

## Rural Poor in *Sidr* Affected Southern Bangladesh: *How secured are their livelihoods?*

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### Abstract

The major objectives of the study were to assess the damage of existing livelihoods of the people of coastal region due to *Sidr* and advocate strategies to secure alternative livelihoods to cope with the devastation. The study was conducted in December 2007 in selected three major cyclone-hit districts namely Barguna, Pirojpur and Bagerhat. The investigation heavily depended on qualitative methods like Focus Group Discussion, Key Informants' Interview, Scored Causal Diagrams and Observation. The author himself conducted the study with the help of team members following *The Livelihood Assessment Tool-kit* of FAO/ILO. The poor people, having insecure food supply, were the most vulnerable groups of *Sidr*-strike. Diversity in livelihoods needs to be addressed instead of single income-earning source. Prospect of non-farming livelihood strategy may be created in the *Sidr*-hit areas to secure alternative and better livelihoods. Heavy dependence on fishing in open water causes destruction of fish diversity and ecological imbalance. Thus, awareness creation of fishing-folks by extension agencies can play a good role in this regard. Trust among the authorities and civil society, investment in human development and social capital, attention to vulnerable groups and attention to lifetime infrastructure are a few points that should be ensured to mitigate human sufferings in disasters through secured livelihoods. There is necessity of good governance, which can be ensured by social cohesion and solidarity that can be achieved through self-help and citizen based social participation at community level.

**Keywords:** *Sidr*, rural poor, livelihoods, Bangladesh

### Introduction

A powerful cyclone *Sidr* (Category IV) with wind speeds of up to 240 kilometers per hour hit Bangladesh on 15 November 2007 causing significant damage to life, livelihoods and productive infrastructure. The most affected areas are Barguna, Bagerhat, Pirojpur and Patuakhali districts. In total some 30 districts in the South of the country have been affected to various degrees. Government estimates indicate that a total of

8.7 million people or nearly 2 million households have been affected. Nearly 1.5 million houses and some 4.1 million trees have been damaged in addition to a large number of livestock, fish ponds and capture fishery gear. The Sundarban mangrove forests that form a natural buffer which protects millions of people in Bangladesh from the Bay of Bengal and provide critical breeding grounds for fisheries, incurred

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severe damage that will affect the social, ecological and economic functions that they provide for farming and fisheries communities and their livelihoods.

By the side of other national and international organizations, FAO in Bangladesh has been trying its best to assist in different-term rehabilitation programs to re-secure the livelihoods of poor in the *Sidr*-

hit Southern Bangladesh. An FAO-led mission worked out during December 2007 to assess the loss due to devastating cyclone and propose rehabilitation programs. The major objectives of the study were to assess the damage of existing livelihoods of the people of coastal region due to *Sidr* and advocate strategies to secure alternative livelihoods to cope with the devastation.

### Methodology

The study was conducted in December 2007 in selected three major cyclone-hit districts namely Barguna, Pirojpur and Bagerhat. The investigation heavily depended on qualitative methods like Focus Group Discussion (FGD), Key Informants' Interview, Scored Causal Diagrams (SCDs) and Observation. Two FGDs were administered with the poor villagers in each village of each of the three districts. The severely affected villagers, both male and female, living on or near the river banks were considered for discussion. Results of all the FGDs were taken together

to achieve the aggregated outcome. SCDs were accomplished to reveal the villagers' problems in coping up with devastation through secured livelihoods. Findings were cross-checked by Key Informants' Interview and field-level practical observations. The key informants were village leaders, school teachers and some local level officers of the nation building departments of the respective study areas. The author himself conducted the study with the help of team members following *The Livelihood Assessment Toolkit* of FAO/ILO (FAO and ILO, 2007).

### Findings and Discussion

#### The damage of *Sidr* assessed

**Crops:** The severity of damages caused varied in different sub-districts. This closely follows the path of the cyclone and there is a close correlation between the cyclone path and the damages caused to each of the four sectors. The Mission estimates that up to 70% of the crops, mainly rice and grass pea, were damaged in the severely affected sub-districts and between 20-40% in the moderately damaged sub-districts. In addition, crop damages in further 5 districts in the South have also been estimated at about 10% of the normal production levels. The damage of crops/vegetables along with

loss of farm power and irrigation channels in all affected areas is leading to risk of food insecurity, loss of livelihoods (Jahan, 2007).

**Fisheries:** Damages to fish and shrimp ponds and *Gher* (enclosures) also closely follow the geographical distribution of the damage severity. Inundation, oxygen depletion, damages to dykes and pond structures as well as some loss of equipment and fish stock have been the main damages to the aquaculture sector. The mission estimates that 80% of Bagda and 60% of Golda shrimps and 10-20% of the carp had already been harvested prior to the cyclone. These

estimates are based on seasonality and marketing patterns of aquaculture, government estimates and extensive interviews with individual and groups of aquaculture farmers.

The Mission found that a large number of fisher folk lost their fishing gear and houses. The fisher communities usually live on the marginal lands of the coastal areas and were the first to experience the full force of the cyclone. Most of the fisher folk are not necessarily owners of the gear (boats and nets) but rather are employed by boat owners. Remuneration from capture is either in kind or cash and the level of payment vary across owners, season and geographic location. The majority of fisher folk lost their only source of livelihoods as a result of damages caused to boats and nets as a source of employment (FAO, 2007).

**Livestock:** The Department of Livestock Services (DLS) has made a sound estimate of livestock losses by enumerating the number of losses in most of the affected districts. In five most affected districts some 18% of the poultry, 11% of goats and sheep, 7% of ducks and some 3% of the cattle and buffalos have been lost. The losses are significantly high in some of the severely affected sub-districts, exceeding 80% of the total livestock population. One report says that *Sidr* causes Taka 130 crore (Anonymous, 2008). The damage is seen as devastating for individual farmers, but experts say that the overall impact of livestock losses on the country's economy would be limited. The estimate also shows the following information (Table 1).

A large number of livestock have been injured from falling trees and collapsing sheds and almost all large animals are visibly very weak and susceptible to diseases. Most

of the crop residues, the main source of feeding, are non-edible due to inundation and the spread of fungi following the cyclone. Feeding is a major issue and some farmers have begun washing up the rice stems, which may be partially edible but certainly not sufficient to feed the remaining cattle and buffalos. Goats and poultry usually scavenge and require little additional feed. The death of cattle and buffalos has also reduced the amount of draught power available to farmers in the ensuing season.

Table 1. Death toll of animals in 17 Sidr-hit districts

Sl. No.	Name of animal	Number killed
1.	Cow	37,391
2.	Buffalo	7,211
3.	Goat	59,804
4.	Sheep	3,517
5.	Hen	22,19,328
6.	Duck	3,53,691

Source: Anonymous, 2008

**Forestry:** Homestead and social forestry has made significant achievements over the past few decades, not only increasing the protective belt along the coastal areas, embankments, roads and railways but also significantly increasing tree planting in the homesteads. The homestead gardens provide great protection against strong winds and cyclones but also are a significant source of income. Trees are also a good buffer stock and sold at times of hardship and when social expenditure is necessary (Hossain and Deb, 2008). Unfortunately, some of the alien species planted around the houses, along roads, railways and embankments also caused significant damages to lives and property. The main causes are two alien species, rain-tree and *Chambal*, which are fast growing trees and the only trees in the area to grow very big.

The *Sundarban* (mangrove forest), one of the largest in the world and a world heritage, perhaps saved millions of lives but in the process suffered significant damages as well. The mission managed to visit most of the affected areas in two days of extensive travel with a speed boat through the various canals snaking in and out of the forests. The mission estimates that some 4-5% (20~25000 ha) of forest area has been severely damaged and nearly 15% (60,000 ha) partially damaged. Some alien species, which had been planted in various parts of the Sundarban on a pilot basis, have been uprooted while in the severely affected areas a large number of trees have been broken from the stem or uprooted.

### **Rehabilitation and alternative livelihood strategy proposed**

The program suggests reducing the risk of productive asset depletion, which may have far greater consequences if farmers have to finance their immediate needs through the sale of their productive assets. Immediate activities are necessary to enable farmers to save their livestock, plant some crops, vegetables, root crops, rice and restock their fish ponds and shrimp enclosures in the coming couple of months. Although the next cropping season, starting Mid-February/March, is not the most important crop calendar in the target area, but it provides very important source of nutrition, income and food at a time when there are no alternative sources of food and livelihoods. A geographic targeting approach and package program should be adapted, prioritizing the severely affected upazilas (sub-districts) with the whole program. For secured livelihoods of the *Sidr*-affected people the following strategies may be adopted:

### **Crops**

- The very immediate interventions are necessary to enable farmers to begin cultivating their fields within the shortest time possible. Vegetables, pulses and transplanted *aus* rice seeds as well as the necessary fertilizers would have to be provided by March to ensure that farmers will be able to plant for the next season.
- Rice seeds for the main *aman* will also be necessary since none of the farmers in the affected districts have been able to keep any seed from this year's much reduced harvest. Further strengthening of the Integrated Pest Management (IPM) Clubs and increase their scope to incorporate many other issues through the provision of training in various issues.
- Some power tillers, mechanical threshers and dryers may be supplied to the clubs, which can be used and managed by the club members.
- A small pack of some year-round vegetable seeds should be provided to farmers, specially small, marginal and landless (having homesteads only), immediately free of cost. WFP and ILO can take initiatives in canal digging and restoration of damaged roads.

### **Fisheries**

- The program intends to supply purchased inputs to shrimp and carp ponds/enclosures on an emergency basis to enable farmers to take up their aquaculture activities by March. It has claim for immediate action.
- The creation and development of the Integrated Fisheries Management (IFM) clubs are seen to encourage a more environmentally friendly fishing practices, a more sustainable management of the sector and improving the living standards of the fisher folk. Boats and nets will be provided to the group to begin fishing in

the shortest time possible, which will also help form the groups around the commonly owned assets. Improvement in the design of existing boats is necessary to increase productivity and enable the fisher folk to fish further away from the coasts.

- A detailed fisheries sector survey has been envisaged to establish a baseline, which would encourage more informed decision making process and enable a more environmentally sustainable fisheries management. An additional study is also proposed to understand the livelihood processes and practices of the Sea Nomads.
- Relief operation needs to be continued till the fishers get ample chance to restore their previous livelihood centering mainly on fish.

### **Livestock**

- There is a risk of Avian Influenza spread if the re-stocking is done. Yet the program envisages limited restocking from two sources: local breeds/sub-breeds are to be procured from an area with no reported or suspected AI cases and some locally improved breeds like *Fayumi/Sonali*.
- Goats are very popular stocks and can also survive under scavenging conditions with little or no purchased feed requirement. It should be re-stocked through DLS and NGO intervention jointly to earn an immediate livelihood of the poor people.
- There should have provision of emergency medicine and feed to assist the cattle and buffalos in the affected areas. Livestock cyclone shelter (popularly known as *Killa*) construction may be considered duly.

### **Forestry**

- Alternative livelihoods like small hawking, small shops, food for road construction, etc can be provided for the villagers who had been used to fishing and cutting

woods in Sundarbans. Because, after *Sidr* government has banned to have access to Sundarbans for a year to come.

- The proposed program envisages the development of home-based nurseries, with a view to provide an alternative source of livelihood for women and supply the much needed tree seedlings for both private and government plantations.
- Replanting of coastal areas (off-shore plantation), embankments, roadsides, railways and institutions have also been envisaged under the program using the government social forestry arrangements for management. This might create better livelihoods opportunity of local people specially the women.

### **Problems of livelihood to cope up Sidr**

Poor people in the cyclone hit areas have limited alternatives to cope up the devastation. In a word, they call it 'no way but to tolerate' all the odds and stresses. However, they mentioned following major problems to cope up the devastation in achieving livelihood security.

- Lack of cash to buy fishing gears and boats to restore fishing
- Almost no alternative livelihood to fishing communities
- Meager opportunity to find out alternative scope to one-crop (*Aman* rice) farming
- No capital to make house to live in
- Lack of access to labor market of town to earn of farm earnings due to bad road communication
- Loss of drought animals to cultivate land
- Payment of NGO loans even after losing capital due to cyclone
- Lack of money to re-stock the poultry birds and large animals

### **Reasons for livelihood insecurity: *The policy issues***

Disaster management encompasses planning and activities of pre-, during and post-disaster. The mission talked to various sections of people including the affected poor about their continuation of insecure livelihoods in the ravaging cyclone *Sidr*-hit areas. The following underlying policy issues were revealed:

- In 36 years of Bangladesh, there is not any official registry of local fishers and farmers in the coastal areas. It seems to be a result of negligence and a disdainful attitude towards the locals.
- Both agricultural and fisheries departments have never been to train the locals in correct methods of farming or fishing in a region which is constantly ravaged by cyclone or flood – thus, compounding the damage to the already tattered micro-economy of the coastal areas.
- Inconceivable but true that there is not enough storm or cyclone and flood centers in the cyclone prone areas. The shelters should be multipurpose – both for human and cattle.
- Localities of most of the coastal districts are inaccessible. As a result relief and other emergency materials can not reach timely in the affected coastal and island areas.
- Lack of a realistic cyclone warning system that may reach the teeming millions in the coastal regions, not only the ports
- Absence of coordination bodies at Union level in the coastal area who could meet from time to time towards preparedness of natural calamities
- Sense of dignity among the vulnerable through local participation has not emerged.
- Support for building concrete (rod-cement) structure of small house for poor people is absent in calamity-prone coastal area.

### **Conclusion**

The poor people, having insecure food supply and livelihoods as well, were the most vulnerable groups of *Sidr*-strike. Diversity in livelihoods needs to be addressed instead of single income-earning source. Opportunity of non-farming livelihood strategy may be created in the *Sidr*-hit areas to secure alternative and better livelihoods. Heavy dependence on fishing in open water causes destruction of fish diversity and ecological imbalance. So, awareness creation of fishing-folks by extension agencies can play a good role in this regard.

Trust among the authorities and civil society, investment in human development and social capital, attention to vulnerable groups and attention to lifetime infrastructure are a few points that should be ensured to mitigate human sufferings in disasters through secured livelihoods. Last but not least is the necessity of good governance, which can be ensured by social cohesion and solidarity that can be achieved through self-help and citizen based social participation at community level.

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