

## **Flooding & Prolonged Water-logging in South West Bangladesh Coordinated Assessment Report**



**Report of findings of multi-sector, inter-agency assessment on humanitarian needs in the districts of Satkhira, Khulna and Jessore. Field research conducted 8<sup>th</sup>-12<sup>th</sup> September 2011.**

**Contributing agencies listed at the end of the report.**



# **Flooding & Prolonged Water-logging in South West Bangladesh Coordinated Assessment in 10 Uppazillas of Satkhira, Jessore and Khulna September 2011**

## **Key Findings:**

- Estimated 921,942 people affected<sup>1</sup>
- Period of displacement and until rebuilding of houses and livelihoods commences is predicted to be 3 months or more
- Community short term priority is adequate food support
- Significant losses to main forms of livelihood (agriculture, shrimp cultivation, fisheries) which could take months to recover
- Inadequate sanitation (for displaced and non-displaced people)
- Inadequate temporary shelter
- Displaced people will need to rebuild homes when the water recedes. Most houses of displaced people are completely destroyed
- House reconstruction will need to include latrine rehabilitation
- Water sources in submerged villages require rehabilitation
- Health concerns include snake bite, diarrhea, access to services and pollution of water sources used for washing
- Significant impact on children's access to education
- Relief distributions at time of data collection were under-coordinated, inconsistent and had generally targeted easier-to-reach areas

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<sup>1</sup> Based on collated estimates from 10 affected uppezillas identified through DMB sitreps and secondary data.

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Available electronically:

- Review of Secondary Data available prior to the assessment (ACAPS)
- Field assessment questionnaires
- Database of union D-form information

## Executive summary

Heavier than usual rains during the end of July and early August 2011 resulted in flooding in many areas of Bangladesh. In the south western districts of Shatkira, Khulna and Jessore, flood waters did not recede and potentially significant humanitarian needs in Southwest Bangladesh were identified. On 25<sup>th</sup> August, Disaster Management Bureau (DMB), Ministry of Food and Disaster Management, estimated that over 800,000 people in Satkhira district were affected.<sup>2</sup> ECB partner agencies with other INGOs contributing to humanitarian response in Bangladesh determined that a joint humanitarian needs assessment of areas in the south west of Bangladesh affected by prolonged waterlogging would assist planning for relief and recovery response, supplementing initial rapid response assessments.<sup>3</sup> While multiple assessment reports were generated in the early stages of the flooding and waterlogging, these reports were not sufficiently compatible in methodology to provide a consolidated overview of the situation. The objectives of the joint assessment were:

- To provide a shared overview of the situation in all affected areas of the south west
- To identify immediate humanitarian needs that were not addressed
- To understand recovery needs of affected people

### Timeline

26 <sup>th</sup> August – 6 <sup>th</sup> September:	Planning for the assessment.
7 <sup>th</sup> September:	Training of teams in Khulna
8 <sup>th</sup> – 12 <sup>th</sup> September:	Field data collection
13 <sup>th</sup> – 15 <sup>th</sup> September:	Data entry took place
16 <sup>th</sup> -22 <sup>nd</sup> September:	Data analysis, interpretation and report preparation

The assessment aimed to understand both the quantitative impact of the water-logging and well as the qualitative impact; i.e., how many people have been affected and how they were affected.

Quantitative information was obtained from Union Parishads directly in affected areas and also from uppazilla officials. Figures from these sources indicate that between 855,014 (union estimate) and 921,941 (Uppazilla estimate) people have been impacted in some way by the water-logging.<sup>4</sup> The assessment confirmed that the worst affected unions are in Satkhira, as previously reported with 10 unions in Satkhira reporting that over 80% of the population is affected. The areas with the greatest number of affected people are Agarder, Labsa and Sarulia all reporting over 80% of the population affected; equivalent to over 32,000 people in each union. However, these figures must be interpreted with some caution, due to difficulty in obtaining accurate baseline information and to a lack of clarity about the methods used at the union level for defining and estimating “affected” people. For a graphic representation of the proportion and number of people affected see Figure 3.

Qualitative information on the impacts of the waterlogging was collected through facilitated male and female community group discussions and direct observation in 63 sites throughout the affected area.

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2 DMIC, DMB, Summary of “Weather Flood Situation”, from wed24.Aug-2011 to Thu-25-Aug-2011, www.dmb.gov.bd. At this stage around 500 families were mentioned as affected in Jessore and no information reported in Khulna.

3 The assessment is a combined effort of many organizations; over 18 organizations expressed interest in the assessment which benefited from the direct involvement of 16 INGOs and NGOs.

4 Data compiled by Union Parishads estimates XXX people were affected, while data at Uppazilla level provides a total estimate of XXXX people.

These community level assessments revealed immediate food needs as a major priority for affected communities. Shelter conditions in the collective centers were extremely crowded, and lack of privacy for women was identified as a concern. Most of the collective centers are schools and it is expected that people will be asked to leave in the very near future, without plans in place for their re-location. For those families residing on embankments and roadsides, shelter arrangements were makeshift, crowded and ad hoc. The assessment findings also support the need for interventions in the short term in sanitation (provision of latrines), hygiene promotion, emergency shelter and nutrition. Issues related to protection also warrant intervention with the majority of community groups reporting significant reductions in perceived security for children, women and men.

Although communities in Bangladesh are accustomed to flooding, many respondents reported that the present water-logging was the worst they could recall, or the worst since floods in 2000. Medium to longer term concerns of affected people are for the reconstruction of their houses and rebuilding their livelihoods once the water recedes. Both housing and livelihoods have been significantly affected by the flood waters and water-logging. Communities and local authorities do not expect water to recede for several months.

The assessment found that communities were already engaging in detrimental coping strategies in order to cope with the loss of income. Main coping strategies were: reduced meal size, borrowing money, purchasing food on credit and selling livestock, with other strategies, including sale of child labor also recorded. Although food distributions were reported in many areas these were from a range of different agencies and of different ration sizes. Some community members had ration/registration cards but they were unclear of targeting processes and/or when their next distribution would be. Rations reported by communities did not appear to meet with Sphere standards.<sup>5</sup> Assessment teams reported that the harder to reach communities were, the less likely it was that there was evidence of any distributions at all. Penetration of government food assistance reached furthest into hard to reach areas, but ration sizes were very small; often reported as 2kg or 5kg of rice.

Official information from the government D-form<sup>6</sup> was provided to the assessment teams received by Union Parishad officials, who expressed appreciation of the multi-agency nature of the assessment.<sup>7</sup> Challenges with collating this information included reported difficulty by Union officials in acquiring numbers of affected people and infrastructure from the ward level, and an absence of available baseline data. The assessment aimed to collate this information in order to gauge the overall magnitude of the disaster: reported difficulties in obtaining this information from local government highlight the need to consider how the magnitude of disasters can be understood in Bangladesh. Assessment teams were not able to locate functioning Disaster Management Committees.

Carrying out an assessment with the involvement of so many agencies presented some challenges, including: coordination, communication channels, and an absence of assessment preparedness. Agencies involved in this assessment are committed to looking at the lessons learned from this experience to identify next steps in developing a stronger humanitarian needs assessment capacity in Bangladesh.

Beyond the challenges in understanding the overall magnitude of the current water-logging situation, this assessment builds on the various rapid assessments conducted to present a picture of the impact of

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<sup>5</sup> See Annex 4 for summary of Sphere recommendations on nutrition and food rations.

<sup>6</sup> See Government of the People's Republic of Bangladesh, Standing Orders on Disaster, Appendix 14.

<sup>7</sup> Team leader debriefing, 12.09.2011, Khulna. Team leaders noted that the UP government officials were very pleased that a team comprising of several NGOs had jointly come to collect their impressions and information on the situation. They expressed challenges in getting the information from the ward level (discussed later in the report).

the water-logging across the entire affected area of the south west, covering a purposive sample (63 sites in 10 uppezillas) with standard assessment tools and consistent methodology.<sup>8</sup> It aimed to give voice to the needs of affected communities and local authorities in a way that enables these priorities and needs to be consolidated and compared. As a collaborative effort supported by 25<sup>9</sup> agencies it presents a picture of humanitarian needs that is not linked directly to funding or project design.

A total of 53 staff (33 men and 18 women) from 20 organizations (NGOs and INGOs) formed multi-agency assessment teams and spent 4 days conducting the field work for the assessment. They traveled by car, motor cycle, boat and walked through mud and water to get to sites where affected people were staying, in order to collect the information summarized in this assessment report.

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<sup>8</sup> Review of secondary data prior to this assessment available as electronic annex.

<sup>9</sup> For a full list of participating agencies see Annex 3.



## Background

Heavier than usual rains during the end of July and early August 2011 resulted in flooding in many areas of Bangladesh. In the south western districts of Satkhira, Jessore and Khulna, the flood waters have not significantly receded with some unions remaining inundated with water. This situation is being referred to as prolonged water-logging.

The situation has caused significant displacement of people in flooded areas. Many people have re-located themselves to high ground close to their homes on roadsides and embankments as well as to collective centers such as schools, colleges and cyclone shelters. People not displaced are also affected by the water; some people continued to reside in homes surrounded by water cutting them off from facilities (marooned), while others continued to live in houses that were damaged, collapsed and inundated with water to varying degrees.

On the 25<sup>th</sup> August the Disaster Management Bureau (DMB), of the Ministry of Food and Disaster Management (MoFDM) estimated over 825,000 people (close to 200,000 families) in Satkhira, the worst affected district had been impacted. At this time the only other official information was that in Jessore around 300 families in 2 upazillas had taken shelter in collective centres. No information was available for Khulna. Initial information available indicated that the main humanitarian challenges were in terms of sanitation for the large number of displaced people, immediate and longer term food security and shelter. Many schools in the affected areas are either damaged or being used as collective centers. This has been impacting education access since the end of the Eid vacation on the 8<sup>th</sup> of September.

In addition to the immediate needs there is concern for the mid to longer term impact on households and livelihoods, as it is expected to be several months before the water recedes. Most people in the affected areas made their livelihood from involvement in agriculture, shrimp and fish cultivation which were severely affected.

The flooding is the result of excessive monsoon rains during late July and August. Some reports also suggest the release of water from the Durgapur / Damodar Barrage and the Farakkah Barrage in India contributed to the excess water.<sup>10</sup> Water flowed into the two major rivers, the Satkhira Kapotakho and the Betrabati, but the onward flow of water towards the Bay of Bengal was obstructed resulting in the flooding not receding. Factors reported to contribute to the resulting prolonged waterlogging include: a lack of maintenance of embankments; increased sediment and siltation of rivers, dysfunctional sluice gates and restricted river flows due to embankments built for shrimp farming.<sup>11</sup>

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<sup>10</sup> Oxfam, Shushilan, In-depth Public Health Assessment of Water-logging in Tala Sub-district of Satkhira District Bangladesh, August 18-20, 2011.

<sup>11</sup> Oxfam Public Health Assessment; August 2011, WFP et al Rapid Food Security Assessment; August 2011; ECHO Crisis Report, Bangladesh Floods, sitrep 2, 21.08.2011.

## **Recommended Interventions**

### **Priority recommendations**

1. Food remains the highest priority need of communities. Food distribution should be continued, well-coordinated and expanded to ensure that the needs of the affected population are met.
2. Nutrition interventions in order to support children under the age of 2 to counter the reported reduction in breastfeeding and monitoring of the nutritional situation over the coming months.
3. Emergency sanitation and hygiene responses should be expanded - less than 50% of sites assessed had functional latrines resulting in a high risk of disease including cholera. Interventions should consider security issues in using latrines mentioned by female groups.
4. Gender and protection concerns around bathing and sanitation need to be urgently met.
5. Emergency shelter (SPHERE standard plastic sheeting and fixings) that can be redeployed when families return for displaced families and those residing in damaged houses.
6. Emergency cash interventions (based on market assessments) to meet immediate and livelihood restoration needs are required.
7. Child friendly spaces and temporary learning centers to address the reduction in school attendance due to displacement, damage to school buildings and the use of schools as collective centers. Education and safe spaces for children should be used to address safety issues (road, water and other accidents related to limited space) that have resulted in deaths and injuries of children.
8. Accountability frameworks should be in place and coordinated.
9. Protection concerns should be addressed: Participatory and community mobilization approaches to deliver relief and recovery interventions should be employed to facilitate this.
10. It is recommended to de-prioritize water trucking to displacement sites (as most have water supplies) and use of puritabs.

### **Recovery needs**

11. Shelter reconstruction/repair considering “build back better”, and disaster resilience.
12. Rehabilitation of water sources and latrines in areas of return.
13. Rehabilitation of collective centers, particularly schools, so they can rapidly return to normal use.
14. Food security and livelihoods support will be needed until the next harvest (April 2012)

### **Longer term priorities**

15. More investigation into location appropriate resilient housing
16. Development of sustainable, resilient and diversified livelihood options
17. Identification and management of baseline data so that the magnitude of the impact of an emergency can be more clearly understood.
18. Strengthening of local coordination mechanisms should be supported to enable shared understanding of commitments, more standardized relief packages, in order to reduce gaps and overlaps.
19. National coordination mechanisms should be strengthened to support prompt sharing of information, and clear links to sector groups as well as local level coordination.

## Assessment methodology

The assessment methodology was designed to build understanding of both the quantitative magnitude of the water-logging - how many people are affected - as well as its qualitative impact on lives and livelihoods - how people had been affected.

11 teams made up of 33 men and 20 women carried out the field level data collection from the 8<sup>th</sup>-12<sup>th</sup> September 2011. Each team operated in one upazilla for the duration of the assessment. Teams carried out both the Quantitative and qualitative aspects of the assessment for their upazilla. The assessment coordination team based in Khulna checked with each team at the close of every day to review progress and support in making changes to the field plan.

**Obtaining quantitative information** was designed to utilize the government system of compiling information on the numbers affected by a disaster using the D-form<sup>12</sup>. Although some information had been shared through government situation reports, at the time of writing this information was not consolidated for all 3 affected districts in the south west and it does not include relevant baselines.

The assessment teams collected compiled D-form information from the upazilla authorities. This was done at the start of the field work so that the local authorities were aware of the assessment and its field plans. Some upazilla information could be disaggregated by union, but most of it could not (this was anticipated at the outset of the assessment) so it was planned that D-form information would be collected from each union parishad within an affected upazilla in an effort to establish an overall picture of the magnitude of the situation from this local tier of government. Observation and key informants were used to triangulate union level estimates of damages and affected populations.<sup>13</sup> Validation meetings at the upazilla level were held to share the team's progress and interim findings with the authorities and record any further information including the priorities of the local authorities.

**Qualitative information** was obtained through community level assessments<sup>14</sup> that took place at sites affected by the water-logging. Based on secondary data including existing assessment reports and direct observations the following types of living arrangements were pre-determined:

- Collective centers
- Displaced to embankments and roadsides
- Marooned in own homes
- Staying in homes visually unaffected
- Staying in water-logged or damaged houses

Because the assessment was not a representative survey a purposive sampling strategy was designed to cover the different living arrangements of the people affected by the situation. With technical support of ACAPS Geneva, it was considered that between 5 and 10 sites of each type should be sufficient to identify the nature of the impact of the water-logging on communities. Because it was not known if all sites included people living in all living arrangements, teams were supported to modify field plans if required.<sup>15</sup>

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<sup>12</sup> Form-D; Assessment of Loss and Damage

<sup>13</sup> In reality triangulation of affected numbers was very challenging for field teams.

<sup>14</sup> Intentionally, the report refers to community group discussions rather than focus group discussions, because focus groups are a specific research technique that would require more extensive and consistent training of field teams and more uniform group size and composition. Experience shows this kind of group formation is difficult to achieve in post-disaster contexts in Bangladesh.

<sup>15</sup> For the Assessment guide for Field Teams see Appendix 1.

The community level assessment consisted of 3 components:

- Female community group discussion (carried out by 2 female team members)<sup>16</sup>
- Male community group discussion (carried out by 2 male team members)<sup>17</sup>
- Observation checklist (completed by team leader taking a transect walk and talking with community members)

At the end of each community assessment, team members agree collaboratively on a vulnerability ranking for the site. All aspects of the community level assessment are supported by structured assessment formats with mostly closed questions.

**Key Features of the coordinated assessment:**

- Consistent methodology (each team in the different upazillas are working in the same way)
- Consistent teams (teams should all be the same in composition and size)
- High quality group discussions

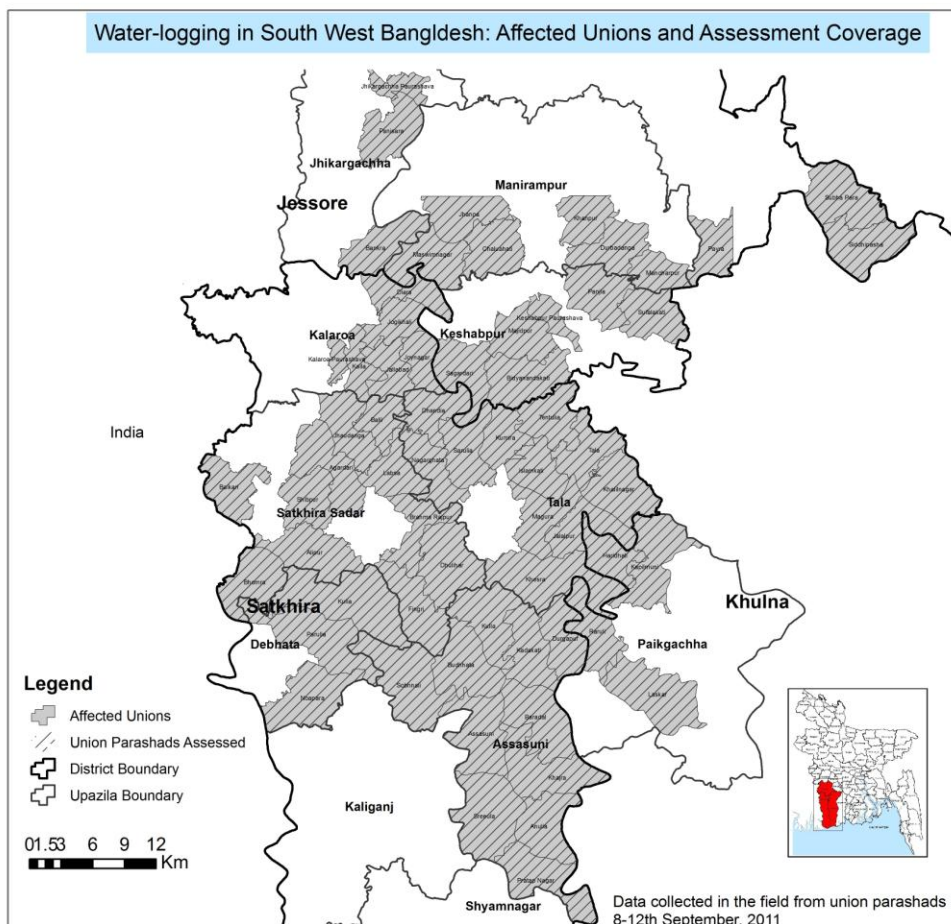
<b>Assessment at a glance</b>	
Districts affected by water-logging	Satkhira, Jessore, Khulna
Affected upazillas covered by the assessment	Abhynagar, Monirampur, Keshabpur, Paikgacha Jhikargacha, Assasuni, Tala, Kalaroa Satkhira Sadar, Debhata
Number of teams	11
Team composition	5 member (2 female <sup>18</sup> , 2 male, 1 team leader)
Number of sites assessed at the community level	63
At each site, community level assessment consisted of:	<ul style="list-style-type: none"> <li>• Female community group discussion</li> <li>• Male community group discussion</li> <li>• Direct observation checklist</li> </ul>
Types of sites assessed:	<ul style="list-style-type: none"> <li>• People marooned in their homes</li> <li>• People displaced to embankments and roadsides</li> <li>• People living in collective centers</li> <li>• People living in damaged or water-logged houses</li> <li>• People whose homes were visually unaffected by the water</li> </ul>
Number of unions from which teams collected government D-Forms	65
Number of Uppazilla level meetings with government officials	10

<sup>16</sup> Female community groups were reported to range in size from 8-35 people, age range reported to be 10-85 years.

<sup>17</sup> Male community groups were reported to range in size from 7-30 people, age range reported to be 11-90 years.

<sup>18</sup> All but 2 teams had 2 female team members, 2 teams had only 1 female member who carried out the female groups discussions on her own but was supported for other tasks by male team members.

**Figure 1: Water-logging in South West Bangladesh: Affected Unions and Coverage**



**Figure 2: Breakdown of sites assessed<sup>19</sup>**

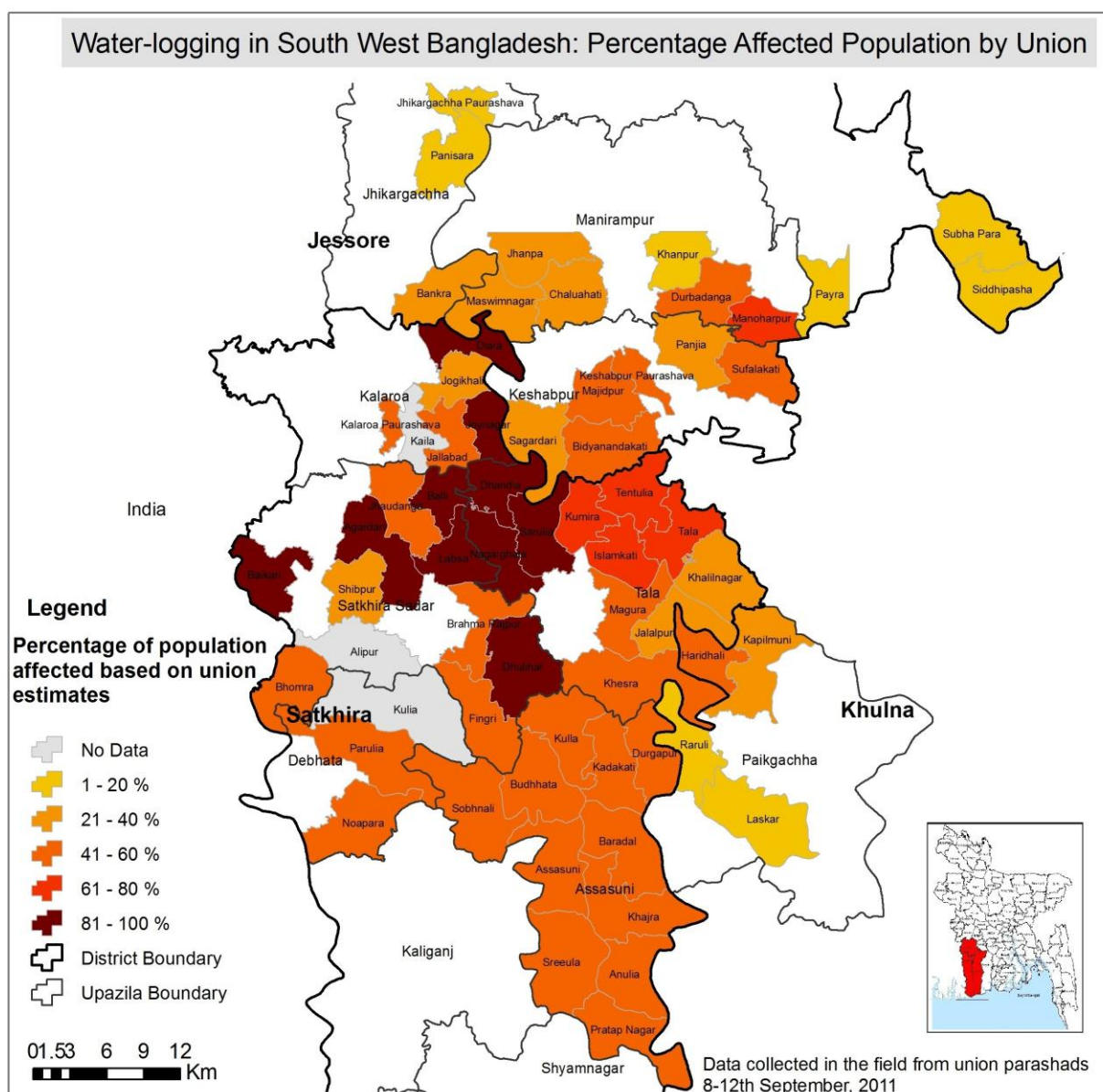
Type of living arrangement	Number recorded as assessed female group	Number recorded as assessed Male group
Other (not specified)		1
Displaced to collective centers	8	8
Displaced to embankments and roadsides	14	16
Marooned in their own homes	15	14
Houses not visually affected	12	11
Water-logged or damaged houses	14	13
<b>Total number of sites assessed</b>	<b>63</b>	<b>63</b>

<sup>19</sup> The definition of categories of living arrangements was based on initial rapid assessment reports, and teams were trained on these definitions for the purposes of this assessment. Nonetheless, there are differences in the male and female data. The time frame for this assessment did not allow for re-entering the data and this discrepancy is therefore presented in the data. Most data inconsistencies relate to the work of one team only during the assessment and highlight capacity and training needs in relation to assessments. For definitions of the categorized of living arrangements see the Assessment Guide, Appendix i.

## Summary of affected populations

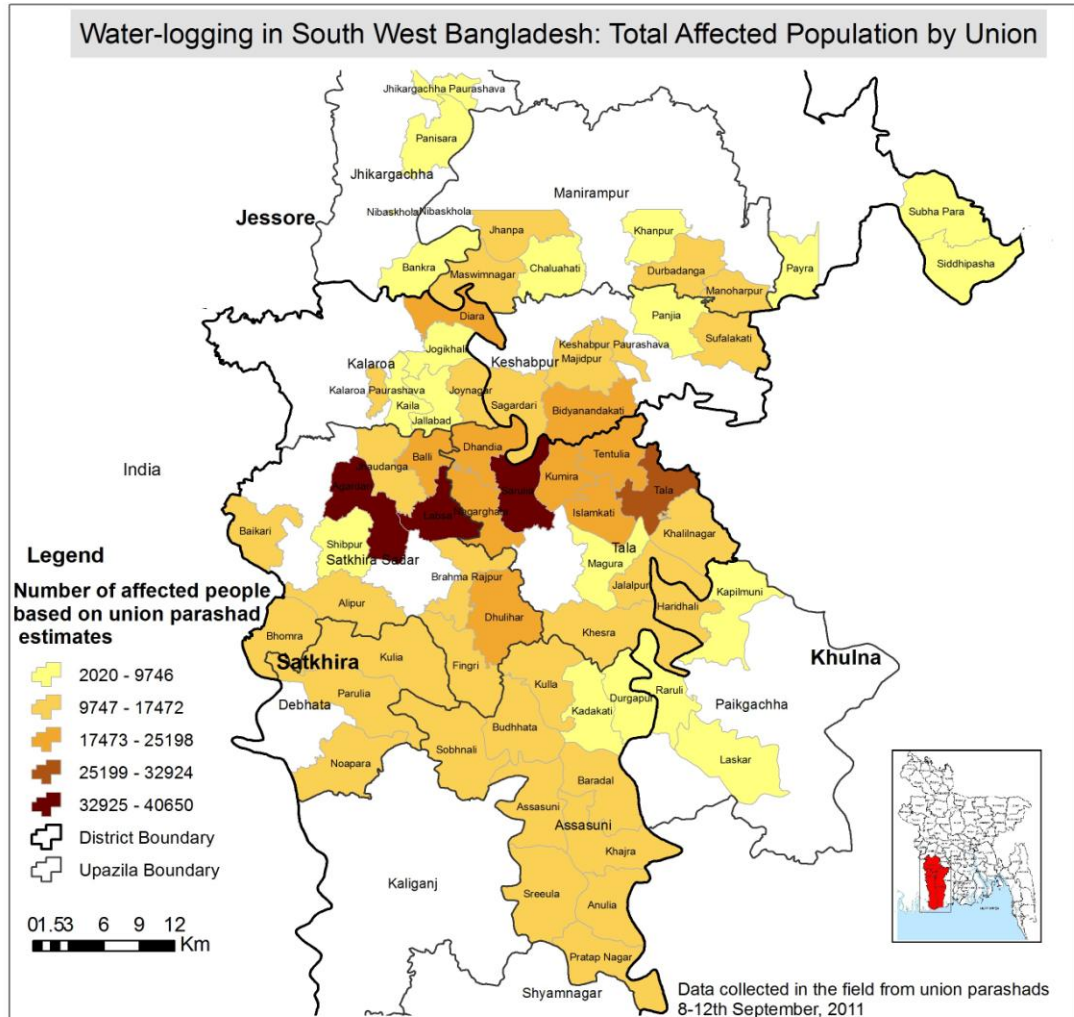
The following map shows the most affected unions in terms of percentage of the population affected according to figures obtained by assessment teams at the union level. The worst affected unions are within Tala and Satkhira Sadar upazillas in Satkhira District.

Figure 3: Water-logging in South West Bangladesh: Affected Population by Union<sup>20</sup>



<sup>20</sup> Mapping based on union estimates of affected population as a percentage of union population projected to 2011 using BBS formula.

Figure 4: Total Affected Population by Union



**Figure 5: Magnitude of the prolonged water logging: Numbers of people affected<sup>21</sup>**

District	Total population of district (2011 census) <sup>22</sup>	Affected uppazillas <sup>23</sup>	Total population of affected uppazillas (2011 projection)	Population affected <sup>24</sup>	Affected population as a % of total population of uppazilla	Uppazilla figures for # education facilities fully or partially damaged <sup>25</sup>
Jessore	2,742,000	Abhynagar	259508	7,020	2.71%	7
Jessore		Monirampur	495932	52,314	10.55%	0
Jessore		Keshabpur	253037	48,250	19.07%	3
Jessore		Jhikargacha	261456	28,014	19.44%	0
Khulna	2,294,000	Paikgacha	302944	50,830	9.25%	55
Satkhira	1,973,000	Assasuni	326729	127,850	39.13%	111
Satkhira		Tala	329085	225,400	68.49%	57
Satkhira		Kalaroa	247704	89,164	36.00%	24
Satkhira		Sakhira Sadar	458702	220,600	48.09%	37
Satkhira		Debhata	132958	72,500	54.53%	7
<b>TOTAL</b>	<b>7,009,000</b>		3,068,055	<b>921,942</b>	30.05%	<b>301</b>

Tala and Debhata uppazillas and Satkhira Sadar are the worst affected locations in terms of the percentage of the total population affected. Tala and Satkhira Sadar have the highest absolute numbers of people affected according to figures provided by uppazilla officials.

<sup>21</sup> Based on uppazilla estimates. Please note that the information used for the union-wise mapping is information taken directly from union d-forms while the information in the above table is from uppazilla compiled d-forms. There are some differences between the figures provided at a union level and those provided at an uppazilla level. **It is significant to note that when checked, total population figures given by both the union and uppazilla officials were official BBS population figures from 2001. In order to provide proportions of the affected population, these have been extrapolated to 2011 using the BBS formula for population growth.**

<sup>22</sup> Provisional results of 2011 census.

<sup>23</sup> Based on DMIC sit-reps, initial assessments and field information.

<sup>24</sup> According to uppazilla officials. Union level estimates of affected population add up to the lower figure of 855,014.

<sup>25</sup> Difficult to get a precise figure or degree of damage so all education facilities are listed together. Baseline of total number of schools at either a union or uppazilla level was not available from any source investigated within the time frame for this assessment.



## ***Priorities identified by uppezilla officials***

Meetings with uppezilla officials revealed limited knowledge of planned interventions, either by the government or NGOs. Where interventions were reported, authorities also noted that they were inadequate to cover the needs.<sup>26</sup> Priorities of the local authorities were inline with those of the communities outlined in the body of this report.

Some officials expressed a request for NGOs planning to work in their area to share work plans in order to support better and more coordinated coverage of needs. Overall priorities for immediate support were identified as: food, education, NFIs including hygiene items, WASH, immediate shelter, with longer term priorities identified as: permanent housing including plinth raising; river dredging, canals and drainage, and; development of sustainable livelihoods.

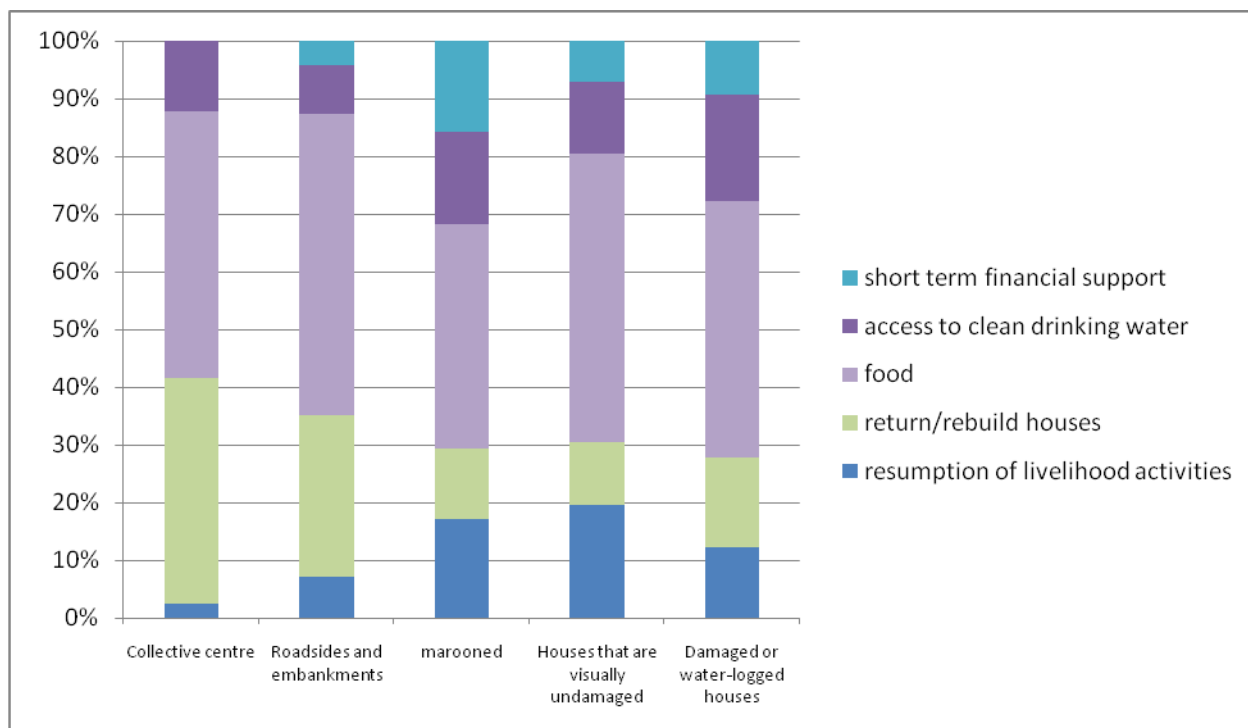
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<sup>26</sup> E.g. in Kalaroa authorities reported food interventions by the government and NGOs to feed 2,400 families when 22,420 families were in need of food assistance.

## Community priorities

It was intended that this assessment would provide an opportunity for communities to voice their needs and priorities. Community groups were asked to name and rank their top three priorities and the results are shown in the tables below. These areas are elaborated in the sections of the report that follow. Significantly, food was the most significant priority for both male and female groups across almost all sites. The other clear priorities for both men and women were the resumption of livelihoods and the reconstruction of their houses.

**Figure 6: Priorities voiced by the female community groups disaggregated by location type**



Across all living arrangements, food was the top priority for female community groups (145). This was followed by returning home and rebuilding their houses (62), clean drinking water (43) and resumption of livelihoods (39). Female groups listed access to clean drinking water as a 3<sup>rd</sup> priority. However, the data is not clearly supported as women respondents also reported having access to more than 10 liters of drinking water per day (see Figure 11). Team observations confirmed that in most sites the water used for drinking was from tube wells. Observations and conversations at the sites also indicated that people often had to travel a considerable distance to get this water, that there were insufficient suitable water containers.

When asked their top priorities related to water, sanitation and hygiene, the following responses were recorded for female community groups:

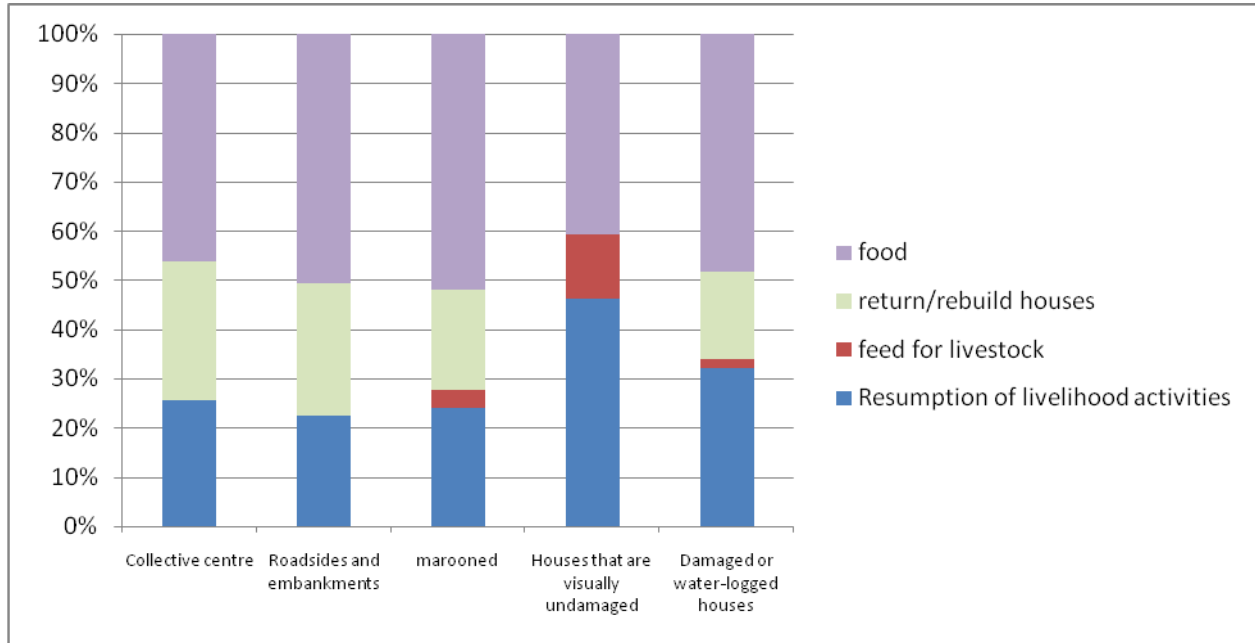
- Hygiene supplies including sanitary napkins (102)<sup>27</sup>
- Safe and secure place to defecate (99)
- Water quality (60)

<sup>27</sup> Number in brackets indicates the frequency of response. Groups were asked to rank their top 3 priorities)

- Private place to bath (54)
- Water quantity (37)

Water, sanitation and hygiene issues emerged as a clear priority for female community members. This is discussed in more detail in the WASH section of this report.

**Figure 7: Priorities of male community groups disaggregated by location type**



The need for feed for livestock is notably not mentioned by groups residing in collective centers or on roadsides and embankments. Most of these households had already had to sell their livestock at reduced prices because they could not feed them. Field teams reported that between 50-75% of goats had died as a result of the floods and water-logging (mostly through drinking contaminated water or not having any fodder to eat), most of the remaining goats have been or will be sold at dramatically reduced rates because there is no food or place for the goats to stay. Assessment teams reported that the usual price for a goat was 3000 taka but they were being sold now for between 600-800 taka. Larger livestock such as cattle had also been sold at reduced rates. Poultry had also been either lost or sold at reduced rates.

## Detailed Assessment Findings

### Site accessibility

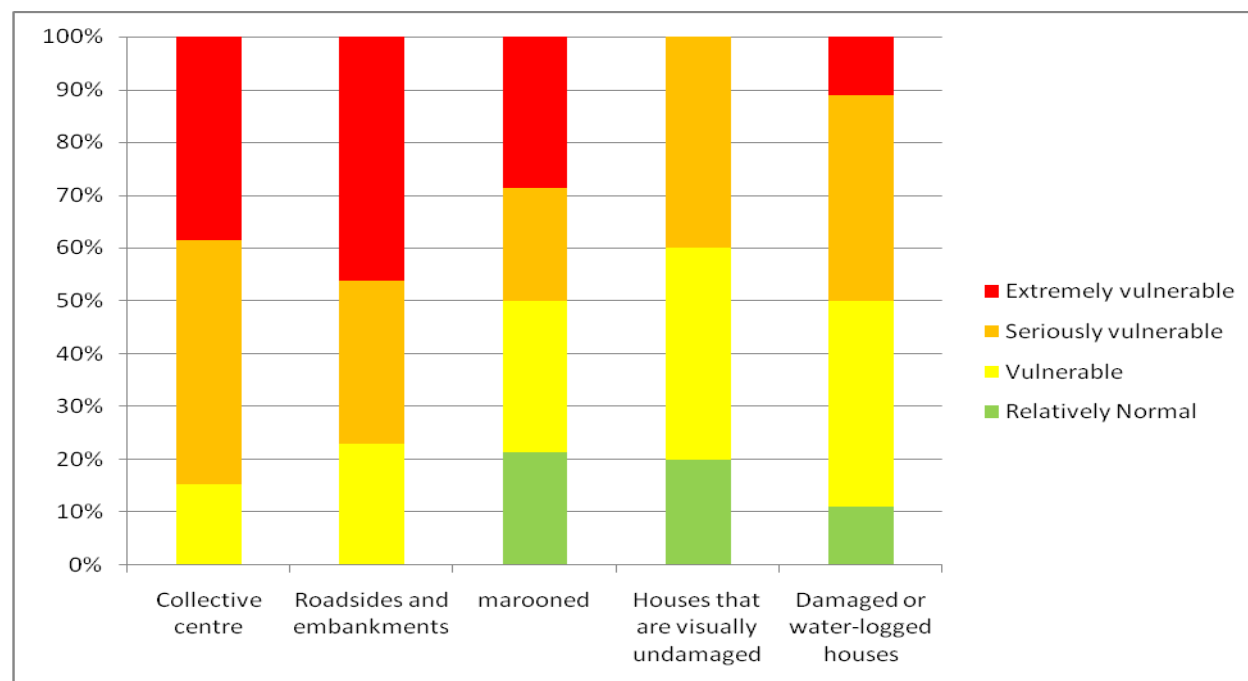
Many of the places where people are staying within affected areas pose challenges for accessibility. 33 of the sites included in the assessment needed to be accessed by boat. Some of these sites involved walking for up to approximately 3km through mud in order to reach affected people where they were staying. Assessment teams reported that the more difficult the site was to get to, the less likely it was that they would see evidence of any relief distribution at the site. Government VGD food rations were reported to be delivered at the hard to reach sites, though ration sizes were reported to be sometimes 2kg to 5kg of rice .

### Assessment of the vulnerability of people at the sites

Assessment teams were asked to agree on an overall vulnerability ranking for each site before they left the area. The following was given as guide:

Relatively normal	Vulnerable	Seriously Vulnerable	Extremely Vulnerable
Relatively normal conditions, capacity to self recover, prospect of returning home/to normal in the near future	Need of external assistance in <b>one or two sectors</b> , situation could deteriorate if conditions are unfavorable or if no assistance is received	Need of assistance in <b>2-3 sectors</b> , even if conditions do not change the situation will deteriorate without assistance, people already employing some negative coping strategies. Recovery not possible without external assistance.	Need of assistance in <b>3 or more sectors</b> , detrimental coping strategies being used by most people at the site. No prospect of return to homes apparent for 3 months or more
6 sites	18 sites	22 sites	17 sites

Figure 8: Team ranking of vulnerability by living arrangements



## Water, Sanitation and Hygiene

The majority of male and female community groups, when asked directly if safe drinking and cooking water was a problem, responded “yes” (see Figure 9). In all cases the problem was reported more by female groups than by men. This reflects that the burden of water collection and care falls largely on women. As discussed in other parts of this report, although clean drinking water can be considered an issue for affected populations, it does not appear to an urgent immediate priority in relation to other needs. Graphs below indicate that the primary sources for drinking water are shallow and deep tube wells with little drinking water being take from unsafe sources.

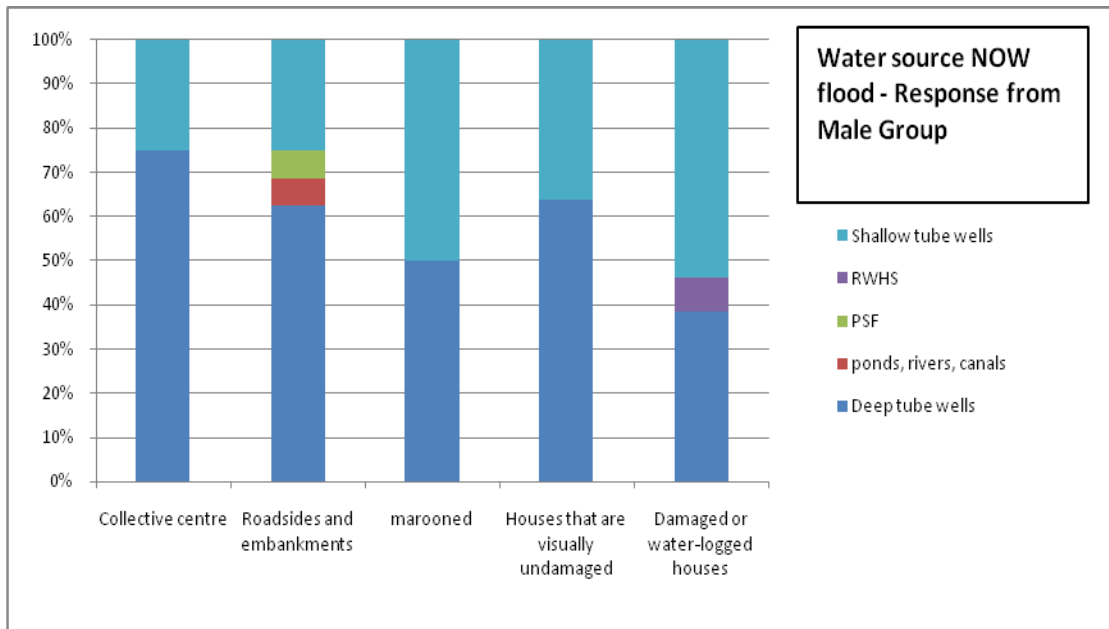
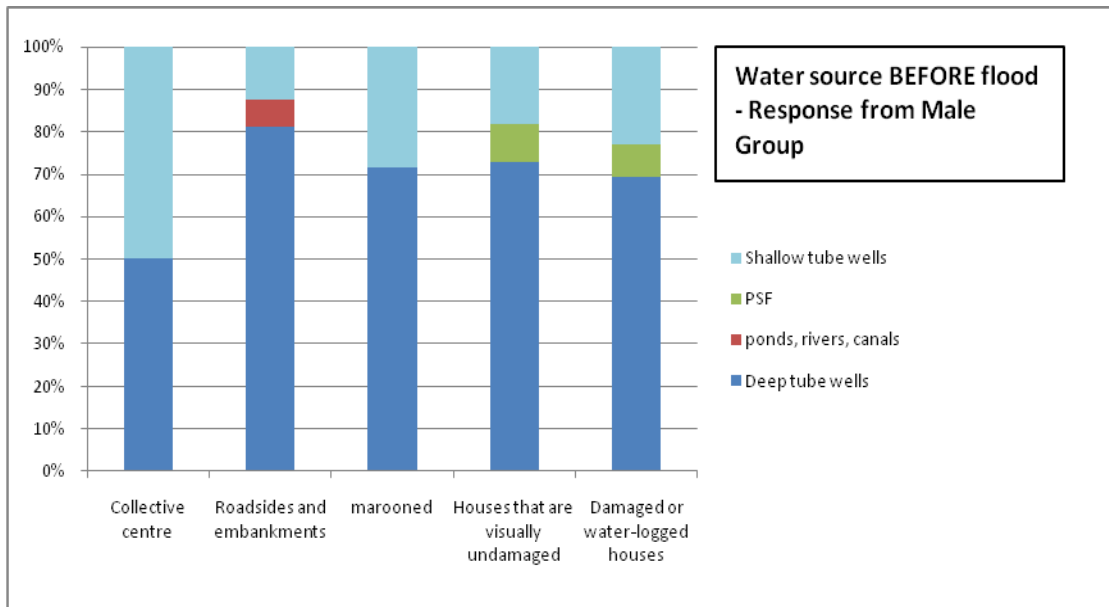
Issues relating to water need to be understood in relation to global SPHERE standards; people should have access to 3 liters of water per person per day (for average Bangladeshi households this is approximately thus 15 liters per day). In addition to minimum quantity of water for drinking SPHERE recommends that individuations need between 5 and 12 liters / person / day for other purposes such as bathing, washing clothes and cleaning utensils. This equates to a total of approximately 25 to 60 liters of water per day per household. Although the assessment did not measure the total water volume households have access to, the results from figure 11 indicate that some of the population is well below these standards. More information from sector specialists will be useful to identify specifically the problems related to drinking water. These appear to be related to the time and distance taken to acquire it and containers in which to store it (see below). Further surveys should also address frequentation of the water sources and water quality in terms of faecal contamination, turbidity, salinity, and chemicals.

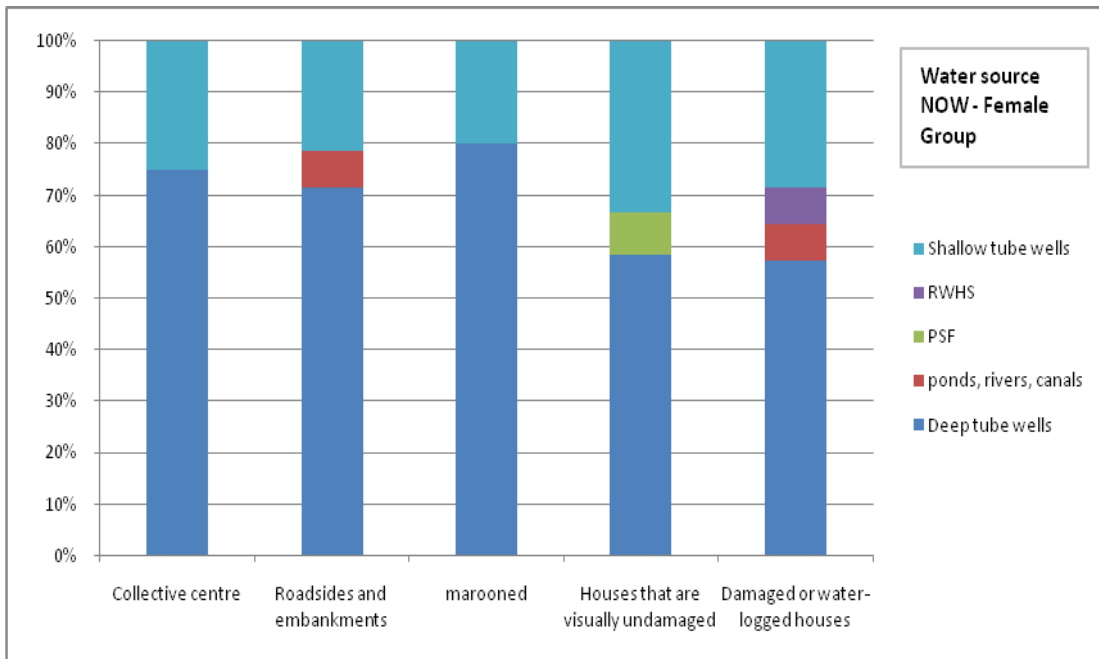
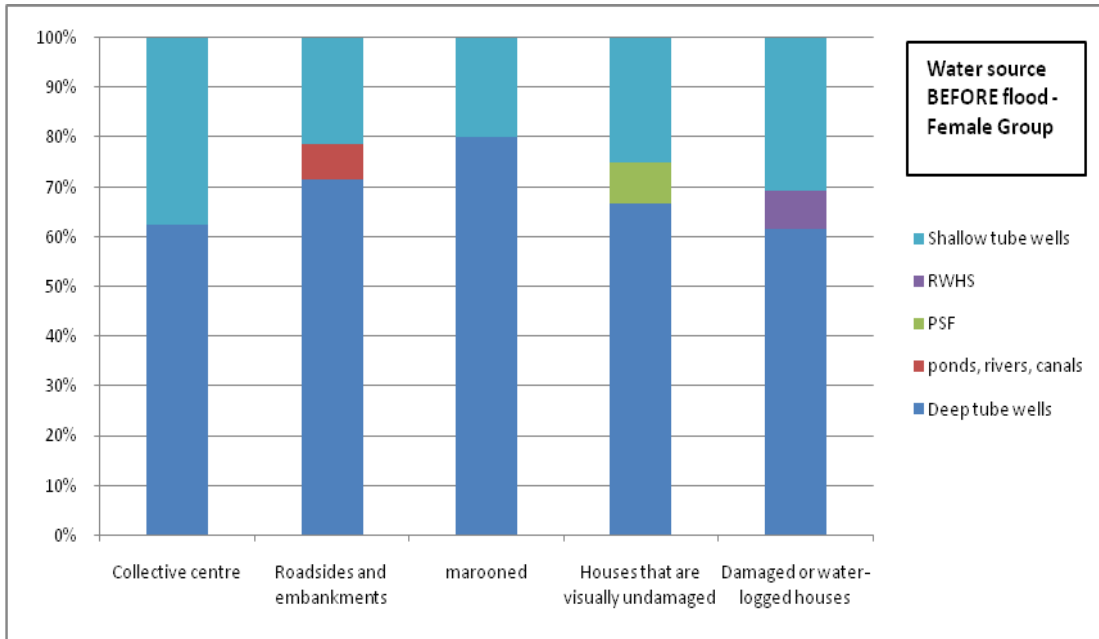
Drinking water may become a significant priority as recovery begins when many families will go home to areas where water sources have been damaged. Additionally access may become increasingly difficult when boats can no longer be used to access more distant points and transport water. The situation in relation to drinking water is likely to deteriorate as water recedes and areas currently traversable by boat to carry water turn to mud. Water points at “home” locations have been submerged as a result of the flooding and will require rehabilitation.

**Figure 9: Community perceptions of drinking/cooking water being a serious problem at the sites now**

Marooned		Collective centers		Roadsides and embankments		Damaged/water-logged houses		Houses that are visually undamaged	
<b>Percentage of “yes it is a serious problem” for male and female groups</b>									
M	F	M	F	M	F	M	F	M	F
71%	80%	63%	75%	63%	79%	77%	93%	27%	75%

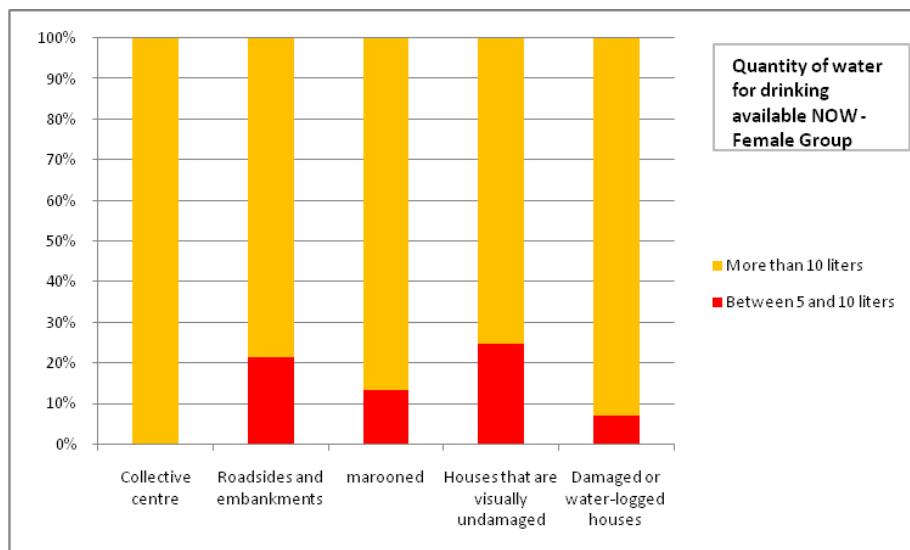
**Figure 10: Changes in main water sources as a result of the flood/water-logging**





Only three female community groups reported water treatment. The majority of female respondents (54 female community groups) reporting having access to more than 10 liters of water per household per day. Communities recognised the need to use water sources that they trusted for drinking and this was why they would use water from tube wells, however talking with people revealed that they did not have a practice of treating their water either by boiling or using water purification tablets. In the case of chemical purification, communities in affected areas are reported not to use it even when distributed.

**Figure 11: Community feedback on quantity of water**



Although availability of water that the communities considered safe for drinking did not emerge as a major priority in the immediate term, it was determined that in many cases people were traveling significantly further to collect water than prior to the floods. The assessment did not capture how much more than 10 liters of water people have, so while 10 liters per day is enough for drinking it is not enough for all household needs<sup>28</sup> and this may need further investigation by sector specialists. For people marooned in their homes in villages inundated with water and cut off from road access, water points have been submerged and are un-useable. Boat transport currently facilitates the transport of relatively large quantities of drinking water from long distances, but once the water recedes and boat transport is no longer feasible their access to water will be an issue.

Team observations also indicated that there was a problem with household level water storage facilities; In 35 out of the 63 sites team observation indicated that communities generally did not have sufficient clean, covered water containers.

**Figure 12: Percentage of site with clean covered water storage containers**

Living Arrangement	no	Yes
Collective centres	69%	31%
Roadsides and embankments	62%	38%
Marooned	21%	79%
Houses that are visually undamaged	60%	40%
Damaged or water-logged houses	67%	33%
<b>Grand Total</b>	<b>56%</b>	<b>44%</b>

<sup>28</sup> See note on SPHERE standards, above.



**Sanitation emerged as a very significant issue for affected populations, especially women.** Issues with the availability of sufficient latrines were reinforced by the observations of field teams. Although assessment teams reported latrines being present in 54 of the 63 sites, these were recorded as functional in only 32 of the sites (i.e., less than 50% of sites had functional latrines). In 32 sites, teams recorded hand written observations in addition to the assessment checklist reporting on the complete unavailability of latrines or the insufficient number of latrines for the population at the site.

The lack of safe and secure sanitation has implications to security and public health especially in a situation where communities are living surrounded by water. The lack of safe and secure sanitation has implications for security and public health especially in a situation where communities are living surrounded by water. This can lead to an increase in water borne diseases: Open defecation contaminates stagnant water (causing serious problems when this water is being used for bathing and personal hygiene). It can also lead to contamination of the underground water table. If the ground water is contaminated previously water points are exposed to biological contamination putting people at risk of disease.

**56 female community groups reported that their sanitation arrangements were a serious problem**

**Figure 13: Availability of latrines disaggregated by type**

<b>Living arrangement</b>	<b>Site with latrine</b>	<b>Sites with functional latrines</b>
Collective centre	12	11
Roadsides and embankments	7	3
Marooned	14	6
Houses that are visually undamaged	5	4
Damaged or water-logged houses	16	7
<b>Grand Total</b>	<b>54</b>	<b>32</b>

**Figure 14: Changes in sanitation as a result of the water-logging : women and girls**

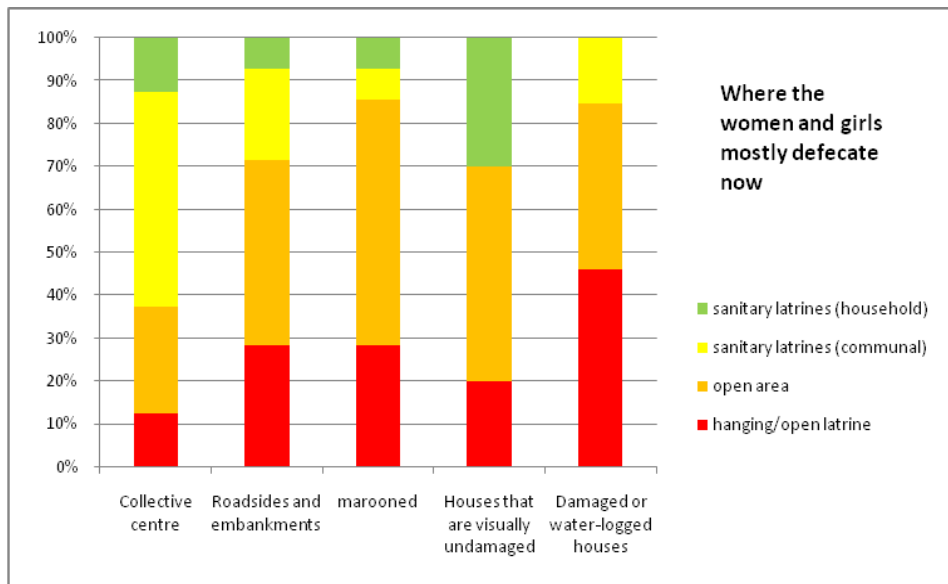
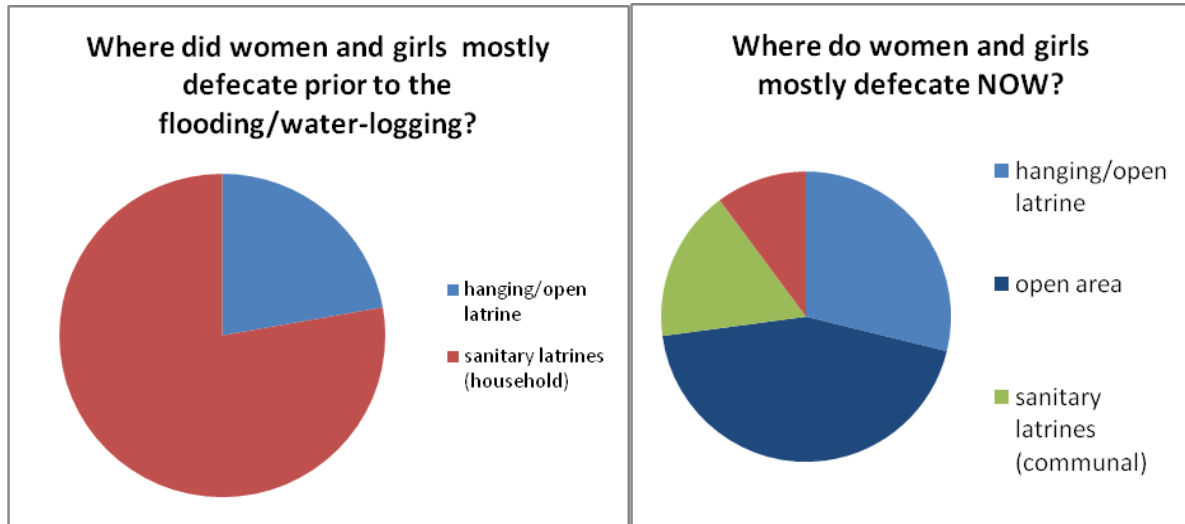
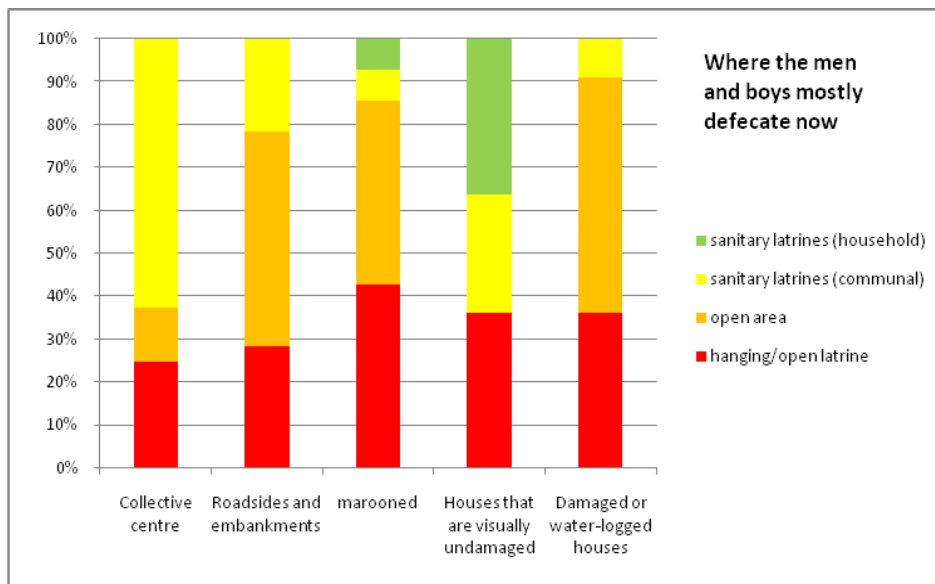
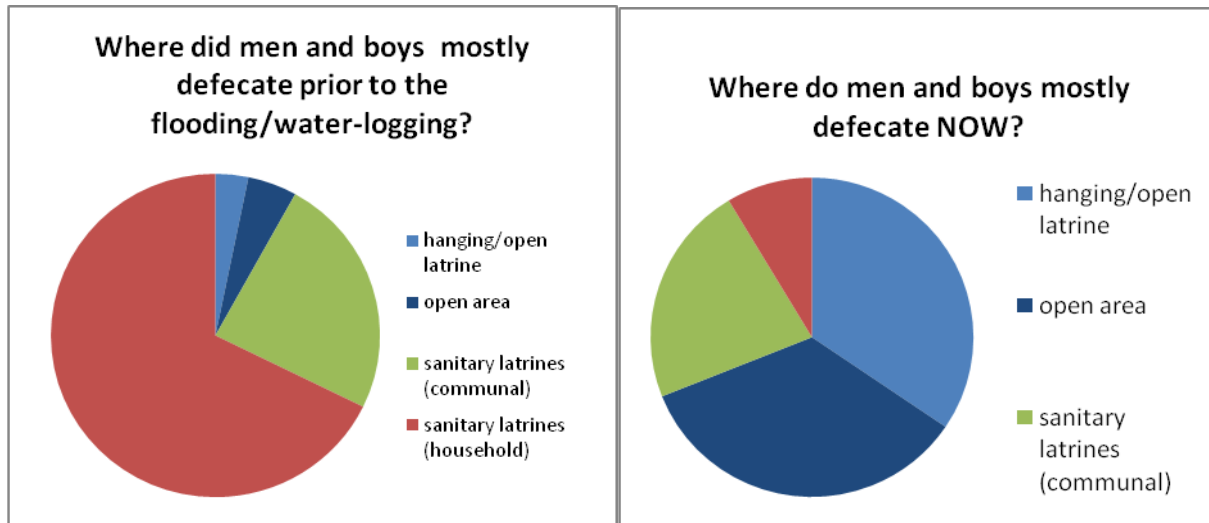
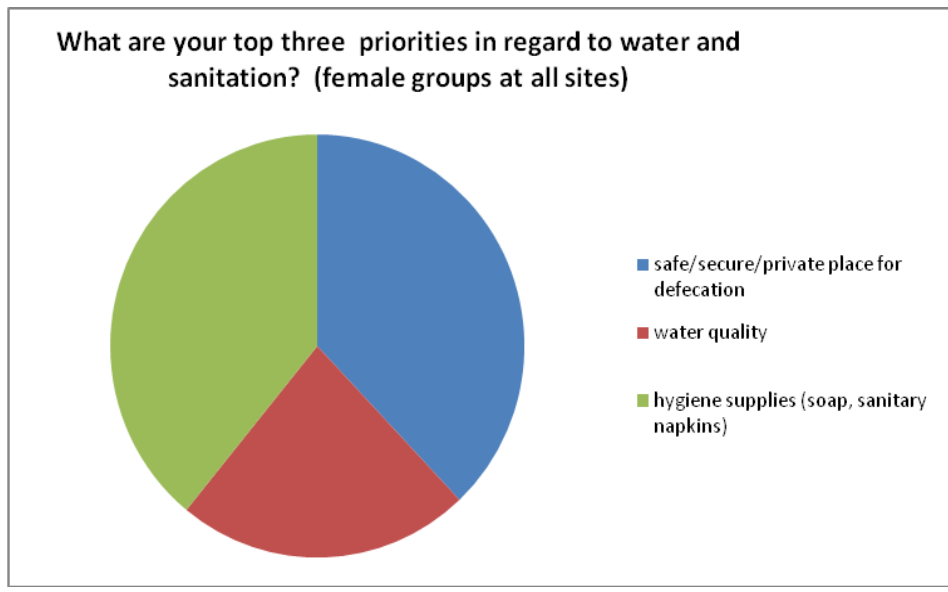
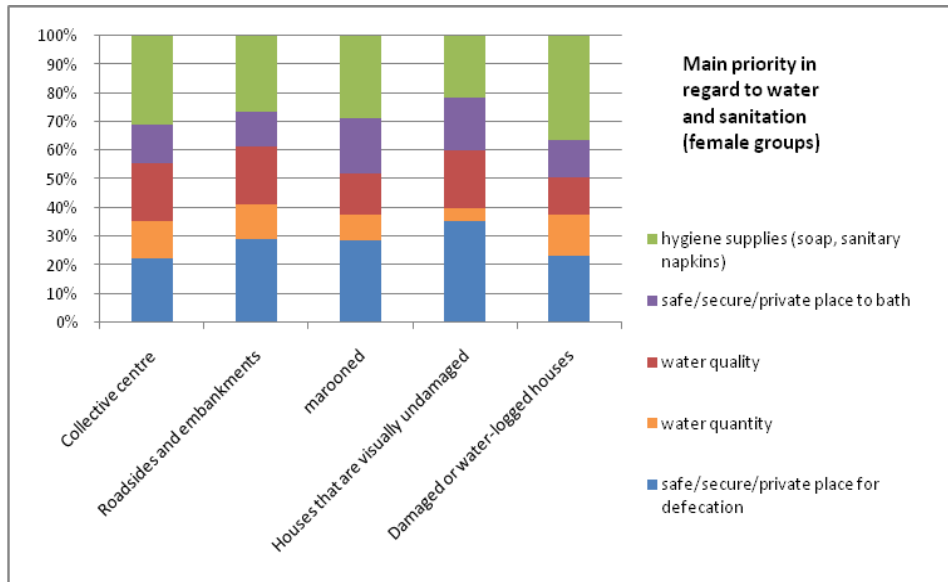


Figure 15: Changes in sanitation as a result of the water-logging: men and boys



Bathing and hygiene emerged from the assessment as a significant problem for affected populations. Almost all female community groups (60 out of a total of 63 sites) reported having a problem in being able to keep clean. Assessment teams reported that women’s ability to adequately address their menstruation was very problematic because of an unavailability of materials as well as a lack of clean water and private space to bath. One team reported that 3 women were hospitalized after cleaning themselves with water at the site and contracting a serious infection.

**Figure 16: Women’s priorities in relation to water and sanitation**



Stagnant water and garbage/rubbish around sites were generally a problem in all areas visited by assessment teams. Vectors such as mosquitoes and rats were also reported at most sites without any significant difference between the sites.

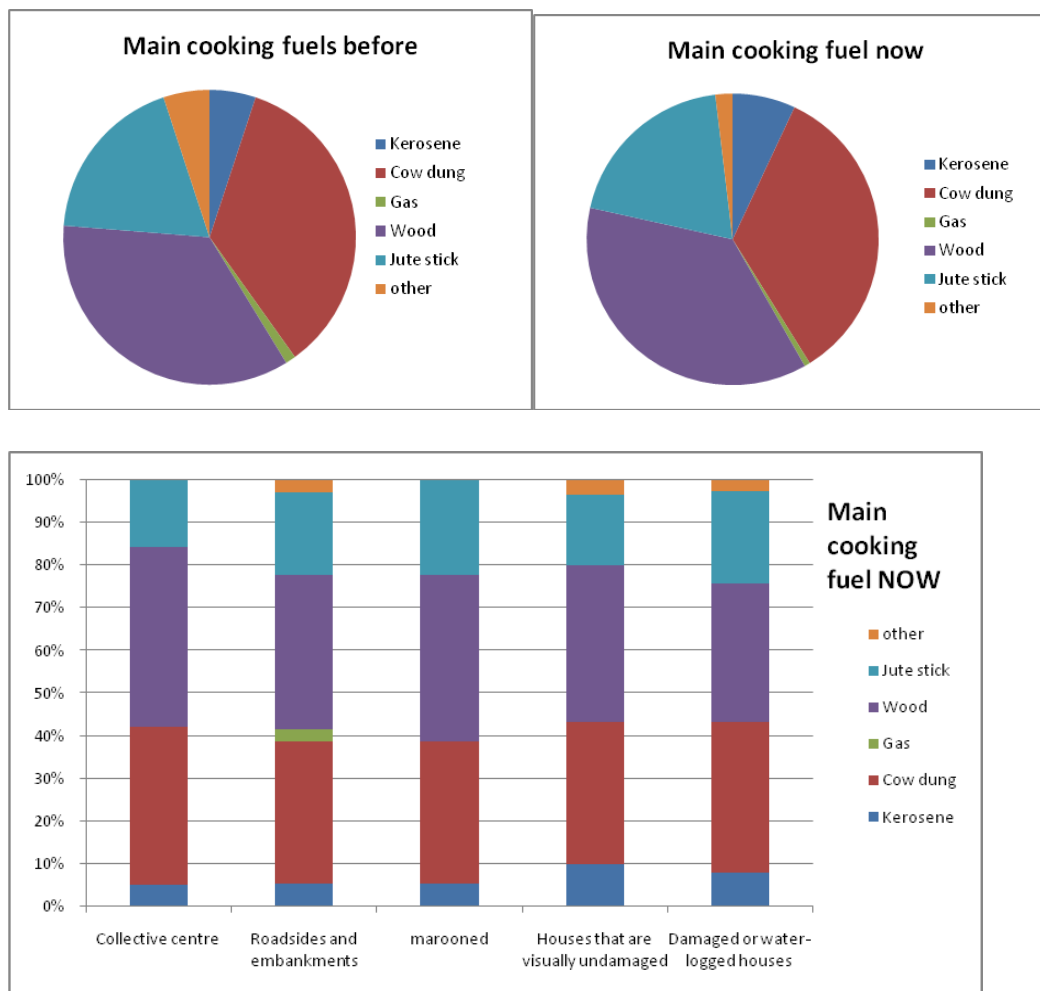
## Food

As indicated earlier access to food was identified by the communities as their first priority right now. The most frequently reported problems in relation to food by female groups were “not enough food” (60 responses), “not good enough food” (42), and cooking fuel (39) and cooking facilities (34).

WFP, FAO and Shushilan carried out a rapid food security assessment (RFSa) from 25-27 August focused on Satkhira.<sup>29</sup> The present multi-sector assessment did not seek to duplicate the food security assessment undertaken by these agencies specializing in food and livelihoods: however, a few questions related to food and livelihoods were included because this assessment covered more geographic areas than the RFSa.

As pointed out in the RFSa, shocks and disasters in poverty prone areas amplify food insecurity. Poverty incidence in some affected upazillas in each of the three affected districts ranks among the highest in the country, at over 44% of the population being classified as “extreme poor”.<sup>30</sup>

**Figure 17: Change in cooking fuel from BEFORE the water-logging to NOW**



<sup>29</sup> WFP, FAO, Shushilan, A Rapid Food Security Assessment of Shatkira in the Context of Recent Flood and Water Logging, August, 2011.

<sup>30</sup> World Bank, WFP, Bangladesh Proportion of the Population Extreme Poor, 2005.

The data shows no current significant change in fuel use. The duration for which supplies will be available warrants further assessment. The RFSA assessment identified difficulties with cooking including lack of space, and fuel as having an impact on the frequency of affected people to prepare food.<sup>31</sup>

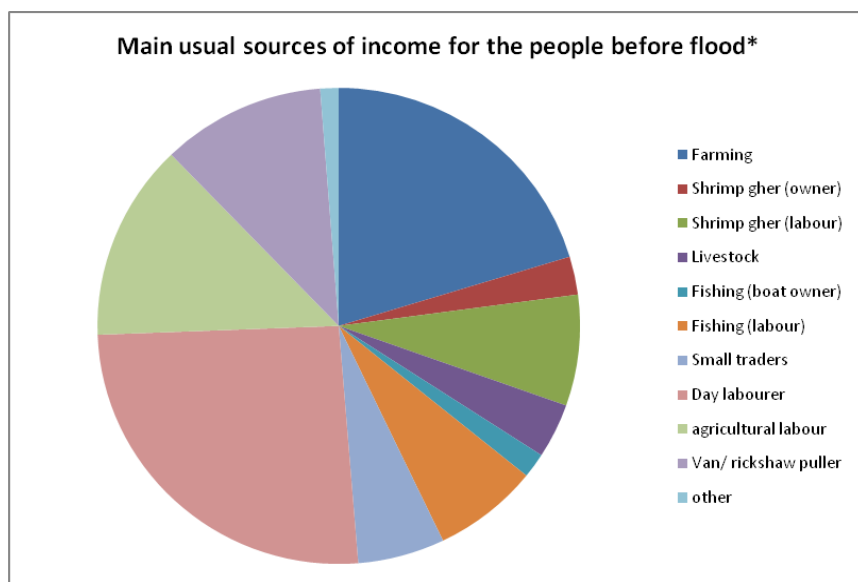
Other findings of the RFSA were confirmed by reports of assessment teams including:

- Communities reported eating fewer and smaller meals
- Reduction in the variety of food (many reporting eating only rice and dhal now)
- Concern reported over pregnant and lactating mothers access to nutritious food

## ***Livelihoods & coping mechanisms***

The main usual sources of income reported by the male community groups were agriculture, shrimp cultivation and fishing. All of these have been significantly affected by the water-logging with resumption of normal activities estimated by most people in the area including local government officials and NGOs to be at least several months away.

**Figure 18: Main usual sources of income for people before the flooding**



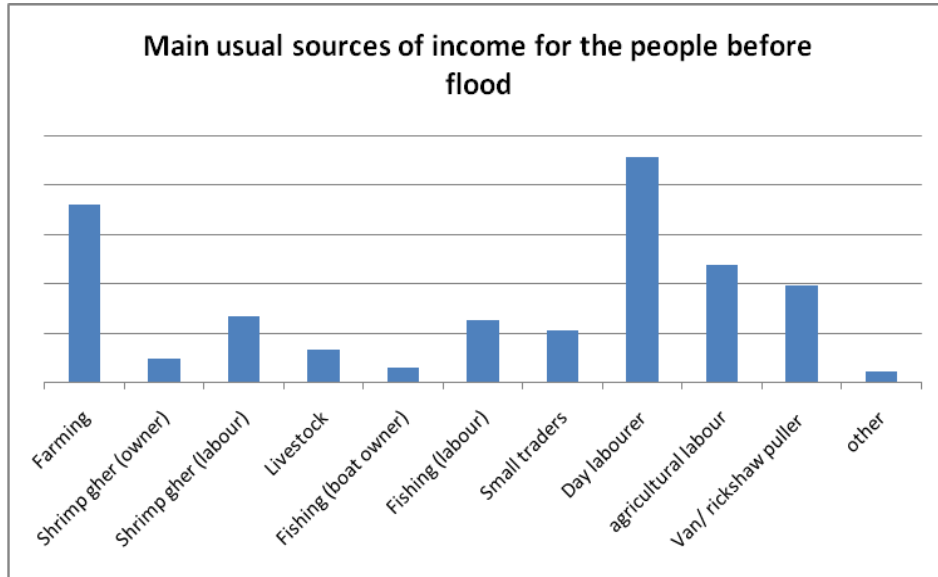
\*Male community groups were asked to rank (up to 5) the most common usual livelihood activities for people in the group.

Communities reported that most people now are without any livelihood at all. There is very little work available in shrimp cultivation, agriculture and fisheries because these areas have been so significantly affected by the water-logging. The RFSA reports that agriculture will be affected until the soil dies up sufficiently for planting and this could take a further three to six months. The influx of available day laborers on the market has reduced wages significantly. The RFSA reported a reduction from 100-150

<sup>31</sup> WFP, FAO, Shushilan, A Rapid Food Security Assessment of Shatkira in the Context of Recent Flood and Water Logging, August, 2011, p7.

taka/day to 30-40 taka/day. A reduction in wages was also reported by assessment teams who found that some men were considering re-locating their whole family to Khulna or Dhaka in search of work.

**Figure 19: Main sources of income prior to flood**



### ***Coping strategies reported by the male community groups***

Community groups were asked to list coping strategies. The strategy reported most was reducing meal size; reports of this were particularly high in the groups displaced to roadsides and embankments. Discussions at sites revealed that people had reduced the amount of food they were consuming as well as the variety of foods consumed. People reported eating a mixture of vegetables prior to the water-logging and that now they were eating only rice and dhal.

Assessment teams noted that one of the main coping strategies discussed by the communities was taking out loans in order to cover expenses and rebuild their lives. Teams reported people had already started taking out loans. This includes loans from owners of brickfields which entails having to work without labor until the loan is paid off. Taking out loans generally was the second most frequently reported response by the male community groups, followed by purchasing food on credit.

Investigating the responses by living arrangement highlights the vulnerability of people living on roadsides and embankments where the use of high interest loans is reported to be the highest.

Teams also reported that NGOs and micro-finance lenders had been giving assistance to their existing beneficiaries rather than to all people at a particular site or based on any other criteria related to vulnerability.

Figure 20: Coping Strategies Reported

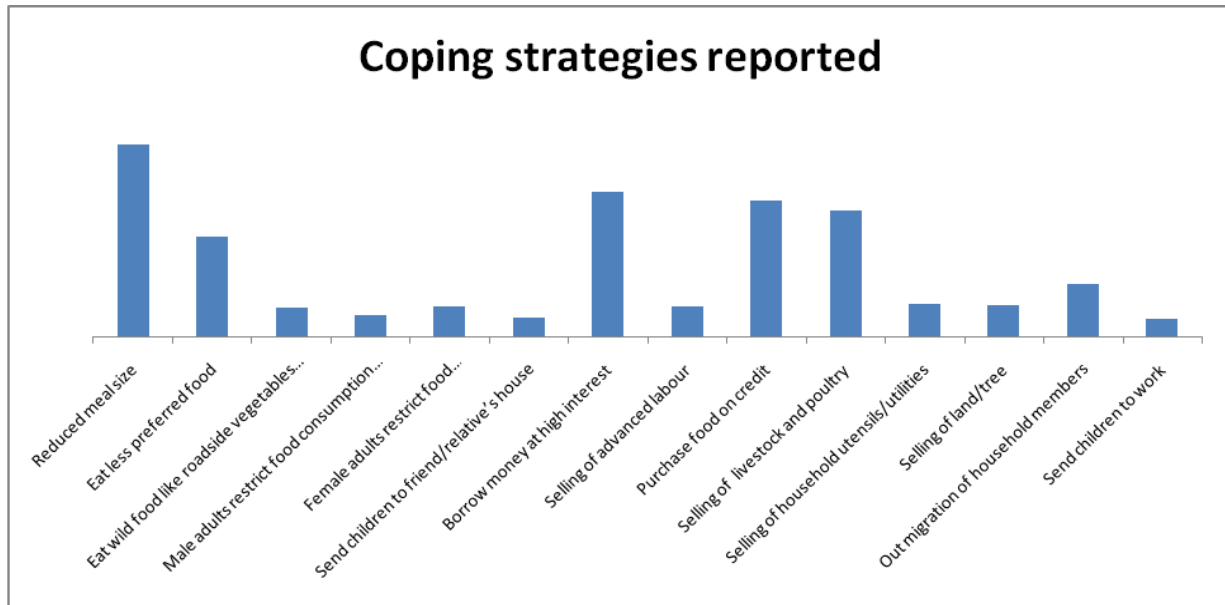


Figure 21: Coping strategies reported per living arrangement

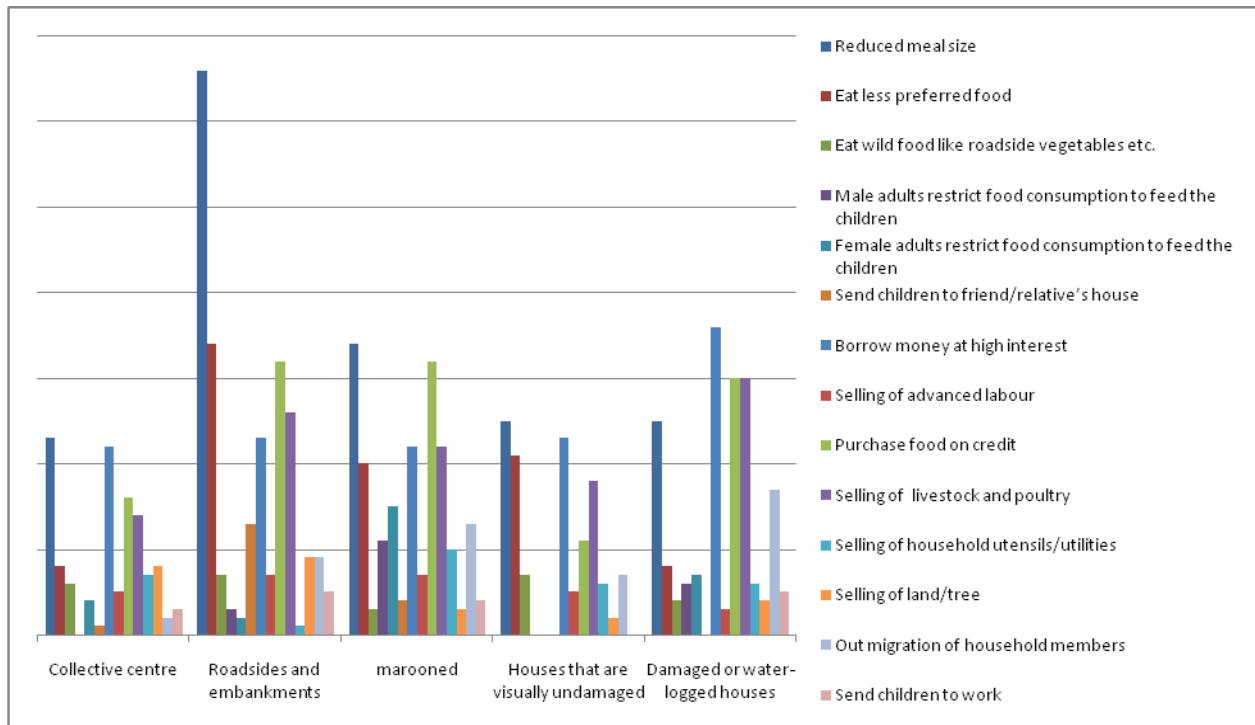
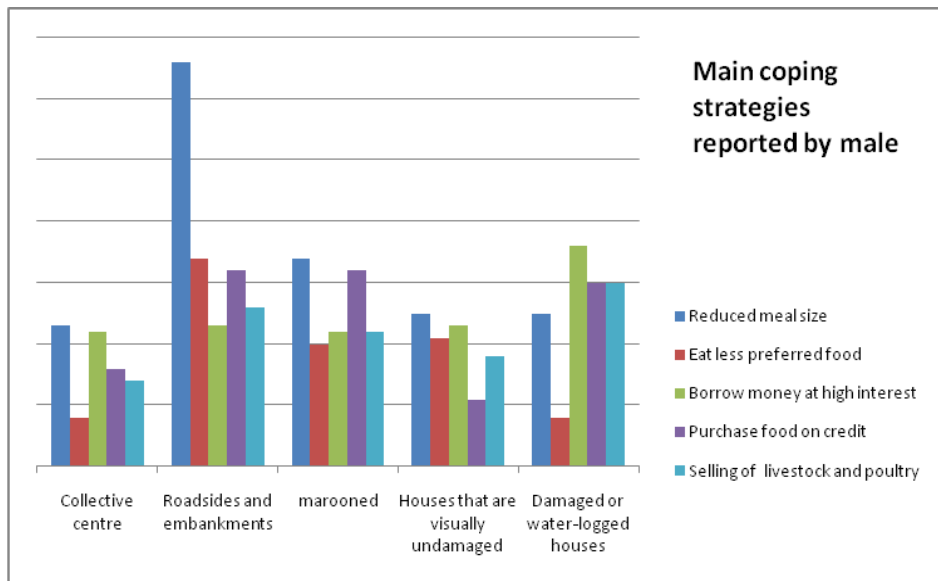
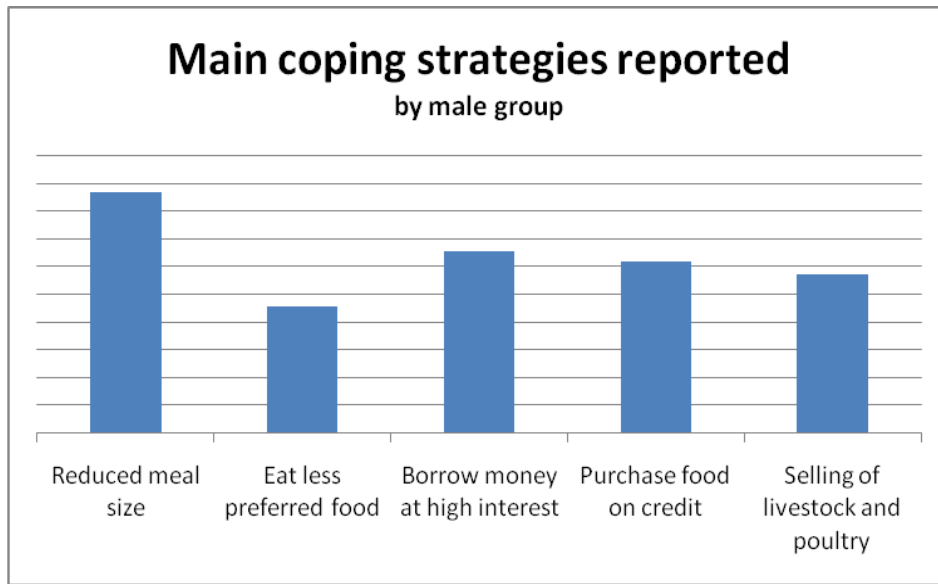




Figure 22: Main Coping Strategies Reported by Men



## ***Young child nutrition & child care***

Malnutrition remains a challenge throughout Bangladesh, particularly in rural areas (BDHS 2007<sup>32</sup>, HFSNA 2009<sup>33</sup>). Though no direct representative data for the assessment areas is available, division level data from the BDHS 2007 and the HFSNA 2009 indicate that the malnutrition situation for children in Khulna division is a concern, though relatively better than elsewhere in the country. Global acute malnutrition (GAM) was 18.8% in the BCHS 2007 and 12.4% in HFSNA 2009 and stunting and underweight rates were 34.6%/40.1% and 34.1%/29.6% respectively throughout Khulna Division. WHO considers thresholds of 15% for GAM and 40% for stunting and underweight as critical levels which are either bypassed or very close. Helen Keller International (HKI) is implementing a Food Security and Nutrition Surveillance Project (FSNSP<sup>34</sup>) in Bangladesh and data collected during 2010 in three rounds has provided data on seasonality of malnutrition in Bangladesh. The data in general shows that peak of malnutrition appears during the rain season (round 2, between June and August) and before and after malnutrition rates are lower throughout the country. This is as well and even more pronounced the case for the coastal belt area (the flood affected areas are part of).

This data indicates that the nutrition situation in the affected areas was likely at a stage of high malnutrition rates and vulnerability when the rains and floods started, and would usually reduce in the following months. This expected reduction in the severity of the malnutrition situation will likely be negatively affected by the current flood situation and could even be reversed.

Based on average demographic distribution for Bangladesh it can be expected that within the affected population are approximately 109,700 children under 5 years of age and approximately 36,900 pregnant and lactating women.<sup>35</sup>

During the female community group discussion women were asked if they had noted any problems concerning the feeding/breast-feeding of children under the age of 2 years since the flooding and water-logging started. The answers received indicate that feeding and breastfeeding has become problematic as only 4 out of 63 female discussion groups ( $\approx 6\%$ ) reported no problems. The large majority of groups indicated a decrease in breastfeeding (54  $\approx 86\%$ ) and a lack of usual food for children under two (49  $\approx 78\%$ )

The data by type of site indicates that these changes are reported less from collective centers than from the other 4 site types. This does not support assumptions that lack of privacy (assumed to be lower at collective sites) is the key driver for difficulties with breastfeeding. Better understanding of this issue would likely inform interventions in future flood situations in Bangladesh.

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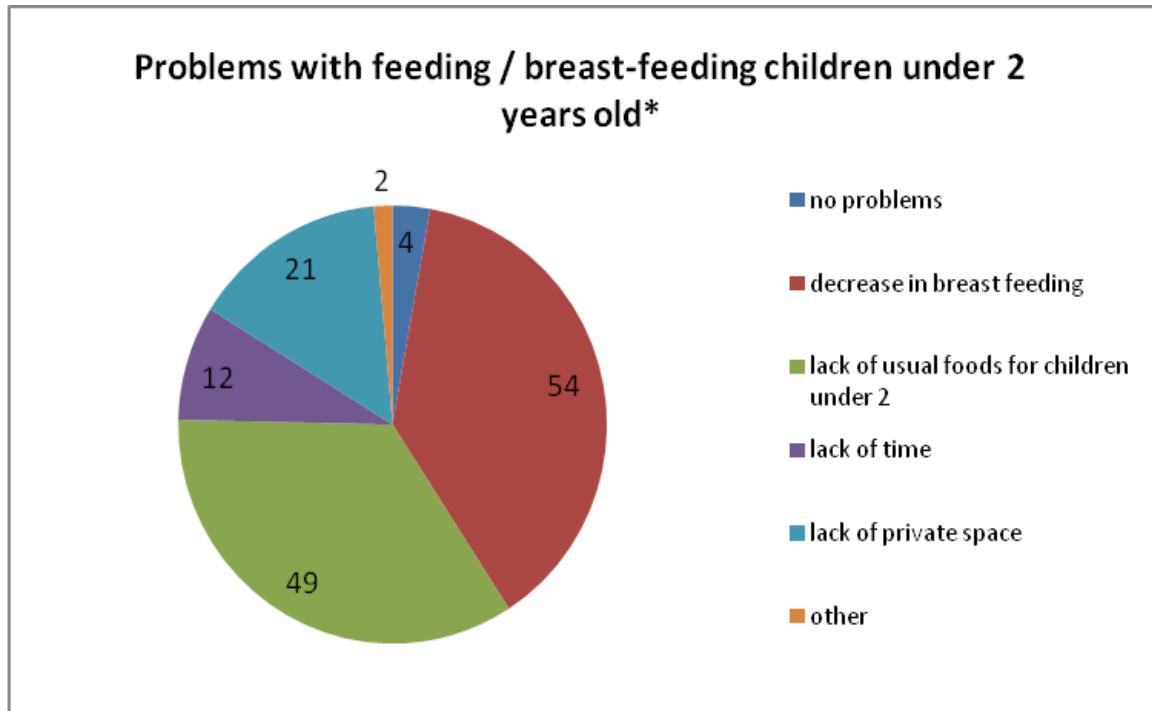
<sup>32</sup> Bangladesh Demographic and Health Survey 2007

<sup>33</sup> Bangladesh Household Food Security and Nutrition Assessment 2009, IPHN, WFP, UNICEF

<sup>34</sup> The Food Security and Nutrition Surveillance Project (FSNSP), HKI, Round 2 and Round 3 Bulletins

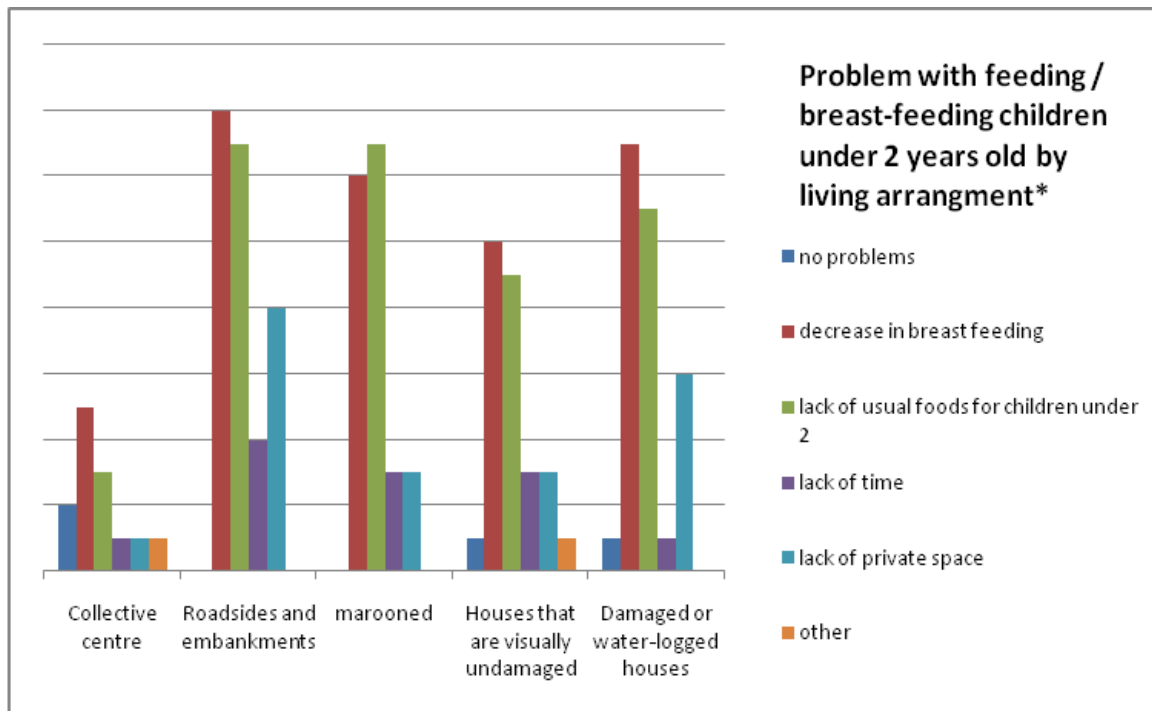
<sup>35</sup> Bangladesh has an average of 11.9%<sup>1</sup> of children under 5. It is estimated that about 4% of a population are pregnant and lactating women. Therefore the estimated number of children under 5 and number of pregnant and lactating women affected by the water logging according to upazila estimates of affected population is 109,711 and 36,878 respectively.

Figure 23: Problems with feeding/breast feeding of children under the age of 2 years



\*problems reported in female community group discussion with female assessment teams.

Figure 24: Problems with feeding/breast feeding of children under the age of 2 years by living arrangement.

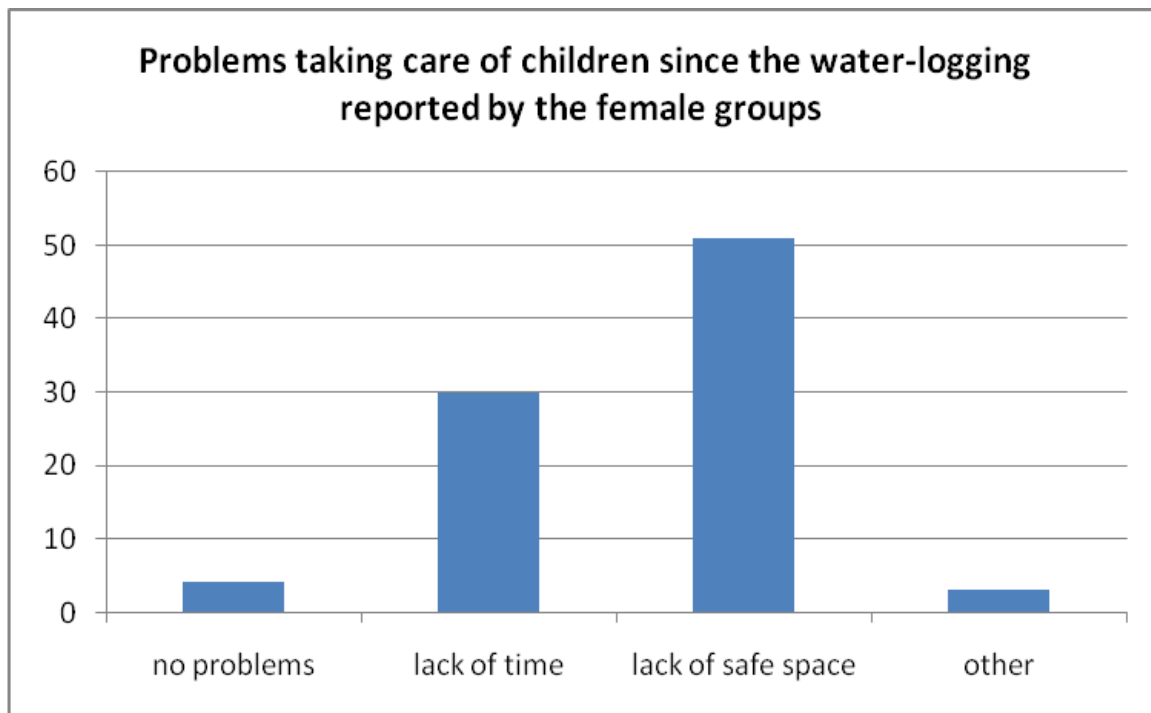


\*X axis shows relative frequency of responses.

Overall the female assessment teams carrying out the female community group discussions added observations to the assessment formats noting the clear concern of women in the community groups that young children’s nutrition was being compromised because women were having problems with breast-feeding. Some teams reported that women felt that because their own nutrition was compromised they were not longer able to breastfeed their children as much as before.

Related to breast-feeding and young infant feeding are care practices. The question about whether women had noticed any problems with taking care of children since the flooding and water-logging started was answered positively by the large majority of groups (60 out of 63 ≈ 95%). Women stated clearly that lack of time and lack of safe space were main problems concerning their ability to take care of their children. Children are presently living in areas with very limited space and parent’s ability to see their children is often impeded by the shelters and people being so close together. Children can be at risk as they look for places to play. Assessment teams were told of children involved in car accidents, falling into deep water and falling of the roofs of school buildings, sometimes resulting in fatalities.

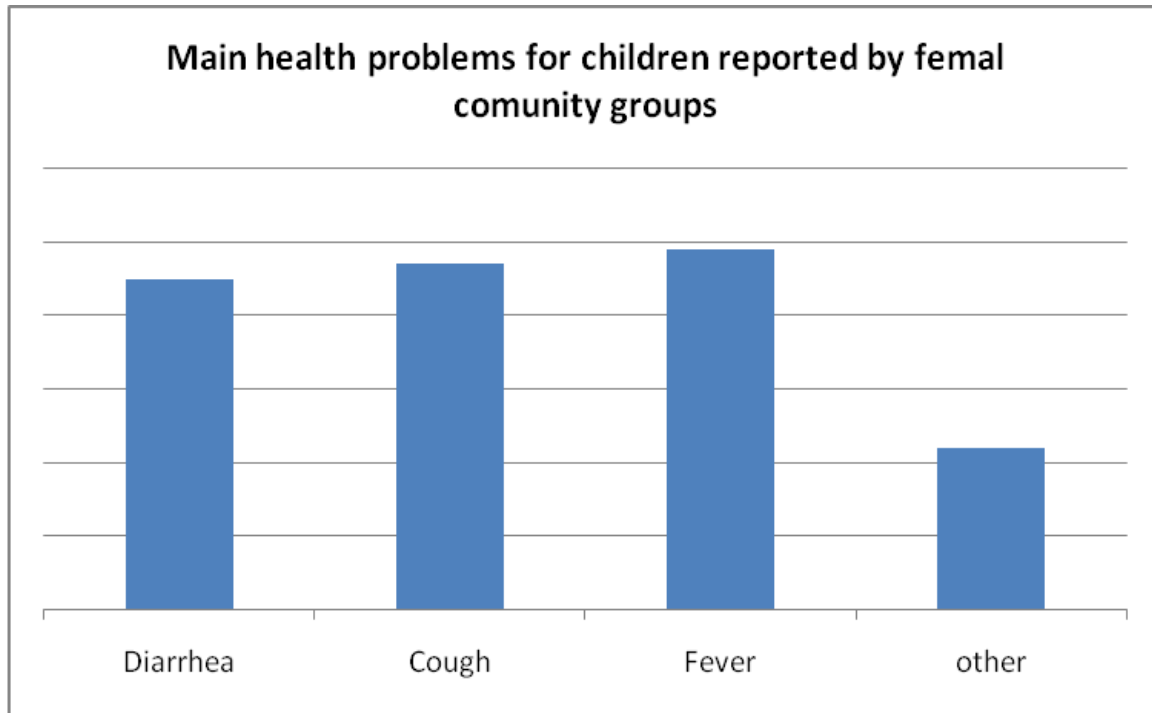
**Figure 25: Problems with taking care of children since the flooding and water-logging started**



\* Female community groups were asked to list problems. X-axis shows frequency of reporting.

Deterioration of child health is reported to be significant. Female community discussion groups were asked if they felt the health of the children had deteriorated since the flooding and water-logging started. All community groups reported that the health situation of the children had worsened. The main symptoms reported were diarrhea, cough and fever, reported with fairly equal frequency.

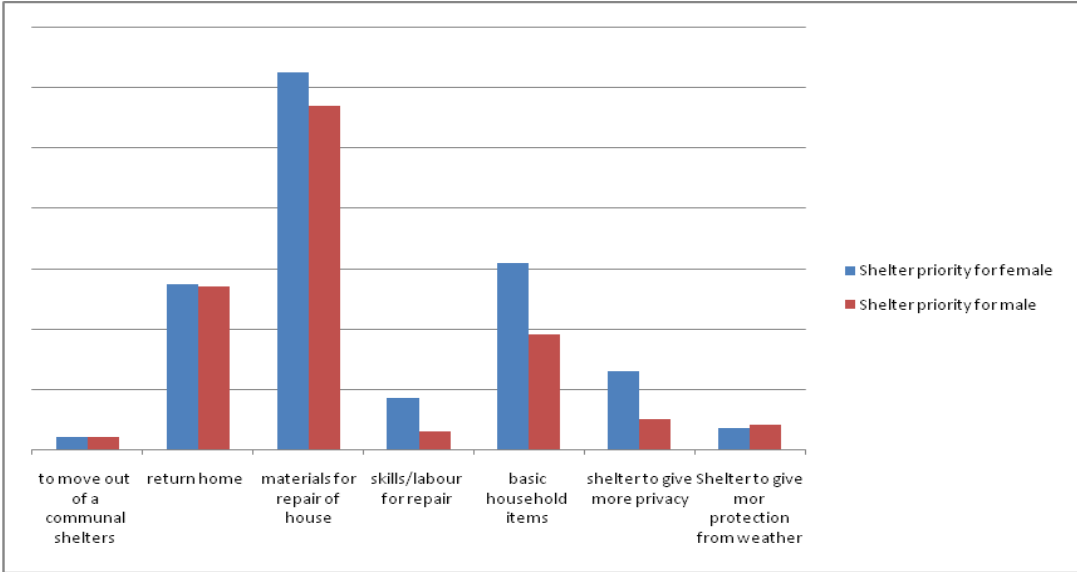
**Figure 26: Worsening of health of children since the flooding and water-logging started as reported by the female community group discussions**



Female community groups were asked if the health of their children had deteriorated since the floods and water-logging. In all of the 63 sites women reported that their children’s health had deteriorated. The main health problems identified are shown in Figure 26. Other health problems mentioned were skin diseases and “general sickliness”.

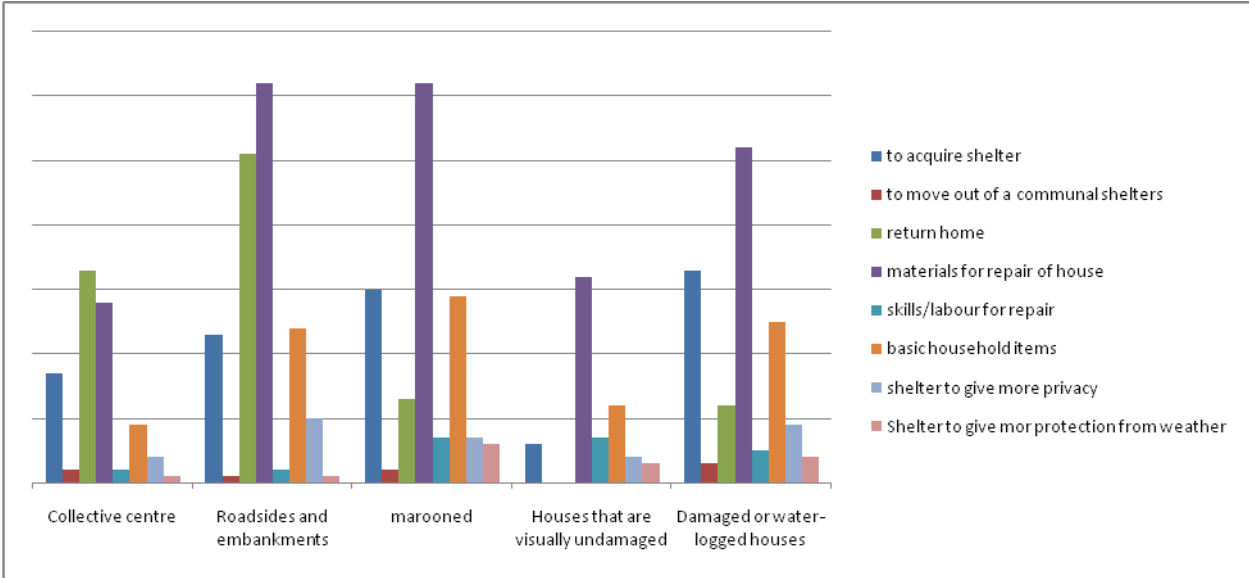
# Shelter

Figure 27: Shelter priorities reported by female and male community groups



When asked about their main priorities in terms of shelter, male community groups very clearly expressed that the first priority was acquiring materials needed to rebuild or repair their homes. After this, addressing their present shelter needs was a priority with many groups expressing that the current arrangements were not adequate and did not provide sufficient shelter. Male groups also indicated a need for basic household items.

Figure 28: Shelter Priorities By Living Arrangement



Similarly, the shelter problems reported most frequently by the male community groups were:

- their homes were uninhabitable
- the presently had “no shelter” (interpreted to mean that present shelter was inadequate)
- material needed for the reconstruction/rebuilding of their houses were not available

The most frequently reported response to this question was “other” (reported 21 times) indicating that the predefined options did not reflect the situation in the affected area. Many houses could be observed with tiled roofs, including brick wall with tiles and mud walls with tiles. Other most reported house construction was mud with golputta straw ( 17) and mud with tin (15). A detailed assessment will be required to identify specific housing reconstruction needs in terms of materials.

#### **Priority needs for the repair/reconstruction of houses (male groups)**

The two things most needed for house reconstruction and repair reported by male community groups were materials (reported by 35 of the male community groups) and money (reported by 25 male community groups out of a total of 63 group responses).

#### **Distribution of materials for temporary shelter (have shelter materials been distributed?)**

Male community groups in 52 of the sites visited reported no shelter materials had been distributed; in only 9 groups did communities report the distribution of any shelter materials.<sup>36</sup> The only items that communities reported having had distributed (in this 9 sites) were plastic sheeting (reported in 8 sites) and poles (reported in 2 sites).

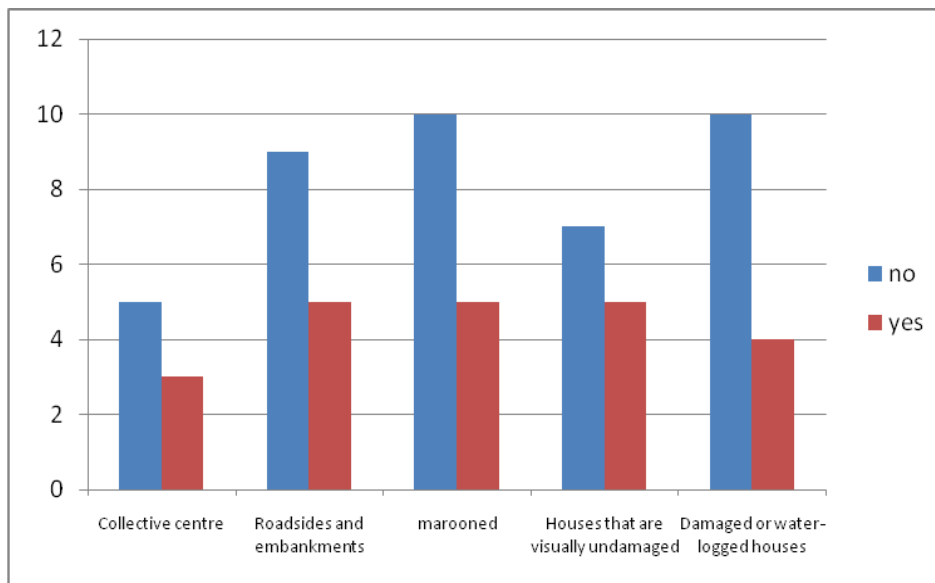
Community groups were asked if shelter distribution included all the people at the site. Assessment teams found that in only one site the distribution did include everyone staying there, in the rest of the sites there was either no distribution or it included some but not all of the resident families. Assessment teams reported in the debriefing meeting that they had been told that NGOs and micro-finance groups had distributed relief items including food and NFIs to households already part of their projects.

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<sup>36</sup> Two groups reported “don’t know.”

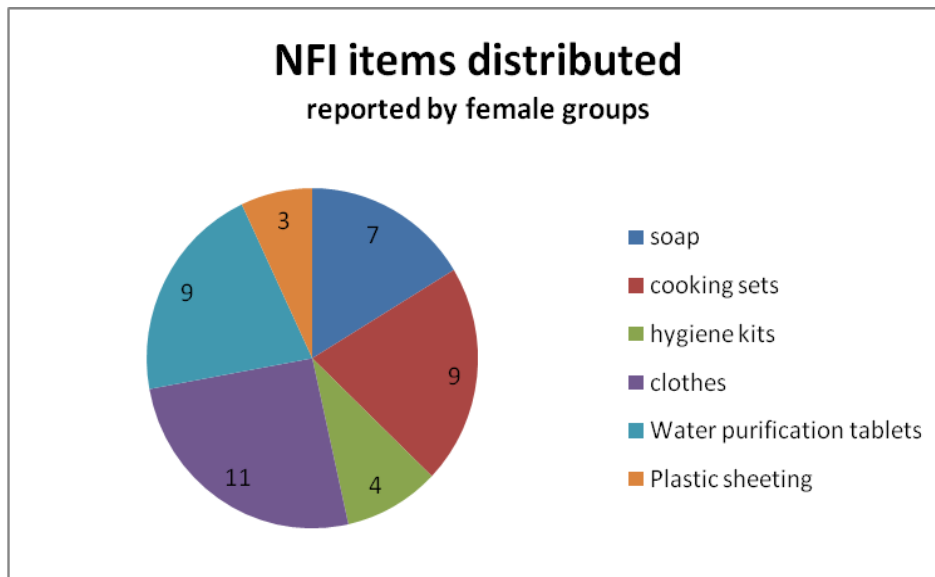
## NFI Distributions

Figure 29: Female groups reporting on the distribution of non-food items (NFI)



In 55 of the 63 sites female community groups reported no distribution of non-food items had taken place since the flooding/water-logging.

Figure 30: NFI distributions reported by female groups

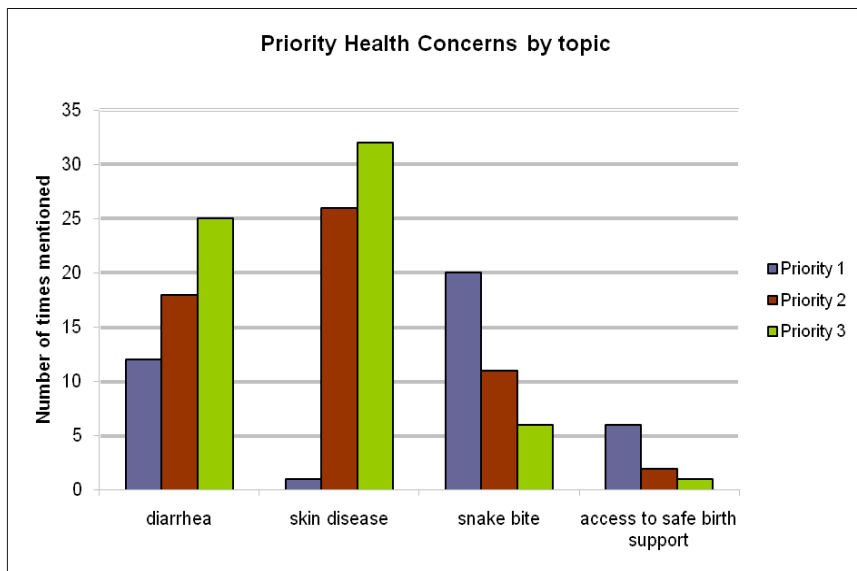
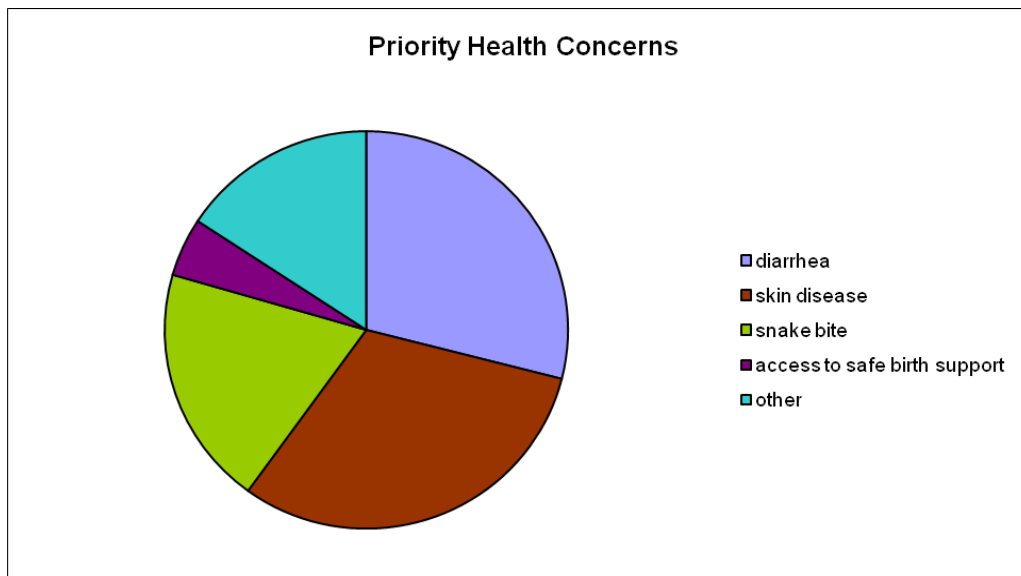




## Health

The assessment asked health related questions to female community groups who reported a range of health concerns. Assessment teams noted: cough and fever, diarrhea and vomiting and general “sickliness” of adults and children. One team recorded the death of a pregnant woman.

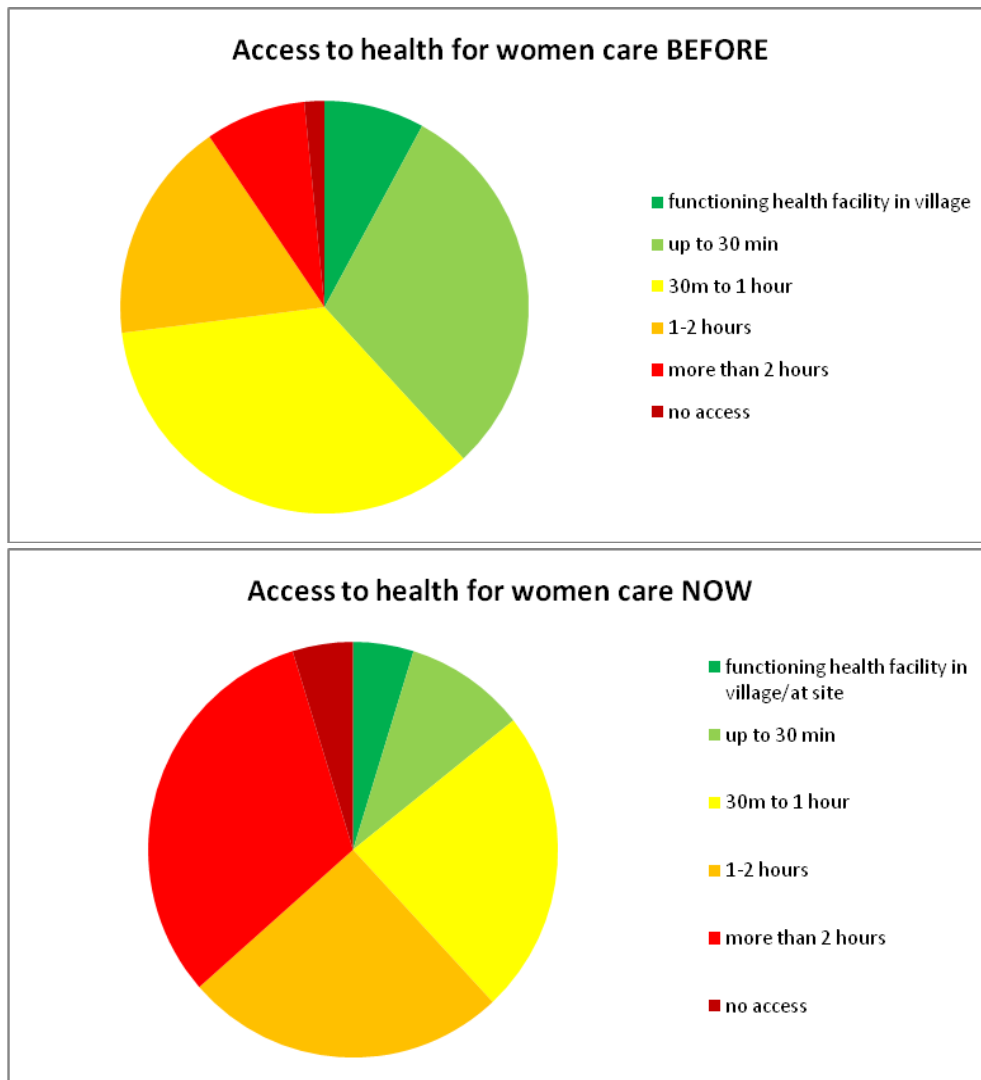
Figure 31: Priority Health Concerns



A problem regarding the presence of snakes was reported to the assessment teams in 21 of the sites. From the observations of the assessment teams a problem with snakes was found in all of the different types of living arrangements. Five deaths from snakebite were reported and 45 incidents of snake bite were reported. Deaths from snake bite were reported in three different collective centers and in 2 different sites where people were living on roadsides or embankments in the Pourshava and Labsa union in Shatkira Sadar uppezilla and in Biddyandakati union of Keshabpur uppezilla.

Discussions revealed a negative change in access to health care. Some communities now residing on embankments and roadsides reported “no access” to health care. People living in marooned houses or damaged and water-logged houses reported the longest distances to travel to health care reflecting the difficulties in transportation in affected areas. People in marooned houses can only travel by boat –as this is not their usual means of transport, it is not common for them to have their own boats. Assessment teams did not hear any reports of mobile health clinics visiting sites.

**Figure 42: Access to health care by women**



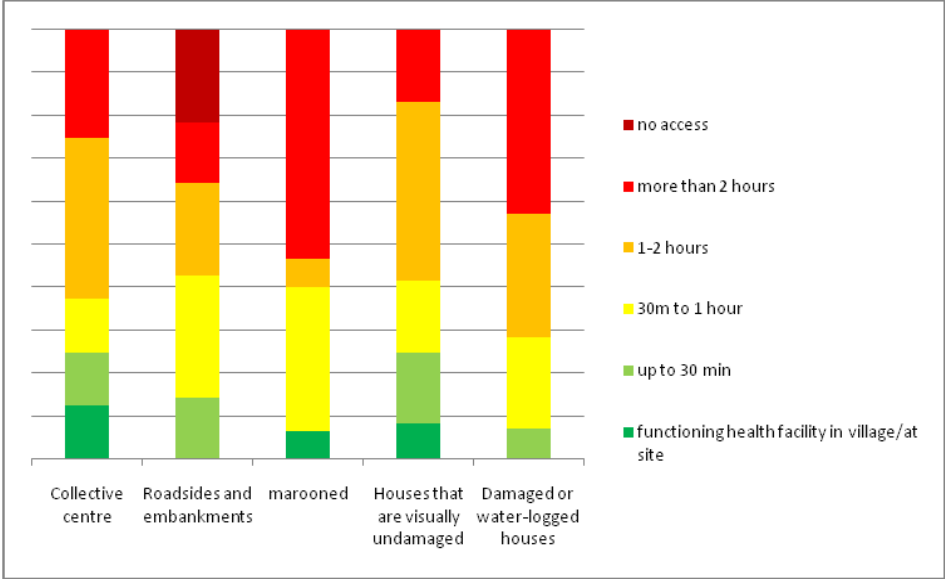
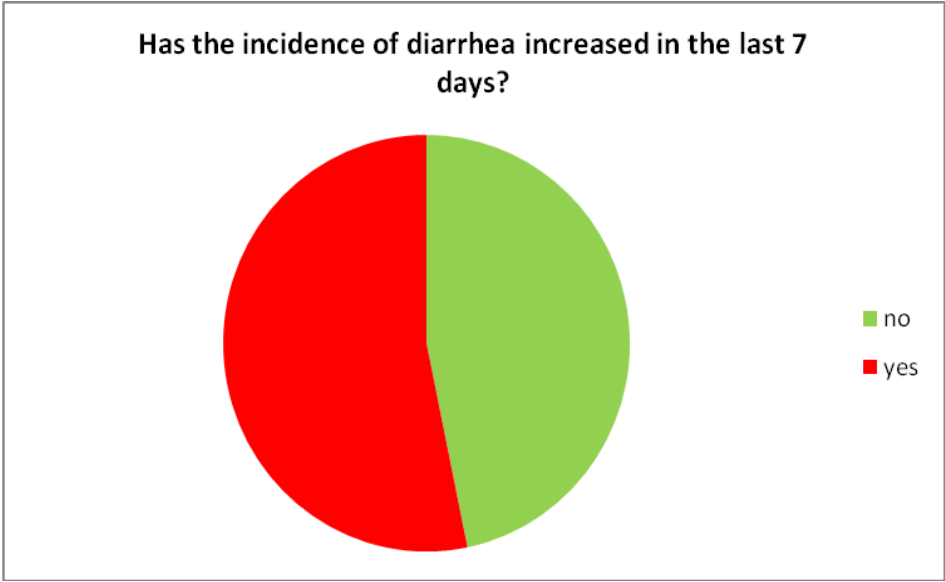
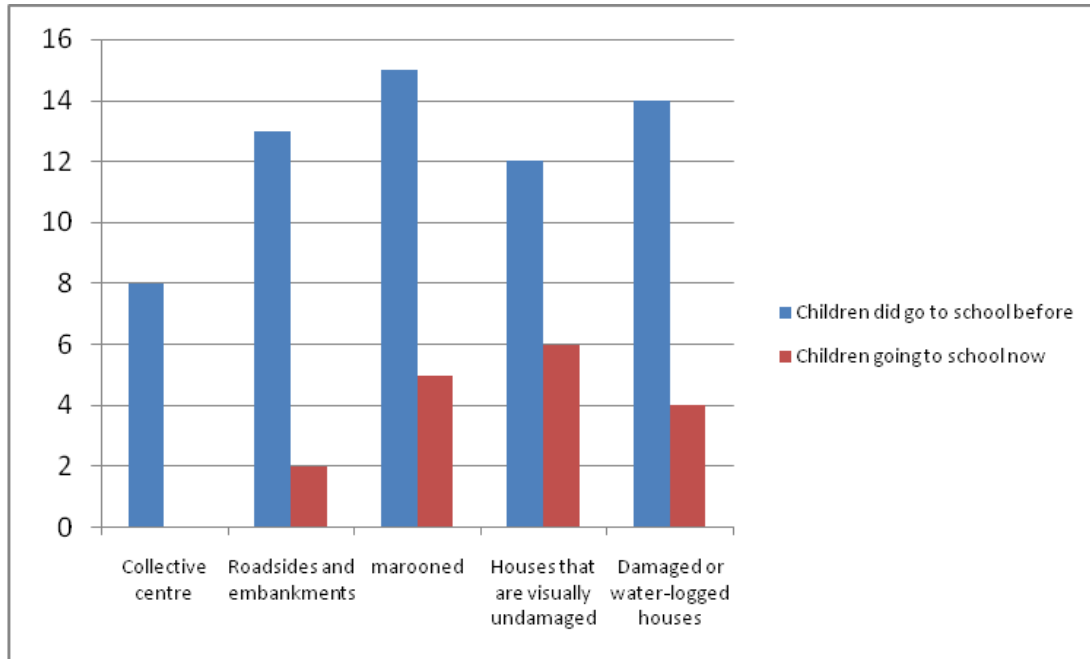


Figure 43: Community assessment of increase in diarrhea incidence



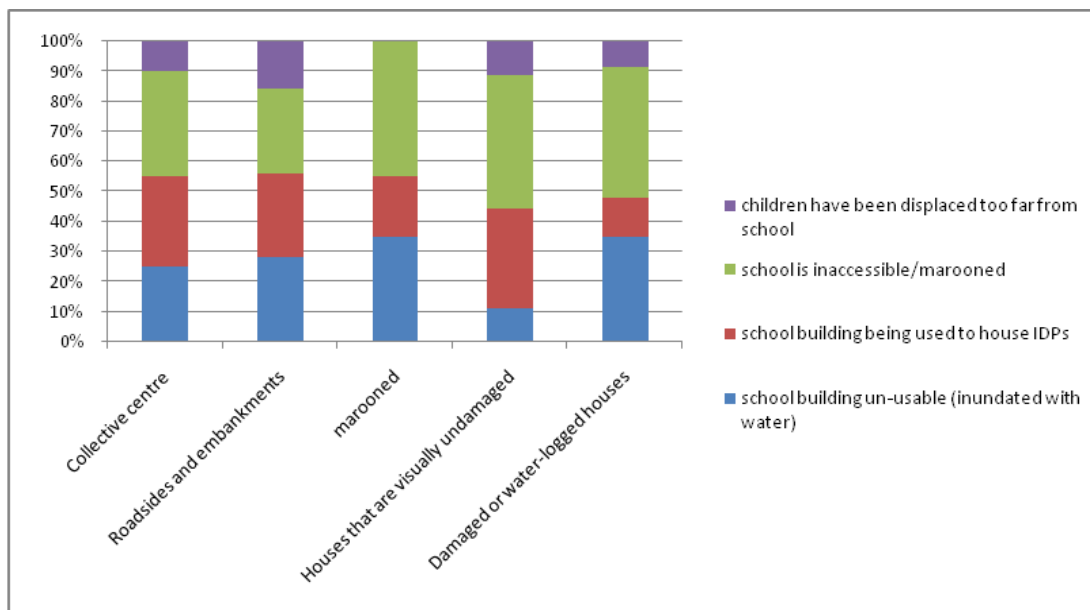
## Education

Figure 32: Change in school attendance as a result of the water-logging



\* X Axis shows frequency of reporting by community groups in each site.

Figure 33: Main reasons for non-attendance at school now reported by female community groups



### Protection, vulnerability & security concerns

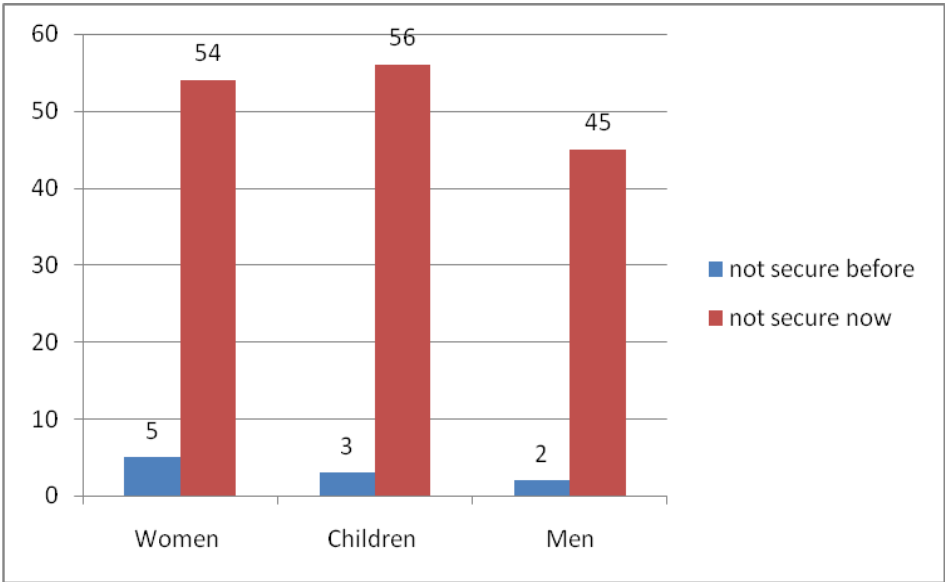
Figure 34: Female community groups reporting that children are not with their usual caregivers/parents

	no	yes	Total
Collective centre	5	3	8
Roadsides and embankments	13	1	14
marooned	11	4	15
Houses that are visually undamaged	10	2	12
Damaged or water-logged houses	8	6	14
<b>Total</b>	<b>47</b>	<b>16</b>	<b>63</b>

Significant issues relating to child protection emerging from the assessment were not directly covered by the assessment questionnaire (which focused on trafficking and child labor). Stated community priorities related to road safety, water safety and safe places for children to play came at as the anecdotal priorities. Teams heard reports of children having been hit by cars in areas where communities resided on narrow strips of land in between roads and flood waters, of drowning as children could easily slip of the side of embankments into deep water, and of children falling from the roofs of schools being used as collective centers as they searched for space to play.

There were significant changes in perceptions of security for children, women and men as a result of the flooding/waterlogging.

Figure 35: Changes in perceptions of security as a result of the water-logging



**Figure 36: Changes in perceptions of children's security per location**

How secure do your children feel before the water-logging and now at this location? (asked of female community groups)	not secure before	not secure now
Collective centre		8
Roadsides and embankments		14
Marooned	2	13
Houses that are visually undamaged		11
Damaged or water-logged houses	1	10
<b>Grand Total (base on 63 answer)</b>	<b>3</b>	<b>56</b>

**Figure 37: Perceptions of children's security per activity**

Do your children feel safe using latrines/defecating/bathing?	no	yes	Percentage of no
Collective centre	7	1	88%
Roadsides and embankments	14		100%
Marooned	14	1	93%
Houses that are visually undamaged	11	1	92%
Damaged or water-logged houses	13	1	93%
<b>Grand Total</b>	<b>59</b>	<b>4</b>	

Female assessment teams noted at nine sites that women reported expressing concern about the change in family dynamics including violence of husbands against wives as a result of being displaced.

**Figure 38: Reports of violence against women**

Did any of the female community groups report hearing about violence against women where they are staying?	No	yes	Total	Percentage of yes
Collective centre	6	2	8	25%
Roadsides and embankments	10	4	14	29%
Marooned	10	5	15	33%
Houses that are visually undamaged	10	2	12	17%
Damaged or water-logged houses	10	4	14	29%
<b>Total</b>	<b>46</b>	<b>17</b>	<b>63</b>	

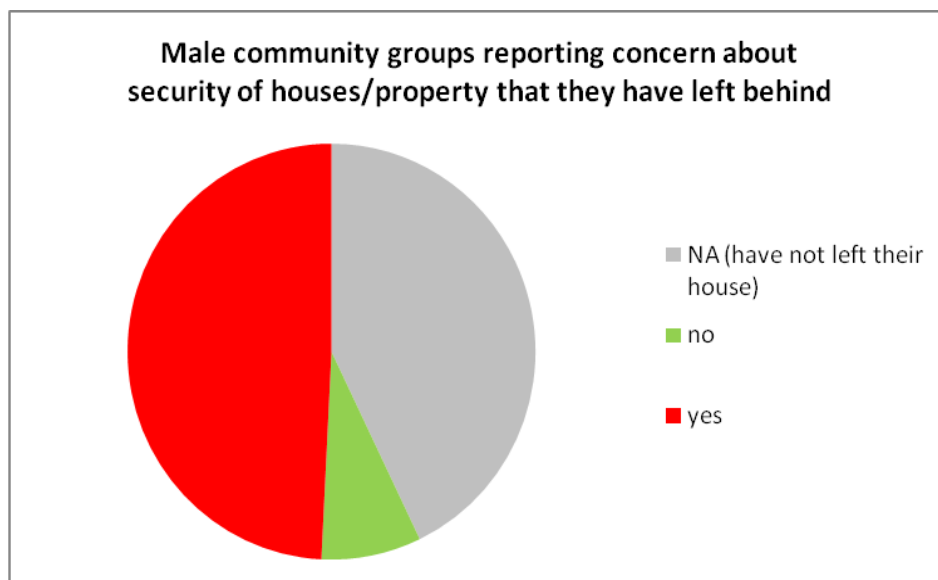
Both male and female assessment teams highlighted women’s perceptions of insecurity relating to bathing and use of latrines.

**Figure 39: Women's perceptions of safety**

Do women feel safe using latrines/defecating/bathing?	no	yes	Percentage of no
Collective centre	8		100%
Roadsides and embankments	14		100%
Marooned	14	1	93%
Houses that are visually undamaged	12		100%
Damaged or water-logged houses	14		100%
<b>Grand Total</b>	<b>62</b>	<b>1</b>	

Male community groups at 45 out of the 63 sites reported that they felt secure at their homes prior to the water-logging. In their current living arrangements only 5 of the male community groups reported feeling very secure, with 45 reporting that they presently felt “not secure”. In 31 out of the 35 sites where people were displaced from their homes men reported having security concerns for the property and goods they have had to leave behind.

**Figure 40: Concerns re: security of abandoned property**



## Returning home

In approximately half of the sites assessed (33 sites out of 63) people continued to reside in their own homes (either damaged, waterlogged houses or in houses in which they were marooned/completely surrounded by water on raised plinths which kept the house higher than the water level)). Of the other 30 sites 24 male community groups reported that the main reason for not returning home was that their houses remained water-logged and 6 male community groups reported that the main reason for not returning home was that their houses were too damaged to live in. This indicates that many of the people presently displaced will remain so until flood waters recede enough for rebuilding on their homes to start and until they are able to get access to materials needed for repairs and rebuilding.

The main challenges reported by the male community groups were:

- no food
- no money
- no shelter

Assessment teams reported that people were very uncertain about how long it would be before they could return home, due to 1) the complete damage to their houses and property and 2) the length of time it would be before they could resume livelihood activities.

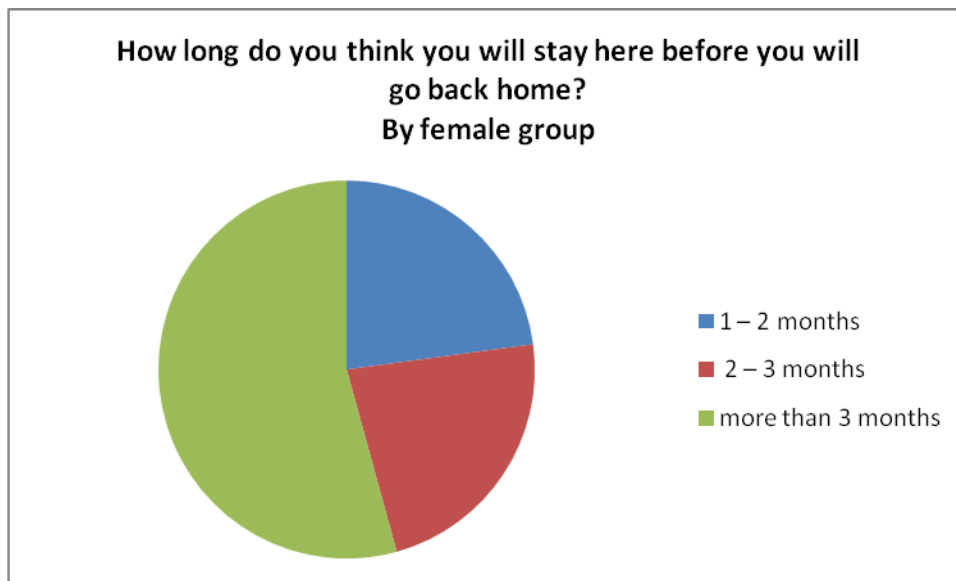
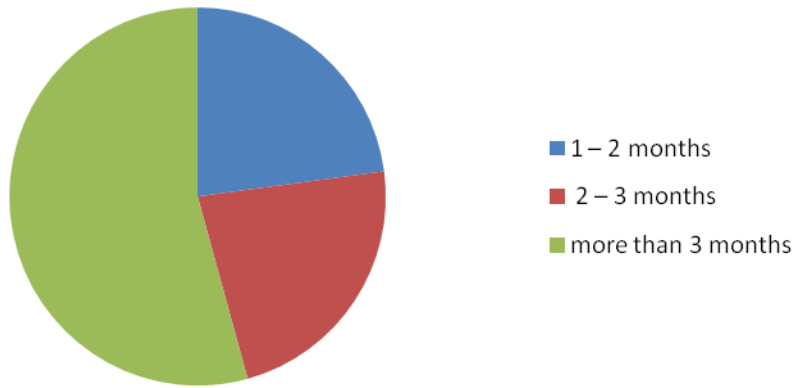


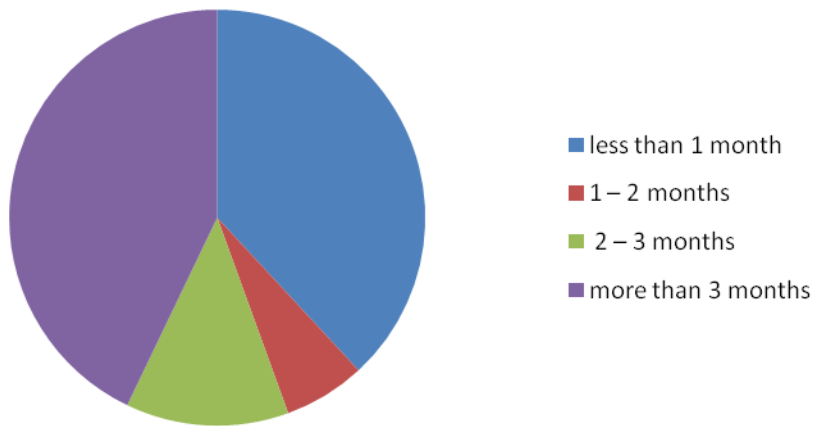
Figure 41: Community assessment of duration of displacement



**How long do you think you will stay here before you will go back home?  
By female group**



**How long do you think you will stay here before you will go back home? By male group**



## Appendix 1: Field guide for assessment teams

### Prolonged Water-logging in Satkhira, Jessore & Khulna Coordinated Assessment of Humanitarian & Recovery Needs September 2011 Assessment Guide for Field Teams

#### Objectives of the assessment:

- Understand more about how people have been affected
- Understand how living arrangements relate to needs and priorities of affected people
- Understand some of the recovery needs
- Establish a consolidated picture of the numbers affected

#### Living Arrangements

The unit of investigation for this assessment is the current living arrangements of the people at the site. This is very important because differentiating groups of people by this criteria will help understand if/how needs, priorities and vulnerabilities differ depending on the nature of the living arrangements.

***The sites you visit should be identified in this way. They will be community groups of people displaced on embankments OR groups of people in a collective centre OR people marooned and so on. We are NOT looking at groups that are a mix of these living arrangements.***

***People marooned in their homes:*** People are staying in their own houses but they are stranded because the water is all around the home. Possibly their houses were built on raised plinths.

***People displaced and staying in collective centers:*** People have had to leave their homes and take refuge in a collective centre such as a school building, college, cyclone shelter.

***People displaced and staying on road sides, embankments and other high ground:*** People have had to leave their homes and are staying on high ground (usually as close to their homes as possible). This could be beside roads, on embankments or other high ground. People will have constructed whatever shelter they can with whatever materials are available to them.

***People who have returned or stayed in damaged/water-logged houses:*** Some people may have stayed in houses that were damaged by the floods or have returned to houses damaged by flooding and water-logging.

***People who are not marooned, not damaged, not displaced (i.e. their houses might look normal) but they may feel the impact of the water-logging in some way and this is what we want to learn.***

***Other:*** If assessment teams come across groups of people that are affected by the flooding/water-logging and currently residing in arrangements not covered, explain what their arrangements are and carry out the assessment with them.

**Key Features of the coordinated assessment:**

- Consistent methodology (each team in the different upgazillas are working in the same way)
- Consistent teams (teams should all be the same in composition and size)
- High quality group discussions

The quality of the information is important so remember:

***Don't rush, don't go to only convenient sites, do keep good records, feedback daily to the central coordination.***

**Assessment Target Summary**

<b>Districts</b>	<b>Jessore, Satkhira, Khulna</b>
<b># Uppazillas affected</b>	<b>10</b>
<b>Each Uppazilla has a lead agency</b>	
Lead agency is responsible for	<ul style="list-style-type: none"> <li>• Quantitative data collection (numbers affected)</li> <li>• Team of 5 for community assessment (site level)</li> <li>• Daily phone in progress</li> </ul> Closing meeting at upgazilla
<b># sites per Uppazilla</b>	Target is minimum 5 (up to 8)  Target* is 1 of each type of living arrangement <ul style="list-style-type: none"> <li>• 1 marooned site</li> <li>• 1 <b>collective centers</b></li> <li>• 1 roadsides and embankments</li> <li>• 1 damaged houses</li> <li>• 1 not marooned, not damaged, not displaced</li> </ul>
<b># sites for assessment</b>	<b>50-80 (total for all 3 districts)</b>

**Where to get the numbers affected:**

Information should be available at the following offices:

- District level (DRRO)
- **Uppazilla level (UNO/PIO)** (*best choice, first choice*)
- Union level (Union Chairman) (*if not available at the Uppazilla*)

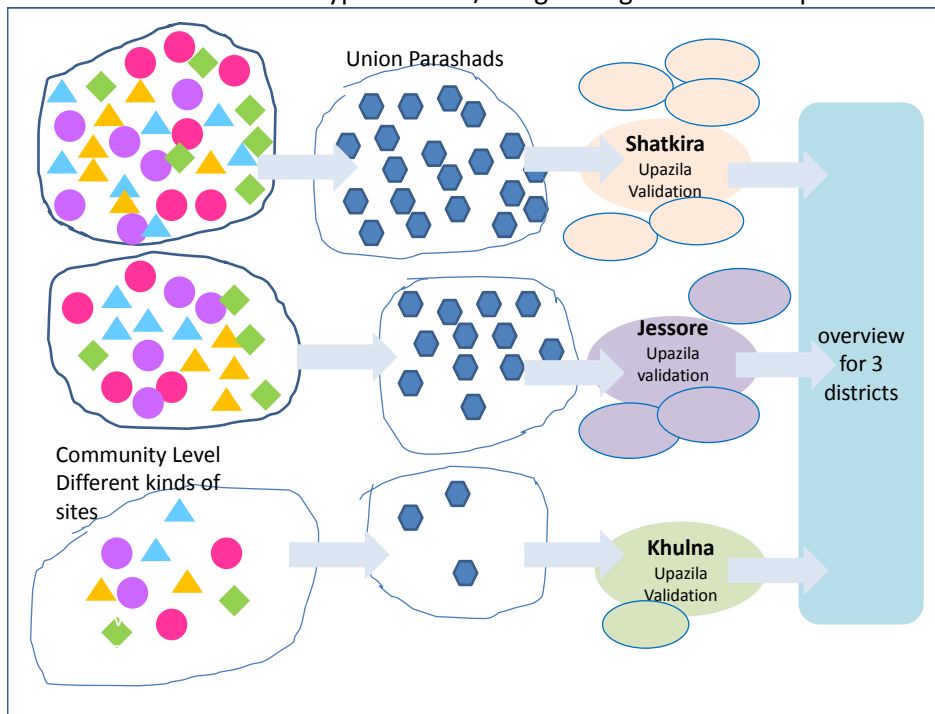
**What to do:**

- Collect completed D-Forms for **all** affected unions (mildly, moderately, severely)
- Collect baseline information
- If information is not filled out, visit Union Chairman and ask for the figures/estimates (please note this)
- Validate information in 1 Union through discussions with local leaders (e.g., elites, school teachers, chairman). **During this validation ask also about the causes of the water logging and the possible solutions.**
- Collect hard copies

**How to carry out the community/site level assessment:**

<b>For each upazilla there should be a team of 5 people</b>	<b>Roles and responsibilities</b>
1 team leader	Introductions at the community Community transect walk Observation checklist Ensure the severity ranking is completed Thank the community before leaving
2 female assessors	Female community group discussion Ask questions on assessment tool Record responses Participate in severity ranking
2 male assessors	Male c community group discussion Ask questions on assessment tool Record responses Participate in severity ranking
<b>Whole team</b>	<b>Reach consensus on severity ranking</b>

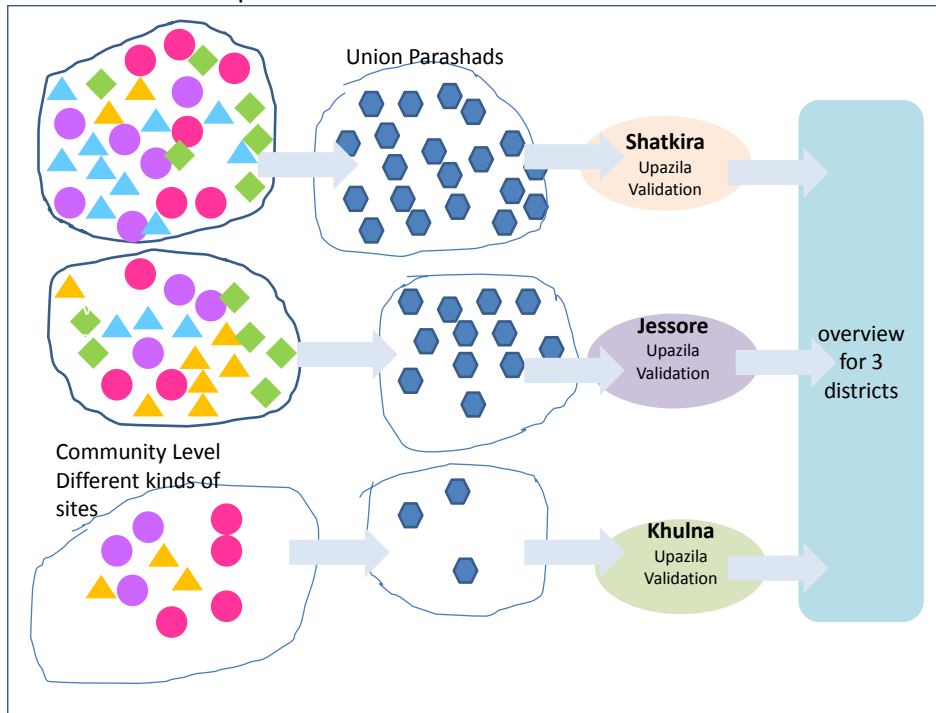
Ideal Field Plan: where all types of sites/living arrangements are represented in all Uppazillas



\*What to do if all types of sites are NOT present:

- Aim for the target *number* of sites (i.e., still minimum of 5)
- Replace the type of site that is not present with one of the other types
- Inform the central coordination team

More realistic field plan will look like this:



**Closure/validation meeting at each upazilla:**

Share main findings from the team with the upazilla UNO.

Hear any feedback from upazilla staff. **Including their suggestions on the cause of the water logging and the possible solutions.**

Offer thanks for support.

Important contact numbers for communicating with central coordination team:	
Wahed	0171 1119117
Kaiser	0171 3041968
Harun	0173 0020266
Liaquat	0171 4068709

**Appendix 2: Coordinated assessment final uppezilla meeting template**

*Please use the following template during the meeting local government at the conclusion of the assessment. Make sure as many as possible of government officials are present in the validation meeting (UNO, PIO, other govt official at Uppazilla level, Chairmen etc)*

<b>Team number</b>	
<b>Uppazilla</b>	
<b>Team Leader</b>	

1. Present the information you have received from the D-Form (in summary) and confirm that the officials agree with the figure (it is expected that they will agree because they provided the information);
2. Discuss with the officials the degree to which different unions are affected based on your team’s field work and the government opinions. Complete the following table.

Severely affected unions	Affected unions	Moderately affected unions	Not affected unions

**3. Worst affected sectors and priority needs**

From field visits the assessment team has found the following appear to be the greatest priorities:

Priority rank	e.g.,. food, sanitation, shelter	explain
1 <sup>st</sup> priority (worst affected, in urgent need)		
2 <sup>nd</sup>		
3 <sup>rd</sup>		
4 <sup>th</sup>		

**4. Gap analysis, share team's findings and also get opinion from officials**

Present situation	Who is doing what	Who is planning to do what?	What needs to be done/gaps
Food security			
Nutrition			
WASH			
Education			
Agriculture			

Shelter			
Health			
Others			

**5. How long do the officials think it will be until the water recedes?**

**6. What are the main challenges UNO/local Govt office are facing now in relation to responding to the needs?**

**7. What are the main recommendations from UNO for NGO's in relation to immediate response? (include if NGO response is needed and how they would recommend coordination to take place)**

**8. What are the main recommendations from UNO for NGO's in relation to longer term recovery needs? (include if NGO response is needed and how they would recommend coordination to take place)**

**9. What are the recommendations for long term solution to the issue of water logging?**

**General guide:**

- a) Please note who is present in this meeting (if possible) including designation
- b) If possible take photos
- c) Try to complete this within an hour so as not to take up officials' time
- d) Acknowledge their support during this assessment, please offer THANKS for their participation
- e) Please tell the officials we will be happy to share overall report with them and record the key person's correct contact details for this purpose below.

Name	Designation	email



### Appendix 3: List of agencies supporting the assessment

	Coordination	Field Assessment	Technical assistance	Providing Resources	Attended at workshop	Expressed Solidarity
CARE	X	X		X	X	
OXFAM	X	x		X	X	
ECB <sup>37</sup>	X	X		X	X	
ACAPS <sup>38</sup>	X		X	X	X	X
Islamic Relief		X			X	
Muslim Aid	X				X	
ACF (Action Contre la Faim)		X	X		X	
Koininia		X			X	
Solidaries Internatinal		X			X	
World Vision		X			X	
Tear Fund		X			X	
Concern World Wide		X			X	
World Food Program						X
Comprehensive Disaster Management Project						X
Unicef						X
Caritas		X			X	
CCDB		X			X	
Uttaran		X			X	
AS		X			X	
Shushilan		X			X	
DSK		X			X	
Bachtashika		X			X	
Samadhan		X			X	
JJS		X			X	
MFF		X			X	
Water Sanitation Program, The World Bank			X	X		

<sup>37</sup> Emergency Capacity Project (ECB) is a global consortia which aims to aims to improve the **speed, quality, and effectiveness** of the humanitarian community to save lives, improve welfare, and protect the rights of people in emergency situations. Rather than duplicating the work of others, the ECB Project is committed to working with and through important existing sector standards and networks, such as [UNOCHA](#), [Sphere](#), [People in Aid](#), [ALNAP](#), [Inter-Action](#), [HAP International](#). The Project is further committed to sharing of knowledge and learning. See <http://www.ecbproject.org>

<sup>38</sup> ACAPS: The Assessment Capacities Project is a multi-donor funded project of three NGOs, NRC, Helpage International and Merlin. It is based on the premise that better assessment should contribute to better aid. See [www.acaps.org](http://www.acaps.org)

#### **Appendix 4: Note on SPHERE standards relating to nutritional requirements and food rations**

Sphere standards identify nutritional requirements are 2,100 kcals/person/day. Food rations should also address the need for 10 per cent of total energy provided by protein and 17 per cent of total energy provided by fat and adequate micronutrient intake by assessing the food that is already accessible to a population being assisted. Rations should then be planned to make up the difference between the nutritional requirement and what people can provide for themselves. Thus, if the standard requirement is 2,100 kcals/person/day and the assessment determines that people within the target population can, on average, acquire 500 kcals/person/day from their own efforts or resources, the ration should be designed to provide  $2,100 - 500 = 1,600$  kcals/person/day. Aside from the energy content of the diet, consideration of protein, fat and vitamins and minerals in food planning is essential. Adequate and acceptable food for young children should be included in the general ration, such as fortified blended food (see Infant and young child feeding standard 2 on page 160). Equity should be ensured so that similar food rations are provided to similarly affected populations and population sub-groups. (Paraphrased from Sphere, 2010, p180).

General food rations can be designed using ration planning tools (e.g. NutVal). Where people have no access to any food at all, the distributed ration should meet their total nutritional requirements. Agreed estimates must be established for the average quantities of food accessible to the affected population (see Food security and nutrition assessment standard 1 on page 150). Rations should then be planned to make up the difference between the nutritional requirement and what people can provide for themselves. Thus, if the standard requirement is 2,100 kcals/person/day and the assessment determines that people within the target population can, on average, acquire 500 kcals/person/day from their own efforts or resources, the ration should be designed to provide  $2,100 - 500 = 1,600$  kcals/person/day. Aside from the energy content of the diet, consideration of protein, fat and vitamins and minerals in food planning is essential.

If a ration is designed to provide all the energy content of the diet, then it must contain adequate amounts of all nutrients. If a ration is intended to provide only part of the energy requirement of the diet, then it can be designed using one of two approaches. If the nutrient content of the other foods available to the population is unknown, the ration should be designed to provide a balanced nutrient content that is proportional to the energy content of the ration. If the nutrient content of the other foods available to the population is known, the ration may be designed to complement these foods by filling nutrient gaps. The average planning figures for general rations take into account the additional needs of pregnant and breastfeeding women. Adequate and acceptable food for young children should be included in the general ration, such as fortified blended food (see Infant and young child feeding standard 2 on page 160). Equity should be ensured so that similar food rations are provided to similarly affected populations and population sub-groups. Planners should be aware that different ration scales in adjacent communities may cause tension. Ingestion of excessive amounts of micronutrients can be harmful and ration planning needs to consider this especially if several different fortified food products are to be included.

Annex 5: Working summary of ECHO response partners

District	Upazilla	Union	Total No of vilages affected	No of affected household	IRW	Oxfam	ActionAid	Concern Worldwide	Solidarites	ACF	Consortium - Muslim Aid	Save UK	WFP	Total	
Satkhira	Tala	Tala sadar	18	6,010		1,500	950				1,750			4,200	
		Tetulia	17	6,555		2,500	950							3,450	
		Islam Kati	18	4,165			760					1,300			2,060
		Kumira	15	4,070		1,000	380								1,380
		Jalalpur	20	3,875						3,800					3,800
		Khalishkhali	17	2,950						2,200		750			2,950
		Khesra	18	3,580			380			2,000		1,250			3,630
		Magura	13	2,650			380								380
		Dhandia		3,514								1,500	x		1,500
	Khalilnagar		5,180									x		0	
	Satkhira Sadr	Balli		3,250	1,000										1,000
		Labsha		5,600	1,000							1,750			2,750
		Satkhira Sadar		24,444											
		Bhramma Rajpur		4,200											
		Zhandanga		3,200								1,700			
		Baikari													
	Assauni	Shovnali		2,581							1,000				1,000
		Kadakathi		2,550							1,000				1,000
	Debhata	Debhata Sadar													
		Parulia		5,490											
		Kulia		6,271							2,600				3,671
		Nayapara		4,350											0
	Kaloroa	Jaynagor													

		Dewara													
		Kaloroa Pourashava													
		Jalalabad													
Jessore	Keshobpur	Sagordari	5,560	1,000			400							1,400	
		Bidanandokati	3,795	1,000			0							1,000	
		Sufholakathi													
		Trimohoni													
	Manirampur	Jhapa	3,200		1,200										1,200
		Mashimnag	2,800		800		300								1,100
		Durbadanga	3,500				1,000								1,000
		Monohorpur	2,400				1,000								1,000
			136	125,740	4,000	7,000	3,800	2,700	8,000	4,600	10,000	8,000	25,000	39,471	

Total number of direct beneficiaries - people

20,000

35,000

19,000

13,500

40,000

125,000

197,355

Source: Situation report from partners

**Annex 6: Summary of responses to date compiled by assessment team**

Donor/Sources	Agencies involved	No. of beneficiary covered (HH's)	Sectors covered	Duration (Months)	Status
CBHA	HelpAge, CAFOD, Christian Aid, Tear Fund, SCF-UK, Islamic Relief	10,000	Emergency shelter, food, WASH	01	Completed
ECHO	ActionAid, Islamic Relief, Concern World Wide, Oxfam and Solidarities International, MuslimAid, ChristianAid, DanChurchAid, ACF, SCF-UK	45,000	Shelter, Food, WASH, NFI	06 months (Sep'11-Jan'12)	Running
	WFP through Shushilan	25,900	Food packages@ 2 months ( 40 kg rice, 3 lit oil ,3 kg dal)	02 (start from Oct)	Pipeline
USAID	CARE through MuslimAid and Save The Children through Uttaran	38,000	Supplementary food (veg Oil, wheat and Yellow peas)	01	Running
AusAid	WFP through Shushilan	35,000	BP biscuit (3 kg per HH's)	01	Completed
Unicef	10 local NGO's	10,000	NFI kit box (20 household items)	01	Completed
	DPHE	6,000	WASH	02	Completed
Govt	Local Govt		Food, NFI		Running
Others (own fund)	World Vision, CRS, Oxfam, ChristianAid, ActionAid,	5,000	NFI, food, WASH	01	Completed