

Situation report on water logging in southwest of Bangladesh and recommendation

September 6, 2006

1. Background

1.1 Problem emerging over last five years: The south western parts of Bangladesh, particularly the basins of the rivers Kapatakha, Hari and Vadra spread over 46 unions in six *upazilas* of Jessore, Khulna and Satkhira districts, have seen repeated water logging for the last five years. From the beginning of the monsoon season (which normally lasts June–September), 52 perennial wetlands (which are very fertile and used for agricultural cultivation) located in the basins are inundated with water, as the river water over flows onto the wetlands, as opposed to the reverse phenomenon. This slow-onset disaster affects about one million of the population.

1.2 Siltation of Kapatakha river: One of the reasons for the overflowing of water onto the wetlands and inland areas is siltation in the river Kapatakha, Sreenadi, Horinadi, Bhadrnadi and Uper solmarinadi. As a result of this, the water flow capacity is reduced and navigation is almost impossible.

1.3 Placement of embankments and water resource management: The embankments (37 polders and 282 sluice gates) constructed by the Asian Development Bank (ADB) under the Coastal Embankment Project (CEP) in the early 1960s have lead to further water logging in these districts as these embankments are now obstructing the water from flowing from the risk area out into the river/sea. In addition, there are reports of huge sedimentation at the openings to sluice gates.

1.4 Area of poverty and vulnerability: Though the area is poverty prone (approx. 25% of the population live below the poverty line, i.e. on less than 1US\$/ day) it does not fall into the category of high food insecurity. According to WFP's Vulnerability Atlas Mapping (VAM), the area is in a low to moderate food insecurity zone and is not a disaster prone district (low risk to river flooding). Although the area is not traditionally food insecure, this ongoing water logging problem which has emerged over the last five years, is developing into a chronic food insecurity issue.

1.5 ADB project to remove sedimentation: The Bangladesh Water Development Board (BWDB) has submitted a proposal to ADB for the excavation of 17km of the river Kapatakha. The project, with a total cost at 17.3 million Bangladeshi taka, is awaiting approval from the government, according to reports from Action Aid Bangladesh.

During the first half of August 2006, both local and national media, as well as local non-governmental organisations, reported that with the deterioration of the water logging situation

a humanitarian response for the affected people is now needed. As a result, initial assessment was undertaken by Concern Worldwide's team in Bangladesh, with the help of two local NGOs *Samadhan* and *Progati* who have programmes in the disaster affected areas. A further detailed need assessment was done by Concern and *Samadhan* to identify needs of the people and formulate the recommendations. Concern and its partner NGO followed following methodology: meeting with the government personnel, field observation & meeting with affected people, focus group discussion, meeting with NGOs etc.

The findings of both needs assessment are given below:

2. Current situation has arisen over last two months

The water logging has severely affected about 68543 households in 205 villages in three *upazilas* of Jessore district. Details of the population are as below:

Table 1- Number of villages and families affected by water logging

Upazilla	Unions	Number of affected villages	Number of affected families
Monirampur	Kultia	18	4397
	Nehalpur	03	4243
	Khanpur	06	1275
	Haridaskathi	20	5010
	Monoharpur	08	3770
	Shyamkur	06	3287
	Durbadanga	11	2780
	Chaluahati	05	1450
	Dhakuria	04	1475
	Sub total	81	27,687
Keshabpur	Trimahoni	06	2801
	Shagordari	06	3658
	Mazidpur	05	1742
	Biddananda kathi	11	4615
	Mangalkot	06	2032
	Keshabpur	06	1813
	Pangia	09	3647
	Shufalakathi	12	2743
	Gourighona	05	1619
	Keshabpur Pourasava	08	2521
Sub total	74	27,191	
Avoy nagar	Shundaly	13	2550
	Chalitia	07	2900
	Prembag	08	3965
	Payra	12	2400
	Nowarapra pourasova	10	1850
	Sub total	50	13,665
Grand total		205	68,543

2.1 Shelter: As the water has surged to a depth of 2-3 feet (usually over plinths levels), it has entered into houses, forcing people to leave their homes and take shelters in temporary camps, on embankments and roads, in public buildings or in the houses of relatives and friends.

2.2 Food: Over the last two years, the cultivation of crops has been disrupted. The main staple crop is rice, however the paddy cultivation is now very limited – where it is still in operation, yields are very low. As a result, household food security has deteriorated. The local government has provided 5kg of rice as relief to the affected families in Monirampur *Upazila* – unfortunately this amount is not by far adequate to meet the needs of the inhabitants.

3. Deterioration of the situation in the last few weeks:

Heavy local rainfall, continuing flood water from the river, coupled with sedimentation and the slow flow of water into the sea has caused water levels to rise. It is expected that the water logging situation will continue for at least another two months if there is no further heavy down pour. Concern team visited further in the affected areas and revealed that people are suffering a lot due to lack of food, employment, water and sanitation facilities and shelter (as most of the mud houses are damaged or to be damaged). The following analysis of impact of water logging in different sectors (food, water & sanitation, shelter and education) in Monirampur upazila is indicating what are short, mid and long for these affected people:

3.1 Food Security

Sectors	Impact	Response to date (by Community, Government and NGOs).	Unmet needs and Future Risk
Food Security (Availability, Access and Utilisation)	<p><i>Availability</i></p> <ul style="list-style-type: none"> Production has been disrupted for last three years though the area does not fall into food insecurity zone defined by WFP. Area is converted from double crop to single crop which is almost destroyed due to water logging. About 9000 hectares of crop area is damaged. Local markets (upazila and district levels) are generally functioning well since the area is well connected with other parts of the country and other <i>upazila</i> of the district not affected (only 6 <i>upazila</i> in two districts- Jessore and Satkhira). However, there is increase in market price of essential commodities by 20-30%. Village based shops are not functioning since they are also water logged. <p><i>Access</i></p> <ul style="list-style-type: none"> Livelihoods of the area consist of agriculture cultivators and daily 	<p><i>Community</i></p> <ul style="list-style-type: none"> Lack of livelihood opportunities is increasing migration to the urban and rural areas. Male members are going to nearby areas like <i>Jessore</i> and <i>Kesabhpur</i> areas to work as daily wage labours. Few of them have started operating boats in the affected area. People are collecting snails from the water and selling it to the market (average income is 10 taka per day). <p><i>NGOs</i></p> <ul style="list-style-type: none"> BRAC has provided relief to its members only (5 kg of rice and 1 kg pulses per family) and a total of about 4000 families 	<p>Overall, there is acute need of food and non food materials like fuel, fodder etc. Employment opportunity is not available.</p> <p><i>Future Risk</i></p> <ul style="list-style-type: none"> Area may get converted into chronic food insecurity area and poverty level may increase (at present average 25% people are below national poverty line). Migration rate may increase which may lead to associated problems like insecurity, HIV-AIDS, break up of social relationship, etc.

	<p>wage labourers, who are unemployed due to the existing situation.</p> <ul style="list-style-type: none"> For last two months most of the people (including generally well off) are having only one meal or two a day, as compared to the pre-crisis situation of well balanced three meal per day. They are consuming local vegetables like arum leaves, rice and fish .Among the households most suffers are children, women and elderly. Households are selling or eating home-based livestock and poultry due to scarcity of food. There are also reports distress sale of assets and livestock infected by water logging. Savings are almost exhausted. Land price in the area has decreased. Social relationship, status and bonding has decreased, joint families are converting into single families leading to vulnerability of elderly people. <p><i>Utilisation</i></p> <ul style="list-style-type: none"> Fire-wood is not available easily and women have travel long way to find them. Safe water is not available for drinking and cooking purpose. People are using same water for all purpose. 	<p>per <i>upazila</i>. This relief is both for affected and non affected areas.</p> <ul style="list-style-type: none"> OXFAM, Islamic Relief and Concern are planning to provide food and non food materials to the affected population. <p><i>Government</i></p> <ul style="list-style-type: none"> Government has provided 5 kg of rice to the affected people in some areas. There are no other safety-net programmes. 	<ul style="list-style-type: none"> May lead to acute malnutrition scenario. Left Livestock may also be sold. Crime may increase in the area. Money lending specifically from money lenders at very high interest may increase.
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3.2 Shelter:

Sectors	Impact	Response to date (by Community, Government and NGOs).	Unmet needs and Future Risk
Shelter (Shelter& Settlement, Essential Services & Facilities and Personal Belongings)	<p><i>Shelter</i></p> <ul style="list-style-type: none"> Mud houses, generally common in the area, are damaged. In addition, houses that have mud plinth and lintel levels are destroyed. Total 4847 houses are fully damaged and 7334 houses partially damaged. Temporary shelters (constructed by people themselves with coconut fronds along the roads) are very small and unable to accommodate the entire family. They are leaving in very unhygienic conditions. 	<p><i>Community</i></p> <ul style="list-style-type: none"> People have moved to roads for temporary shelters. Few people are going to their relative houses Privacy of the women and adolescent girls has decreased. In many cases, people have kept their daughters at relative or neighbours house that are considered safe. <p><i>NGOs</i></p> <ul style="list-style-type: none"> Polythene sheets are distributed in some 	<p>Overall, the shelters have been much affected. Once the water recedes, more buildings that are inundated are likely to collapse.</p> <p><i>Future Risk</i></p> <ul style="list-style-type: none"> Increased unhygienic conditions. In-security may increase. People may permanently migrate to the neighbouring

	<ul style="list-style-type: none"> Some people are not moving from their houses and are living in the same house with risk of collapse of houses. Roads are inundated in the area. Water is almost up to 5-7 feet in the villages. About roads have been damaged. Total 237 km of road is damaged. Most of the places for livestock are destroyed. At some places people and animals are leaving together. <p><i>Essential Services</i></p> <ul style="list-style-type: none"> Facilities like health clinics are not available in the area. Temples and other places of worships are also under water. <p><i>Personal Belongings</i></p> <ul style="list-style-type: none"> Households' assets (personal belongings like bed, furniture, etc.) are being sold to meet the expenses. People have moved with minimum personal belongings. The others are kept at safe places like relative or neighbour house. At temporary shelters, people have constructed fuel stoves. 	<p>areas by OXFAM.</p>	<p>country (India), especially Hindu population.</p> <ul style="list-style-type: none"> Land grabbing by powerful peoples. Sexual exploitation of women and girls. Stealing of household assets.
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3.3 Water and Sanitation

Sectors	Impact	Response to date (by Community, Government and NGOs).	Unmet needs and Future Risk
<p>Water and Sanitation (Hygiene Promotion, Water Supply and Vector/water borne diseases)</p>	<p><i>Hygiene Promotion</i></p> <ul style="list-style-type: none"> Water and Sanitation facilities are mostly inundated. Total of 24398 toilets and 2760 tube wells are damaged. Poor condition of personal hygiene. <p><i>Water Supply</i></p> <ul style="list-style-type: none"> Lack of safe drinking water in temporary camps. People have to travel long to find safe drinking water. Many cases same water is used for sanitation and drinking water. <p><i>Water Borne Diseases</i></p> <ul style="list-style-type: none"> Health related problems 	<p><i>Community</i></p> <ul style="list-style-type: none"> No concrete measures have been yet taken. People are using taking water from long distance like deep tube wells, etc. <p><i>NGOs</i></p> <ul style="list-style-type: none"> OXFAM and Action Aid are planning to intervene in this sector. 	<p>Situation in water and sanitation sector is very grim and interventions are required.</p> <p><i>Future Risk</i></p> <ul style="list-style-type: none"> There is a high risk to water borne diseases and epidemics once the water recedes.

	<p>especially women and child.</p> <ul style="list-style-type: none"> • Livestock are affected because of safe drinking water. • Children and other population have diseases like diarrhoea and scabies. 		
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3.4 Education

Sectors	Impact	Response to date (by Community, Government and NGOs).	Unmet needs and Future Risk
Education	<ul style="list-style-type: none"> • Increase drop out rates as people have moved to other areas • Some Schools have been closed for last six months where water has entered into the schools. • Children cannot appear in exams. • Text books and copies are lost. • Quality of education has disrupted. • Children cannot travel to schools because the area is water logged and they don't have enough money to pay for transportation. 	<ul style="list-style-type: none"> • No initiatives by any agencies in this sector so far. 	<p>This sector is not covered by any agency</p> <p><i>Future Risk</i></p> <ul style="list-style-type: none"> • Education rate will decrease, especially in water logged area. • Increase social discrimination • Some schools will be closed for ever because the school buildings are damaged.

3.5 Seasonal high tides: The current seasonal high tides have compounded the problem by constraining drainage from the area.

3.6 No declaration of emergency: The National Government has not yet declared the situation an emergency, despite the fact that the area has experienced similar flooding on previous occasions.

4. Recommended response in general

Considering the magnitude of the problem, the general response for the areas should consist of:

Food Security (Availability, Access and Utilisation)	<p>Short term¹</p> <ul style="list-style-type: none"> • Immediate food supply for at least 45 days. • Cash support to meet demands like fuel wood, fodder and other basic items. <p>Medium term²</p> <ul style="list-style-type: none"> • Agriculture support (seeds, pesticides, fertilisers, etc.) • Appropriate cropping pattern • Employment generation through cash for work or food for work. • Support for alternative livelihood options.
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¹ Short term support refers to next two months (September and October).

² Medium term support refers to scenario once the water recedes (probably 3-6 months)

Shelter (Shelter& Settlement, Essential Services & Facilities and Personal Belongings)	<p>Short term</p> <ul style="list-style-type: none"> • More polythene sheets need to be given to people who are taking shelters. • Temporary camps may be established in public buildings. <p>Medium term</p> <ul style="list-style-type: none"> • House reconstruction, repairing, infrastructure rehabilitation like roads. • Raising of plinths of individual houses and grounds.
Water and Sanitation (Hygiene Promotion, Water Supply and Vector borne diseases)	<p>Short term</p> <ul style="list-style-type: none"> • Provide alum, ORS, halogen tablets, bleaching powder, etc. • Raise tube wells height through pipes. • Personal hygiene education • Camp based temporary toilet set up. <p>Medium- term</p> <ul style="list-style-type: none"> • Rehabilitation and construction of toilets and water facilities.
Education	<p>Short term</p> <ul style="list-style-type: none"> • Provide education materials and tuition fee for exams. • Temporary school shelters. <p>Medium term</p> <ul style="list-style-type: none"> • School reconstruction.

5.3 Long term

Advocacy: The major advocacy issues relate to infrastructure include: dredging of the 17 km belt to remove siltation and increase water flow, construction of embankments in appropriate positions and improved water resource management.



A School Building Inundated



House Damaged



A Common Scenario- Lack of Employment Opportunities



Most of the roads are under water for last two months