# In-depth Recovery Needs Assessment of Cyclone Aila Affected Areas



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Conducted by

International agencies (ActionAid, Concern WorldWide, DanChurchAid, MuslimAid, Islamic Relief, Oxfam-GB and Save the Children-UK) currently involved in Aila response programme funded by ECHO

Bangladesh Field Office







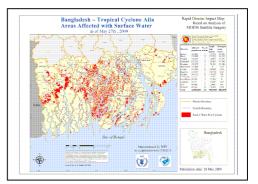




1. Executive Summary : Just over 05 months have passed since Cyclone "Aila" hit Bangladesh( 25 May 2009) but sufferings still continuing in the severely affected districts of Khulna and Shatkhira where more than

201,982 displaced people (70% of severely affected people) are still living in temporary places and shlters. According to the government estimate 1149 million US dollars is needed to assist in the recovery and reconstruction after Cyclone Aila. In addition to the government's allocation, international humanitarian agencies have only contributed 20 million US dollars (as of 31 Oct'09). According to a recent (Oct'09) study done by the South Asia Association of Poverty Eradication, each affected household has seen their income decrease by approximately 44% as a result of Cyclone Aila. More than 60,000 people have migrated to search employment, as opportunities for income are very limited in the affected areas. Cyclone Aila fully or partially damaged more than 166 km coastal embankment and without repairing the broken embankments, livelihood

recovery and people returning to their homes is not possible. While Government, local and international NGOs have been responding in the affected districts, access to safe drinking water and appropriate sanitation is still below Sphere minimum standards. This is due to (the lack of space on embankments and financial resources to cover the costs. In spite of targeted food distribution and cash for work programs initiated by Government and NGOs, there are still significant livelihood needs remaining. These needs will continue as not only have people lost their previously planted crops, they will also not be able to plant this winter's crop due to remaining flood waters and high salinity. There is also a need to explore diversification of



People's immediate recovery priority;

- Embankment repairing ٠
- Family shelter repairing & construction
- Access to food & livelihood recovery
- Access to safe water supply and sanitation
- Access to health and education

livelihoods that are disaster resilient. Communities identified shelter as the top priority next to embankment repair, particularly in areas where no substantial allocation has been made yet. Considering the future disaster risk in the Cyclone Aila affected areas and possible climate change impact in this region, the disaster and response preparedness system needs to be reviewed both state and community levels to prevent the loss of life and properties after future disasters.

2. Background : Cyclone "AILA" hit the west border of Bangladesh on 25 May 2009 affecting an estimated

3.90 million people in 11 coastal districts of the Bangladesh's 64 districts. The impact was aggravated as the cyclone hit Bangladesh during the high tide cycle that resulted to tidal surges of up to 22 feet. The surge of water caused portions of the embankments to collapse and people who believed that the embankments could protect them did not have enough time to evacuate to higher and safer ground. During Cyclone Aila, the storm spent more time over-land than Cyclone SIDR in 2007, lingering over the coast of Bangladesh and increasing its impact on the vulnerable villages.

A total 190 death toll has been recorded. In the aftermath of the Cyclone and tidal surges, some 100,000 livestock were killed and over 340,660 acres of cropland destroyed. The Government of

Bangladesh has also reported that over 6,000 kilometres of road were damaged or totally destroyed and around 1,400 km of flood protection embankments were

washed away. Cyclone Aila made 375,000 people homeless many of them have sought refuge on elevated roads and embankments while others were able to seek shelter in schools and other public buildings. Over 50% of displaced people (more than 200,000) are still living in the same condition 05 months after Cyclone Aila in severely affected Khulna and Shatkhira District.

Relief and rescue operations were immediately started after Aila by Govt and other humanitarian agencies. Recovery activities are still continuing. Govt have conducted rapid initial

|   | Damage and loss at a glance        |
|---|------------------------------------|
| D | eath toll-190                      |
| T | otal affected Districts –11        |
| Α | ffected Upazila-64                 |
| Α | ffected union /munipacility-529    |
| Α | ffected family (1m) – 948,621      |
| Α | ffected people (4m) – 3,928,238    |
|   | jured person- 7,103                |
|   | urce: MOFDM of Govt. of Bangladesh |

| Areas of assistance                              | Estimated cost    |
|--|-------------------|
| Funding support for displaced people (06 months) | US\$12 million    |
| Cluster houses for land less peoples             | US\$ 435 million  |
| Reconstruction of houses                         | US\$ 381 million  |
| Reconstruction of embankment                     | US\$ 62 million   |
| Restoration of livelihood                        | US\$ 56 million   |
| Construction of cyclone shelter                  | US\$ 200 million  |
| Restoration of water supply system               | US\$ 3 million    |
| Total  | US\$ 1149 million |

assessment and gave an estimation regarding damage and needs (see table on right). ECHO as a major humanitarian donor has announced an emergency decision for 4 million euros that have been channelled through 08 international humanitarian agencies. After analysing the current situation, the agencies involved in emergency programme came to a consensus to conduct an in-depth assessment to understand current context and needs of the affected people.

3. Assessment Methodology: A TOR was developed to identify the ways of working among involved agencies, set objectives and identify tools to be used for this assessment. On 24 Oct 2009 an orientation was organized for 40 people who were assigned by their respective organization for this purpose. During the orientation, members of the assessment team have been engaged to find out the locations and sectors to be covered, tools to be used and checklist have been developed in each of identified sectors. Assessment methods were qualitative in nature; secondary information was collected from respective local govt. departments and observations by the assessment team were also included. Focus Group Discussion (FGD), Key Informant Interview (KII), case study, individual interview (people quote), household interview was the main methodologies. To collect contextual information, the following tools were used: emergency market mapping to understand the key livelihood groups and actors and their role in local markets, seasonal calendar to understand seasonality and its influence in different sectors, Venn diagram to see different stakeholders and their role, ranking to prioritize the main issues, problem and needs were used. The team identified 07 major sectors that the assessment would explore: Emergency Food Security and Livelihood, Water, Sanitation and Hygiene Promotion (WASH), Shelter, Health, Education, Protection and Disaster Risk Reduction (DRR) Within each sector, the following issues were assessed: availability/accessibility for all sectors/services, gaps, gender issues, governance, coping mechanisms key influence factors, comparison (before-after) forecasting, future prediction by local people, role of local institutions, practice/behavioral aspect, decision making processes, and local capacity. Each assessment team was gender balanced and included 3-4 people with different types of technical expertise (EFSL, WASH, Gender, etc). Each team covered 11 unions of 03 sub-districts under severely affected Shatkhira and Khulna Districts. A reporting format also developed and used to report back to team leader for each District. SCF-UK in Khulna and Oxfam in Shatkhira took responsibility to lead the team in their respective district. Oxfam has collated the two District reports and made one combined report for external audiences.

### 4. Damage and needs assessment :

| Items                                       | Total (Khulna | At a      | glance damage i |                    |
|---|---------------|-----------|-----------------|--------------------|
|   | & Shatkhira   | Khuln     | a District      | Shatkhira District |
|   | district )    | Koira Upz | Dacope Upz      | Shaymnagar upz     |
| Number of affected population               | 454,818       | 152,496   | 143,700         | 158,622            |
| Number of affected families                 | 104,615       | 41,043    | 29,832          | 33,740             |
| No of house fully damaged                   | 94,609        | 23,820    | 25,067          | 45,722             |
| No. of house partially damaged              | 48,097        | 18,620    | 8,349           | 21,128             |
| Crops fully damaged (acre)                  | 3,412         | 502       | 1,680           | 1230               |
| Crops partially damaged (acre)              | 1,620         | 20        | 1,600           |                    |
| Shrimp gher fully damaged(acre)             | 52,961        | 20,300    |                 | 32,661             |
| Fully losses poultry (no.)                  | 48,675        | 12000     | 13,400          | 23,275             |
| Fully losses livestock's (no.)              | 2,107         | 1262      | 211             | 634                |
| Fully damaged educational institutions      | 32            | 09        | 13              | 10                 |
| Partially damaged educational institutions  | 377           | 70        | 266             | 141                |
| No of water sources damaged/not functioning |               |           |                 |                    |
| Deep tube-well                              | 444           | 32        |                 | 412                |
| Shallow tube-well                           | 594           | 40        |                 | 554                |
| Pond sand filter                            | 163           | 5         |                 | 158                |
| Sweet water pond                            | 3,032         | 1026      |                 | 2006               |
| No of latrine damaged                       | 59,400        | 27,350    | 11,200          | 20,850             |
| Embankment Fully damaged (km)               | 42            | 22        |                 | 20                 |
| Embankment partially damaged (km)           | 124           | 58        |                 | 66                 |
| Losses fishing boats                        | 135           | 135       |                 |                    |
| Fishing gears (net & others) lost           | 4,395         | 4395      |                 |                    |

Table-01 Khulna and Shatkhira District: Damage Summary

Source: Damage report (D form) prepared by respective UNO office

|  |                |        | Koira          | a Upazila        | a                  |                   | Dacop     | e Upz          | Shaym  | nagar Upz      |        |
|--|----------------|--------|----------------|------------------|--------------------|-------------------|-----------|----------------|--------|----------------|--------|
| Affected population by age                             | Koira<br>sadar | Bagali | Moharaj<br>pur | Mohesh<br>aripur | Dakhin<br>Bedkashi | Uttar<br>Bedkashi | Sutarkhai | Kamark<br>hola | Gabura | Paddapuk<br>ur | Total  |
| Men (18-<60 years)                                     | 10170          | 10700  | 9316           | 12600            | 4877               | 4200              | 12218     | 4887           | 6476   | 4962           | 80406  |
| Women (18-<60 years)                                   | 11017          | 11450  | 10092          | 13200            | 5400               | 5140              | 13236     | 5295           | 7151   | 5396           | 87377  |
| Boys (5-<18 years)                                     | 4939           | 5740   | 4525           | 5340             | 3870               | 1978              | 5935      | 2373           | 5202   | 3864           | 43766  |
| Girls (5-<18 years)                                    | 5352           | 6800   | 4902           | 5410             | 3600               | 2134              | 8430      | 2572           | 4688   | 3331           | 47219  |
| Children under five                                    | 1816           | 2100   | 1663           | 4300             | 3745               | 750               | 2181      | 872            | 4635   | 3145           | 25207  |
| Elder (60+)  |                | 548    |                | 2150             | 1508               | 798               |           |                | 1882   | 1465           | 8351   |
| Total affected population                              | 33294          | 37338  | 30498          | 43000            | 23000              | 15000             | 40000     | 16000          | 30034  | 22163          | 290327 |
| Total severely affected families                       | 8778           | 8890   | 8350           | 8500             | 5500               | 3600              | 9523      | 3809           | 6355   | 6100           | 69405  |
| No. of families now<br>living in temporary<br>shelters | 4700           | 5260   |                | 6000             | 5200               | 2050              | 7000      | 3500           | 5401   | 4880           | 48091  |

Table-2 : Population in severely affected unions of Khulna, Dacope and Shaymnagar Upazila by age and sex

Source : PIO and UNO office of respective Upazila

### 5. Sector wise damage and needs assessment :

5.1 Emergency Food Security & Livelihood :

### **Fishing-Related Livelihoods**

The main livelihood in the affected areas is fishing, with more than 60% people directly or indirectly involved in fishing sectors. About 52,961 acres of shrimp ghers (fish pond), as well as 1074 acres of sweet fish ponds were damaged by Cyclone Aila. The estimated loss is approximately BDT 1.5 billion<sup>1</sup>. Aila hit when gher people were preparing to harvest the season's first output, meaning that all valuable ready to export (grade) shrimp was washed away. Most of the gher (fish enclosure) and ponds that were damaged by Aila are still inundated due to broken embankments and income losses continue for a large number of people.

"Before Aila I had a small business and my business investment was TK 40,000. In Aila all my goods were damaged. Presently I have taken a loan of TK 5,000 and have started a business again. If I would have received some money as aid, I would be able to run my business properly" Md. Aminur Rahman, Aila affected small traders, Gabura, Shaymnagar.

Day laborers (mostly female) and small traders involved in collecting shrimp from farm and selling to mainland wholesalers are seriously affected. Many people lost their boats, many are damaged and need to be repaired, and many people reported that they had to sell their boats to pay for day to day family expenses. In the fishing sector, many people especially women are engaged in catching shrimp fry and crab collecting in the forest, but prices have decreased by 5 times as compared to before Aila. However, there are other fishing opportunities available in open water bodies such as rivers, canals, and inside the forest, but people do not have the necessary capital or equipment such as boats, nets and tools. Women also have opportunities for fishing inside the embankments due to continued inundation with sea water.

| Livelihood<br>Group | Sub-group   | Loss of livelihood<br>assets by Cyclone Aila                            | Constraint  | Opportunity  |
|---------------------|---|---|---|--|
| Fishing<br>(60%)    | Fishing (open water<br>bodies), Shrimp fry<br>collector, Crab collector (in<br>open water/sundarban),<br>Crab culture, Shrimp<br>farmer, Fish culture (sweet<br>water pond), Small traders<br>(fish/shrimp/crab, fish and<br>crab feed), Shrimp farming | Net, boat,<br>accessories ,wage,<br>capital , stock<br>goods, fish feed | - Not possible to re-<br>start gher, sweet<br>water fish until<br>embankment repaired<br>-Could not re-start<br>due to lack of credit<br>-Lack of capacity to<br>replenish damaged<br>tool and<br>accessories | <ul> <li>Fishing open water<br/>and in forest</li> <li>Fishing inside of<br/>embankment</li> <li>Crab culture inside<br/>embankment</li> <li>Collection of<br/>shrimp fry</li> </ul> |

Table-02 : Different livelihood groups in the affected areas

<sup>1</sup> Loss estimation done by South Asia poverty report by South Asia Association of Poverty Eradication, Oct'09

|                              | labor  |  |   |   |
|------------------------------|--|--|---|---|
| Farming<br>(13%)             | Small agri producer<br>(veg/fruits), Poultry<br>farming, Farming labor, HH<br>poultry, Livestock's rarer   | Standing crops,<br>Poultry in stock,<br>poultry feed, Wage,<br>spade, Poultry,<br>Goat (90%), cow<br>(20%) | <ul> <li>Not possible as soil is<br/>highly saline</li> <li>Lack of credit</li> <li>Lack of tools &amp;<br/>fodder</li> </ul>     | <ul> <li>HH poultry</li> <li>Salinity tolerant<br/>varieties</li> <li>Floating vegetable</li> </ul> |
| Forest<br>dependent<br>(15%) | Honey collector, Leaves<br>(Golpata) collector, Forest<br>laborer  | Boat, dram, rope,<br>axe, Tools, Wage,   | - Lack of tools<br>- Lack of credit   | - Season is ahead<br>(March)<br>- Have scope to<br>collect forest product                           |
| Others<br>(12%)              | Boat carpenter, Net maker,<br>Small traders (net),<br>Housing labor, Carpenter,<br>Mason, Seasonal migrated<br>labor, Rented motor cycle<br>driver, Small traders (shop<br>keeper), Service holder | Tools, Thread,<br>Capital, Wage<br>Shop, in stock  | - Credit could<br>revamp this group<br>quickly as only the<br>group continuing<br>their job<br>- Lack of credit<br>-Lack of tools | - Increasing<br>demand<br>- Recovery<br>programme being<br>taken by GO/NGO's                        |

Source: In-depth assessment, Oct'09.

### Agriculture and Livestock

Cyclone Aila completely damaged 3,412 acres (46%) of standing crops out of 7,392 acres. At the time of Aila major standing crops were jute and dry season vegetables, Aus and Aman paddy seedling just only started,. According to findings of a survey conducted by Koira Upazila administration, Cyclone Aila has caused damage to crops and properties worth about Tk 10,000 crore in the Upazila (source;TheDaily Star 12/10/09). Before Aila people in this areas were used to cultivate vegetable and fruits around their homestead and on the bank of the gher but it is damaged fully. Rice production was very limited in the areas because most cultivable land for rice was being used for shrimp cultivation. However, the scenario is changing in Dacope sub-District where from the last 02-03 years, people are returning to rice production which was the main livelihood for whole Khulna-Shatkhira areas 20 years ago. Due to flooding and standing water of the areas by saline water, the soil fertility and moisture levels are decreasing. People estimate that it will take the next 03 to 04 years for the lands to regain its crop production capacity. The immediate result is a decrease in food production leading to increased food insecurity for the whole community.

Other sources of nutrition include poultry and livestock. Prior to Aila, people used to have poultry and rear livestock's at household level, but most 80% animals were lost during cyclone Aila. Any livestock or poultry that survived Aila were sold immediately after Aila at a reduced price due to lack of fodder, limited space to live and the general hardship that people were facing. Rice is available in the market but people do not have money to purchase the daily required amount for their family. Food distribution by local NGO's, food for work carried out by the government for embankment construction are positive steps. However, while these initiatives allow a percentage of families to access basic food-stuffs, they are not able to obtain ingredients such as oil, vegetable and sources of vitamins, minerals, or protein. The most common coping strategies are: eating less preferred food such as sweet potato, kachu, or ghechu, eating a reduced number of meals, advance labor selling, and male migration to urban areas. Regardless of socio-economic status, **all** affected people reported that they now are only able to afford 01 to 02 meals per day, while before Aila even the poorest people could manage 02 meals a day on average. Children, the elderly, lactating and pregnant mothers, people with disabilities are particularly impacted by issues of food availability and accessibility. **It is indicate that a minimum needs (2100 kc/person /day) is not being met as per Sphere minimum standard and required targeted food distribution is recommended.** 

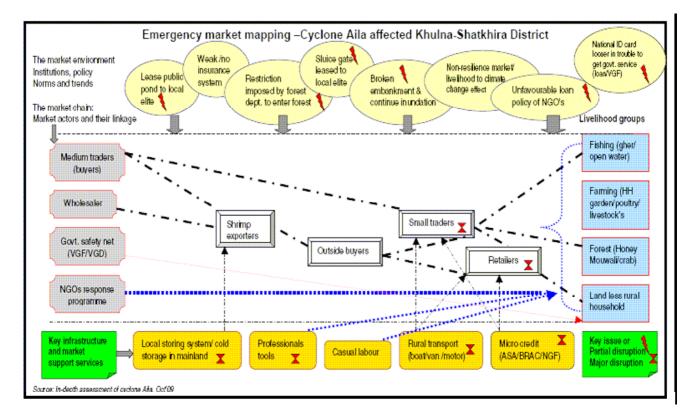
### Forest-Related Livelihoods

Sundarban has the world's largest mangrove forest (40% of country's total forest land) and is also one of largest sources of livelihoods in the Aila affected Khulna and Shatkhira Districts. After Cyclone SIDR, the GoB. has imposed restrictions on entering the forest to allow for its natural recovery. People are only able to access during March-May after taking permission from department of forest of GoB. . Golpata (forest leaves), fodder, honey, timber, fish and crab collections are the reasons people go to forest. It should be noted, that there is a high risk of tiger attacks and being robbed by armed thieves. Many people lost their tools and boats that are necessary to go to the forest. Replenishing their materials before the next season (18 March from next year for 03 months) will be helpful re-starting their livelihood. Credit also plays an important role for the forest dependent people. Cyclone Aila stopped them from repaying previous loans and taking new loans.

Main sources of micro-credit such as ASA, BRAC and various small-scale NGOs are not providing loans after Cyclone Aila, due to people's limited ability to return the loans.

### **Small Traders**

Small traders, carpenter, mason, boat and net maker , seasonally migrated labour and other small portion of occupational group are comparatively in a good position though they have lost their wage, capital and tools during cyclone Aila. While, the demand for their services has increased as people rebuild shelters and other livelihood activities. However, these groups could increase their incomes and speed-up recovery through replenishing tools lost during Aila. After Aila, seasonal migration has significantly increased because the only location for men to find work is outside of the Aila affected areas. According to the sources, after the flood of 2009 induced by Cyclone Aila, about 40,000 people migrated from Koyra Upazila of Khulna Distrcit alone. The figure is around 30,000 in Paikgacha, 18,000 in Dacope and 12,000 in Batiaghata. Unemployment, failure of agriculture, loss of capital and household assets and scarcity of food and drinking water have influenced this huge amount of migration.



### Market Analysis (see above for diagram)

Food markets in the affected areas are generally functional. Overall food availability at country level is also satisfactory, the main challenge is accessibility for cyclone-affected areas. Other income opportunities are also very limited which resulted in limited access to food for the affected communities. Physical access to markets has been disrupted in some of the worst affected areas due to breaches in roads and embankment. Boats are the only vehicle in most remote areas for the transportation of goods; however during Cyclone Aila many boats were damaged causing disruption of transport both for people and goods. Retailers and small traders are key players at the local level (see emergency market mapping above) but lack of proper support, specifically micro-credit support they will not be able to contribute to rebuilding markets. Some policy level issues also influence the market to not recover at the speed expected. Micro credit organization (ASA, BRAC) have stopped allocating new loans to the affected areas; however, they continue to collect older loans. This has increased mental and emotional stress to the borrower when they are facing challenges in just meeting their minimum daily needs. Some public resources such as sluice gates and public ponds that have key roles at the local level in shrimp gher and sources of sweet water are now controlled by the local elite, as they were able to purchase these properties from the GoB at a very minimal price. For example Golkhali khas pond of Dakhin bedkashi which is the only source of sweet water for more than 10,000 people; however

now the lease owner is using the ponds for fish cultivation with fertilizer, polluting the water. Many sluice gates that have been leased by the local elite are the controlling point where many small and medium level gher owner depend on them to get salt water to their shrimp farms.

### Seasonality

| Occupational group                               | Wint      |        |          | Cycl      |          | Мо     | nsoon      | season     | )        | Cyc<br>seas | lone     | Win<br>ter |
|--|-----------|--------|----------|-----------|----------|--------|------------|------------|----------|-------------|----------|------------|
|  | seas<br>J | F      | М        | seas<br>A | M        | J      | Ju         | Au         | S        | o Seas      | N N      | D          |
| Fishing  |           | -      |          |           |          |        |            |            |          |             |          |            |
| Fishing (open water bodies)                      | Inc       | crease | opport   | unity 3   | 4 days   | in eve | ery high   | n and low  | tide tin | ne in e     | ach mo   | onth       |
| Shrimp fry collector                             |           | W      | <u> </u> |           | Ĺ        |        | <u>, ,</u> | High       |          |             | 1        | .ow        |
| Crab collector (in open water/sundarban)         |           |        |          |           |          | Roun   | d the y    |            |          |             |          |            |
| Crab culture                                     |           |        |          |           |          | Roun   | d the y    | ear        |          |             |          |            |
| Shrimp farmer                                    | Gher      | dev    |          | Harve     | esting   |        |            | Harves     | sting    |             | Harv     | esting     |
| Fish culture (sweet water pond)                  |           |        |          |           | <b>`</b> | Roun   | d the y    | ear        |          |             |          | Ŭ          |
| Small traders (fish/shrimp/crab, fish/crab feed) |           |        |          |           |          |        | High       | ı          |          | Low         |          |            |
| Shrimp farming labor                             | High      |        |          | High      |          |        |            | High       |          | Low         |          | High       |
| Farming  |           |        |          |           |          |        |            |            |          |             |          |            |
| Small agri producer (veg/fruits)                 |           | Sum    | nmer ve  | g         |          |        |            |            |          | Wint        | er veg   |            |
| Small agri producer (Paddy)                      |           |        |          | Aus se    | edling   | Amai   | n seedli   |            |          |             | Boro see | edling     |
| Poultry farming                                  |           |        |          |           |          | Roun   | d the y    | ear        |          |             |          |            |
| Farming labor                                    |           | Low    | 1        | High      |          |        |            |            | Low      |             | High     |            |
| HH poultry                                       |           |        |          |           |          | Roun   | d the y    | ear        |          |             |          |            |
| Livestock's rarer                                |           |        |          |           |          | Low    | due to     | lack of fo | odder    |             |          |            |
| Forest dependent                                 |           |        |          |           |          |        |            |            |          |             |          |            |
| Honey collector                                  |           |        | High     |           |          |        |            |            |          |             |          |            |
| Leaves (Golpata) collector                       |           |        |          | High      |          |        |            |            |          |             |          |            |
| Forest laborer                                   | Low       |        |          |           | H        | ligh   |            |            |          | Low         |          |            |
| Others   |           |        |          |           |          |        |            |            |          |             |          |            |
| Boat carpenter                                   |           |        |          |           |          |        |            | High       |          |             |          |            |
| Net maker  |           |        |          |           |          |        |            |            | High     |             |          |            |
| Small traders (net)                              |           |        |          |           |          | High   | <u>1</u>   |            |          |             |          |            |
| Housing labor                                    |           |        |          | High      |          |        |            |            |          |             |          |            |
| Carpenter  |           |        | High     |           |          |        |            |            |          |             |          |            |
| Mason  |           |        | High     |           |          |        |            |            |          |             |          |            |
| Seasonal migrated labor                          |           |        |          | High      |          |        |            |            |          |             | High     |            |
| Rented motor cycle driver                        |           |        |          |           |          | Roun   | d the y    | ear        |          |             |          |            |
| Small traders (shop keeper)                      | Roun      | d the  | year     |           |          |        |            |            |          |             |          |            |
| Service holder                                   |           |        |          |           |          |        |            |            |          | R           | ound th  | ne year    |

Cyclone Aila hit when the monsoon was approaching, and it hampered the relief and recovery work taken by NGO's and government. Many local initiatives to repair embankments were not successful, as the monsoon created high tides and rains. The impact of Cyclone Aila will continue to be felt in the coming year, thus extending the recovery period when significant external support will be required. Winter is the ideal time for the local economy due to improved weather which facilitates vegetable production and collecting forest products. Vegetable and rice such as transplanted Aman and Aus<sup>2</sup> seedling (Nov and next Feb respectively) will also not be possible due to saline contaminated soil. Coming winter particularly Nov-Dec is favorable time for seasonal migrants, as boro plantation period will start in many parts of the country at that time which is an opportunity to support recovery. 7,714 metric tons of rice have been distributed by the Government (at the date of the assessment) in the affected areas, while NGO's have provided a food package to 28,262 families (rice, oil, dal, salt etc). In addition to this, the GoB Has also allocated 89,098 VGF cards to repair the embankment and in return, participants receive 10 kg rice a day. People also have the option of participating in cash for work schemes undertaken by different NGO's. An estimated 604,320 person days have been generated to date. The GoB has also started employment schemes for poor people where an estimated 35,000 people will have the opportunity to work in CFW schemes for 40 days. However, even with

<sup>&</sup>lt;sup>2</sup> Local rice varies

these current initiatives, approximately 50% (24,000 families) of displaced people will still have challenges in returning to their livelihoods and will need continued support until the next harvest in April-May 2010.

### 5.2 Water Sanitation and Hygiene Promotion (WASH)

#### 5.2.1 Water

Cyclone Aila caused significant damage to water sources, particularly in the severely affected Khulna and Shatkhira District. Before Aila, people used surface water sources (mainly ponds) and rain water, as their primary sources for drinking water. Immediately after AILA, people were dependant on water trucking by the government and-NGOs. Some people started harvesting rainwater by taking advantage of monsoon rains. 100% of drinking water ponds in the areas assessed were contaminated with saline water. Approximately 10% of ponds have been de-watered; however efforts were hampered by weather and the continued breaching of embankments, leading to recontamination of the ponds. 90% of the tube-wells were submerged by salt water. More than 300 tube-wells were raised and disinfected by NGO's and DPHE during the emergency phase. However, due to flooding and continued inundation with saline water, the ground water aquifers have become contaminated. Women spend an average 4-5 hours a day collecting water, often walking 2-3 km to reach the nearest safe water sources/collection point. Given the scale of damage to water infrastructure and the negative impact of Cyclone Aila on livelihoods, people are forced to drink un-safe water or spend their limited financial resources on traveling to other water sources or purchasing water. The cost of purchasing safe water before Aila was only 4-5 tk but on average, people now have to spend 15-20 tk to provide safe water for their families each day. Once people are able to collect water, they face additional challenges at the household level in water storage and handling. On average only 1 to 2 jerry-cans (20-30 liter capacity) are available at family level. These assessment findings indicate that the minimum Sphere standards for water access are not being met and there are significant and urgent recovery/rehabilitation needs.

"Some other day, immediately after dusk, I was going to the hanging latrine at other side of the embankment for defecation. While I was at the end of the bamboo bridge and about to enter to latrine, I, suddenly noticed someone coughing inside. I was quite terrified that it was a male, defecating inside. I returned as soon as possible. Whole the night passed, I did not dare to go further', says Mrs.Koruna Rani Mondol, wife of Poritosh Kumar Mondol, a Van driver from Arpangasia, Burigoalini, Shyamnagar, Satkhira.

### 5.2.2 Excreta Disposal

100% of latrines sustained damage (fully 80% & partially 20%) during AILA. During the emergency phase, DPHE and NGOs constructed latrines at the temporary shelters on the embankments, but latrine coverage is still only 12%. On average, ten families are sharing one latrine and this has resulted in operation and maintenance challenges. People, specifically women, are waiting in long queues to use the latrine facilities. Many women and adolescent girls report that they are facing difficulty in accessing latrines, as many adolescent boys and men are in the queues ahead of them. This is much worse in case of a pregnant or lactating mother and also for physically disable or old aged women. Open defecation is common, particularly among children who are less likely to wait in line to use the latrine. As with water, **latrine coverage does not meet the minimum Sphere standards** (1 latrine for 20 people after the immediate emergency phase ends), with an average of 50 people using one latrine, indicating a need to address the excreta disposal situation. Most of NGO's are currently focusing on emergency latrines as people are living in temporary places but estimated 60,000 HH latrine would be needed to be constructed when they would return to their home (tentatively by December 2009).

### 5.2.3 Hygiene Promotion

Given the scale of damage to water sources, the insufficient number of water storage containers, and an extremely high latrine user ration, it is difficult to maintain healthy hygiene practices. While hygiene promotion activities in some area has shown increased knowledge (i.e.80% of people know at least 2 key times for hand washing), the limited access to infrastructure (water and latrines) is the primary public health concern. Knowledge on menstrual hygiene has also increased, but women particularly the adolescent girls still face challenges in managing menstruation in a dignified and hygienic manner which in long run might causes different reproductive health problem for these girls.. Lack of space in temporary shelters and limited access to sanitary materials are the primary constraints. As the winter season is approaching when rainwater availability is less, people will be forced to use un-safe water for washing and bathing, potentially leading to an increase in skin infections.

**5.3 Shelter** : Cyclone Aila destroyed most of houses in the affected areas. The total no. of the houses damaged is nearly 1.5 lac according to government sources. Approximately 70% of homes are reported as fully damaged, and the remaining 30% partially damaged. In the affected areas most houses (85%) were made by earthen wall, wood and golpata<sup>3</sup> as roofing materials that immediately collapsed when the 16-18 feet tidal wave hit. Many of standing houses collapsed later due to continue inundation in the affected areas. Damaged houses forced people to take temporary shelter in the nearby high roads and embankments. Initially they used their broken housing materials to make temporary huts and were later supported with plastic sheeting and fixing material provided by GoB and NGOs.

You can't imagine how I could manage with other four members in the same room. I had never imagined such a situation in my life. But I was to experience', says Swarna Bala Biswas. She is a 60 years old widow from Arpangasia, Burigoalini, Shyamnagar, Satkhira.

Some others have taken shelter in the nearby government forest office and school. The displaced people now are living a sub-standard conditions in the makeshift shelter on the densely populated embankments. In 100% cases, all the family members are living in a single room. In some cases, members of more than one family are staying under the same shelter. Only a few (15-20%) of them have returned to their own household after completing minor repairs. Women, children and the disabled are vulnerable and suffering the most now because of the shelter conditions. Though the communities are interested in going back and rebuilding their households, they are not capable of doing so until the embankments are repaired. Furthermore, people have limited financial resources to repair their homes and there is also a scarcity of housing materials. Many local carpenters have also migrated to other towns in search of better employment. As winter is knocking at the door; it would be difficult most vulnerable group to survive at that period and may cause diseases that would deteriorate the overall health and hygiene situation. Further it would reduce and erode their income. To protect the most vulnerable group such as children, elder blankets and warm cloths distribution is recommended.

In rebuilding shelter, communities shared that they prefer raised foundations considering the flood level during Aila and, Sidr. Most of them prefer wooden houses as they experienced severe damage of mud houses during AILA. Approximately 100,000 houses would be needed to built in the affected areas but total GoB and NGO allocation to date provides new homes to less than 10% of the affected population. **Other than repairing embankments, construction of houses is the community's highest priority, therefore the allocation of additional funding to this sector is recommended.** 

5.4 Education: Unlike other areas of the country, the enrolment of the students was quite satisfactory in Khulna and Satkhira. Both the formal and non-formal education institutes were functional in this area. Nonformal institutes are working successfully to reach remote areas like Gabura, and Atulia of Shaymnagar and South Bedkashi, of Koira Upazila. 100% children could go to school regularly as the institutions were within a reasonable distance. But, due to Aila, most of the schools both formal and non-formal were damaged as a result of poor construction. Some school buildings remain standing, however, many people are still using schools as temporary shelters since after Aila. The existing situation ultimately resulted into reducing the scope of non-formal education. At present, only a few educational institutions are running. In addition, school materials such as textbooks were also damaged during the cyclone and many students do not have the materials (or the money) to start attending school again. Many high school students reported that they did not get the chance to sit public exam at secondary level due to a lack of money for exam fees and text books. However, even with limited livelihoods opportunities, the initial drop-out of 32% immediately after Cyclone Aila has decreased as more children are returning to school. It is believed that immediate after cyclone Aila Child Friendly Space (CFS) that opened and run continue upto 05 months by Save the Children-UK is one of the reason helped children's in continuing their education and back quickly to the school. For other children, the lack of livelihoods for their parents is forcing them to engage in livelihood activities rather than going to school. Some adolescent boys and girls have even migrated to other places in search of livelihood opportunities. These factors are all causing psychological stress for boys and girls.

The school management committees to some extent are getting re-activated and taking the initiative to restart the school with the support of the community as well as of the teachers. The teachers have engaged themselves even for extra time. But, the schools started by this time are running with limited opportunities. There is not enough furniture and other supporting materials to run it smoothly. 90% of the schools have no door or window. The link roads to schools is another problem. 90% of the students have to use boats to go to school. as Aila damaged almost all the link roads to school and in many cases the roads are still under water. Around 80% of students, have to pay boat fare to attend school which has become another burden for the poorest households. Immediately after Aila, some Child Safe Spaces were opened and run by the local NGO's with support from Save the Children. This activity was found to be helpful in continuing children's education and psycho-social care.

**5.5 Health:** As poverty-prone area, malnutrition is a common occurrence in these two districts. Fish was the only source of protein for the community. Local production of vegetables was much less than the total demand, as shrimp farming captured most of the land. There has been a long-running scarcity of vegetable and fruit creating high levels of malnutrition. Access to healthcare was limited even before Cyclone Aila though the immunization program covered almost 100% of the area. There is no health service facility at ward level. Most people travel to union level or even to upazilla level for health services. , Disease morbidity is increasing; especially skin diseases of children and women (see table below). Incident of diarrhoeal disease now at normal level which were increased immediate after Aila. It is believed that continue effort to provide safe water, sanitation and hygiene promotion from Govt and NGO's have contributed to keep the incidents at this level but the upcoming winter and possible water shortages could create an environment in which disease outbreaks are likely.

| Туре            | Koira L | Jpazila | Dacope | Upazila | Туре        | Koira | Upazila | Dacope I | Upazila |
|-----------------|---------|---------|--------|---------|-------------|-------|---------|----------|---------|
| Diseases        | Male    | Female  | Male   | Female  | Diseases    | Male  | Female  | Male     | Female  |
| Dysentery       | 334     | 360     | 505    | 512     | Anemia      | 185   | 375     | 25       | 67      |
| Worm            | 343     | 475     | 115    | 132     | Asthma      | 33    | 31      | 36       | 43      |
| Gastric         | 312     | 546     | 145    | 136     | Eye disease | 164   | 174     | 136      | 35      |
| T.B             | 3       | 1       | 4      | 6       | Ear disease | 86    | 74      | 123      | 65      |
| ARI             | 11      | 5       | 8      | 3       | Dental      | 167   | 175     | 32       | 31      |
| Skin<br>disease | 306     | 543     | 122    | 137     | Guyana      | 00    | 88      | 00       | 357     |
| Malnutrition    | 173     | 328     | 47     | 48      | RTI/STD     | 11    | 17      | 33       | 34      |
|                 |         |         |        |         | Others      | 196   | 185     | 302      | 154     |

#### Table-3 Disease Profile for the month of September 09

Source: Respective Upazila health clinic

Due to the unavailability of health service institutions, trained service providers and communication barriers, health issue have received less priority. 50% of total population can not afford treatment. Before Aila, an average of 5% of women would go to the hospital for a safe delivery. (source: Upazila health clinic) As 95% of the population previously gave birth in their homes, they are now giving birth in their shelters on the

'If the situation remains the same, the children will suffer from malnutrition severely. They will loose their resistance power. What can we expect from these malnourished children?' So, they should be the first target to be recovered by GO-NGO initiative', says Dr. abdul Mannan from Shanghabura, Gabura, Shyamnogor.

embankments and safe delivery is now becoming a serious problem and maternal health issue has been a challenge. Due to transport costs, migration of local doctors to less-impacted areas and lack of locally available medicine, health related expenditure has increased sine the cyclone. Decreased access to health services has impacted on children and women the most. The unhygienic environment and increased use of saline water is linked to an increase in water and excreta borne diseases; children and the elderly are also contracting various skin diseases.

**5.6 Protection**: Cyclone affects all section of people irrespective of social, age and well-being group. However, female headed household, children, adolescent boys and girls, elderly, differently able people, are affected the most. Before Aila most of female headed household engaged in shrimp farm or shrimp fry collection as day labourers but post Aila, female headed households have limited options to earn income for their families. The number of female-headed household (3.4 million in total coastal areas) is higher in coastal areas than national average 2.37 millions (BBS 2003). There is also a large number of widows in the coastal

region, particularly areas near to Sundarban as their husbands were victims of tiger attacks. For example more than 1,200 widows live only in Gabura union. Cyclone Aila swept away their homes, livelihood and confidence of living. There is some Government safety net such as VGFor VGD but the programmes are not focused on the most vulnerable groups who urgently require protection support (see below for example case of Dacope Upaila).

|            | Total    |      |     |         |         | Туре    |           |     |           |
|------------|----------|------|-----|---------|---------|---------|-----------|-----|-----------|
| Union      | affected |      |     |         |         |         |           |     |           |
|            |          | VGF  | VGD | Aged    | Widow   | Freedom | Forest    | PWD | Pregnancy |
|            |          |      |     | pension | Pension | fighter | dependent |     | pension   |
| Kamarkhola | 3200     | 2106 | 73  | 240     | 131     | 4       | 60        | 5   | 15        |
| Suterkhali | 8000     | 3053 | 154 | 135     | 90      | 3       | 8215      | 23  | 17        |

### Table-4 Safety net progrmme of Dacope Upazila

Source: PIO office, Dacope Upaila

30% of children are reported as drop-outs and are now engaged in day labour and fishing to complement their family income. Many of the adolescent boys reported that they forced to engage in risky professions such as going to the forest for crab collection or fishing in the river. 60% of elderly people are now separated from their family as the earning members of the most of the families have become jobless.

'For eight years, I, lonely am going ahead with my two little babies, but I had never such a situation. My son also works now, but we cannot arrange our meals regularly' says Rahima Begum, 45 years old widow from Durgabati, Burigoalini, Shyamnagar, Satkhira.

100% adolescent girls are living in insecurity on the embankment. During the assessment communities reported that upt o 20% of girls are being sexually harassed. Migration of the adolescent girls to Chittagong and Dhaka is also a common occurrence as they are finding work in the garment industry. 80% parents of adolescent girls are considering early marriage for them to protect them from sexual harassment or exploitation. There have been a few incidents of trafficking recorded but there are no formal tracking systems is in place to monitor this. Very few indigenous people (approximately 500 Munda families) are living in the affected areas. 95% of them are not able to find work. The remaining 5% are working only as day laborers. Many Aila affected people are facing significant challenges in accessing government entitlements , as they lost their national ID card during Aila. At least 50,000 people lost their ID card in just 03 of the Aila affected sub-District Koira, Dacope and Paikgacha under Khulna District. Overall, an estimated 20% of people lost their ID card.

**5.7 Disaster Risk Reduction**: Weak disaster management institutions and a low-level of preparedness are the major causes for the high level of disaster mortality and vulnerability during the post disaster period. Most of the people were not aware of the risk of cyclone and tidal surge. Early warnings were received just a few hours before through the local mosques, not giving most people enough time to go safe shelter places. Safe shelters also were not available in most of the affected areas. People reported that the nearest shelters will an average of 3-4 km away. In Shymnagar Upazila only 05 cyclone shelter were available for more than 03 lac people. UNO of Koira Upaila suggested that considering the future cyclone risk 05 cyclone shelters should be built in each union. As there were not enough shelters, many public buildings were used as cyclone shelter during Aila.

"Without Cyclone shelter, how can we survive in future, there is no alternative" said Chairman Mannan, Protapnagar union, Assasuni Upazila

In Shaymnagar 96 and Asssani 64, there are opportunities to renovate public buildings to use as cyclone shelters and increase coverage in the future. Trends indicate an increasing frequency of cyclones. From 1991 to 2000, 20 depressions originated in the Bay, including 12 cyclones, the Bangladesh Meteorological Department (BMD) reported. However, between 2001 and 2009, there were 39 depressions, six of which intensified into cyclones (Source :IRIN 21 Oct'09). Given the increasing risk of cyclones and tidal surge areas like Khulna and Shatkhira are not prepared much to face this challenges. To date, there have not been Cyclone Preparedness programmes (CPP) in these 02 Districts. There is a Union and Upazila Disaster management Committee exist but local people said that committees are not active. Water and sanitation infrastructure and shelters are not sited or constructed to with-stand the impact of disasters. The lack of

preparedness has a significant impact on the water situation. For example, there is no contingency stock of water treatment units available at district level. Access to water in the emergency phase in one of the top priorities. Many affected people reported that they believed that the embankment would save them, but poorly constructed and maintained embankments was one of the main cause for high fatality rate, damages and losses.

| Sector                                      | N N            | GO         | Sector  | NGO           |                  |              |
|---|----------------|------------|---|---------------|------------------|--------------|
|   | Ongoing        | Plan       |   |               | Ongoing          | Plan         |
| Food  |                |            | Hygiene promotion                                   |               |                  |              |
| Food package                                | 31,012         |            | community health volunte                            | 2500          |                  |              |
| distributed high emergency biscuits (NRG-5) | 85,000         |            | Hygiene kits  | 1800          | 1150             |              |
| Food support to children                    | 2,000          |            | Soap  |               | 7000             |              |
| Shelter                                     |                |            | Primary health care                                 |               | 5000             |              |
| Temporary shelter                           | 44,650         |            | Sanitary cloths                                     |               | 7000             |              |
| Transitional shelter (new)                  | 2174           | 5800       | Female bathing corner                               |               | 64               |              |
| House repairing                             | 4670           | 652        | Livelihood  |               |                  |              |
| Water                                       |                |            | Cash for work                                       |               | 604,320          | 72000        |
| Pond dewatering                             | 90             |            | Cash grant  |               | 14700            | 862          |
| Re-excavation of pond                       | 5              | 110        | Tools for livelihood restor                         | ation         | 500              |              |
| Existing Tube-well raising                  | 300            | 100        | Boat & net  |               | 680              |              |
| New shallow tube-well installation          | 184            |            | Seed  |               | 2500             |              |
| New Deep hand well installation             | 103            | 45         | Tree plantation                                     |               |                  | 2600         |
| Repair of deep hand tube-well               | 5              |            | Killa   |               | 3                |              |
| PSF construction                            | 39             | 14         | Rickshaw van  | 100           |                  |              |
| PSF repairing                               | 54             | 20         | NFI   |               |                  |              |
| Rain water harvesting installation          | 6              |            | Blankets  |               | 31562            |              |
| Repairing rain water harvesting             | 5              |            | Warm cloths   |               | 19000            |              |
| NFI (jericane & bucket) distribution        | 83,100         |            | Soap  |               | 7000             |              |
| Renovation of public building               | 10             |            | Primary health care                                 |               | 5000             |              |
| Plastic sheet for water collection          | 2000           |            | Sanitary cloths                                     |               | 7000             |              |
| Sanitation                                  |                |            | Children cloths                                     |               | 2000             |              |
| Emergency latrine                           | 4751           | 1150       | Mosquito net  |               | 24000            |              |
| Household latrine                           | 1274           | 685        | Child friendly space for 6<br>children for 5 months | 000           | 100              |              |
|   |                |            | Education and recreation                            | al materials  | 40,000           |              |
| Total funding -allocated and comm           | vitmont- USD   | 106 /0 50/ |   |               | 40,000           |              |
| Note: Design of Recovery plan is unc        |                |            |   | n docision ma | do by ECUO       |              |
| Note. Design of Recovery plan is und        | ierway in resp |            | vernment  |               |                  |              |
|   | Ongoing        | 00         | Verminent   |               | Plan             |              |
| Shyamnagar                                  | Koira          |            | Dacope  | Employmen     | t scheme for poo | r            |
| GR rice- 3852 mt                            | GR rice- 2     | 602 mt     | GR rice- 1260 mt                                    |               | jar- 12,216 per  |              |
| GR cash-37,70,000 tk                        | GR cash-91     |            | House grant-  | @100 / pe     |                  | , <b>,</b> . |
| NFI kits-1000 HH                            | Turpulin-1     |            | 11,500,000 tk                                       |               | 216 person ,40   | days @100 /  |
| Turpulin-22,450                             | Plasticshe     |            | CI sheet-31,500 bundle                              | perday        | • •              |              |
| Plasticsheet-1125                           | House gra      |            | Water sanitation-                                   | Dacope 12     | 2,216 person ,4  | 10 days @100 |
| House grant- 348,00,000                     | 270,80,000     |            | 24,50,000 tk  | / perday      |                  |              |
| Baby food –5844 lit                         | VGF-41,31      |            | Health-200,000 tk                                   | . ,           |                  |              |
| VGF- 25200                                  | ,-             |            | VGF-21,588  |               |                  |              |

### 6. Current response as of reporting date:

Note : See details of NGO responses as annex-3

**7. Recommendations :** Damages and losses caused by Cyclone Aila is huge and immediate and there will be a serious long term impact. Considering the devastation and capacity of local communities to recover, short and long-term recommendations are made below. Immediate recovery focuses on meeting unmet needs at the embankment level and also assisting in the recovery and rehabilitation at the village level. Long-term recommendations focus on expanding services and bringing to scale, as well as increasing community resilience through various measures.

### Immediate Recovery Recommendations: (1-2 years)

Food security & Livelihoods

- **Targeted food distribution** is recommended for approximately 24,000 families upto next March and April. Assumption is embankment-repairing work would be started in the mean time and people could get back to their home and utilize available livelihood opportunity fully to meet their basic needs.
- Agriculture rehabilitation including land rehabilitation, provision of seeds and saplings (including saline resistant varieties), fertilizers, tools, other agricultural inputs, livestock, fishing nets, boats and gear.
- **Cash grants** is recommended to professional groups along with necessary skill training to specially small traders, small producers, marginal farmers, women entrepreneurs, forest dependent etc to restart their profession and replenish and repairing their livelihood tools.
- **Cash for work** should be continued by NGO's to complement the govt. effort in repairing embankment specially repairing and maintenance of local road, growth centers, community places, maintenance of water sanitation facilities etc could be given priority for NGO work.
- **Micro-credit** should be made available free of interest or with low interest to the small traders, marginal farmers, entrepreneurs and other livelihood groups for re-starting their farm, business etc.
- Introduce alternative livelihood training to the most vulnerable groups along with input support.

### <u>WASH</u>

- **Provision of water trucking** in places where physical access to safe water sources is acute through installing water treatment or desalination plant.
- **Installation of deep hand pump well** where appropriate and side by side repair of existing shallow hand pump well is needed to take full advantage of availability of safe water at ground level .
- Repair and installation of new household and community level rain water collection and Pond Sand Filter (PSF) to make community ready for next monsoon.
- Jerry Can/ Reservoir/ Container should be provided to improve water storage capacity
- Excavation, re-excavation of rain water pond to improve the water storage capacity for future.
- Installation and repairing of latrine at household, institution, shelter, growth center and public places
- **Community awareness** and capacity building (operation and maintenance of water and sanitation options) on WASH
- **Hygiene promotion** work through community health volunteers and supply basic hygiene NFI such as soaps, sanitary cloths etc

### SHELTER

- **Provision of appropriately designed transitional shelter** which could meet minimum standard and resistant to cyclone and tidal surge.
- **Capacity building of community** in repairing and renovating their existing family shelters through providing training and necessary shelter NFI's.
- Provision of cluster houses for lands less through accessing govt. khas land.
- Distribution of blankets and warm cloths specially for children and aged people

### **EDUCATION**

- **Repair and renovate educational institutes** both formal and non-formal including proper WatSan facilities, furniture etc
- **Repair and renovate educational institutes** both formal and non-formal including proper WatSan facilities, furniture and ensure physical access to this facilities through repairing and re-construct link roads, pathways etc
- Non formal education where appropriate (embankment/boat) should be started immediately until formal system resume with their full strength.
- **Provision and replenish school materials** (books, stationery) students lost to quick start their education.
- Introduce school feeding programme and arrange therapeutic feeding for children, pregnant and lactating mother.

<u>HEALTH</u>

- Special campaign and intervention on EPI, TT, safe delivery and family planning.
- **Provision of blankets and warm cloths** for thermal comfort for specially children and aged people.

### **PROTECTION**

- Establish community monitoring system on trafficking, migration, violence against women, sexual harassment of adolescent girls and women and develop community capacity to handle this.
- Review the VGF and other safety net programme to cover most vulnerable group need protection support.
- Special employment and alternating livelihood training scheme for widows, female-headed household, socially excluded group, drop-out adolescent girls and boys, members of indigenous community, aged and person with disable.

### <u>DRR</u>

- Start embankment repairing and reconstruction immediately taking into consideration future disaster risk and sea level rise.
- Strengthening community disaster planning and activate local disaster management committees.
- Roads and embankments side tree plantation to protect and save from future disaster.
- Extension of Cyclone Preparedness Programme (CPP) in Khulna and Shatkhira District, trained and equipped local volunteers and link early warning system with the vulnerable community and strengthen search and rescue capacity.
- Construction of raised community place, killa for livestock's and raised growth centers.
- Developing/updating disaster planning at local govt. level incorporating the lessons from cyclone Aila
- **Capacity building** and public awareness raising on DP/DRR.

### Long-term Recommendations :

- Work with communities, civil society, and government to bring basic services to scale (with a focus on disaster resilience).
- Develop local food storage system
- Introduce salinity tolerant varieties of rice
- Expand training on alternative livelihood and climate change adaptation
- Develop community food bank
- Strengthen micro-finance support
- WASH contingency plan and stock, including water/desalination plant
- Multi purpose disaster resilient market/school cum cyclone shelter
- Permanent family shelter and cluster houses for land less people
- Forestation/ Watershed development
- Expand household and community water harvesting system
- Increase sanitation coverage in market and other public areas.
- Expand disaster resilient watsan system at household and community level
- Study on deep aquifer to explore safe water sources
- Incorporate DRR into the education programme

### Advocacy Recommendations :

- Embankment repairing and reconstruction work immediately with appropriate design that can protect climate induced sea level rise and high tidal waves.
- Special programme to provide voter ID card to those who have lost should be taken by election commission immediately.
- Stop leasing public pond to local elite and protect them as a safe water sources
- Stop to collect all previous loan payment and re-schedule their loan immediately and review NGO's
  micro credit policy to make it favorable to the disaster victims and conducive in post disaster
  recovery.
- Stop leasing culvert, sluice gate and box pipe to local elite and allowing to install new pipe in the embankment.
- Review coastal land use and housing policy to grow environment friendly agriculture and shrimp firm and promote cyclone resilient housing practice.
- Construction of adequate cyclone shelter and killa for protection of lives and properties from cyclone and tidal surge.

# Case study-01

### ......Waiting for God, when he will take me away.

Tulshi Rani Mreedha, sixty years old widow, Jhapa Mreedha bari, Padmapukur, Shyamnagar is lonely after losing her husband of twenty five years in the Cyclone. After Aila, she has spent the last five months on the embankment. She does not think about the future but only of a meal. She doesn't dream of treatment, care or medicine but only waits for a plate of rice.....

Her second son Nirmal Mreedha, a shrimp farmer would take care of her. Aila has completely damaged his shrimp firm (Gher) that involved a lot of investment, nearly about TK three hundred thousand. He

has been a day labour immediately after can arrange only 5 KGs of rice working 'Food for work' program. Other two Tulshi, Bimol and Amol, also has lost everything in Aila.

Tulshi Rani can't remember when she taken meat or fish for the last time was her usual diet before Aila. Now, take only one or two meal per day with and green chilly. She treats vegetable food now when Bimol can arrange some exchanging rice. Tulshi has only a piece (Sharee) to wear. Though she is not about privacy or dignity in the makeshift



Aila. He under sons of

had which she can only salt as rich

of cloth anxious shelter

now, she is afraid of upcoming winter. She can't think of the days when shivering cold will start in near future.

Surprisingly, Tulshi, does not think of herself. . She is anxious for her son, daughter, grandson and others. She only looks forward to the day when she will breathe the last. And, it is sure to happen, she believes, if more days go such a way. She is suffering from several diseases, but the facility of treatment or medicine has now become only a dream to her. There's nobody to take care of her. She knows nothing about VGD or VGF. She never received any facility from Union Parishad. She blames none but only her fate for this situation though she never experienced such a situation in her life.

'I never thought that I would starve. My sons had enough to feed me. I was no way burden for them. But, Aila has changed the situation. We have no-one to listen to us, nobody to take care of.......' says Tulshi. She pronounces, 'God is for them, who has nothing, I think he is looking after me. I am waiting for God, when he will take me away'.

# Case study-02

.....Endless sufferings of Sima Rani Mondol

Sima Rani Mondol, wife of Dibos Kumar Mondol is leading a sub-human life with her child and husband on the embankment of Boro bari, Uttar betkashi, Koyra. Immediately before Aila, she took shelter in the nearby cyclone centre, leaving her household and everything. And, till now, even after five months, she can't think of returning there.

Sima, an illiterate house wife, had a dream to make her child educated anyway. But, Aila, the cyclone made the barrier instantly. Her child cannot join school after Aila. He had lost the book, dress and all other necessary materials. Now, the family can't think about his study because livelihood has become the main concern.

Loosing household and all others, Sima, with all her family members is leading an insecure life on the embankment like refugees. After Aila, she was bound to engage herself in catching crabs and fishes. She has no other alternative as she has lost everything including livestock. Now she only lives on selling the crabs and shrimps, she can catch from the river. Hardly, she can arrange food for all the family



members. Starvation has become a common scenario in her family. The children are suffering from nutrition as she can provide much less food than they need.

She, besides working all day long, goes to collect water from one and half KM away. She spends around three hours per day collecting water. She has to make two trips because she has no large water pot to carry or store water. Further, she is to spend time in a long queue. She had no experience about such type of sufferings for water before Aila, as they would use pond water nearby the household which was contaminated during Aila and has yet to be de-watered.

She is also facing problems accessing even the most basic facilities, such as latrines. Sima says, '*How* can you think of going to the toilet easily, while a lot of male are surrounding there. Moreover, only one toilet is being used by 10 families. So, think about the situation, it's completely unhygienic'. In this circumstance, she never thinks of personal hygiene.

'During menstruation, we, now, no way think of sanitary napkin, even the torn piece of old cloth that we would use previously. Though some can arrange it, they can't wash it as we go to the river. And, in this shelter, can you imagine to dry it?' says Sima. Most of the adolescent and female like Sima are suffering from the same problem. They wash everything in the saline water and also take bath in the same. As a result, many are facing the risk of skin diseases.

When will this endless pain stop, is not known to Sima. She wishes to return home, rebuild her home again, but there is no light at the end of the tunnel. She believes all these sorrows will end if she can go back again but she can take no initiative. She simply thinks of catching some crabs or fish and selling it and even if successful, it will still be difficult to simply feed her own child.

### Case study-03

## .....upon what dignity depends?

'Some other day, immediately after dusk, I was going to the hanging latrine at other side of the embankment for defecation. While I was at the end of the bamboo bridge and about to entre to latrine, I, suddenly noticed someone coughing inside. I was quite terrified that it was a male, defecting inside. I returned as soon as possible. Whole the night passed, I did not dare to go further', says Mrs.Koruna Rani Mondol, wife of Poritosh Kumar Mondol, a Van driver from Arpangasia, Burigoalini, Shyamnagar, Satkhira. She replied to what she had done then, 'You should have understood what I was to do.

*Honestly speaking, open defecation is far and away safer than going to that latrine in such a situation'.* She was to go to a common latrine on the embankment, which she shares with ten nearby families. So, there are always long queues. And, that's why; the female preferred going to the latrine at night than using it during daytime.

There was no privacy, no dignity on the embankment. And, that's why; she has come back to her old home on July 05, 2009 no sooner the water had reduced some extent. She had rearranged the house someway but still they all go outside for defecation, water collection, washing, bathing etc. She, till now, goes to the common toilet though it is quite uncomfortable. The latrine is quite unhygienic as nobody takes the responsibility to clean it. '*Moreover, it is not an easy task to use it properly, to keep it clean, as we are suffering from the scarcity of water'*, say Sima.

She is to fetch water from long distance; about 3 KMs away because the PSF, they had in their village, had completely been damaged during Aila. She spends around three hours per day for collecting water, walking around 6 KMs round-trip. She can collect water only for drinking purpose. Bathing in the saline water is common to all. They use the same water after defecation. Even, they all wash food, utensils and cloth in saline water.

There are also challenges in managing mensutruation. She uses only torn pieces of old cloths for menstrual hygiene management. She, as do most of the other women in the village know what to do during menstruation, but can do nothing as they have no materials or money to manage in the way they prefer. They even can't arrange water to wash the piece of cloth. There is no such environment that they can dry it up, as all the family members live under the same small shelter.

By overnight, Aila has snatched away all of the happiness and peace of Karuna, her husband and two sons. Her husband was a day labourer. Sometimes, he would catch fish, crab and shrimp for livelihood. Though they almost lived from hand to mouth, she was happy with her husband and child. But, now, she is quite unhappy as they are to live completely an unhygienic life. After Aila, they all had suffered from diarrhoea several times. She thinks it is due to unhygienic latrine, unsafe water and unhygienic practices. But, she also knows that there is no solution until they all can come back, can rebuild their house. She dreams of the day when everything will be the same that was previously. But she doesn't know exactly when and how it is possible.

Case study-04

## ......Gafur's turning into a child labor

'At the very outset, I would enjoy it that I was not to go to school. It is better, if the situation goes such a way. There is no teacher, no book, no homework... says Gafur, a twelve years old boy from Atuliya, Shyamnagar reading in class five. He adds, 'but, now, I feel it was no way good for me, I cannot go to school now, I miss my friends, I cannot play with them. They also avoid me now.'

Gafur has lost all of his books, khatas, clothes and other materials during Aila. Since then, he is living with his family in a makeshift hut on embankment. His parents could not arrange his books and other supporting materials. And, that's why they can't send him to school. '*Without any book, any khata, what will he do going to school. Rather, he helps us in fishing, he earns money, it's better,* says Gafur's mother.

Gafur thinks he is an isolated boy as he cannot go to school now, he cannot play with his friends. He now is to go to the river to catch fish or crab. In most cases, he goes with his father and helps him. His parents now live on catching crab and fish. But, they can't earn enough money as they have less opportunity to sell it at a



reasonable price. And, that's why, they are not in a position to cover educational cost of their son. They can arrange only food from fishing which is quite inadequate for all family members. As a result; they are pleased if Gafur can earn extra money.

So, some time, Gafur goes to work independently, he works as day labour for the fisherman in supporting them in setting net, rowing boat and helping other ways. When they don't call him, then he goes for fishing. 'Such a way, I earn a good amount, but I am to contribute most of it to my parents, as they don't get enough fish or crab everyday. So, I can't save money for buying books.,.

He sometimes keeps a little money for him as he enjoys cinema at local hotel now. Each cinema costs TK. 5 each time. '*I do it, as I have nothing other to do. I cannot go to school; I cannot play with my friends. So, what will I do'*, asks Gafur.

'I know, he should go to school again, but what can I do. I have no capacity to buy books now. And, if he starts to go to school, then he will need many more things day after day. How will I arrange it then.' says Gafur's father.

Gafur thinks that he never will get the opportunity to go to school again. Aila not only has snatched all his books, khatas, dresses away, but also his right to education. If he is not supported anyway, it will be quite impossible for him to entre schoolyard again, she will be a permanent drop-out. And, obviously he will turn into a permanent child labour.

# Case study-05

## 

'For eight years, I, lonely am going ahead with my two little babies, but I had never such a situation. My son also works now, but we cannot arrange our meals regularly' says Rahima Begum, 45 years old widow from Durgabati, Burigoalini, Shyamnagar, Satkhira.

Rahima got married about 15 years ago with Mr. Gofur. After her marriage, she had a happy family. But, now she is completely alone after her husband died 8 years ago. She had two children of 7 and 2 years old respectively then. They had no valuable assets to depend on. She was in great trouble with her two little kids. So, immediately after her husband's death, she started to work as maidservant. Later, she turned into a complete day labour. However, she could arrange basic needs of all family members smoothly. Even, she could ensure the education facility of her children.



Her eldest son studied up to class five and now works as day labour in shrimp firm. He would earn TK. 3000 per month. The younger also now reads in class five. But, she cannot go to school now. Aila, the devastating cyclone has changed everything of their life.

Sudden attack of Cyclone AILA on May 25, 09 damaged Rahima's house and till now it is under water. She had to leave home like others and took shelter on roadside. She received one piece of plastic sheet (Tarpaulin), 3 pieces of bamboo and 250 gram of

rope as emergency shelter support. She received only 5 kg of rice from Union Parishad and 4 litres mineral water along with 1 kg flatten rice from a local rich person. This scanty amount of relief was simply like a stone in the river.

Though, she has a shelter now to stay and can sleep without anxiety, she has no possibility for work. And, starvation has become almost regular in her family. Both she and her son lost opportunity of work as Aila washed away all shrimp farm in the area. Income source of her family has got completely collapsed. They can not even manage 1 meal a day now.

Surprisingly, no neighbour or relative is helping them for their survival. Even, sometimes, she is to deal with harassment now by local people. As everybody rushes for any opportunity now in the same way, there is nobody to help them considering their vulnerability. Though there are many opportunities of work in programs such as 'Cash for Work' and 'Food for work' in the area but there are not enough spaces for people to participate.. As there is a surplus of daily labourers now, local people also avoid her in hiring as she can work less than men can. The same thing happens in case of her child. Nobody, in such situation is interested about child labour. Such a way, they have been completely excluded.

Rahima, in this circumstance, looks forwards to special initiatives from Union Parishad and NGOs to provide them work opportunity. 'For us, the widow, the female headed, the hardcore poor, Government should do special something. We don't want relief. But, provide us scope of work that we can earn and maintain our livelihood' adds she. Nevertheless, it will result into a silent famine for them within short time, she thinks.

## Case study-06

## .....Like a gypsy woman

'You can't imagine how I could manage with other four members in the same room. I had never imagined such a situation in my life. But I was to experience', says Swarna Bala Biswas. She is a 60 years old widow from Arpangasia, Burigoalini, Shyamnagar, Satkhira. Her husband died 8 years ago, leaving her with a 16 years old daughter. She was in great trouble then with her adolescent daughter. Considering the security, she got her daughter married immediately. Her daughter and son-in-law stayed at her home. In course of time, she became a grandmother of two little kids. Her son-in-law was a day labour and hardly could earn two thousand taka per month. However, they could manage someway with homestead gardening and others.



Devastating Cyclone AILA on May 25, 09 washed away everything of her family including house and all other household materials. She lost 11 hens and 4 swans. The Cyclone destroyed 10 big trees at her yard. Losing everything, Swarnabala was to take shelter on roadside with her other 4 family members like other affected people in Atulia Union.

'It is incredible. I could understand the privacy of my daughter, her husband and others, but I had nothing to do, says Swarna. She adds, 'There is no security on the embankment. Everybody is doing whatever he prefers.

*There's none to protest. Sexual harassment was a common scenario. Think about the adolescent girls and young housewives, how they could manage it'.* Swarna thinks it very difficult for everybody. They go to sleep at night but they get unrest till the dawn because theft has been occurring daily.

The situation worsened further about three weeks ago when she with her family was bound to come back home from embankment as Government has started to repair it. She till now could not arrange another house. Everything she had before is gone. They are now living almost under open sky. As there is no opportunity for work, her son-in-law can arrange nothing also for rebuilding their house.

By this time, they have got a piece of big plastic sheet, 3 bamboo poles and 250 grams of jute rope from NGO. By these materials, they have made an emergency shelter. All five members pass their time here. But, now she is thinking of the upcoming winter. She doesn't know what will happen then if the situation continues until then. She does not know what the fates of two innocent grandsons are. She cannot imagine what will happen if they cannot arrange their home by this time.

### Annex –2 : Assessment structure and checklist :

| District     | Upazila     | Union           | Agency responsible for assessment | Remarks              |
|--------------|-------------|-----------------|-----------------------------------|----------------------|
| Khulna       | Koira       | Dakhin Bedkashi | Oxfam-GB                          |                      |
| Tanana       |             | Uttar Bedkashi  | Concern WorldWide                 |                      |
|              |             | Mohesharipur    | Islamic Relief                    |                      |
|              |             | Koira Sadar     | Save the Children-UK              |                      |
|              |             | Moharajpur      | Save the Children-UK              |                      |
|              | Dacope      | Kamarkhola      | DanChurchAid, ActionAid           | Will be done jointly |
|              |             | Sutarkhali      | DanChurchAid, ActionAid           | , ,                  |
|              |             | Baniashanta     | Save the Children-UK              |                      |
|              | Paikgacha   | Lata            | -                                 | Moderately affected  |
|              | _           |                 |                                   | ,Will not cover      |
|              |             | Raroli          | -                                 | Moderately affected  |
|              |             |                 |                                   | ,Will not cover      |
| Shatkhira    | Shaymnagar  | Gabura          | Oxfam-GB, ActionAid               | Will be done jointly |
|              |             | Paddapukur      | Concern WorldWide,<br>ActionAid   | Will be done jointly |
|              |             | Burigoalini     | MuslimAid, Islamic relief         | Will be done jointly |
|              |             | Atulia          | MuslimAid                         |                      |
|              | Assasuni    | Potapnagar      | MuslimAid                         |                      |
|              |             | Delutia         | -                                 | Moderately affected  |
|              |             |                 |                                   | ,Will not cover      |
| 02 Districts | 04 Upazilas | 16 Unions       |                                   |                      |

### Responsibility division among agency:

### Field Team Composition:

- At least 04 people each team (01 should be female),
  - Man facilitator
  - Co-facilitator
  - Time keeper
  - Note taker
- Focus areas : Emergency food security and livelihood, Disaster Risk Reduction, Shelter, WASH, Health, Education, Protection.

(Combination of different expertise areas should be considered during forming a team)

| Advisory Team : Or | e from each | involved agency |
|--------------------|-------------|-----------------|
|--------------------|-------------|-----------------|

| Name                   | Organization      | Lead areas                           |
|------------------------|-------------------|--------------------------------------|
| Kaiser rejve           | Oxfam-GB          | Food security and livelihood +Public |
|                        |                   | Health                               |
| Hasina Inam            | DanChurchAid      | Gender+ Food security & livelihood   |
| Bijoy K Nath           | Concern Worldwide | DRR +Shelter                         |
| Obaidur Rahman         | MuslimAid         | Shelter                              |
| Khodada Hossain sarker | SCF-UK            | Food security and livelihood         |
| Mosabber Hossain       | ActionAid         | Food security and livelihood         |
| Mostak Hossain         |                   | Shelter                              |

### Sectors and sub sectors :

| Sectors                      | Sub sectors  | Common/cross cutting issue   |
|------------------------------|--|--|
| Food security and livelihood | Agriculture, food security<br>(availability/accessibility), fisheries,<br>livestock's, small traders, forest<br>dependent livelihood, labor/wage,<br>market (infrastructure, accessibility,<br>price), coping strategy | <ul> <li>Availability</li> <li>Gaps</li> <li>Accessibility</li> <li>Gender</li> <li>DRR</li> </ul> |

| WASH (Water sanitation and<br>hygiene promotion)<br>Shelter (emergency, transitional<br>and permanent shelter) | Water(source, carrying, storage,<br>technological options), Sanitation<br>(technological option), hygiene<br>promotion (personal hygiene)<br>Emergency shelter<br>Transitional shelter<br>Permanent shelter<br>Type of materials<br>Choice of design<br>Repairing tools | <ul> <li>Governance</li> <li>Public service (availability, accessibility)</li> <li>Coping mechanism</li> <li>Key influencing factors</li> <li>Comparison(before-after)</li> <li>Forecasting/future prediction</li> <li>Institutions roles</li> <li>Practice/behavioral aspect</li> </ul> |
|--|---|--|
| Health   | Nutrition<br>Child and mother health<br>Health infrastructure<br>Reproductive health<br>Disease prevalence  | <ul> <li>Local capacity</li> <li>Decision making process</li> </ul>  |
| Education  | Child education<br>Formal-non formal education<br>Education materials<br>Educational infrastructure   |  |
| Protection   | Children-boys and girls<br>Adolescent boys and girls<br>Aged people<br>Female headed household<br>Person with disability<br>Minority community (indigenous<br>group)<br>Excluded group (muchi/methor)<br>Security issue<br>HIV affected people (if any)                 |  |
| Disaster Risk Reduction (DRR)  | Environment<br>Climate change<br>Early warning<br>Disaster management institution<br>Preparedness<br>Safety measure (embankment,<br>cyclone shelter)  |  |

### Methodology :

### MUST for all group/all sector

- 1. Secondary data collection
- 2. Focus Group Discussion
- 3. Key Informant Interview (KII)
- 4. Case study

Tolls suggested below can be used as context basis

- 5. Ranking (for prioritizing, choice, preference)
- 6. Venn diagram (for stakeholder analysis)
- 7. Cause effect (To identify influencing factor)
- 8. Seasonal calendar (to see seasonal effect)

### Details of methodology :

| What information to be concered information where international information in the concered | Methods/tools | What information to be collected | From where | Remarks |
|---|---------------|----------------------------------|------------|---------|
|---|---------------|----------------------------------|------------|---------|

| Secondary data collection | <ul> <li>Damage information (Union wise)</li> <li>Population affected         <ul> <li>how many- male, female, children, adolescent</li> <li>how many people living in temporary places (male/female/children/adolescent/ aged, female headed household, person with disability, minority community, HIV affected (if any),</li> <li>Migration situation-family, children, adolescent, adult men etc</li> <li>Trafficking situation-children, adolescent etc</li> <li>Who is doing what currently and what is their future plan both in emergency, recovery and development at Government, INGO's &amp; local NGO's , UN ,Donor and other agency (please do not count double as some donor/agency implementing through partners)</li> </ul> </li> </ul> | -Information<br>board at UNO<br>office<br>- Various<br>department<br>(agriculture, PIO,<br>livestock's,<br>fisheries., BWDB,<br>LGED)<br>-Union parishad<br>-Local involved<br>NGO's including<br>INGO's<br>- Donor<br>-UN agency<br>(WFP,Unicef,<br>UNDP)<br>-IOM<br>-IFRC |
|---------------------------|---|---|
|---------------------------|---|---|

## Key Informant Interview (KII)

| Sectors                       | Key informant   | Consideration   |
|-------------------------------|---|---|
| WASH                          | DPHE engineer, NGO's staff working on WASH,<br>member of WatSan user group, Adolescent<br>girls, tube-well mechanics  | <ul> <li>Interview would be taken<br/>following checklist in each<br/>specific sector</li> </ul>  |
| Food security &<br>Livelihood | Agriculture extension/fisheries/livestock's<br>officer at upazila level, UP Chairmen /female/<br>male member, Day labor, Small traders, small<br>producer, marginal farmer, user of safety net<br>(VGD/VGF), fisherman, forest dependent  | <ul> <li>Touché sentence can be use<br/>as 'quote' but need to take<br/>permission from informant</li> <li>Details information of informant<br/>like name, age, address,</li> </ul> |
| Shelter                       | UNO/AC land, UP Chairmen, LGED engineer,<br>People living in temporary places who lost<br>his/her houses, local carpenter   | <ul> <li>designation, date of interview<br/>etc should be kept</li> <li>Personal experience, feelings,</li> </ul>   |
| Health                        | UN&FPO, Health assistant, paramedic, quake doctor, patient  | opinion, recommendation regarding the issue should be   |
| Education                     | Upz education officer, school teacher, parents,<br>school children (boy, girl), school management<br>committee member   | recorded  |
| Protection                    | Female headed household, children (girl, boy),<br>adolescent (girl, boy), minority people (if any),<br>HIV affected people (if any), aged people (un-<br>attendant), person with disability, person lose<br>family member, tiger victim (women lose her<br>husband/family member), migrated girl, women |   |
| DRR                           | Union/Upz disaster management committee<br>member, PIO, BWDB engineer (embankment<br>issue), cyclone shelter management committee,<br>Upazila/Union chairmen  |   |

### Focus Group Discussion:

| Main group | Sector to be covered   | Cross cutting/common<br>issues to be considered                   |
|------------|--|---|
| Male group | Water-sanitation, food security<br>and livelihood, shelter, health,<br>education, disaster risk<br>reduction | <ul><li>Availability</li><li>Gaps</li><li>Accessibility</li></ul> |

| Female group   | Water-sanitation, food security<br>and livelihood, shelter, health,<br>education, disaster risk<br>reduction               | <ul> <li>Gender</li> <li>DRR</li> <li>Governance</li> <li>Public service (availability,</li> </ul>  |
|--|--|---|
| Mixed group  | Water-sanitation, food security<br>and livelihood, shelter, health,<br>education, disaster risk<br>reduction               | <ul> <li>accessibility)</li> <li>Coping mechanism</li> <li>Key influencing factors</li> <li>Comparison(before-after)</li> </ul>               |
| Protection group<br>- Female headed household<br>- Children group<br>- Adolescent group<br>- Aged group, PWD, minority group<br>(if any) | Social security, safety net,<br>hygiene promotion, water<br>sanitation, food security and<br>livelihood, health situation, | <ul> <li>Forecasting/future<br/>prediction</li> <li>Institutions roles</li> <li>Practice/behavioral aspect</li> <li>Local capacity</li> </ul> |
| Livelihood group<br>- Marginal farmers<br>- Fishing community<br>- Day laborer<br>- Forest dependent<br>- Small traders/producer         | Food security and livelihood   | Decision making process   |

### WHO IS DOING WHAT Cyclone Aila as of 02 Nov'09

| Organization       | Funding         | Funding        | Local                        | Project   | Current  |                          | Future   |  |
|--------------------|-----------------|----------------|------------------------------|---|--|--------------------------|--|--|
| presence           | volume<br>(USD) | sources        | implement<br>ing<br>partners | duration  | Packages/<br>Beneficiary   | Areas                    | Packages/<br>Beneficiary   | Areas  |
| Christian Aid      | 850,000         | CA Appeal      | CCDB,<br>Shushilan,<br>DSK   | November<br>2009 to<br>January<br>2011 (15<br>months) |  |                          | -Full house-300<br>-House reparing-52<br>-Livelihood support -862<br>-Deep hand-pump well-05<br>-PSF-04<br>-HH latrine –685<br>-CFW-72,000 person days<br>-Pond re-excavation-10<br>-Tree plantation 2600  | Gabura &<br>Munshigonj of<br>Shaymnagar<br>and Kamarkhola<br>and sutarkhali of<br>Dacope               |
| SOLIDARITES        | XXXXXXXXX       | xxxxxxxx       | xxxxxxxx                     | XXXXXXX   |  |                          | -Transitional shelters construction 150<br>- Rehabilitations-600<br>-Latrines distribution -1150<br>- Tube-well construction -40<br>-Tube-well rehabilitation-100<br>- PSF construction-10<br>-PSF rehabilitation-20<br>- Hygiene promotion sessions /<br>Hygiene kits distribution- 1150<br>- Pond excavation, cleaning and<br>disinfection-100 | Paddapukur,<br>Burigoalini,<br>Munshigonj of<br>Shaymnagar<br>and Potapnagar<br>of Assasuni<br>Upazila |
| Premere<br>Urgence | xxxxxxxx        | xxxxxxxxx      | xxxxxxxxx                    | xxxxxx  |  |                          | <ul> <li>Decontamination of family pond</li> <li>10420 HH</li> <li>Provision of alevin (2kg/HH) 8400 HH</li> <li>Cash for work 1200 beneficiary (for how many days ?)</li> </ul>   | Dakhin and<br>Uttar Bedkashi<br>of Koira Upazila   |
| UNDP               | XXXXXXXXX       | Own<br>sources | Shushilan                    | xxxxxx  | -Homestead base Income<br>generation activities<br>-Cash for work<br>- Small business<br>Total 4,000 beneficiary | Gabura and<br>Paddapukur |  |  |

Annex#3

| IFRC/BDRCS | 1,454,595 | IFRC<br>Emergency<br>fund,<br>Danish Red<br>Cross(from<br>Danish<br>Government),<br>Netherlands<br>government),<br>OPEC(fund<br>for Intl-<br>developme<br>nt), China<br>Red Cross,<br>Honk Kong<br>branch,<br>Japanese<br>Red Cross,<br>Monaco<br>Red Cross,<br>VERF/WH<br>O voluntary<br>emergency<br>fund and<br>items<br>diverted<br>from<br>cyclone<br>Sidr stock | Banglades<br>h Red<br>Crescent<br>Society | 9 months<br>Jun-<br>February<br>2009 | NFI(clothing, blankets, tarpaulins,<br>garments, etc)-10,000 families<br>NFI(rice, dahl, edible oil, iodized<br>salt)-10,000 families<br>Items of household/shelter package<br>per family: tarpaulin-1, plastic sheet-<br>1, blanket-1, water jerrican-1, 20 ltr.<br>cap. plastic bucket with lid -1, 20 ltr.<br>cap. Plastic mug-1, and tool kits-1<br>(spade-1, spud-1, hand saw-1, claw<br>hammer-1, pliers-1, nails-1 kg, wire-<br>10ft & jute rope - 1 kg) -7,000<br>families<br>Emergency shelter materials<br>package :(Plastic sheet for roof<br>cover, Plastic sheet for ground<br>cover, Bamboo, Nail, Claw hammer,<br>Knife (Daw)-8,000 families<br>Water, sanitation and hygiene<br>promotion(hygiene parcel, water-<br>jerry can, ORS, WPT)-30,000<br>families<br>Primary health care-5,000 families<br>Livelihood/asset replacement-<br>10,000 families(targeted) | NFI( Satkhira,<br>Khulna, Bagerhat,<br>Bhola, Patuakhali,<br>Barisal, Barguna,<br>Pirojpur)<br>NFI(Satkhira,<br>Khulna, Bagerhat,<br>Bhola, Patuakhali,<br>Barisal, Barguna,<br>Pirojpur)<br>Household<br>items/shelter<br>package(Satkhira<br>and Khulna)<br>Emergency<br>shelter(Satkhira,<br>Khulna and<br>Noakhali(Nijhum<br>dwip))<br>Primary health<br>care(Satkhira,<br>Khulna and<br>Bagerhat)<br>Livelihood(Satkhira<br>) | Water, sanitation and hygiene<br>Sanitation facilities(community<br>latrines), upgrading sanitation facilities<br>in shelters,<br>Clean up water sources, mobilizing<br>communities indigenous techniques to<br>clean up water, protect water<br>sources(ponds), through cash for work<br>Distribution of hygiene kits(from<br>IFRC/BDRCS stock), hygiene<br>promotion drive through trained RC<br>volunteers<br>Shelter<br>Distribution of transitional shelter<br>materials(standard specifications by<br>ECHO partners )<br>NFI<br>Distribution of winter kits, mosquito<br>nets, etc<br>Health<br>Proving primary health care support<br>through provision of required<br>medicines/drugs to mother and<br>children through German RC Mother<br>and Health Care centers<br>Livelihood<br>Livelihood tools/asset replacement<br>DRR<br>Cyclone preparedness drive at<br>community; awareness building on<br>cyclone warning, recruitment of<br>volunteers on First Aid, Search and<br>Rescue, early warning dissemination,<br>distribution of early warning, search<br>and rescue equipment, establishing a<br>connection with CPP central early<br>warning dissemination network, etc | Gabura,<br>Padmapukur,<br>Burigoalini,<br>Atulia of<br>Shamnagar<br>upazila and<br>Protapnagar of<br>Asasuni in<br>Satkhira district<br>South betkathi,<br>North betkathi,<br>Koira sadar of<br>Koira upazila<br>and Sutarkhali,<br>Kamarkhola,<br>Banishanta of<br>Dacop upazila in<br>Khulna district |
|------------|-----------|---|---|--------------------------------------|---|--|---|---|
|------------|-----------|---|---|--------------------------------------|---|--|---|---|

| <mark>British</mark><br>RedCross |         | <mark>XXXXXXXXX</mark> | xxxxxxxxx                   | <mark>xxxxxx</mark>       | xxxxxxxx  | <mark>xxxxxxxx</mark>   | xxxxxx  | xxxxxx  |
|----------------------------------|---------|------------------------|-----------------------------|---------------------------|---|---|---------|---------|
| SDC                              |         | xxxxxxxxx              | xxxxxxxxx                   | <mark>xxxxxx</mark>       | xxxxxxxx  | <mark>xxxxxxxx</mark>   | xxxxxxx | xxxxxx  |
| World Vision                     | 320,000 | <mark>xxxxxxxxx</mark> | xxxxxxxxx                   | <mark>xxxxxx</mark>       | xxxxxxxx  | <mark>xxxxxxxx</mark>   | xxxxxx  | xxxxxx  |
| IOM                              | 1453488 | DFID                   | Rupantar<br>and<br>Prodipan | Nov-<br>Dec'09            | 24,000 NFI kits including tarpulin,<br>jericane , mosquito net, bucket  | Uttara & Dakhin<br>bedkashi, Koira<br>Mohesharipur of<br>Koira and Gabura<br>and Paddapukur of<br>Shaymnagar<br>Upazila | XXXXXXX | XXXXXXX |
| Oxfam-GB                         | 912,921 | ECHO                   | Rupantar &<br>Progoti       | 1 July to<br>31<br>Dec'09 | -Dewatering pond-50, - PSF-15<br>-Tube-well raising-200<br>- Emergency latrine-1500<br>-Emergency shelter-4950<br>-Professionals tools-500 families<br>-Boat net-300 families<br>- Cash for work 225000 person days<br>-Re-excavation of public pond-05<br>no.<br>-Killah –03 No.<br>-Renovation of public building<br>(WatSan facility)-10 no.<br>-Warm cloths (children)-9000<br>beneficiary<br>-blanket- 15000@ 2 pieces | Dakhin bedkashi,<br>Mohesharipur of<br>Koira and Gabura<br>and Paddapukur of<br>Shaymnagar<br>Upazila                   |         |         |
| Oxfam-GB                         | 246,345 | Unicef                 | Rupantar &<br>Progoti       | 1 July to<br>31<br>Dec'09 | -NFI (soap, sanitary cloths)7000<br>-Plastic sheet for water collection-<br>2000<br>-Dewatering pond-12, - PSF-6<br>-STW-50, -RWH-6, PSF repair-12<br>-Tube-well raising-100<br>- Emergency latrine-900<br>-Female bathing corner-50<br>- Hygiene promotion-7000<br>beneficiary<br>-Community health volunteer-250  | Uttar& Dakhin<br>bedkashi, Koira &<br>Mohesharipur of<br>Koira and Gabura<br>and Paddapukur of<br>Shaymnagar<br>Upazila |         |         |

| DCA    | 520,000<br>Euro | DCA own<br>fund and<br>ECHO | DSK                 | 1 <sup>st</sup> July -<br>31<br>Dec.'09 | <ul> <li>-Food ration distribution 7000<br/>families for 60 days</li> <li>-Cash for work- 600 families for 40<br/>days</li> <li>-Shallow tubewell installation -30</li> <li>-PSF construction -8 i</li> <li>-Emergency Latrines-450</li> <li>-Rain water collection – 3000 motka</li> <li>-NFI distribution- 3000 families (2<br/>blankets each)</li> <li>- small start up funds- 700 families</li> <li>-Duck- 733 families</li> <li>-Calves- 200 families</li> <li>- Sheeps- 1000 families</li> <li>- Sheeps- 1000 families</li> <li>- vegetable seed and fertilizer- 1500<br/>families</li> <li>- Paddy seed and fertilizer- 1500<br/>families</li> <li>- Paddy seed and fertilizer- 1000<br/>families</li> <li>- Clotech/Alum- 3612 families</li> <li>- emergency shelter- 200</li> <li>- shelter repair- 200</li> <li>- Radio, torch and megaphone- 18<br/>set</li> </ul> | Dacope-<br>Kamarkhali,<br>Sutakhola and<br>Tildanga | Water and sanitation<br>Food support<br>Cash for work<br>Livelihood support<br>Shelter<br>Health care | Dacope-<br>Khamarkhola,<br>Sutarkhali and<br>Tildanga                                      |
|--------|-----------------|-----------------------------|---------------------|---|---|---|---|--|
| SCF-UK | 773,558         | ECHO                        | Uttaran<br>Rupantar | 1 July –<br>31 Dec.<br>09               | <ul> <li>Emergency shelter – 4500</li> <li>Emergency Latrine – 900</li> <li>NFI packs – 1800</li> <li>CFW for 4080 people – 20 days</li> <li>Shallow tube-well – 54</li> <li>Deep tube-well – 26</li> <li>Pond reclamation – 10</li> <li>Cash for petty business – 845</li> <li>Winter veg. seeds – 2025 HH</li> <li>Rickshaw van – 100</li> <li>Fishing net – 100</li> <li>500 transitional shelter and latrines</li> </ul>  | Koyra, Piakgacha,<br>and Dacop                      | Broadly - WASH, Shelter, Health,<br>Livelihoods   | Dacop, Koyra,<br>Paikgacha, and<br>one upazila of<br>Satkhira (not yet<br>finally decided) |

|           | 509,404                              | UNICEF                        | Rupantar<br>JJS<br>Prodipan                                 | I Jun –<br>30 Oct.<br>09                | <ul> <li>100 child friendly spaces (two meals a day, drinking water, sanitation, recreation, medical and psychosocial care)</li> <li>High energy biscuits (BP-5) – 100,00 children aged 6-59 months for a week ration</li> <li>High energy biscuits (BP-5) – 10,000 pregnant and lactating women for a week ration</li> </ul> | Koyra, Paikgacha,<br>Dacop,<br>Shamnagar   |         |         |
|-----------|--------------------------------------|-------------------------------|---|---|---|--|---------|---------|
|           | 340,816                              | UNICEF                        | Rupantar<br>JJS<br>Nabalok                                  | 1 July –<br>31<br>Dec.09                | Education and recreational materials<br>including school bag to 40,000 affected<br>children     Sports materials to 400 affected<br>schools     Repairing and school     furniture to 200 schools     running 50 temporary learning spaces  | Koyra, Dacop of<br>Khulna district<br>Sharankhola and<br>Rampal of Bagerhat<br>District<br>5 upazilas of Barisal<br>and Borguna district |         |         |
| MuslimAid | 773558                               | ECHO &<br>Community<br>Action | Direct<br>Delivery  | 1 <sup>st</sup> July -<br>31<br>Dec.'09 | -Dewatering pond-6<br>-Pond Sand Filter-6<br>-Deep Tube Wells-19<br>with tools (Tube wells +PSF)<br>- Household latrine-750<br>-Transitional Shelter-450<br>- Cash for work-1145 families(<br>52920mds for 40 days/Tk.150)<br>-House reparing-2150<br>-Female Bath Corner with STW-14   | Burigoalini & Atulia<br>of Shyamanagar<br>Upazila and<br>Protapnagar union<br>of Ashashuni<br>Upazila under<br>Satkhira District.        | XXXXXXX | XXXXXXX |
| ActionAid | (EURO<br>475,000<br>ECHO<br>funding) | ECHO                          | Ulashi<br>Srejoni<br>Shangha;<br>Jagrata<br>Jubo<br>Shangha | 1 <sup>st</sup> July -<br>31<br>Dec.'09 | -Short term livelihood support and<br>food aid-2750 HH<br>-Dewatering pond-12<br>-Deep Tube Wells-03<br>with tools<br>- Temporary latrine-750<br>- Cash for work-1850 families( 1100<br>mds for 55days/Tk.150+750 mds for<br>6 days/Tk150)<br>-small scale infrastructure repairing-<br>need based                            | Khulna: Dacope-<br>Kamarkhali and<br>Sutakhola<br>Satkhira:<br>Shymnagar-<br>Padmapukur,<br>Burigoalini and<br>Gabura                    | XXXXXXX | XXXXXXX |

| ActionAid            | GBP<br>71,424  | UNICEF |   | 3-month<br>June 15-<br>Sept15,<br>09 | <ul> <li>Food and clothing support to 2000<br/>Aila-affected children</li> <li>Provide study materials, like text-<br/>book, school uniforms</li> <li>Restore a congenial conducing<br/>environment in the schools for the<br/>children</li> <li>Protect those 2000 children from<br/>physical exploitation and human<br/>trafficking</li> </ul>  | Khulna: Dacope-<br>Kamarkhola and<br>Sutarkhali Union<br>Khulna: Koira-<br>Koira and<br>Banishanta union<br>Patuakhali:<br>Kuakata-<br>Kalapara union |  |
|----------------------|----------------|--------|---|--------------------------------------|---|---|--|
| ActionAid            | GBP<br>115,350 | UNICEF | SAP-BD in<br>Patuakhali<br>Uttaran in<br>Satkhira | 3-mnth<br>Aug 5-<br>Nov 5,<br>09     | <ul> <li>Renovate 225 Partially damaged<br/>school building</li> <li>Re-construct 16 completely<br/>destroyed schools with standard<br/>school Infrastructure</li> <li>Already managed to resume<br/>schooling to 47,650 children</li> </ul>  | Patuakhali: All<br>seven upazillas<br>Satkhira:<br>Shamnagar &<br>Assasuni upazila  |  |
| Concern<br>Worldwide | 703,235        | ECHO   | Shushilan<br>&<br>JJS                             | 1 July to<br>31<br>Dec'09            | <ul> <li>Complete transitional shelter – 524<br/>(264 in Padmapukur &amp; 260 in<br/>Uttarbethkashi)</li> <li>Deep Tube-well installation -30(15<br/>in Padmapukur &amp; 15 in<br/>Uttarbethkashi)</li> <li>Household latrine-524 (264 in<br/>Padmapukur &amp; 260 in<br/>Uttarbethkashi)</li> <li>Emergency Latrines-20<br/>in Uttarbethkashi</li> <li>Cash for work 1400 person for 50<br/>days X tk 150 (700 in Padmapukur<br/>&amp; 700 in Uttarbethkashi)</li> <li>House reparing-1638 (808 in<br/>Padmapukur &amp; 830 in<br/>Uttarbethkashi)</li> <li>Blanket distribution-3562 (1772 in<br/>Padmapukur &amp; 1790 in<br/>Uttarbethkashi)</li> </ul> | Padmapukur of<br>Shaymnagar<br>Upazila<br>Uttarbethkashi of<br>Koyra Upazila  |  |

| Concern<br>Worldwide | 80,800  | IOM & JOA     | Shushilan<br>&<br>JJS | 11-25<br>August'0<br>9                 | -Relief food & non food item<br>distributed -3780 families(1880 in<br>Padmapukur & 1900 in<br>Uttarbethkashi)   | Padmapukur of<br>Shaymnagar<br>Upazila<br>Uttarbethkashi of<br>Koyra Upazila                                       |  |
|----------------------|---------|---------------|-----------------------|--|---|--|--|
| Concern<br>Worldwide | 128,000 | Irish Aid     | Shushilan<br>&<br>JJS | 13 -23<br>June'09                      | -Relief food & non food item<br>distributed -4450 families (1100 in<br>Gabura, 1400 Padmapukur, 750<br>Burigoalini, 800 in Koyra & 400 in<br>Uttarbethkashi)  | Gabura,<br>Padmapukur &<br>Burigoalini of<br>Shaymnagar Upz<br>Koyra sadar &<br>Uttarbethkashi of<br>Koyra Upazila |  |
| Concern<br>Worldwide | 50,000  | Concern<br>WW | Shushilan<br>&<br>JJS | 28th May<br>15 <sup>th</sup> June      | 9,000 families (Shyamnagor 7,000<br>and Koyira – 2,000). Dry rice (chira)<br>– 4 KG, Molasses – 1 KG, High<br>Protein Biscuits – 10 packets, ORS<br>– 5 packets, WPT – 30 tablets,<br>Candle – 6 No and one gas lighter.<br>Please note that per packet cost will<br>be Tk.346 (EUR 3.72).  |  |  |
| Concern<br>Worldwide | 86,877  | Unicef        | Shushilan<br>JJS      | 25<br>August -<br>24<br>October'<br>09 | -Deep Tube-well installation -18 (10<br>in Mararajpur & 8 in Protapnagar)<br>-Deep Tube-well repair –5 in<br>Protapnagar<br>-PSF construction -4 in Khajra<br>-PSF repair – 17 in Khajra<br>-Pond cleaning -21 in Khajra<br>-Emergency Latrines-231 (181 in<br>Protapnagar & 50 in Maharajpur)<br>-Rain water collection – 80 (30 in<br>Protapnagar & 50 in Maharajpur)<br>-NFI distribution- 2100 families<br>(1400 in Protapnagar & 700 in<br>Maharajpur) | Protapnagar &<br>Khajra union of<br>Ashashuni Upazila<br>& Maharajpur in<br>Koyra upazila                          |  |

| CARE | 499,996                                 | USAID/OF<br>DA           | HASI  | 1Sept<br>2009 to<br>31<br>August<br>2009 | <ul> <li>Family Shelters for 300 families</li> <li>Latrine installation for 300 families</li> <li>Plinth raising for 300 families</li> <li>CASH for work for 500 people for 30 days (15000 person days);</li> </ul>  | Nijhum Dip of<br>Hatia Upazilla of<br>Noakhali District                 |                     |   |
|------|---|--------------------------|---|--|--|---|---------------------|---|
| CARE | 50,000                                  | OFDA                     | HASI  | 27 May<br>to 30<br>June 09               | NFI for 920 families<br>Plastic tent with rope: 01<br>Aluminium cooking pot: 01<br>Aluminium pitcher: 01<br>Bucket:01<br>Plastic mug: 01<br>Candles:01 packet/6sticks<br>Mosquito net: 01<br>Plastic glass: 01<br>Plastic bowl: 01<br>Water jar can for 5,000 families with<br>water | Nijhum Dip of<br>Hatia<br>Subornachar and<br>Haita                      |                     |   |
| CARE | In kind                                 | Norway<br>Governmen<br>t | SSUS and<br>HASI                            | 26 May<br>to 31<br>May                   | BP5 biscuits for <b>5,000</b> families each family received 3kg of biscuits.   | Suborna Char and<br>Hatia Upazilla                                      |                     |   |
| CARE | Provided<br>water<br>treatment<br>plant | CARE                     | OXFAM,<br>World<br>vision                   | 30th May<br>to 2 June<br>09              | <ul> <li>Safe drinking water supply</li> <li>Average Families cover<br/>per day 2776</li> <li>Water supplied 851,662<br/>liters</li> </ul>   | Shyamnagar<br>District: Satkhira<br>Upazila: Koyra<br>District: Khulana |                     |   |
| CARE |   |                          | Potential<br>partner<br>NGO<br>SAMDAHA<br>N |  | Based on gap analysis the intervention as well as target people will be fixed  | Koira and Dacop   | Assessment on going | Koira and Dacop<br>Upazilla of<br>Khulna district |

| Islamic Relief | 668073  | ECHO   | Direct<br>implementa<br>tion | 1 July to<br>31<br>Dec'09 | <ul> <li>Emergency Shelter- 1200 nos</li> <li>Transitional Shelter- 600 nos</li> <li>Shelter Repairing -682 nos</li> <li>STW-1000 beneficiary (50 no.),</li> <li>PSF reparing-300 beneficiary (15 nos)</li> <li>DTW-210 beneficiary (7 no.)</li> <li>Hygiene promotion-2000 beneficiaries</li> <li>Food distri-3032 families</li> <li>CFW- 22400 person days (1400 families, 16 days)</li> </ul>   | Dakhin bedkashi,<br>Moheshari pur of<br>Koira and Gabura,<br>Burigoalini, Atulia<br>of Shaymnagar<br>Upazila |  |
|----------------|---------|--------|------------------------------|---------------------------|--|--|--|
| NGO Forum      | 249,913 | Unicef | NGO<br>Forum                 | July to<br>Dec'09         | Hygiene promotion : 54,000 population<br>1. Procurement & distribution of<br>soap (laundry & bathing 3<br>soap/family/month and 100<br>family/month/union) and sanitary<br>clothes (2 pieces of 1 square meter<br>cloth/family, 100 family/month/union)<br>Sanitation: approx 10,000 population<br>2.Repair of damaged latrine of hard<br>core poor HHs<br>3.Construction of new latrines with<br>superstructure for hard core poor HHs<br>Water: approx 54,000 population<br>5.Repair/reconstruction of water<br>facilities (house hold and community<br>based rain water harvester, PSF)<br>6.Dewatering, re-excavation,<br>cleaning ponds<br>7.Installation of new water facilities (HH<br>and community based RWH, PSF<br>8.Water quality test |  |  |

| through<br>Caritas       June'       families at Mongla &<br>Shyamnagor Upazilas         Internation<br>als and<br>OFDA/CRS       > WASH Kits distribution 5000<br>families       >         NRG-5 Biscuits distribution for<br>950 lactating mother       >         Drinking Water distribution for<br>5,960 families for 15 days       >         Non Food Items distribution<br>(plastic tanks, plastic sheet,<br>bucket, mag, aluminum<br>pitcher) for 3500 families       >         Supported 610 children       >         through running 11 Child       >         Friendly Spaces       >         Distribution of houses for<br>2025 families with a set of<br>sanitary latrine and hygiene<br>promotion works       >         Strengthening the plinth for<br>1100 families       >         Cash for works for 210,000<br>man days (7,000 laborers for<br>30 days)       > | <ul> <li><u>Shyamnagar,</u><br/><u>Mongla</u></li> <li>Shyamnagar</li> <li>Shyamnagar</li> <li>Shyamnagar</li> <li>Shyamnagar</li> <li>Shyamnagar</li> <li>Shyamnagar</li> <li>Shyamnagar,<br/>Koyra,<br/>Assasuni,<br/>Dacope</li> </ul> |
|--|---|
|--|---|

|                 | 440.400 | 11.2.1 |      | 07.14  |  |                       | <br><u> </u> |
|-----------------|---------|--------|------|--------|--|-----------------------|--------------|
| Department of   | 119,190 | Unicef | DPHE | 27 May | 1.Supply of bottled water              | All affected District |              |
| Public Health & |         |        |      | to 26  | 2.Supply of 10 liter jerry cane        |                       |              |
| Engineering     |         |        |      | Nov'09 | 3.Dewatering & cleaning ponds          |                       |              |
|                 |         |        |      |        | 4. Mobilization of mobile water        |                       |              |
|                 |         |        |      |        | treatment plant and it's operational   |                       |              |
|                 |         |        |      |        | cost                                   |                       |              |
|                 |         |        |      |        | 5.Procurement of lime, bleaching       |                       |              |
|                 |         |        |      |        | powder and alum                        |                       |              |
|                 |         |        |      |        | 6. Water trucking                      |                       |              |
|                 |         |        |      |        | 7. Repair, raising and disinfection of |                       |              |
|                 |         |        |      |        | TWs                                    |                       |              |
|                 |         |        |      |        | 8.Installation TWs in shelter          |                       |              |
|                 |         |        |      |        | 9.Installation of latrines in shelter  |                       |              |
|                 |         |        |      |        | 10.Mobilization of DPHE human          |                       |              |
|                 |         |        |      |        | resources to AILA zones from non       |                       |              |
|                 |         |        |      |        | AILA zones                             |                       |              |
|                 |         |        |      |        | 11.Transportation of materials cost    |                       |              |
|                 |         |        |      |        | fuel, minor repair of dept. trucks)    |                       |              |
|                 |         |        |      |        | 12. Motivation & awareness             |                       |              |
|                 |         |        |      |        | campaign for hygiene promotion and     |                       |              |
|                 |         |        |      |        | rain water harvesting                  |                       |              |