Situation 'Aila'

What was cyclone Aila?

Cyclone Aila was a tropical cyclone that had been developing over the Bay of Bengal and hit West Bengal and Bangladesh on May 25th. 2009,leading to a major climatic disaster, affecting the lives of millions.

A tropical cyclone is one which is caused over warm oceans. In order to inititate one, the sea temperatures need to be above 25.6 degrees Celsius, and is charecterised by violent winds, heavy rainfall and therefore can be potentially very dangerous. The main cause for such cyclones has been attributed to global warming. Due to increased global warming over the last few years, sea temperatures have been continuously on the rise. As it is known that these dreadful cyclones are caused over higher temperature oceans, the rising global warming increases the threat from similar cyclones to recur in the near future. In fact it is said that this cyclone did not strike with its actual potential. If it had, things would have been far worse.

Moderate Resolution Imaging Spectroradiometer (MODIS) on NASA's Aqua satellite shows the cyclone path

Conditions on May 11, 2009

On May 25 when 'Aila' hit

The Aila, also known as Severe Cyclonic Storm Aila, was believed to have been developing and intensifying over a few days, the warnings of which was not received with enough importance. On the 21st of May, the Joint Typhoon Warning Centre (JTWC) reported that a tropical disturbance was persisting 950 kms south of Kolkata. The disturbance developed further on the 22nd. The JTWC issued an alert saying that the disturbance was becoming stronger and more defined. Despite this alert, the warning was not reported adequately. The name Aila was given when it reached 350 kms south east of the Sagar Islands.

The worst affected:

On the 25th. of May, cyclone 'Aila' struck at a speed of 90-100 kmph affecting the **North and South 24 Parganas,** Hooghly, **east Mednipur**, Howrah, Burdwan, and **Kolkata,** among other places . The tidal surges and floods triggered by Aila washed away roads, damaged bridges and submerged fields. Some areas became totally inaccessible and after a fortnight continue to remain under water.

At least 275 people have died, and officials say the death toll could mount due to epidemics in the cyclone's aftermath. In West Bengal at least 5.1 million people were displaced, with more than one million people stranded in the **Sundarban islands** alone, most of them without any food or water, sleeping out in the open with no shelter. About 400kms (of 3,500 km) of embankment caved in, flooding the villages with saline water, about six feet high, wiping out homes and all personal belongings, roads, ponds, cattle, fish ……

Immediate response:

The immediate response to Aila was one of shock. Given the level of 'disaster unpreparedness' of the authorities,relief was slow to come about. Kolkata, the capital city, lay inundated with uprooted trees blocking roads and tearing down electricity connections. Hard put to deal with the chaos in the city, the government was more than challenged to reach out to the remote villages. Bulk of the initial relief was done by the local NGOs who mobilised help from all possible sources, estimated the extent of damage and communicated the needs of the villagers.

On 27th. May, a Natural Disaster Management Force was formed by the State for relief operations. On 30th. May, the West Bengal government decided the rebuilding of embankments in Sundarbans shortly to save the place from further floods. Although delayed,

the army and navy were summoned to help out with relief. The Government of India provided for a fund of Rs. 10,000,000.

Despite the steps taken by the government and other organizations, two weeks into the disaster, the situation in many places, especially the Sundarbans has not improved much. Villages continue to lie submerged. Diarrhea is rampant as safe water is scarce, defecation is in the open, carcasses of dead livestock float around next to the makeshift tents. The villagers remain in dread of the next full moon day when the high tide may add to the havoc.

Situation in Water For People project areas:

Water for People operates in 133 villages in the Sundarbans, within Pathar Pratima and the Sagar Blocks. Preliminary estimates recorded a '100%' damage in 44 of these 133 villages. '100% damage' meant the family stranded on the embankment with no personal belonging, a collapsed or washed-out house, an agricultural plot submerged under six feet of water, a pond and the nearby water source (i.e. the community tubewell) overflowing with saline water from across the broken embankment and no sign of relief, other than what the local NGOs was able to manage.

Each of us at the Water for People office had a terror story to relate the day after Aila struck Kolkata. But our experiences paled in comparison to the news that slowly filtered in from the field. As the stories of destruction, village by village, reached us we saw our hard labour of four years being washed away in a few hours. The names were familiar – Gangapur, Sripatinagar, Sumatinagar; the first tubewell sites of Water For People India; villages with 90% coverage of water and sanitation. What would now happen to our 'sustainable, replicable model', with all the structures destroyed and all the documentation wiped out. The morale was low all around!

A hurried package of bleaching powder, halogen tablets and ORS pouches was all that we could arrange for the partners as an immediate response from the $600 from that we raised from our own sources.

A visit the field was possible only a week later. Jyoti and Deepa braved it to the affected sites. It was still not safe to go into the villages – about four feet of water still remained, but they met the partners and local government representatives. Three partner NGOs, Sabuj Sangha, Sunderban Social Development Centre and Rural Aid, had already mobilised about 120 volunteers who were working round the clock, reaching relief to the families. The partners recounted the horror stories of the cyclone and shared a (somewhat amateur) video of what had happened. The film did not have subtitles or a narration but the images were enough to tell the story. What also struck our team was the dedication of the large contingent of volunteers, men and women, who were out there doing their best with limited resources available.

On the third day of their visit, the Water For People team were able to enter the villages. Sumatinagar in Sagar was the first stop followed by Gangapur in Pathar Pratima. The last thing they expected was a welcome party along the embankment, waving out, weeping and embracing as soon as they alighted from the boat. Quite an aberration from the reaction meted out to the political leaders who were being booed out of every relief site they visited! As Jyoti recounted ***– "We were treated like friends……companions……true well-wishers who would not distribute token relief and disappear, but guide us how to cope. The Panchayat members only had words of praise and gratitude for Water For People's initiative in promoting Water Committees and training local youth as Jalabandhus."***

The **44** (38 in Pathar Pratima and 6 in Sagar Island) worst affected villages were also the areas where Water For People had worked the longest, with the maximum investments. Of the 172 tubewells that were sunk / repaired in these 2 Blocks, 85 i.e. 50% were located in these 44 villages. Barring **3 or 4, all the tubewells were reported to be functional**, thanks to the immediate attention of the 'Jalabandhus', who in a 'combing operation' at the request of the Panchayat, had managed to revive all the water sources in the area. The shades were blown away, tiles and platform broken, but the tubewells continued to give safe water. These tubewells now are the only source of water, as everything else remains buried under saline water that seeps in through broken embankmnets.

Sanitation, which would have reached the 100% coverage mark by the end of the year, had also taken a beating. About 60% of the toilets in these villages were installed through the government's Total Sanitation Campaign. Majority of them were single pit (squatting plate without lined pits) models without strong superstructures – almost all of them were wiped out in the storm. The villagers proudly took Jyoti and Deepa around to show the ones that still remained – a bizarre sight of tiny toilet structures

popping out of the flooded fields, surrounded by debris of broken huts and uprooted trees. Water For People had supported 800 toilets in the area. Almost all of them had survived the cyclone, albeit with broken doors or tile or filled up pits that would be taken care of once the water subsided. What was lost were the bank papers, loan registers, family cards etc. which would have to be replaced once the families returned to normalcy.

Lessons learnt:

Perhaps the key lesson learnt from 'Aila' was that the best input any external agency can provide to a community is to promote systems and structures that give them strength to deal with the worst. While other areas struggled to mobilise help after the cyclone and suffered outbreaks of diarrhea, our water committees swung into action with the Jalabandhus to first get their water sources functional. They understood the importance of safe water in averting further disaster. Taking a cue, the local government of neighbouring areas commissioned the Jalabandhus to revive water sources in their own locations. When they ran out of spares, the Panchayat mobilised more to get the job done. There could be no better way of convincing the government about the relevance of having trained in house mechanics – their phones have not stopped ringing!

When asked why these water sources had fared better than others, villagers were clear ' our committees are our strength, we are used to working together to maintain our water source; we had skilled personnel who knew what needed to be done, (the technical input came only after the mechanics were trained; we had material (spares) available with us. Also, we chose our Tubewell sites well – they were all on highland, they had platforms and a shade, used the best materials and were regularly maintained by our mechanics.'

The concern however is whether these tubewells will withstand the pressure of so many users. Earlier families and their livestock used pond water for bathing, washing etc. With the ponds filled up with saline water, every possible use of water is from these tubewells. Jyoti advised the villagers to spread out large sheets of tarpaulin on four posts, punch a hole in it and collect the rainwater through this into large plastic containers. With the monsoons round the corner, this would be a simple task. The Government has a plan to dewater the ponds, emptying them before the rains, but this may take time. This could be an interim solution for providing water for any purpose other than drinking.

Permanent or semi permanent toilet structures survived the storm while the low cost models were completely washed away. A large number of squatting plates, supplied to the poorer households had also collapsed.

This has reiterated the need for 'good workmanship', 'quality materials' and above all strong structures for any construction work in the area. The Total Sanitation Programme in the Sunderbans will have to recast to design structures which would be comparatively low-cost but also be able to withstand such calamities which are an annual feature in these areas.

Even though the toilets survive, it will be a long time before the families can go back 'home'. Living on the embankments they need makeshift sanitation, especially the women who have no bush or tree cover to shield them while defecating. Young girls whom Deepa had helped draw up their school toilet design, voiced their distress to be living out in the open.

Jyoti advised community about construction of temporary public toilets. The partner NGOs have talked to the Panchayat members and work has begun in four locations where temporary structures with 10 to 12 toilet units in each will be set up.

Estimation of damage:

Cyclone 'Aila' struck suddenly, taking communities by surprise. There was no scope for them to prepare themselves from its devastation and families have lost everything. It will take a long while for them to reconstruct their homes and lives and put the psychological trauma behind them.

While the water sources could be revived, a back up plan for alternative water supply is to be worked out, to prevent the existing system to completely collapse. About 250 low cost toilets and shallow pits of some new constructions have caved in. These will need to be redone. Some toilets with semi-permanent superstructures will need to be reconstructed after the water in their pits have subsided.

Thousands in the areas have lost their homes. Partner NGOs are continuously updating themselves about relief and reconstruction packages being announced by the government and following up with the authorities to ensure that no one is left out. A big loss has been the total wipe out of all forms of documentation of bank accounts, water committee records, loan repayment cards etc. These will have to be reconstructed slowly.

All the three partner NGOs are determined to reconstruct and retrieve every bit of investment and time inputted in the water-sanitation sector. They have given a time frame of three to four months to bring things back on track. An additional $$4000 may be required to make this possible. Details of the reconstruction plan will be worked out in due course after surveys and analysis of the situation. The Panchayat, partner NGOs and the local CBOs will all be a part of this plan.