

Bangladesh Cyclone SIDR, WASH cluster.

As of 02/12/07

Temporary short term bulk water supply. An information, analysis and discussion paper

Focusing on 5 most affected districts of Barguna, Patuakhali, Pirojpur, Bagharhat and Jalokati

Various organizations are involved in provision of what can be described as short-term temporary bulk water supply, through bottled water, from water trucking, water treatment from mobile water treatment plants and water delivered by trawler/boat, organized by civilian and military authorities and private efforts. There is an immediate need for this in some locations, though total requirements are not likely to be huge as real water crisis spots are not extensive. Bottled water is incredibly expensive per unit of water delivered, while water treatment and trucking is less so, but still requires substantial funding. There is some speculation that this short term temporary water supply may need to be in place for up to 3 or so months, perhaps more, but this will be dependent upon availability of other sources. There is an underlying water scarcity in some of these areas in normal times, so the point at which water availability has returned to pre cyclone levels will be hard to tell. In such a situation, there is a risk that very high cost temporary solutions may become prolonged, thereby depleting limited funding resources, though it is appreciated that these may come from different funding sources. It is therefore critical that information or progress of work on the permanent sources is linked to the temporary water supply, then such that temporary supplies can be reduced and stopped as appropriate.

Information and analysis is provided as follow;

- 1.0 Known locations faced with acute water availability problems
- 2.0 Bulk water treatment options
- 3.0 Bulk water delivery mechanisms
- 4.0 Conclusions

1.0 Known locations faced with acute water availability problems

The following information is drawn from the UNICEF WASH team survey from 24th Nov to 1st Dec. These recommendations have been made to DPHE who have started some trucking operations. The information about how much water and where it is being delivered will be added in the next update. Note this focuses on those locations that have insufficient water available of any kind.

There are many areas where water availability is reasonable or good, but where water quality is a concern, this needs to be dealt with by other means such as distribution of water treatment chemicals for household water treatment and repair or permanent facilities which is now underway.

Table 5 : Trucking/boat of water

Districts	Upazila	Water Trucking Needed for Union	Water Trucking Needed for Char/locations	Trucking status
1. Barguna	Sadar	M baila Toli	3 locations	
		Badarkhali	1 location	
		Naltona	1 location	
	Patharghata	Nachnapara	5 locations	
		Kalamegh	10 locations	
2. Jalokati	Khatalia	Amua		
		Patikel ghata		
		Awrabunia		
3. Patuakhali	Bauphal	Kalaia	Daria Cachua	
		Nazirpur	Char Federation	
			Char Miajan	
			Char Kachua	
			Char Ishan	
3. Patuakhali	Bauphal		Char Khajuria	
			Char Roy Shaheb	
	Dasmina	Ranagopaldi	Char Shahajalal	
		Ranagopaldi	Char Borhan	
		Dasmina	Char hadi	
	Galachipa	Barabaishdia	Kalagachia	
		Barabaishdia	Maudubi	
		Rangabali	Bagshem	
		Kallayn kalash	Kalagachaia	
	Char Biswash	Char Bangla		

Districts	Upazila	Water Trucking Needed for Union	Water Trucking Needed for Char/locations	Trucking status
	Kala para	Lalua	Char Nishanbaria	
		Dhulirshar	Kauar char	
			Gangamatir char	
4. Pirojpur	Pirozpur sadar		10-12 locations	
	Zianagar		5-7 locations	
	Nazirpur		6-7 locations	

In Bagharhat district, particularly in Moreganj, Sharankhola Upazilas, the UNICEF team considers that trucking of water will be useful for a few pockets where tube wells are unsuccessful and where Pond Sand Filters are not functioning. Needs in this area are not considered as acute as those in Barisal Division. However further information and analysis from other actors is welcomed to produce a more detailed and definitive view.

2.0 Bulk water treatment locations

Many water treatment units have been brought into country and the table below indicates known locations and status of proposals to bring in additional units. These units generally draw water from ponds and treat this water to reduce suspended solids and then provide disinfection. At most Upazlias where plants are located, water from river estuaries is generally too saline to treat as these are tidal. Information of how well located and used is incomplete and the following is required;

- At this stage there is no understanding of whether units are working to full or close to optimum capacity, nor how long it is envisaged each unit will run for. Agencies responsible for running these units should provide information on this.
- At this stage we are not able to determine whether there are locations in which units might be better located to serve acute water shortages, though the assessment from UNICEF and other organization should assist in this.
- Further analysis will be forthcoming in the following days and proposed plan of action developed which should include how long these units should be run for.

Surface Water treatment	No Units capacity*	Estimate amount of water	District Location	Upazila	Union/village	Notes
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plants (non saline capable)		being USED each day				
DPHE	2 units at 2m3/hr		Bagarhat district:	Moreganj	Teligati, Morrelgani	
DPHE	2 units at 2m3/hr		Bagarhat district:	Sharankhola -	Dhansagar and Khontakata	
DPHE	2 units at 2m3/hr		Barguna District:	Patharghata -		
DPHE	1 units at 2m3/hr		Barguna District:	Barguna		
DPHE	2 units at 2m3/hr		Pirozpur district:	Matbaria		
DPHE	1 units at 2m3/hr		Pirozpur district:	Bhandaria		
SC alliance,	1LMS unit at 10m3/hr		Borguna	Borguna Sadar	Located at Amtoli (Amtoli School) in Borguna Union	Water covering; Amtoli Union, .Baliatoli Union Units provided by USAID
SC alliance,	1 LMS unit at 10m3/hr		Borguna	Patharghata	Located at Zianpara Para (Khalifarhat Courasta) in Charduani union	Water supply covering; Bolleswar, Charduani, Tapalbaria, South Zianpara, Embank of Bolleswar River, Zianpara Khalifarhat Units provided by USAID
SC alliance,	1 LMS unit at 10m3/hr		Patuakhali	Kalapara	Located at Umedpur in Nilganj union.	Water supply covering; Jalalpur, Akkelpur, Hajipur, Sadarpur, Hakimpur

						Umwedpur, Laskarbari, Krishtan para Units provided by USAID
Care	1 LMS unit at 10m3/hr		Borguna	Patharghata	Kthaltloy	Units provided by USAID
Care	1 LMS unit at 10m3/hr		Pirozpur district	Matbaria	Sablenja area in paurasava union	Units provided by USAID
Care	1 LMS unit at 10m3/hr		Bagarhat district	Moreganj	Nissanbaria	Units provided by USAID
Care	1 LMS unit at 10m3/hr		Bagarhat district	Moreganj	Baloibunia	Units provided by USAID
Care	x LMS unit at 10m3/hr					Further units arriving but not yet deployed Units provided by USAID
Muslim Aid,	1 unit at 6m3/hr		Barguna District:	Sarankhola		
Norwegian Church Aid	1 unit??		??	??		??
Solidaritie,						No units in country but being considered in proposal
Aqua assistance (part Lyonaise D'Eau	??					No direct contact with Lyonaise D'eau, only unconfirmed report about this
RO units, able to treat saline water						
UNICEF						No units in country but proposal under consideration for 10 units if funding forthcoming
US military						1 or 2 units on board US military vessels. Not yet deployed as no clear need identified

3.0 Bulk water delivery mechanisms

Water is supplied to locations facing acute water availability problems are as follows;

- By private means through combination boats, rickshaw vans and small trucks.
- Water deliver by DPHE using trucks and boats
- Water delivered by/collected from navy boat
- Water delivered by NGOs

By private means through combination boats, rickshaw vans and small trucks

Units costs for water by these means will depend upon distance water had to be moved, costs of getting water from source etc. Extent of economic impact upon vulnerable groups is unknown and ability of these groups to sustain purchase of water from private means unknown. This needs following up and information form NGOs working in the area would be important to get.

Water delivery by DPHE using trucks and boats

The DPHE have hired trucks and boats in some locations. Details to follow.

Water delivered by/collected from navy boat

The Bangladesh navy currently has a barge capacity, believed to be around MT480, positioned near to and supplying water to some of the 20,000-25,000 people (mostly/all men) living on Dublar char and these needs appear to be addressed. The extent of other capacity and delivery is unknown until we can make contact with focal points in the military. The major question with such capacity is the duration which is deployed for. Plans need to be made to identify when military supply will be withdrawn to understand if other temporary short term means need to be put in place or whether more permanent supplies will have come on line.

Water delivered by NGOs

No information available

4.0 Conclusions

Very urgent needs in many locations that were being witnessed in the immediate aftermath of the cyclone appear to have either dissipated or been satisfied by the short term measures in place. The UNICEF survey team have identified several areas that need urgent water trucking and have been in discussion with DPHE about these areas. At this stage therefore the challenge is not whether there are locations faced with acute water availability problems, but how water quality can be improved through various means and

how to optimize water production and delivery mechanisms, given known challenges to sustain such means and costs. This will be the work of key WASH actors at district level to examine and resolve. Further reports and analysis will be forthcoming.