recedes.16

There are reports that people have become sick because of the use of ineffective water purification tablets.17

**Response information**

- 791 Medical Teams are working to tackle the health problems in flood-affected areas.
- The National Health Crisis Management Centre and Control Room (Hot Line +88 01519 114488) of DGHS and all CS offices of respective districts have been activated and are monitoring the health situation 24/7.
- All Civil Surgeon Offices have been instructed to take necessary steps; and Control Rooms of flood-affected areas are operational around the clock.

16 http://www.thedailystar.net/backpage/diseases-spread-floodwater-starts-receding-1265191
17 http://www.thedailystar.net/backpage/diseases-spread-floodwater-starts-receding-1265191
• At moment there are adequate supplies of emergency drugs (ORS, WPT, IV saline, anti-snake venom, antibiotics and other necessary drugs) in buffer stocks of hospitals of affected areas.
• Local medical teams have been deployed to the flood affected areas to address emerging health problems.
• WHO and health cluster partners are closely monitoring the overall situation in collaboration with the National Health Crisis Management Centre.
• Cluster Co-leads organized an ad-hoc health cluster meeting on 01 August and an Emergency Operation Centre (EOC) has been activated immediately as decided in the meeting.
• Health cluster partners are sitting regularly for monitoring of the flood situation, sharing partners’ interventions and disseminating day to day required interventions.
• On behalf of the health cluster, WHO maintains close cooperation with the Directorate General of Health Services (DGHS), the Ministry of Health and Family Welfare and local health authorities to address evolving needs.
• WHO had prepositioned 500 Basic IEHK (Inter-Agency Emergency Kits) kits through EPR programme of NCDC, DGHS and 70,000 i/v cholera saline and 40,000 Ringers lactate saline & other drugs across the country through CDC programme, DGHS. These drugs are being used to manage health problems of flood affected areas.
• WHO will supply one million Water Purification Tablets.
• UNFPA responded immediately to the worst hit districts, Jamalpur, Kurigram, Sirajganj and Tangail to provide Reproductive and Obstetric health care.
• UNFPA already started Dignity Kit production and is expecting 1000 to be ready for distribution by the end of this week (i.e 12.08.16) and will also explore if there is scope for midwives to be deployed in worst hit districts.
• icddr,b is ready to facilitate health services specially with logistics and technical expert in diarrheal disease case management if there is a diarrhea outbreak in the flood affected area.
• BRAC has distributed 15 365 ORS in flood affected areas of Kurigram, Gaibandha, Jamalpur, Tangail and Manikganj;
• IFRC/BDRCS mobilized eight water treatment plants to 4 districts (Kurigram, Bogra, Sirajgonj and Jamalpur); these plants are capable of purifying 1000 litres of water per hour. One large treatment plant which can purify 4000 litres of water per hour has been mobilized (in addition) and plastic buckets for carrying pure water have been sent to affected areas.
• Action Aid also providing support in the flood affected areas.
• Local level field officers of WHO, UNFPA and UNICEF are closely working with Civil Surgeons of the affected districts.\textsuperscript{18}

\textbf{Recommendations}

\begin{itemize}
  \item Intensification of Health promotion
  \item Programmes designed to meet reproductive and psychosocial needs
  \item Replenishment of buffer stock
  \item Water quality assurance, sanitation, human waste disposal in coordination with other partners.
\end{itemize}

\textsuperscript{18} Source: National Health Crisis Management Centre and Control Room, DGHS
**Information gaps and recommended assessments**

Intensification of disease surveillance for:
- Water and food related diseases
- Acute Respiratory Infection (ARI)

**WASH**

**Background**

Flood shelters often have inadequate WASH facilities (Save the Children 2006). Past experiences with floods in Bangladesh have found that the following needs recur:

- Drinking water is a serious concern.
- A lack of toilets where people are staying causes people to defecate in the open in areas close to where drinking water is being accessed. This brings with it multiple risks including to hygiene as well as to the security and safety of women and girls.

Back to back emergencies this year has reduced WASH sector’s pre-positioning items, so immediate action needed to replenish WASH emergency stocks as well fund mobilization for post-flood WASH service recovery.

**Impact and needs**

Of the 15 affected districts, WASH has been impacted the greatest in Kurigram, Lalmonirhat, Sunamgonj Gaibandha and Jamalpur. In spite of response being well underway by DPHE and partners in terms of water point rehabilitation, latrine construction and the distribution of water purification tablets, needs appear to be significant as drinking water and safe sanitation are mentioned frequently in NGO reports as well as media reporting. Open defecation is reportedly increasing and the absence of hygiene equipment and safe drinking water heightens the risk of possible disease outbreaks.

Approximately 25,000 water options are damaged in affected districts. Most of the damaged water options are at Kurigram, Gaibandha and Japalpur (DPHE 07.08.16)

The longer the floodwater remains the greater the risk of water born diseases and the greater likelihood of longer term impact on child nutrition. Immediate preventive measures are needed to restore water and sanitation facilities at the community level to ensure household hygiene practices can be safe. (DPHE 07.08.16)

Oxfam’s 48 hour assessment carried out in a small sample of Upazilas in Kurigram and Gaibandha found that although communities were not reporting high incidences of children suffering from diarrhoea and that people were taking some precautions regarding the water they consumed, in order to do this they are carrying drinking water long distances. People in affected areas generally do not have access to toilets and unsafe defecation practices are taking place. Women, adolescent girls, elderly and children are reported to be suffering most from the lack of safe and hygienic sanitation. The assessment found:

- Most of the affected households do not have access to water that looks and smells safe to drink.
- The affected communities do not have access to adequate toilet areas.
• Women defecate at night in the privacy of the dark by going out into the floodwaters on makeshift rafts made of banana trunk or on plastic bags and throw excrement into the water. They urinate openly by asking someone to stand guard or go into the water to urinate.
• Children defecate in the open if there is a dry area or in the water.

Reported needs are:
- Sanitary latrines
- Hygiene kits (with bathing soap, laundry soap)
- Oral saline
- Sanitary napkins (at least 6 per woman)
- Covered water pitchers
- Water purification tablets
- Buckets (Oxfam 48 Hour assessment 3.08.16)

Across the affected areas, sanitation has been seriously affected as toilets in affected areas have been inundated with floodwater. There is also a shortage of drinking water as tube wells have been submerged (INGO emergency sub committee)

There have been media reports of an outbreak of waterborne diseases in the northern provinces where it is said that people have contracted diarrhoea, dysentery, and typhoid as drinking water has been contaminated. People in Lalmonirhat, Jamalpur, Gaibandha, Manikganj, Munshiganj, and Tangail lack drinking water. Two health facilities in Kalirbazar have been flooded and are no longer operational (Daily Star 01/08/2016).

There are also reports that people have become sick because of the use of ineffective water purification tablets. 19

Response Information

DPHE together with the WASH cluster is responding to the flood emergency with the repair and installation of tube wells, installation of latrines and distribution of water purification and hygiene materials.

- DPHE and partners have so far repaired approximately 15% of the known damaged water options however 85% of the known damaged water options require repair and the number may increase if more areas become affected.
- 461 temporary latrines have been installed at flood shelters.
- As yet there has not been any initiative to restore community and household level sanitation facilities because water levels are too high (DPHE 07.08.16)
- Around 600,000 water purification tablets have been distributed. Families’ receive 40 WPTs which is sufficient to purify 200L of water.
- Over 6,000 Jerry cans have been distributed.
- Over 800kg of bleaching powder has been used to disinfect pond water in affected communities.
- 2 mobile water treatment plants and 4 mini water treatment plants have been deployed

19 http://www.thedailystar.net/backpage/diseases-spread-floodwater-starts-receding-1265191
in Kurigram district and 2 mini water treatment plants have been deployed in Gaibandha district. (DPHE and WASH cluster 07.08.16)

**Recommendations**

- Immediate action needed to replenish WASH emergency stocks as well fund mobilization for post-flood WASH service recovery to mitigate risk of unhygienic WASH services and practices on women and children’s health and nutrition (WASH Cluster 07.08.16)
- Substantial post flood support is needed to recover sanitation facilities (DPHE).

**Shelter**

**Background**

Past experience in floods in Bangladesh has shown that people who need to flee flooded homes stay as close as they can to their houses, camping out on roofs, roads, embankments or other high ground or staying in flood shelters and schools where these are available.

Shelter is more than a roof over a head to cover people and protect them from the elements. It is a holistic concept of interlinked issues such as physical safety and security, privacy, comfort, health, well-being and livelihood. Houses in northern Bangladesh are mostly built of mud, wood and bamboo, materials that are very susceptible to floods. Some areas are at risk for river erosion, which can cause the houses and land to be washed away. Floods in the range of 0.5-1 m above plinth level tend to result in the total loss of *kutcha* (mud) house walls. Once the flood water recedes houses are expected to be in need of major repairs and/or re-building.

Previous floods in 2014 (7 districts assessed) resulted in 16 314 fully damaged houses and 110 682 partially damaged houses.

Displacement normally takes place to nearby embankments or roads, flood shelters or family and relatives. During floods 2015 14 % of the population was reported as displaced, in 2014 this figure was on average 4 %.
Figure 1: Predominant shelter types in some of the affected districts based on 2011 census data

Impact and needs
According to recent NDRCC and DDM situation reports (NDRCC situation report (03.08.16) and DDM situation report (04.08.16), 15,137 houses were reported as fully damaged and 246,474 houses reported as partially damaged. It has also reported that around 8,356 houses have been completely washed away along with homestead due to river erosion during recent flood. Some media reports are putting this figure even higher at over 15,000 households (BDNews 24)\(^\text{20}\) which is inline with figures from DDM which reports 16,770 houses completed lost due to riverbank erosion and a further 65,000 partially eroded (DDM 07.08.16)

Erosion is reported to continue in some places along the Padma River. Munshganj is specifically mentioned, implying that more houses may still be lost as the flooding continues.\(^\text{21}\) According to NDRCC report, 935 houses in Manikganj, 790 houses in Lalmonirhat and 109 houses in Rangpur washed away completely due to river erosion. A total of 450 affected people have taken shelter in the nearby primary schools, on flood control embankments or in neighbors’ houses on high land.\(^\text{22}\)

As in the past, people who have been displaced are living wherever they can find high ground. In Lalmonirhat people are reported to be living alongside cattle and poultry resulting in unhygienic conditions.\(^\text{23}\)

In Kurigram alone more 150,000 houses have been damaged and around 6,522 houses washed away by river erosion. In Gaibanda 12 flood shelters, in Kurigram 102 flood shelters and in Sirajganj 139 flood shelters have been opened and in Nilphamari 388 HHs are reported to have moved to the embankment. Affected people are either stranded in their houses or have moved to relatives’ houses and schools for shelter.

Information gaps and recommended assessments
Further information on the location and distribution of government shelter response will need to be collected. Further assessments, in priority districts/areas, where humanitarian agencies are planning shelter responses will be needed to ensure a coordinated shelter response.

Response information
Around 8,850 bundles of corrugated iron sheets along with cash and 5,000 tents were requested (to the central government) from affected districts for housing support (DDM 04.08.16). USAID supported CARE’s response by providing tarpaulin with ropes to 2,500 households.

Recommendations
- Provide emergency shelter support to vulnerable families having fully and partially damaged houses, with priority to families with fully damaged houses.


\(^\text{22}\) [WFP Flood Situation Report- North (as of 27 July)](http://www.thedailystar.net/backpage/diseases-spread-floodwater-starts-receding-1265191)

• Recommended to provide in-kind support or cash in combination with training on disaster resilient building techniques as well as NFI (package or cash) to households in line with shelter cluster guidelines and standards. For places where markets are reported as non-functioning in-kind support of materials would be preferred (so a market assessment will be needed).

• Support should be provided to families who lost houses and land due to river erosion. This will need to include liaison with relevant government authorities on land ownership.

• Provide labour support, or extra cash for hiring labour support, to female-headed households, elderly and disabled in combination with shelter support.

• For longer-term recovery it is recommended to support households to build back better in line with the Bangladesh National Building Code and shelter cluster guidelines and standards.

Nutrition

Background
Disasters in Bangladesh are known to have an impact on nutrition in the short and longer term, unless interventions are undertaken quickly. Flooding after Cyclone Roanu disrupted treatment of SAM in affected areas, and a lack of community-based screening means poor nutrition outcomes are potentially under-reported (HCTT 01/06/2016). Flooding following monsoon rainfall that hit the northern provinces of Bangladesh in 2014 left some 370,000 people acutely malnourished (ECHO 17/11/2015). Many of these areas have been affected by the current floods implying they are likely to be particularly vulnerable to this latest shock with the potential for the nutritional status of the population to worsen.

Impact and needs
In a disaster such as flooding, a lack of shelter and/or water can result in decreased hygiene. There is often limited available space where women feel comfortable to continue breastfeeding and engage in complementary feeding (KI, Nutrition cluster, 2014). Flooding may not directly and immediately impact nutrition, but it creates situations that increase vulnerability and can lead to a rise in under nutrition in a short time frame. This is complicated by factors such as inadequate hygiene, a lack of shelter and private, safe spaces for women to breastfeed or feed young children, and an inaccessibility of nutritious foods. (KI, Nutrition cluster, 2014).

Information gaps and recommended assessments
The nutrition situation of pregnant/lactating women and children, who are most vulnerable, should be closely monitored to ensure women have safe places to breast-feed. Nutrition surveillance of vulnerable groups should be initiated.

Education

Background
Save the Children and Plan identified the following key impacts of floods on education in Bangladesh (Plan and SCI 2010):

• Physical impediment to accessing schools
• Loss and damage of learning materials
• Damage to physical structures
In addition, schools, which are not directly damaged as a result of the floods, are often used as collective centers to house displaced people, disrupting classes and causing damage to the buildings and materials including the schools’ water and sanitation facilities. For example, 340 school water sources and 341 latrines of pre-primary and primary schools have been damaged in four districts (reported by Education cluster members).

Previous experience in Bangladesh suggests that the schools used as shelter remain totally closed for months causing severe interruption in education delivery. Even when schools are ready to resume education programmes, damages to the school furniture and materials are often significant thus impeding delivery of quality education.

Accurate information on the status of schools (education facilities) is often not available quickly.

**Impact and needs**

Almost all the schools are affected in the flooded areas of the country, either by being inundated or eroded or by being used as flood shelters. This seriously hinders access to education for children in the affected areas. More than 1,500 schools have already been reported by Government as directly affected by the floods. Already over 100 schools are known to have been damaged in some districts including Gaibandha (232), Kurigram (127), Manikganj (538), Tangail (163) and Siraganj (113) (Education Cluster). In Gaibandha district as of 1 August classes were suspended in all affected schools. In Kurigram, one of the worst affected districts, around 43,000 students been badly affected as their dwellings and schools have been inundated by the flood waters, according to district primary education office (DPEO) sources. According to the same sources, the schools have been closed for around two weeks already. The situation with access to education in the affected areas is worsened by the fact that children lost their books and other education materials.

Global evidence suggests the longer the period that education is for interrupted during emergencies and natural disasters, the higher risk of children dropping out of school. With already alarming figures of out of school children in Bangladesh (more than 1 in 4 school age children – some 6.2 million currently are out of school) and low performance of students (only 25% of Grade 5 students reach the standards in Bangla and Math in 2013), education should be given high and urgent priority in the current floods response. In addition, the Government of Bangladesh found that it was common for those adolescent girls who had lost an academic year of school due to a cyclone to then be forced into early marriages. Education should be given high and urgent priority in the current floods response.

**Information gaps and recommended assessments**

More detailed knowledge on the location and specifics of damaged schools, the schools being used as shelters and a priority list of education materials is required in order to plan response.

**Recommendations**

- Education in the affected areas should resume as quickly as possible.
- When schools are used as shelters in the affected areas, community and local authority discussions should be arranged to seek alternative options for shelters or to set up temporary learning spaces.
- Adequate support should be ensured from public agencies or private agencies to reconstruct/repair damaged schools as soon as possible and with the “build back better”
concept at the core to ensure school buildings are able to withstand future similar events.

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<th>Early recovery</th>
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### Impact and needs

The Early Recovery Facility’s rapid assessment estimates that 1,500,000 people are in need of assistance towards recovery in the affected districts.

In Kurigram alone, the ERF team found that earthen and *pucka* roads have been damaged. Embankments have been breached by the floodwaters creating the possibility of extended waterlogging.

The assessment found that the excessive water flow was so fast and higher than the previous and expected flood danger levels that were planned for that it washed away some of the raised homestead plinths in areas where these had been specifically constructed for people to withstand floods. In some cases the damage was due to the relatively new structures (finished in only May this year), which had not yet had time to compact and settle. The sandy composition of the soil was also a factor. A total of 146 raised homesteads were found to have been destroyed in Nageshwari, Kurigram Sadar and Chilmari Upazilas of Kurigram district (ERF 07.08.16)

The District Commissioner and DRRO of Jamalpur district requested support for the post-flood rehabilitation through support to shelter and community infrastructure development. (ERF)

### Recommendations

The ERF assessment found that priority needs were the redevelopment of community infrastructure through CFW, cash grants to support the recovery of damage to agriculture and the repair of education facilities.

A detailed list of damaged community infrastructure is required.

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<th>Child Protection</th>
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### Impact and needs

Child protection is a fundamental issue in all affected districts in relation to the floods. Following are some facts and figures identified and analyzed from secondary sources particularly based on the Rapid Needs Assessment (RNA) report of Plan International Bangladesh.

As per RNA of Plan International Bangladesh conducted in 4 Upazilas; Razibpur, Roumari, Chilmari and Ulipur, of Kurigram district on 31st July 2016:

- The situation has significantly impacted children and is exposing them to a variety of risks. There are reports of a large number of children staying in shelters without adequate care including food, water, hygiene, education & recreational facilities.
- The risk of children becoming involved in child labour and hazardous work has increased as HHs try to recover lost income. There is also an increased risk of trafficking, especially for those children left alone.
- Given the lack of supervision/support of parents, there is an increased risk of drowning and exposure to animal bites.
• Young and adolescent girls have been found to be particularly at risks of physical abuse, SGBV, emotional ill-treatment, and being unable to maintain proper hygiene.
• Adolescent girls are facing further risks given the levels of privacy for being able to access toilets during the daytime. Many are reporting waiting until nightfall to be able to go to the toilet which both increases health and security risks of walking to remote open places for open defecation at night. Many girls are reporting being unable to adequately keep menstrual hygiene.

**Sexual and reproductive health**

**Background**
Several of the affected districts already have poorer reproductive health indicators when compared to national average. Based on past experiences of similar disasters in Bangladesh it can be assumed that all of the currently pregnant women who have been impacted by the floods need urgent life-saving maternal and new-born health services particularly quality antenatal care, skilled birth attendance at delivery and post-natal care.

**Impact and needs**
It is not possible to know exactly how many women and adolescent girls are in need SRHR services however the following estimates are based on the general demographic data in relation to pregnancy and childbirth across the country and the population of affected districts. It can be expected that;

- The estimated number currently pregnant women is 31,288
- The expected number of deliveries per month is 5,508

With physical access challenges and health receiving less priority from families as they focus on rebuilding shelters and restoring livelihoods, critical reproductive health women and girls can easily be compromised putting them at risk of disease and death. For example, reports from Chilmari Upazilla of Kurigram shows 3 Unions are still under water in this upazilla and FWCs are not functional for BeMONC. Immediate disaster response hence needs to ensure life-saving reproductive health services.

**Recommendations**

- Provide life-saving minimum initial service package for reproductive health in crisis situations to supplement the GoB efforts.
- Address the immediate humanitarian requirements of pregnant and lactating women in the most affected districts through targeted reproductive health interventions which will include a specific focus on the most vulnerable disaster affected people.
- Coordinate multi-sectoral reproductive health services including a health sector response to gender based violence (GBV) through national and district coordination mechanisms to support most affected people.
- Use the above estimates of pregnant women and deliveries as a guide for planning the caseload.

**Gender Based Violence (GBV)**

**Background**
Women and girls are already at risk of GBV in Bangladesh even in non-disaster times. According to the Violence Against Women Survey conducted by the Bangladesh Bureau of
Statistics in 2011, 77% of ever-married women in Bangladesh have experienced some form of violence from their husbands in the last 12 months.

When a disaster occurs, the vulnerability of women and girls increases dramatically including sexual violence, exploitation and abuse, and harmful practices like child marriage. Disaster responses indicate that there is a huge need for simple interventions like adequate separate toilets for women and men to provide women and girls with increased privacy and security. The capacity of shelter homes is limited - in many shelters thousands people are sharing only three/four rooms again making it impossible to ensure privacy. Women’s restricted decision-making power and mobility put them at increased risk in an emergency. Evidence has shown that when women and girls lose their clothing with a disaster, often they are shy to come out to the open for the lost sense of “dignity” due to their worn-out or dirty clothing, which prevent them from accessing and benefitting from humanitarian relief and other critical services.

In a disaster response, usually more obviously life-saving clusters tend to attract more attention than “hidden” issues such as GBV. The limited focus on issues around GBV is compounded by weakened social network for psycho-social support for affected women and girls. However, humanitarian actors have increasingly acknowledged the high life-threatening and long-lasting traumas ensuing from GBV even when the survivors did not lose their lives, and hence the need to fully integrate GBV prevention and response in all phases of the humanitarian preparedness and response.

**Impact and needs**

The data on GBV in the previous flood response and GBV numbers for recent flood is unavailable. The number of women and adolescent girls in need of GBV services are thus estimates based on affected population of 16 affected districts.\(^2\)

- Proportion of affected women of reproductive age (15-49 years) is 927,171
- Estimated number of girls of 15-19 years is 153,354
- Estimated number of girls of 15-18 years is 126,003
- Number of women of 15-49 years who may experience any form of physical violence during two-week long flood period is 7,417
- Number of women of 15-49 years who may experience sexual violence during two-week long flood period is 4,743

**Recommendations**

- Increase access to multi-sectoral GBV prevention and mitigation services for the most vulnerable women and girls, to ensure their safety and dignity.
- Strengthen GBV coordination at the national level, including data collection and analysis, and integrating GBV prevention and mitigation into other clusters’ flood responses.

**Communicating with Communities**

**Background**

Communicating with communities is an essential way of both understanding the priorities of people impacted by a disaster and of ensuring they have the information they need to

\(^2\) Because the number of affected districts has been changing rapidly clusters have been making their planning figures on the best information available to them at the time. These figures may not represent the DDM and NDRCC’s very latest data but they still serve as a solid basis for planning
address their own needs as best they can, avoid negative behaviours and risks that may further exacerbate the impact of a disaster and be able to access support that is provided. Effective communications with communities impacted by disasters can also help manage community expectations about responses likely to be provided and promote successful self-recovery.

**Impact and needs**

Communication infrastructure in the affected area (radio broadcasts, mobile networks and some face-to-face communication activities) appears to be functioning. But there is a gap in terms of important and actionable information needed by affected populations, including practical information that local communication partners report as missing. This includes information about:

- Safety about returning to flooded and damaged homes and when it is safe to return to specific areas which have been flooded and where waters may be receding
- Which water is safe to drink and proper water treatment methods
- How to avoid drowning
- How to avoid and treatment for snake bite
- How to avoid waterborne diseases

As with all humanitarian responses, there is also a need to provide a channel for communities to ask questions; raise issues and complaints; and provide feedback to humanitarian actors. And an overarching need to ensure information is accessible to all community members (as sometimes information is only passed on to men or controlled by men thus leaving other groups without sufficient information to make safe and healthy lives).

**Information gaps and recommended assessments**

Communication with Communities is not an individual sectoral approach in the response; rather it has to be integrated into the sector-wide response to connect affected populations with on-going response operations. Clusters and agencies responding on the ground can further identify the information needs of the affected communities and share with SHONGJOG to compile and share these needs more widely. Agencies who are responding can look into the ways they communicate and engage with affected populations in order to improve two-way communications with affected people. SHONGJOG can support different clusters and agencies to identify people’s information needs and better communicate with them based on those needs.

**Response information**

Several radio stations are operating in the affected areas; Bangladesh Betar (Rangpur) along with Radio Chilmari (Kurigram) and Radio Saralbela (Gaianda) and Radio Mukti (Bogra), these stations are giving some practical advice to the affected population. In addition, they are airing programmes involving technical experts/specialists in panel discussions/phone-in programmes focusing on different specific issues such as women and children’s issues during emergency. The Department of Public Health Engineering and Health Cluster are also providing information through their existing interpersonal communication channel.
The radio stations also provide an important way for affected people to relate their needs (discussed under priorities).

**Recommendations**

Clusters should integrate “communication with communities” approaches as they prepare their responses, in order to fully engage affected populations in their responses.

Agencies can provide necessary information through existing face-to-face communication channels, as well as making use of broadcast and mobile-based channels. It is vital that all such communication methods are coordinated to avoid any duplication and confusion, and to ensure that information being shared with communities is consistent across all responders.

Clusters and agencies are recommended to take advantage of the support offered by SHONGJOG, to ensure that they are communicating effectively with their target communities; that communication products are well-designed, appropriate and understandable; and to ensure that those communities’ voice and choice are reflected in the response.

**Impact on critical infrastructure**

Overall more information is required on the specific infrastructure damage and where it is located. Railway connections on the Jamalpur–Bangabandhu Bridge (east) and Jamalpur–Dewanganj routes are suspended as railway tracks have been submerged and need repair. Since 30 July, two 200-metre stretches of the Jamalpur–Sharishabari road in Phulbaria area were damaged by floodwater, suspending traffic (Daily Star 01/08/2016). The Jamuna Bridge is an important link between Eastern and Western parts of the country.

In the public domain, roads, culverts and embankments have been damaged in many places. Railway tracks in some places are inundated. Some reports indicate it has adversely affected the supply chain for some markets and led to price hikes for essential items (Nirapad). Erosion of river banks, damage to roads and embankments have been reported.25

**Vulnerable groups affected**

More information in consultation with stakeholders at the country level is required to understand which groups are the most vulnerable as a result of the floods.

In terms of demographic and age groups, young children, pregnant and lactating women and the elderly and disabled are all vulnerable to the difficulties of residing on muddy areas close to water. Some groups also have specific nutritional requirements that may not be met as a result of changes in food access and availability.

Vulnerable livelihood groups include daily labourers and small & marginal farmers as they are the poorest in the communities.

**Humanitarian and operational constraints**

Floods make roads impassable, destroy bridges, increase the danger in travelling on and crossing rivers, and increase the costs of boat transportation when roads cannot be used. This impedes access to all key services including health and education as well as markets. These factors will impact responders accessing affected populations as well as affected people accessing services and goods.

River transport becomes dangerous during floods due to the high water levels.

Blocked roads and railways complicate the delivery of relief goods, so the first response has mainly been in the form of cash support (Dhaka Tribune 25/07/2016, ECHO 01/08/2016).

Recent attacks on Westerners in Dhaka with the most recent event of 20 hostages being killed by Islamist extremists have led to changed environment for international humanitarian actors to operate (The Guardian 03/07/2016). This could have an impact on access constraints of humanitarians travelling outside the capital and will have to be monitored closely with the relevant authorities.

**Coping mechanisms**

- Protection coping mechanisms include sending adolescent girls to relatives’ homes (CWC).
- Internal migration for labour is usually a coping option for people in these areas (HEA 2016 report).
- Reduction of meal in size and quality as seen in previous JNAs.
- It is observed after the NW 2014 Flood, people take loans of up to BDT 10000 in high interest rates.
- Selling advance labour by the inhabitants is practiced to cope with the crises.
- Skipping meals (especially by women who are confined to their house)( Food Security, nutrition, Shelter and Early recovery Assessment in flood affected areas of North West Bangladesh, August 2014, publish date 14 January 2015).

**Key characteristics**

**Demographic profile**

Bangladesh population: 149,772,364 (2011). Urban population: 28.4% (2011) (CIA WorldFactbook 2014). The most affected districts have the following population numbers:

- Kurigram: 2,205,683
- Gaibandha: 1,418,618
- Lalmonirhat: 1,338,702
- Bogra: 800,967
- Sirajganj: 2,022,246
- Jamalpur: 2,444,418 (Government/WFP Assessment 31/07/2016).

**WASH**

Access to improved sources of drinking water: 83.2% (2011); access to improved sanitation facilities: 54.7% (2011) (UNICEF 12/2013). Water quality in Bangladesh is compromised by the presence of arsenic, detected in 61 of 64 districts of Bangladesh. It is at dangerous levels for at least 20 million people (UNICEF 2009).
**Lighting and cooking**
Population using solid fuels for cooking: 99% rural/59.9% urban (Global Alliance for Clean Cookstoves).

**Health**
Infant mortality rate: 33/1,000 live births; under-five mortality rate: 41/1,000 live births; maternal mortality ratio: 240 deaths per 100,000 pregnancies (UNICEF 12/2013).

**Food**
Although food insecurity is relatively high in north-eastern, south-eastern, and east-western Bangladesh the central districts are widely food secure. On the other hand, lack of food access, utilization, sanitation, caring practices and poverty are the main drivers behind food insecurity. Jamalpur, Bogra, Sirajganj, and Gaibandha districts in the flood-affected north-west, however, are in IPC 2-3 levels of food security while Kurigram and Sunamganj are in level 4 (Food Security Cluster 28/06/2016).

**Nutrition**
41% of children under five suffer from chronic malnutrition (WFP 2015). As of January 2016 GAM was 14% nationwide (WFP 2016).

**Education**
More than 1 in 4 school age children are out of school children in Bangladesh (some 6.2 million currently are out of school) and low performance of students (only 25% of Grade 5 students reach the standards in Bangla and Math in 2013).

Adults (total population over 15): 57.7%; Youth (18–24 years): 77.1%; Male: 80.4% (UNICEF 12/2013).

**Response**

**Local and national response**
There is very strong social capital in the affected areas where people are helping people and communities are close knit helping each other with child care, to obtain water, etc.

Some of the communities affected had prepared measures before the flood like raising their haystacks, keeping stocks of rice and dry food in high areas, dismantling tin houses and moving to other areas. (Oxfam 48 Hour assessment)

The government has reacted by releasing immediate cash support of 25 million BDT and 21 million BDT allocated to food support as well as 6,600 MT rice. (ECHO 01/08/2016). NDRCC and DDM are reporting on government responses.

NDRCC report-06.08.16: Allocation GR Rice 9,900MT, GR Cash (BDT) 41,450,000, Cash for Dry food (BDT) 22,500,000

7095.340 MT of GR rice, BDT 23,184,000 GR cash, Dry food equivalent to BDT 3,645,000 and 45,520 Packets (9 items) of dry food have been distributed among the affected families. Data collection is going on in D-forms from the 17 affected districts. (DDM 04.08.16)

Disaster management is the responsibility of the Ministry of Disaster Management and Relief. Bodies which support disaster management include: the National Disaster Management Coordination Council (responsible for implementing policies), the National

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26 Multiple indicator (Education) cluster survey 2012-2013.
Disaster Management Advisory Council, the National Platform Disaster Management for Risk Reduction (coordinating and providing facilitation to relevant stakeholders), the Focal Point Operation Coordination Group of Disaster Management (reviewing and coordinating activities carried out by different departments), the NGO Coordination Committee of Disaster Management and the Committee for Speedy Dissemination of Disaster Related Warning/Signals (SOD 2010). Disaster Management Committees (DMC) exist at the district, upazila, and union level, although the level of activity of these DMCs varies (JNA ACAPS 04/2014).

All INGOs and NGOs require government approval to undertake projects. Approval in non-emergency situations takes a minimum of 45 days, while if a disaster has been declared, approval can be granted in 24 hours (JNA ACAPS 04/2014).

Media reports indicate that the Essential Drugs Company has been requested to produce and store 100,000 water purification tablets. Media also reports that the District officials are distributing rice, packaged dry food and molasses. (BDNews24)

**International response**

A multi-sectoral response to humanitarian emergencies involving UN agencies, INGOs and partners in support of the GoB is expected to be coordinated through the Humanitarian Coordination Task Team (HCTT).

There is a significant international relief presence in Bangladesh across all sectors including INGOs. The Red Cross/Red Crescent movement as well as multiple UN organisations are present in the country (UN Country Team 20/06/2016). The northern area is well covered with a presence of three or more INGOs in each of the Early Recovery, Food Security, Health, WASH and Nutrition Clusters.

INGOs and partners are helping communities with safe evacuation, early warning and awareness raising campaigns (INGO Emergency Sub Committee 03.08.16).

Some INGOs have initiated response using their own in-country resources and prepositioned stock. Details of this will be made available soon.

DFID/START network has allocated 500,000 GBP and INGO network has received these funds (CARE, DeSHARI, SAVE, CARITAS are the agencies which will be utilising this).

USAID is supporting CARE’s response with tarpaulins as emergency shelter items for 2500 households.

Limited interest in the response may be a result of less coverage in the international news of floods in Bangladesh as compared to disaster events in other countries (including Nepal and Myanmar). This may result in limited funding.

**Information gaps and needs**

More detailed information is needed to plan sector based responses. Because of the extensive experience with floods in Bangladesh it can be anticipated that the nature of the needs are well understood so responding agencies should focus on defining the geographic
areas in most need and using baseline figures to estimate caseloads (as done by UNFPA in this report).

A report in July this year quoted the Minister of Disaster Management and Relief as saying that there was a forecast indicating that a large flood was likely to impact the country in the period from July-September. There is concern expressed by some reports that worse flooding may still be to come however more information on this forecast was not able to be located at the time of writing.

### Lessons learned

- In the 1998 floods that left some 30 million people homeless and killed more than 1,000, the capital was flooded in addition to rural areas (GEO Bytes GCSE 03/12/2006). Since then the city of Dhaka has grown considerably from a population of about 10 million people to over 17 million (Geohive 2016). As a consequence, the casualties and damage would be much higher today than they were 18 year ago.

<table>
<thead>
<tr>
<th>Year</th>
<th>Disaster Event</th>
<th>Location (by District)</th>
<th>Deaths</th>
<th>Number affected³</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Monsoon Flooding</td>
<td>46 Districts</td>
<td>649</td>
<td>16,000,000</td>
</tr>
<tr>
<td>2012</td>
<td>Flash Flooding and Landslides</td>
<td>3 Districts</td>
<td>122</td>
<td>1,300,000</td>
</tr>
<tr>
<td>2014</td>
<td>Monsoon Flooding</td>
<td>18 Districts</td>
<td>21</td>
<td>2,148,350</td>
</tr>
<tr>
<td>2015</td>
<td>NW Flooding</td>
<td>9 Districts</td>
<td>19</td>
<td>1,450,388</td>
</tr>
<tr>
<td>2016</td>
<td>Monsoon Flooding</td>
<td>16 Districts</td>
<td>14</td>
<td>1,500,000</td>
</tr>
</tbody>
</table>

(HCTT presentation 4th Aug, 2016)

- Slow build-up of recent flood events has previously allowed for evacuation, though many could only flee with their most important belongings.
- Resources should be allocated to help people adopt a lifestyle that conforms to their natural environment. Solutions such as changing housing structures and crop patterns can help reduce flood and storm damage.
- Some households who have received support to raise the plinth of their homes and raised tubewells, have experienced less damage to assets (Oxfam 48 hour assessment)
- In response to the cyclone ROANU following a formal JNA phase 1 and Humanitarian Response Plan (HRP), so far only 52% of the planned/budgeted resource requirements have been made available (UN RC office). This indicates that low funding opportunities may be a humanitarian concern.
### Annex-1: Summary of Oxfam 48 Hour Assessments

<table>
<thead>
<tr>
<th>Issue</th>
<th>Gaibandha District (Fulchari Upazila)</th>
<th>Kurigram District (Rajibur, Ulipur, Kurigram Sadar Upazilas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total affected population</td>
<td>125,000 (25,000 HH)</td>
<td>673,379 (112,372 HH)</td>
</tr>
<tr>
<td>Number requiring food assistance</td>
<td>10,000</td>
<td>67,432 HH approx. 60% of the affected pop</td>
</tr>
<tr>
<td>No requiring immediate support in protecting livelihood assets = 56168 HH (about 50% of affected)</td>
<td>5,000 HH</td>
<td>56168 HH (about 50% of affected)</td>
</tr>
<tr>
<td>Livelihood assets that are in danger of being lost due to sale or death are:</td>
<td>80% of cow, goat, and hen are at risks for shelter and feed as well. 95% of Agricultural crops (Like jute, vegetable garden, Paddy) are inundated and damaged 80% rice husking machine inundated</td>
<td>Cows and other livestock due to lack of fodder, Homestead gardens, Crops such as jute</td>
</tr>
<tr>
<td>Livelihood activities that cannot start due to shock / loss of assets are:</td>
<td>Agriculture (Vegetable, paddy saplings and others) Small business is affected Labouring (Agriculture field are inundated)</td>
<td>Agricultural labourer work Fishing (since there is less fish in the rivers during the flood season) Homestead gardening</td>
</tr>
<tr>
<td>Markets</td>
<td>Village market shops are affected and not functioning well Local markets are functional that can support cash-based interventions for food assistance. Local markets are not fully functional that can support cash-based interventions for livelihoods support. Local traders will require financial support to enable a cash-based response.</td>
<td>Are functional at a level that can support cash-based interventions for food assistance Prices have increased Local markets are functional at a level that can support cash-based interventions for livelihoods support.</td>
</tr>
<tr>
<td>Local traders</td>
<td>Traders will require financial support to enable a cash-based response. Most shops / traders do have the funds / capital to bring in more stock if there was an increased demand for essential food and non-food items.</td>
<td></td>
</tr>
<tr>
<td>Functional money transfer mechanisms (such as banks and mobile phone companies)</td>
<td>Functional money transfer companies are willing and able to disburse cash to households. Affected households have the necessary papers such as ID cards needed to receive cash from money transfer companies.</td>
<td>The communities visited do not use money transfer systems but rather deal with hard cash. Any cash transfers have to be done directly via hard cash.</td>
</tr>
<tr>
<td>Own Agricultural Production</td>
<td>Pre-flood this accounted for 60% of food consumption and now only accounts for 10% due to losses</td>
<td>Pre crisis this accounted for around 70% of food consumption in affected areas but this has been wiped out as a result of the floods.</td>
</tr>
<tr>
<td>Existing food stocks</td>
<td>Around 5% of consumption at this time of the year would be expected to be covered by existing food stocks. These stocks have been wiped out.</td>
<td>Around 10% of food consumption at this time of the year was covered by food stock. These have been wiped out as a result of the flood.</td>
</tr>
<tr>
<td>Food gap</td>
<td>75% This indicates that dietary diversity has not remarkably deteriorated</td>
<td>The loss of food stocks and of HH produced foods has amounted in an overall food gap of around 50%. Purchase has increased as a result, but is likely to be unsustainable beyond the immediate short term due to limited incomes. This is particularly important in terms of the consumption of nutritious food. With HH’s current diet consisting primarily of only rice, Potato, taro root and shoots, and fish.</td>
</tr>
</tbody>
</table>
### The current cost of purchasing a week’s worth of food (three meals a day) and cooking fuel for the average household in the local market

The current cost of purchasing a week’s worth of food (three meals a day) and cooking fuel for the average household in the local market is estimated at BDT 3000 that was calculated by FGD.

### Livelihoods

The livelihood activity most households are typically engaged in, that is affected by the shock is Aman saplings. Aman rice production damaged 80% while Vegetable, nuts production almost 70%.

Key assets required to re-start livelihoods activities in the next two months are: Cash Support (BDT: 6000) and livelihood training.

Critical livelihood assets used by the majority of the population at risk of loss are cows (50% of the HHs own cows).

Most livestock owning households do require support in providing adequate fodder and water for their animals.

With support vegetable gardening and livestock rearing should be able to restart within the next 2 months. Support required is cash and agricultural inputs.

Day labour will not resume within the next 2 months because it is the lean season.

### Inflation

Between 8-33% on the key commodities assessed. Rice, potato, green chilli and onions are most affected.

This indicates a large scale inflation in market prices since the shock, with prices of cereals / roots and tubers / pulses, legumes and nuts having been most affected. 18-25% of commodities investigated.