



**Bangladesh**

# Bangladesh

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## ■ 1. NATURAL DISASTERS IN BANGLADESH AND THEIR IMPACT ■

Bangladesh is located in South Asia and is bordered almost entirely by India, except for a small border shared with Myanmar in the south, and a coastline of more than 700 kilometers with the Bay of Bengal, also in the south. Bangladesh's climate is tropical with a mild winter from October to March, a hot, humid summer from March to June, and a warm and humid monsoon season from June to October, during which the country experiences most of its rainfall.

Bangladesh is considered to be the most densely populated country in the world. In an area of just 144 000 square kilometres, an estimated total of around 150 million people live; of these around 45 percent (2004 figures) live below the national poverty line and around 36 percent live on \$US1 per day<sup>1</sup>. Agriculture is the largest contributor to the national economy, with 60 percent of employment provided by this sector (including crops, livestock, fisheries and forestry). Meanwhile about 2 percent of the population are employed in mining, 8 percent in manufacturing, and 29 percent in the service sector (1995/6 figures)<sup>2</sup>.

While Bangladesh has demonstrated positive progress as regards national poverty indicators in recent years, and has reduced poverty on average by 1 percent per annum since 1990, there are still 68 million people living below the poverty line. Although poverty is a largely rural phenomenon in Bangladesh, rapid urbanization, at an estimated current rate of 6 percent per annum, is anticipated to add 18 million poor to urban areas by 2015<sup>3</sup>. Economic growth has been offset by increasing income inequalities; gender inequality also remains a major concern. Rural poverty is highest but urban poverty is growing. Climate change and changes in the global economy are major threats to the fragile progress made in economic development. All of these factors are an enormous challenge to the government's commitment to address the Millennium Development Goal (MDG) of eradicating extreme poverty and hunger<sup>4</sup>.

Bangladesh is located in the low-lying Ganges-Brahmaputra river delta, formed by the Ganges, Brahmaputra and Meghna rivers and their tributaries, all of which empty into the Bay of Bengal. Bangladesh's delta is one of the most fertile plains in the world, but at the same time is also extremely vulnerable to floods and politically motivated conflicts

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FIGURE 1 – Bangladesh map



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<sup>1</sup> Estimated 2009 <http://en.wikipedia.org/wiki/Bangladesh> and UNDP Human Development Report 2006.

<sup>2</sup> Benson, C. and Clay, E. 2002. *Bangladesh: Disasters and Public Finance*. Disaster Risk Management Working Paper, Series No. 6. Washington, The World Bank.

<sup>3</sup> DFID (2003). Country Assistance Plan (CAP) Bangladesh 2003–2006.

<sup>4</sup> DFID (2007). Country Assistance Plan (CAP) Bangladesh 2007–2009.

regarding water issues, as most rivers originate outside of Bangladesh, for example in India and Nepal. Upstream activities such as deforestation enhance the magnitude of damage caused by floods. Similarly the upstream withdrawal of water due to the Farakka barrage across the Ganges in India leads to local drought conditions in some regions of Bangladesh.

### 1.1 Floods

Many parts of Bangladesh are flooded every year as a result of rainfall and the overflow of river banks; the local population has adapted its livelihood strategies and agricultural practices accordingly. However, natural calamities such as major floods, tropical cyclones, tornadoes and tidal bores occur almost every year, varying in magnitude and intensity. Most parts of Bangladesh are less than 12 metres above sea level, and it has been calculated that about 50 percent of the land would be flooded if the sea level were to rise by just one metre<sup>5</sup>. Floods such as flash floods, monsoon floods and localised floods after cyclones, or when embankments are breached, have a severe impact on people's lives and the wider economy. In September 1998, Bangladesh suffered the most severe flooding in modern world history: two thirds of the country was underwater, there were 1500 deaths and 30 million people were left homeless. The floods caused severe damage to road infrastructure, standing crops and livelihood assets such as agricultural equipment and inputs, productive assets and livestock. The total loss to the economy was estimated at US\$1200 million. The severity of the 1998 floods is explained by the unusually high monsoon rains that year, combined with a similarly high amount of melt water from the Himalayas. There was also serious forest and soil degradation throughout the watershed catchment area (upstream and downstream), which increased the water run-off<sup>6</sup>.

Due to high population pressure and skewed landownership patterns, farming and settlements are increasingly pushed onto marginal land in areas at high risk of flooding. As a result, large numbers of people, especially the poor, are almost continuously exposed to flood related risks such as loss of life, crop damage, loss of assets (e.g. livestock and fishing equipment) and disruption to their livelihoods in general. When flooding occurs, vulnerable groups often lose their crops and assets, and may not be able to meet their daily needs or pay their

FIGURE 2 – Disaster Prone Areas of Bangladesh (by district)



Source: Country Emergency Situation Profile: Bangladesh, WHO.

loans. As a consequence, they are then forced to sell or lease out their land, resulting in changes in land tenure arrangements. One important example of such marginal, flood-prone areas is the highly unstable *chars*, the temporary lands within and adjoining the major rivers. Because these *chars* may be 'new' land emerging as a result of sand deposition, landownership in these areas is at times highly disputed (see sections 2.5 and 2.6).

### 1.2 Cyclones

Cyclones are very strong winds combined with intense rainfall. The 1991 Gorky Cyclone claimed 120 000 lives in Bangladesh and caused serious damage to livelihoods, assets and community infrastructure. The recent 2008 super cyclone, Sidr, affected more than nine million people in the southern districts of the country, and caused serious damage to housing, infrastructure, assets and standing crops. Compared to the Gorky disaster the number of deaths was considerably lower: more effective early warning systems were now in place and cyclone shelters were more widely available. However, the

<sup>5</sup> Ali, A. 1996. Vulnerability of Bangladesh to climate change and sea level rise through tropical cyclones and storm surges. *Water, Air & Soil Pollution* 92 (1–2): 171–179.

<sup>6</sup> Usually these events only occur every 50–100 years and they rarely coincide at the same time.

number of cyclone shelters is insufficient to cater for the number of people who need them, and usually the poorest sectors of the population living in high risk areas are too far from such shelters<sup>7</sup>.

Like floods, cyclones can have a devastating impact on people's livelihoods, as a result of loss of crops, livestock and other assets. The land they used to farm or live on may disappear completely, or be damaged to the extent that it is no longer suitable for cultivation. Families also run the risk of losing their title deeds and may no longer be able to prove their ownership of the land. For example, in Sri Lanka after the 2003 Tsunami, many families lost their title deeds; as some local government offices were also seriously damaged, there were no land records at all.

### 1.3 River erosion

Whereas floods and cyclones are recurrent, river erosion is a serious, continuous threat faced by people living near rivers and coastal areas. Given Bangladesh's high population density and unequal land distribution, many of the rural poor are forced to live in flood- and erosion-prone areas along the rivers and the coast. It has been estimated that at least 20 000 families are made homeless because of river bank erosion every year. They are forced to migrate within their locality or to urban areas, joining the growing number of the urban poor. River erosion also affects local community infrastructure such as schools and colleges, mosques, markets, local clinics, hospitals and ports. For example, Chandpur – the biggest river port in the country and an important economic hub – has been severely affected by river erosion. Considerable funds have been invested to protect Chandpur from further erosion, but to little effect, partly because of a lack of strategic planning. When river erosion occurs quickly and suddenly, vulnerable groups may lose everything overnight. In other instances, river erosion is more gradual and people have more time to move their assets to a safer place. However, loss of cultivatable land and their homesteads is often inevitable.

The magnitude of land lost to river erosion can be large and is sometimes referred to as a 'silent tsunami'. National figures on the number of people affected, the areas of land eroded, and the damage caused by river erosion, are daunting. Between 1981 and 1992, 728 000 people were displaced by river erosion, an average of 64 000 each year. In the char areas, an estimated 462 000 people were displaced during this 11-year period, amounting to around 12 percent of the char area population<sup>8</sup>. Recent national figures are even higher, indicating that more than 250 000 people are the victims of land erosion every year, and annual economic losses are estimated at TK 1000 crore<sup>9</sup>. Many of those who lose their land have no other option except to move to major urban centres such as Dhaka. Some find themselves living their lives on the street as pavement dwellers: even a shack in a slum is beyond their reach<sup>10</sup>. According to the Centre for Environmental and Geographic Information Services (CEGIS), 155 280 hectares of land were eroded between 1973 and 2007. Moreover, CEGIS forecasts that for the next few years, about 29 000 people per year living along the major rivers will lose their homes and land. River erosion has always been common in Bangladesh, but its increasing frequency and intensity in recent years is causing concern. Reasons for this trend include climate change, deforestation in the Indian and Nepalese Himalayas, the silting of river beds coupled with the absence of adequate and appropriate river management, and a growing population. Increasing population density means that more people are shifting their lives towards the river banks, making them vulnerable to erosion and flood damage<sup>11</sup>.

River erosion also affects national borders. Bangladesh has been losing land to India and Myanmar as a result of border-river erosion. Over time the border rivers Surma and Kushiara have changed direction, shifting the original border so that it is deeper inside Bangladeshi territory, resulting in a huge loss of land to India. According to a government estimate, the country has already lost nearly 15 000 hectares of land, caused by erosion in the 15 rivers

<sup>7</sup> Benson, C. and Clay, E. 2002. *Bangladesh: Disasters and Public Finance*. Disaster Risk Management Working Paper, Series No. 6. Washington, The World Bank.

<sup>8</sup> ISPAN. 1993. *Charland Study Overview: Summary Report*. Environmental study (FAP 16) and GIS (FAP 19). Prepared for the Flood Plan Coordination Organization, Ministry of Irrigation, Water Development and Flood Control.

<sup>9</sup> TK 1000 crore = TK 10 000 million = US\$ 145 349 000 (1 TK = 0.0145349 USD).

<sup>10</sup> During 2007, Concern Worldwide Bangladesh carried out a programme appraisal in Dhaka including a livelihoods assessment of the pavement dwellers. Pavement dwellers are defined as people sleeping on the street and having no fixed roof over their head. The total number of pavement dwellers was estimated at 10 000 for Dhaka alone. A significant number of these people mentioned river erosion as one of the reasons for moving to Dhaka.

<sup>11</sup> Integrated Regional Information Networks (IRIN). *Bangladesh: 'River refugee' numbers continue to swell*. 1 August 2008. Available at: <http://www.unhcr.org/refworld/docid/4896c473c.html>.

that are shared with India and Myanmar. The country's borders, defined in 1974 by the Indira–Mujib border treaty, have now changed considerably, given that the Indian sides of the rivers are better protected against erosion.

#### 1.4 Drought

Although Bangladesh is known as a country with high rainfall, seasonal and contingent droughts caused by irregularities in rainfall do occur. The 1973 contingent drought contributed to the severe nationwide famine of 1974; most recently contingent droughts were also experienced in 1994 and 1995. Often coinciding with seasonal drought is the *Monga* period, when food stocks run out and there are almost no job opportunities during the months of October and November, before the main harvest season in December. *Monga* is a *seasonal famine* which occurs every year in many regions of Bangladesh, and especially in some of the north-western districts such as Greater Rangpur and Dinajpur, which are severely affected. The situation is worse if preceded by devastating floods.

Thousands of poor people need to survive without adequate food for weeks. According to the WFP's estimates, 80 to 90 percent of the affected people are agricultural day labourers, approximately 20 to 30 million people, who are forced to take consumption loans and migrate to other areas for work, leaving behind their families. Seasonal drought, combined with lack of agricultural wage labour, may put poor rural households under increased pressure to give up sharecropped and/or owned land, leading to further inequalities and concentration of landownership.

#### 1.5 Earthquakes

Bangladesh is located in a region of significant seismic activity. Although most people do not perceive seismic risk to be of great importance, the occurrence of small magnitude earthquakes in Bangladesh is quite frequent. The zones most severely affected include the northern part

of Dinajpur, Rangpur, Mymensingh, Sylhet, Tangail; similarly the northern part of Dhaka, Khulna, Jessore, Kushtia, and Chittagong, including the Chittagong hill tracts.

Earthquake records<sup>12</sup> suggest that more than one hundred moderate to large earthquakes have occurred in Bangladesh since 1900, of which more than 65 events took place after 1960. Fifteen new epicenters have been identified inside Bangladesh since January 2001. The data clearly indicate an increased frequency of earthquakes in Bangladesh. Although Bangladesh is increasingly vulnerable to seismic activity, the nature and the level of this activity is poorly defined.

#### 1.6 Landslides

Landslides often occur in the hilly areas in and around Chittagong and the Chittagong hill tracts, triggered by incessant monsoon rains, forest deforestation and hill cutting. A series of recent landslides between 2003 and 2008 have caused loss of human lives, homes and agricultural land. Although the links between deforestation, unsafe housing development practices in hilly urban areas and landslides are known and recognized, the government is not taking any action.

#### 1.7 Climate change and natural disasters

Bangladesh is among the most disaster-prone countries in the world and has already suffered 170 large-scale disasters between 1970 and 1998. The frequency, intensity and scale of floods have increased, with eight major floods occurring between 1974 and 2004. Given current trends in climate change, and other triggers such as man-made disasters (e.g. deforestation, soil erosion), it is expected that the scale, intensity and frequency of disasters will also increase. The population of Bangladesh will need to cope with the impact of floods, droughts, cyclones and other extreme temperatures on a more regular basis<sup>13</sup>.

These will not only affect the population and its livelihoods but also seriously affect infrastructure, such as port facilities and coastal embankments and structures.

TABLE 1 – Frequency of disasters, 1980–2009

| YEARS     | COLD WAVES | CYCLONES | EARTHQUAKES  | FLOODS | LANDSLIDES | LOCAL STORMS | DROUGHTS |
|-----------|------------|----------|--------------|--------|------------|--------------|----------|
| 1980–2009 | 16         | 46       | 6 +1 tsunami | 66     | 1          | 60           | 2        |

Source: [http://www.emdat.be/database/country\\_profile](http://www.emdat.be/database/country_profile).

<sup>12</sup> Ali, M.H. and Choudhury, J.R. 2001. *Assessment of seismic hazard in Bangladesh*. Disaster Research Training and Management Centre. Dhaka University.

<sup>13</sup> Tanner *et al.* ORCHID: Piloting Climate Risk Screening in DFID Bangladesh. 2007.



Natural disasters will also destroy quality farm lands and existing irrigation and drainage schemes, disrupt mangroves, fisheries and bird habitats, accelerate coastal and river erosion, increase salt water intrusion into ground water, rivers, agricultural, and coastal forestlands, and affect cyclone and storm surge protection measures in coastal areas<sup>14</sup>.

## ■ 2. LAND TENURE IN BANGLADESH ■

Following the overview in Part 1 on the different types of disasters and their impact on people's livelihoods, Part 2 will provide more detailed background on land tenure in Bangladesh. It aims to show the links between disasters and land tenure, how land tenure arrangements have been affected by disasters, and how the government of Bangladesh has attempted to adapt land policies and implement land reform programmes in response to the impact of disasters.

### 2.1 A short history of formal land rights in Bangladesh

Bangladesh's current pattern of landownership has its origins in the British colonial period, during which most of the laws, rules and regulations were promulgated. Feudalism in its most extreme form was deep rooted under British colonial rule. A series of struggles by peasants, spread over a whole century, gave them stable rights to tenancy through the Bengal Tenancy Act, 1885. In 1947, Bangladesh (then called East Pakistan) became a province of Pakistan<sup>15</sup> and certain laws as regards land management and administration were adopted. For example, The East Bengal State Acquisition and Tenancy Act 1950, passed by the provincial legislative assembly, was a landmark in the history of land tenure legislation, and a first legal step towards the abolition of feudalism. This Act provided for the abolition of 'Permanent Settlement', created by the then British rulers, whereby collection of revenue was in the power of the Zaminders (land lords) or their intermediate collecting agents. Since the introduction of this Act all land is ultimately owned by the Government of Bangladesh.

All ground tenants have come directly under the control of the Government, but have the right to buy, to sell or to mortgage their land. The Act also prohibited acquisition of new agricultural land by any family owning more than 60 bighas (about 20 acres)<sup>16</sup>. The 'surplus' land was earmarked for the settlement of landless and marginal farmers 'in accordance with the rules or the policy of the government'.

Following the Bangladesh Liberation War of 1971, Bangladesh achieved independence but continued to uphold the laws passed and applied during the British regime. Since then, gradual changes and amendments have been introduced.

### 2.2 Land administration and management mechanisms

Bangladesh has a long history of land administration that dates back to systems developed by the Hindu rulers of ancient India. The country also still lives under the shadow of the elaborated system of land surveys and registration for revenue collection introduced by the British. Presently the administration of land is divided between two Ministries, the Ministry of Land, and the Ministry of Law, Justice and Parliamentary Affairs. The Ministry of Land is formally responsible for conducting cadastral surveys and maintaining land records, the implementation of land reform legislation, and safeguarding tenants' rights. The Department of Land Registration under the Ministry of Law, Justice and Parliamentary Affairs records land mutations arising from sales, inheritance or other forms of transfer. It also reports changes to the Ministry of Land, and collects the Immovable Property Transfer Tax. Other agencies that play a more minor role in the administration of land include the Ministry of Forests, the Fisheries Department, the Directorate of Housing and Settlement, and the Department of Roads and Railways<sup>17</sup>.

Land administration as regards legal and fiscal cadastre is managed via Bangladesh's administrative units; the administrative head representing central government is responsible for land-related matters. The country is divided into six divisions headed by Divisional Commissioners who act as the appellate authority with

<sup>14</sup> Ministry of Environment and Forests. 2008. Bangladesh Climate Change Strategy and Action Plan 2008. Government of Bangladesh.

<sup>15</sup> Pakistan inherited land laws introduced by the British rulers.

<sup>16</sup> According to the Land Reforms Ordinance, 1984, although a family already owning 33.33 acres of land is allowed to retain the same, the prohibition applies to persons owning less than 33.33 acres of agricultural lands, by purchase, inheritance or otherwise. A family who acquires more than the ceiling limit by inheritance is entitled to compensation for surrender of such excess land to the Government.

<sup>17</sup> CARE Bangladesh. 2003. *Land Policy and Administration in Bangladesh: a literature review*. [http://www.carebd.org/Land percent20Policy percent20and percent20Administration.pdf](http://www.carebd.org/Land%20Policy%20and%20Administration.pdf)

respect to decisions taken at the district level on matters of land administration. The Commissioner is also the appointing authority for lower level staff engaged in land revenue administration.

The six divisions are divided into 64 districts, headed by a collector who is also the District Magistrate and Deputy Commissioner. The collector is entirely responsible for land revenue administration in his or her district, and approves settlement on government land, changes in the classification of land according to its usage, and the acquisition of land for development. The districts are further divided into 465 sub-districts, the *upazila*, which are the basic administrative unit. The central government at this level is represented by the Upazila Nirbahi Officer (UNO). Among other tasks, this officer supervises revenue administration in his or her area. There are several *Tahsil* offices in each Upazila, which are local field units for collecting land revenue. Sections 2.5 and 2.6 will explain in more detail how government programmes aiming to provide land title deeds to households that have become landless after natural disasters are implemented.

### 2.3 Land reform legislation after independence

Two major land reform laws were passed in 1972 and 1984. One revolutionary change introduced by the new independent Government of Bangladesh was the introduction of a land settlement policy in favour of the landless and marginal farmers. Before liberation in 1971, land revenues were the largest single source of income for the provincial government.

As a result, land settlement policy was guided by considerations of income revenues rather than equity and social justice. Surplus or *khas* lands were settled on payment of *salami* (deposits) which were approximately equal to the market price of the land. Only well off and influential people with financial power were able to obtain such land settlements in their own names or in the names of their henchmen. Today, *khas* land is supposed to be settled free of *salami* to the benefit of landless people as defined in the land settlement policy.

Another important provision aiming to improve land tenure security is the prohibition of eviction of agricultural tenants from their homestead lands. Previously, tenants could be evicted from their



homestead lands after losing a court auction designed to recover outstanding debts. Other major changes were exemption from land taxes for families owning less than 25 bighas, legal recognition of sharecroppers, and the introduction of minimum wages for agricultural labourers.

Unfortunately, most of these reforms have remained merely paper legislation. A survey in 1991 showed that nearly 90 percent of the rural population was unaware of the tenancy reforms of 1984, and thus could not derive any positive results from them<sup>18</sup>. Because of a lack of effective enforcement of land legislation, and a lack of awareness among the population, policies such as the legal bar on homestead land eviction and the introduction of minimum wages have not had any practical significance so far.

### 2.4 Land ownership and the landless in Bangladesh

About 28.7 million households are located in rural areas, which is about 88.4 percent of all households in Bangladesh<sup>19</sup>. For most Bangladeshi people, therefore, livelihoods based on land and agriculture continue to

<sup>18</sup> BIDS Pre-Election Survey, February 1991.

<sup>19</sup> Preliminary Report on Agricultural Census 2008. Available at <http://www.bbs.gov.bd/dataindex/Pre-report-Agri-census-2008-Final.pdf>.

be highly important<sup>20</sup>. Ownership of land determines the status of an individual in the rural society of Bangladesh. Land-rich individuals enjoy political power and yield considerable social influence. The urban elites in many cases are also land-rich people, but they have very little relationship with the production processes of the agricultural land they own. Today, there are essentially four classes of agricultural landowners in Bangladesh:

- people who own homestead land only, but have no land for cultivation;
- people who own homestead and agricultural land and take lease land to increase their farm area;
- people who own agricultural land but lease out part of it because they cannot manage all the land;
- people who own agricultural land but lease all of it to others for cultivation (sharecropping or money arrangements).

There are no up-to-date figures on land distribution and average farm size, but approximately 80 percent of farm households are classified as small (between 0.02 and 1.0 hectares, with an average farm size of 0.35 hectares), and these account for about 40 percent of the agricultural land area<sup>21</sup>.

The measurement of landless households in Bangladesh varies according to differing definitions, as found in distinct statistical sources. The Land Occupancy Survey (LOS) of 1977 and 1978, and the national level survey on Land Occupancy carried out by the BBS in collaboration with USAID, developed and distinguished three categories of landless households, including:

- Landless I – Households with no land whatsoever
- Landless II – Those who own only a homestead but no other land
- Landless III – Those who own a homestead and 0.5 acres (0.2 hectares) of 'other' land.

To indicate the degree of landlessness, Januzi and Peach (1980) qualified the above definitions by describing landless I households as 'absolute' and landless II and III as 'near' or 'functional' landless (ownership of no more than 0.5 acres/0.2 hectares of

land excluding homestead land). Accordingly, the 1978 Land Occupancy Survey found that 29 percent of people owned no cultivatable land<sup>22</sup>. In 1983–1984 the Agricultural Census reported a total of 1.1 million rural landless households (8.7 percent of all rural households)<sup>23</sup>. More recently the preliminary report on the 2008 Agricultural Census<sup>24</sup> found that 3.26 million rural households were landless (12.84 percent of the total rural households), and that there were 7.9 million rural tenant households (27.8 percent of all rural households). The 4.1 percent increase in rural landless households between 1983 and 2008 means an increase of 2.1 million landless households in absolute numbers.

Although the absolute number of farm households has increased, the percentage of farm households as a percentage of total households is gradually decreasing<sup>25</sup>. In 1983–84, the percentage of farm households in rural areas was 72.7 percent. This decreased to 66.18 percent and 56.74 percent in the years 1996 and 2008 respectively. The causes of this gradual decrease in percentage of farm households are likely to be rapid urbanization throughout the country, and the fact that many labourers are switching to the non-agriculture sector from the agriculture sector.

As explained in section 1.3 above, erosion, and especially river erosion, is causing an increasing number of households to become landless, forcing people to migrate to urban areas or settle on other marginal and disaster-prone land.

## 2.5 Distribution of *khas* land

As outlined in Part 1, many rural households have become landless after cyclones, floods and river erosion. Floods sometimes make land unsuitable for cultivation and uninhabitable. Cyclones are often accompanied by floods and result in land being washed away or destroyed, as well as causing severe damage to agricultural infrastructure such as dams, irrigation canals, and also housing. People living along

<sup>20</sup> About 1 percent of the total population belongs to an ethnic minority, the tribal group *adivasis*, who live both in the plains and the hill areas of Bangladesh. The land tenure arrangements for this group are slightly different, and not covered in this case study. The land tenure of this group is increasingly under pressure due to the high population density in Bangladesh in general. Increasing land pressure and economic interests in forest areas put this group's land tenure security at risk.

<sup>21</sup> See information regarding the National Agricultural Technology Project at <http://www.worldbank.org.bd/>.

<sup>22</sup> Chaturverdi, M and Greeley, M. 2005. *Assets and Access: A Livelihoods Study in South East Bangladesh*. CARE Bangladesh.

<sup>23</sup> The agricultural census of 2008 defined a landless household as one with no land whatsoever. Households with up to 0.04 acres were considered to be non-farm households. The agricultural censuses of 1983, 1984 and 1996 used the same definition of landlessness. Differences exist, however, as regards how urban and rural areas have been defined during the three censuses. For example, in 1983–84, there were only 79 municipalities. These numbers increased to 147 in 1996. In the 2008 Agriculture Census, 6 metropolitan cities of the divisional headquarters and 58 municipalities located at 58 other district headquarters, were included in the definition of 'urban area'. The rest of the country, which included municipalities at the Upazila headquarters, was defined as a 'rural area'.

<sup>24</sup> Preliminary Report on Agricultural Census 2008. Available at <http://www.bbs.gov.bd/dataindex/Pre-report-Agri-census-2008-Final.pdf>.

<sup>25</sup> The agricultural census defined a farm household as a holding whose net cultivated area is 0.05 acre or more.



### BOX 1 – CHAR DEVELOPMENT AND SETTLEMENT PROJECT (CDSP)

CDSP is a joint programme run by the GoB, WFP (World Food Programme) and the Dutch Government (1994–2009). The population of chars consists to a large extent of migrants, originating from other places that were eroded or that could no longer sustain their livelihoods for other reasons. As a result, there is no kinship network. In an environment where vulnerability is the most visible feature, additional investments on the part of the settlers could only be expected if they were provided with some sense of security. Much of the CDSP intervention was geared towards that purpose. Infrastructure brought protection against floods and cyclones, while land settlement enhanced security by providing access to land through legal ownership. Project activities aimed at reducing insecurity and at the same time attempted to realize the development potential that the chars offer. Currently CDSP III is settling 70 000 landless households in ‘Boyer Char’, a new char in the Noakhali coastal area. (Koen, 2000 and <http://www.cdsp.org.bd>).

river embankments experience rivers changing their course over time, with land being washed away, but also new pieces of land developing over time due to sand deposition. After losing their farm and homestead land, people need to find new land for living and farming. They often settle on so-called *khas* land, which is officially state-owned, and which is regularly found in marginal areas along the coasts and rivers. Settlement on and allocation of *khas* land is often highly disputed and highly insecure from the perspective of legal tenure.

Since its independence, the Government of Bangladesh (GoB) has enacted many laws and policies regarding the distribution of *khas* land. However, these laws and their supporting regulations and policies are complicated, and their implementation is not always enforced. In 1972, after a catastrophic cyclone in the

coastal areas, the Land Administration and Land Reforms Division began rehabilitating landless people by creating seven cluster villages in the *chars*<sup>26</sup> of Noakhali, Lakshmipur and Feni districts. In 1987, the Ministry of Land launched the Land Reforms Action programme, an initiative to strengthen and enforce previous resettlement programmes for distribution of *khas* and unoccupied state-owned land to landless families.

Several resettlement programmes such as Adarsha Gram (AG)<sup>27</sup>, Asrayan and Abashan<sup>28</sup> have been implemented, some of which are still in place to this day. The beneficiary families are selected by the local administration and then settled in communities ranging in size from 30 to 300 families. The families are provided with government *khas* land for homesteads, and agricultural and community purposes; they also receive resources for income generation, production and community development. *Khas* land is legally reserved for distribution to landless households as defined above. However, some groups of landless households are excluded, such as female-headed households headed by unmarried women, or widows who only have daughters or no children at all. In addition, the GoB has imposed ceilings (60 bighas)<sup>29</sup> on landownership, so as to redistribute land from holdings above the ceiling to the landless, or to those with holdings below the size required for a farm to be efficient.

The estimated amount of total identified *khas* land in Bangladesh is 3.3 million acres<sup>30</sup>; however, experts contest these official figures and think they are an underestimation. In 2001, official sources claimed that about 44 percent of 803 308 acres of agricultural *khas* land had already been distributed among landless families, but experts question these official claims<sup>31</sup>. Furthermore, official estimates showed great inaccuracies when checked at the local level. For example, figures for Noakhali district put official estimates at 67 percent of available land redistributed; while direct enquiry at the local level showed a target fulfilment of only 17 percent

<sup>26</sup> Chars are highly unstable temporary lands within and adjoining the major rivers, formed by accretion of sediments.

<sup>27</sup> AG has projects in 369 upazilas in Bangladesh and has provided shelter to 45 647 families during Phase 1, and 25 385 families in Phase 2. Each family receives a homestead with a minimum size of 0.08–0.10 acres in the char areas and 0.04–0.06 acres on the mainland. These include a house, a usable kitchen, and a single water-sealed latrine. There is also a tube-well to be shared by 10 families and a community centre for the whole village; wherever possible, agricultural land and/or ponds are provided for the beneficiaries.

<sup>28</sup> The overall objective is poverty alleviation of the landless through shelter provision and human resource development activities (basic education, health care, and skills development for income-generating activities).

<sup>29</sup> The State Acquisition and Tenancy Act 1950 fixed the land ceiling per family at 33.3 acres (100 bighas), which was revised and raised to 125 acres (375 bighas) in 1959. After the independence of Bangladesh the new government quickly adopted land legislation in 1972 under which the land ceiling was brought down again from 125 acres to 33.3 acres, and also exempted families owning less than 4 acres from paying land taxes. The Land Reform Ordinance 1984 saw a further reduction to 60 bighas (20 acres) maximum.

<sup>30</sup> 0.8 million acres of agricultural land, 0.8 million acres of water bodies and 1.7 million acres of non-agricultural land.

<sup>31</sup> According to the economist Abul Barakat, at most 26 percent of available *khas* land has been distributed, and the rest is illegally occupied by the rich and powerful in society. See also Barakat, A, Zaman, S and Raihan, S. 2001. *Political Economy of Khas Land in Bangladesh*. Dhaka, Association for Land Reform and Development.

by mid 1990<sup>32</sup>. In several other cases, while distribution was shown to have been completed on paper, in reality no actual transfers had taken place.<sup>33</sup>

Table 2 gives an overview of the process of *khas* land distribution and illustrates the number of obstacles and challenges that landless households face when trying to secure this land. It highlights the challenges of putting government policies related to *khas* land into practice.

To date, progress made in redistribution of *khas* land has generally been mixed, because of the vested interests of the landowning class, lack of political will, inefficiencies in the way the local and national administration are organized, and the absence of an updated, systematic

and universally accepted source of information on land resource availability and land rights. Given the legal and administrative complexities and associated transaction costs, it is very difficult for poor, often illiterate people to go to court and file land litigation cases. Many landless families cannot afford these delays and lengthy processes, and are forced to migrate to other rural or urban areas in search of viable livelihood options. Meanwhile, continuing river erosion affects resettlement programmes because some of the rehabilitated villages have disappeared due to river erosion. It is not only the complexities of legal policies, weak administration, national and local politics, and corruption that make the redistribution of *khas* land

TABLE 2 – Gaps and obstacles to accessing *khas* land in rural areas<sup>34</sup>

| STEPS                 | PROCEDURES  | OBSTACLES / GAPS   |
|-----------------------|---|--|
| <i>Identification</i> | <ul style="list-style-type: none"> <li>If land is under ordinary or <i>diara</i> settlement the <i>amin</i> records the area as part of the cadastral survey and notifies the assistant settlement officer for registration</li> <li>In non-settlement areas the <i>tehsildar</i> is responsible for identifying and recording any new <i>khas</i> land (e.g. arising through accretion)</li> </ul> | <ul style="list-style-type: none"> <li>A large portion of land is not surveyed and/or not recorded</li> <li>Land is illegally occupied by influential people</li> </ul>  |
| <i>Notification</i>   | <ul style="list-style-type: none"> <li>Microphone announcement by District Information Officer at big market places</li> <li>Beating of drums at all markets and notices displayed on all public notice boards in <i>Upazila</i> and unions</li> <li>Publicity programme included in the agenda of <i>Upazila</i> meetings for two consecutive months</li> </ul>                                    | <ul style="list-style-type: none"> <li>Allegations are very common that such notifications are only passed on to contacts, friends and relations, with some interested parties not finding out at all, or not until it is too late</li> </ul>  |
| <i>Application</i>    | <ul style="list-style-type: none"> <li>Interested parties fill out an application form stating what type of landless household they are and providing other details</li> <li>Two members of the local elite (typically a UP chairman or member, or school teacher) must sign</li> <li>False applications from large-scale landowners</li> </ul>   | <ul style="list-style-type: none"> <li>Illiterate people cannot fill in the form and cannot apply themselves; they depend on others for help, creating obligations toward their 'helpers'</li> <li><i>Tehsildar</i> often demands a fee for providing, completing or accepting the form</li> </ul> |
| <i>List names</i>     | <ul style="list-style-type: none"> <li>Qualifications of applicant checked by <i>tehsildar</i></li> <li>Preparation of a list of all qualified people for being filled out incorrectly</li> </ul>   | <ul style="list-style-type: none"> <li><i>Tehsildar</i> or UP chairman sometimes requires a bribe</li> <li>Applications are (often falsely) screened out</li> </ul>  |
| <i>Selection</i>      | <ul style="list-style-type: none"> <li>The most qualified candidates are selected using the established criteria by the <i>tehsildar</i>, UP chairman and AC (Land).</li> <li>Details are posted on <i>Upazila</i> notice board</li> </ul>  | <ul style="list-style-type: none"> <li>Bribes are paid to pass the selection stage, both by legitimate and illegitimate applicants</li> </ul>  |
| <i>Recording</i>      | <ul style="list-style-type: none"> <li><i>Kanungo</i> surveys the land for registration with AC</li> <li>The holding number of the <i>khas</i> land is placed on the application by AC (Land) and UNO.</li> <li>The file is sent to the DC for approval</li> </ul>  | <ul style="list-style-type: none"> <li>Bribes must be paid at each stage</li> </ul>  |
| <i>Distribution</i>   | <ul style="list-style-type: none"> <li>Deeds (<i>kabuliyat</i>) are issued granting title to the land for 99 years by AC (Land)</li> </ul>  | <ul style="list-style-type: none"> <li>The number of applications exceeds the available plots and many are unsuccessful</li> <li>Certificates are only handed out after payment of a bribe</li> <li>Land is given to ineligible people</li> </ul>  |
| <i>Utilization</i>    | <ul style="list-style-type: none"> <li>The recipient cultivates the land and/or file a competing claim (often supported by false documentation)</li> </ul>  | <ul style="list-style-type: none"> <li>Powerful people already own the land and block access</li> <li>Rich and powerful people, <i>tehsildar</i>, or UP members demand a share of the produce</li> </ul>   |
| <i>Follow Up</i>      | <ul style="list-style-type: none"> <li>If obstacles are encountered, the case goes back to the <i>shalish</i>, land office or court for resolution</li> </ul>   | <ul style="list-style-type: none"> <li>Powerful people threaten recipients and/or bribe officials to swing outcomes in their favour</li> <li>Recipients can not afford to proceed with the case because of high expenses and give up</li> </ul>  |

<sup>32</sup> Ibid.

<sup>33</sup> Evidence on Rangunia and Mirsarai, Chittagong in Dainik Ekota, August 24, 1990.

<sup>34</sup> Source: Reports of CARE Bangladesh and Political Economy of *khas* Land in Bangladesh by Abul Barakat.

to the landless a challenge, but also the highly disaster-prone agro-ecological environment in which these programmes have to operate.

Besides the challenges of land tenures issues, other weaknesses in these resettlement programmes include<sup>35</sup>:

- The settlement projects often lack an understanding of people's living patterns and livelihoods; this is reflected in the sometimes inappropriate structural designs and spatial arrangements of shelters and homesteads.
- The location of resettlement villages is often far away from local markets, commercial hubs and access to services such as health centres, government offices and credit facilities. This remoteness limits the scope of livelihood options and income-generating opportunities.
- Settlements are at times not well planned and often use up grazing grounds in nearby villages, leading to conflicts over resources and scarcity of locally-available livestock fodder.

## 2.6 Land tenure provision in case of natural disasters

Although the Land Reform Ordinance of 1984 included provisions to protect people from being evicted from their homesteads, and also recognized the rights of sharecroppers<sup>36</sup>, there are no proper and effective policies in place for people who lost land due to river erosions or floods.

A *Rin Salishi Ain* was passed in 1989 to support poor tenants who were compelled to sell their smallholdings because of floods, drought and cyclones. This law provides for the establishment of debt settlement boards in each Upazila, composed of officials and representatives both of the seller and the buyer. The boards are authorized to declare certain types of sale void, and certain other types as mortgages redeemable after seven years have expired. Advance purchase of crops and deposits of blank stamp papers with signatures or thumb impressions are declared void under this legislation.

The *Sikosti-Poisti* Act (Diluvion-Alluvion Act), initially formulated during British rule, was adopted with some

amendments in 1972, soon after independence. The act stated that any land lost to river erosion and on which accretion occurs after some time<sup>37</sup> would be owned by the government and declared as *khas* land for redistribution to poor and landless families. The spirit of the Act was to rehabilitate poor landless people as well as to check land grabbing and associated violence, which was often seen in flood plains and coastal areas. However, the act could not be enforced as the land was taken away from landless people by politically-influential local elites and large-scale farmers. Often, lengthy litigation discouraged many displaced landless farmers from filing a case, and they lost their claims to their legitimate rights. Consequently, the *Sikosti-Poisti* Act was amended in 1994 to state that the accreted land should be returned to the previous owner, provided that it was developed within the last 30 years. Although this amendment appeared to be a way forward, challenges remained in identifying the actual location or site, as well as the issue of measuring land areas. It was difficult to meet all the claims made by erosion victims, some of whom were often not the real victims. Further, the 30-year clause is too long for poor farmers to wait. Often they prefer to sell the river's submerged land to large-scale landowners at below market prices. This amendment of the Act has led to many conflicts, lengthy litigations, and often armed violence centred on old and newly-accreted areas of land.

## 2.7 Major challenges for an effective land tenure system in Bangladesh

There are several reasons for the lack of progress in the formulation of a realistic land policy and its effective implementation, including:

- Both policy makers and political circles have in general shown an insufficient appreciation of the overall land constraints facing the country. Per capita availability of cultivable land stands at a miniscule 0.24 acres, indicating a very limited scope for any comprehensive redistribution of land. Failure to appreciate the overall land constraint has led to exaggerated and largely ineffectual attention being given to redistributive land

<sup>35</sup> Chowdhury R.A and Nurullah, A.S. 2004. Coping with Displacement. Riverbank Erosion in North-West Bangladesh. RDRS, Bangladesh.

<sup>36</sup> The new law provides that a sharecropping contract between the landowner and the sharecropper (*bargadar*) should be valid for five years, including a right of inheritance for the able heir. The *bargadar* will also have a prior right to purchase land at the market price. The produce will be divided into three shares. One-third will go to the landowner, one-third to the *bargadar* and the remaining one-third to the party that provides seeds, fertilizer and irrigation. In practice, the value and distribution of shares is determined by local practices and competition. Currently, sharecropping arrangements are mainly applied to non-irrigated traditional cropland, and lease arrangements in lieu of cash payments have become very common in the production of high-yielding varieties of rice crops. For many of the rural poor, agricultural wage labour has become a more lucrative and viable option.

<sup>37</sup> Land may be eroded as a result of river erosion, but given changes in the course of a river and deposition of new material (accretion), the land may also be reestablished after many years.

reform, while the more practical issue of optimum utilization of public or state land resources, including urban land, has been relatively neglected. It is obvious that in addition to existing landless households, opportunities for the resettlement of households affected by natural disasters are limited.

- There has been a general lack of awareness of regional variations in the country with respect to land resources and land issues. An important example is the availability of *khas* land for redistribution to the rural poor. Bulk distribution of *khas* land is concentrated in relatively few hands. A successful implementation of *khas* land redistribution would require concentrated efforts as regards these identifiable bulks, rather than a routine administrative approach for the whole country. Failure to consider regional variations when designing implementation strategies has proved to be important in the persistent history of little or no positive benefits coming from land reform programmes. Land reform programmes should also consider the specific challenges of disaster-prone areas, and adapt implementation strategies according to the opportunities and constraints of specific regions, in view of the most common disasters experienced there and their effects on land tenure arrangements.
- There are major flaws in the perception of elite as regards the major bottlenecks to successful land reform. The failed history of land reform implementation has

been so widespread and so persistent that the implementation process itself demands to be treated as a priority concern. Vague arguments suggesting a lack of political will are an insufficient explanation for such routine failures of implementation. The system of land administration and associated court processes, the preponderance of ex-officio authorities involved in key decision-making processes as regards land reform programmes, and the subsequent ineffectual attention given to such programmes, appear to be much more likely explanations for the gap between promise and reality. Flaws in the land administration system also contribute significantly to yet another underappreciated source of rural misery: pervasive land violence. Land violence is already very much a part of everyday life; tension and violence is further aggravated when additional households have lost land due to floods and river erosion. Both of these issues – implementation failures and land violence – suggest that a third party item should appear on the land reform agenda (besides redistributive and tenure reforms), namely land administration reforms. Land administration reform should also consider issues related to disasters and land tenure and be linked to current disaster management, and disaster response frameworks and policies (see also Chapter 3).

- The absence of any centralized system of information on land resources and land rights. While a great deal





of information exists, this is scattered and duplicated in various land-related offices, leading to confusion and conflict. One crucial source of such confusion is in the fragmentation between the Upazila Land Office/Tahsil office and the registration office. The registration office records all land property transfers, while information on ownership is maintained separately in the Upazila land office/Tahsil office. Sometimes, land records documentation at Upazila and Tahsil offices is also damaged and destroyed as a result of floods and cyclones. Because of this fragmentation in information keeping, no routine scrutiny of ownership information takes place at the time of registration. This allows for the registration of numerous false land transfers; as a consequence, court action follows almost routinely. It is true to say that the bulk of civil and criminal litigation in the country arise from such conflicting claims of ownership.

The absence of an up-to-date, systematic and universally accepted source of information on land resource availability and land rights is probably one of the principal barriers to the successful implementation of land reform programmes, as well as the effective handling of land disputes. Technologies such as GIS and satellite mapping could be used to collect and maintain information on land resources and land tenure issues, and could also be made available at local levels of administration. More efforts should be made to map newly accreted and reclaimed land to avoid illegal land grabbing. An interesting example is the Bhoomi project, run by the Karnataka State Government and the World Bank, in India. The project focused on how information technology could be used as a tool for scaling up empowerment of the poor, increasing both their access to and the transparency of information. Under the Bhoomi project all land records in Karnataka have been digitalized, and access to these records is available through information kiosks and fingerprint authentication systems. More than 20 million records of landownership across Karnataka state, covering almost seven million farmers, have been digitalized. Although the advantages are recognized, critics also point out that ICT technologies may also increase inequalities further, because they are partly dependent on socio-economic status and literacy. It has also been suggested that the government missed the opportunities to verify critically the information that was entered into the digital database<sup>38</sup>. However, the existence of digital databases will also reduce the

problems rural households face after loss of their land title documents when floods and cyclones occur.

### ■ 3. DISASTER MANAGEMENT, LAND TENURE AND RESPONSES ■

#### 3.1 Natural disasters and their impact on land tenure issues

The first two parts have highlighted the complexities of land tenure issues and Bangladesh's extreme vulnerability to disasters such as cyclones and floods. Landless people are disproportionately affected by disasters because of highly-skewed patterns of landownership which force them to live in high-risk areas. Disasters also have a negative impact on the wider economy and people's livelihoods, including land tenure arrangements. Floods usually result in high levels of temporary displacements, and the loss of crops, livestock and other assets. As a result some people may then be forced to sell their land; others may not be able to meet their sharecropping or other lease arrangements; both of these situations have a negative knock-on effect on land tenure arrangements. River erosion especially is taking its toll and has already made many people landless; it then becomes a source of conflicts when land re-emerges via accretion at a later stage. Around 45 districts face the risk of river erosion and need to deal with its effects, which include severe loss of infrastructure, economic losses and landless households. Nearly 10 million people have been made homeless in the northern district of Bangladesh over the past 20 years. It is estimated that about one quarter of the total cultivable land will be lost by 2020 if no measures are taken.

Seasonal drought, which usually coincides with *monga* (a seasonal famine caused by lack of wage labour opportunities in the period just before harvesting), puts considerable stress on poor rural households. They are forced to sell their assets, sometimes in the form of land, and need to take out advance consumption loans against providing labour in kind during the harvest season. Many poor families are then trapped in a vicious cycle of debts involving high interest rates and/or providing labour in kind, which reduces their opportunities to take up more favourably-waged labour elsewhere. Table 3 gives an overview of the impact of disasters and their link to land tenure, specifically for Bangladesh.

<sup>38</sup> See also <http://www.i4donline.net> and India's move to e-governance exposes ancient flaws, available at <http://www.panos.org.uk/?lid=19702>.

TABLE 3 – Types of disasters, impact on livelihoods and land tenure issues

| TYPE OF DISASTER | AREAS AFFECTED  | IMPACT ON LIVELIHOODS AND WIDER ECONOMY   | ISSUES RELATED TO LAND TENURE AND REHABILITATION   |
|------------------|---|---|--|
| Floods           | Floodplains of the Brahmaputra-Jamuna, the Ganges-Padma and the Meghna river system<br><br>Haor Basins of the northeast region and southeastern hilly areas | <ul style="list-style-type: none"> <li>• Loss of agricultural production, damage to standing crops and loss of livestock</li> <li>• Temporary displacement</li> <li>• Disruption of communication and livelihood systems</li> <li>• Injury, evacuation, suffering and loss of human life, and loss of biodiversity</li> <li>• Damage and destruction to infrastructure and property</li> <li>• Disruption to essential services</li> <li>• National economic losses</li> <li>• Applies to both urban and rural areas</li> </ul>             | <ul style="list-style-type: none"> <li>• Prolonged floods may make the land unsuitable for previous land use; changes in land use patterns</li> <li>• Illegal land grabbing</li> <li>• Temporary displacement</li> <li>• People become landless</li> <li>• Rise in land tenure conflicts</li> <li>• Large-scale migration</li> <li>• Relocation should be on land relatively safe for future floods, raised homesteads and issuing of land titles</li> <li>• Urban areas more likely to receive timely support and assistance</li> </ul>                             |
| Cyclones         | Coastal areas and offshore islands (Patuakhali, Bhola, Barisal, Barguna, Chittagong and Cox's bazaar district)  | <ul style="list-style-type: none"> <li>• Loss of agricultural production (crops and livestock) due to storms and surge floods</li> <li>• Temporary displacement</li> <li>• Disruption of communication and livelihood systems</li> <li>• Damage and destruction of infrastructure and property</li> <li>• Injury and loss of human life, and loss of biodiversity</li> <li>• Need for evacuation and temporary shelter</li> <li>• National economic losses</li> <li>• Relevant to both urban and rural areas in the coastal belt</li> </ul> | <ul style="list-style-type: none"> <li>• Possible changes in land use</li> <li>• Temporary displacement</li> <li>• People become landless</li> <li>• Rise in land tenure conflicts</li> <li>• Large-scale migration</li> <li>• Relocation to new land outside the high risk areas and issuing of land titles</li> </ul>  |
| Drought Monga    | Throughout Bangladesh but especially the northwestern region  | <ul style="list-style-type: none"> <li>• Loss of agricultural production</li> <li>• Reduced farm-based income earning opportunities</li> <li>• Increases in food prices</li> <li>• Stress on the national economy</li> <li>• Seasonal to permanent labour migration</li> <li>• Applies mostly to rural areas</li> </ul>   | <ul style="list-style-type: none"> <li>• Pose considerable threat to land tenure by forcing migration to urban areas</li> <li>• Recent government budgets include allocation for drought affected areas</li> </ul>   |
| River erosion    | Banks of the Brahmaputra-Jamuna, the Ganges-Padma and the Meghna, Brahmaputra and Teesta  | <ul style="list-style-type: none"> <li>• Loss of land and homesteads</li> <li>• Displacement of people and livestock</li> <li>• Disruption/loss of agricultural production</li> <li>• Loss of productive assets and property</li> <li>• Evacuation</li> <li>• Relevant to both rural and riverside urban areas</li> </ul>   | <ul style="list-style-type: none"> <li>• Permanent displacement</li> <li>• People become landless and lose their homes</li> <li>• Resettlement in new areas combined with challenges finding new homestead land and agricultural land</li> <li>• Fear of eviction when people have no registration papers or land titles in new settlement areas</li> <li>• River protection to prevent further erosion where possible</li> <li>• Requires total rehabilitation in terms of shelter, homestead land, legal protection and viable livelihood opportunities</li> </ul> |
| Landslide        | Chittagong and Chittagong Hill Tracts   | <ul style="list-style-type: none"> <li>• Loss of land and homesteads</li> <li>• Loss of life</li> <li>• Displacement of people and livestock</li> <li>• Damage to and loss of productive assets, agricultural production and infrastructure</li> <li>• Evacuation</li> <li>• Relevant to both urban areas (often hilly slum areas) and rural areas</li> </ul>   | <ul style="list-style-type: none"> <li>• Permanent displacement</li> <li>• People become landless, loss of homes</li> <li>• Need for enforcement of laws to stop hill cutting and deforestation</li> <li>• Resettlement in new areas; challenges finding new homestead land/shelter and agricultural land</li> <li>• Fear of eviction if people have no registration papers or land titles in new settlement areas</li> </ul>  |
| Earthquake       | Northern and central parts of the country   | <ul style="list-style-type: none"> <li>• Damage and destruction of property, loss of life and changes in geomorphology</li> <li>• Displacement may occur after major earthquakes</li> <li>• Particularly relevant to urban areas, but also to densely populated rural areas.</li> </ul>   | <ul style="list-style-type: none"> <li>• Drastic damage to land and shelter</li> <li>• Requires improvement in mapping of risk zones and enforcement of building codes</li> <li>• Lack of general awareness and government's commitment to put it on the agenda</li> <li>• Protection of land tenure of the poor in case of displacement from high risk zones</li> <li>• Need for awareness and disaster mitigation policies and specific preparedness for earthquakes</li> </ul>  |

Source: Salma A. Shafi, based on various sources (2008).

### 3.2 Institutional arrangements related to disaster management and land tenure

The Ministry of Food and Disaster Management (MoFDM) is responsible for coordinating national disaster management efforts across all agencies such as the Disaster Management Bureau, and the Directorate of Relief and Rehabilitation. The MoFDM is responsible for coordinating early warning management systems, immediate relief operations, and recovery and rehabilitation programmes. The Ministry is supported by donors and several UN agencies that provide technical support and funding assistance, and also a number of national and international NGOs. Technical support is provided in several ways, i.e. support for the formulation of disaster mitigation and rehabilitation policies, and

the implementation of actual relief operations on the ground. In January 1997, the Ministry issued the Standing Orders on Disasters (SOD) to guide and monitor disaster management activities in Bangladesh. A series of inter-related institutions, at both national and sub-national levels, have been created to ensure effective planning and coordination of disaster risk reduction and emergency response management. Field level disaster management and response activities are the responsibility of Deputy Commissioners at the district level and UNO offices at the Upazila level. Activities at the village level are planned and carried out by union offices through the chairperson and its ward members (see Table 4 for more details).

Not listed above are other ministries such as the Ministry of Agriculture and the Ministry of Public Works

**TABLE 4 – National and field level committees on disaster management, and their responsibilities**

| LEVEL                             | COMMITTEES  | HEADED BY  | ACTIVITIES  |
|-----------------------------------|---|--|---|
| NATIONAL LEVEL                    | National Disaster Management Council (NDMC)                                       | Prime Minister   | To formulate and review disaster management policies and issue directives to all concerned  |
|                                   | Inter-Ministerial Disaster Management Coordination Committee (IMDMCC)             | Minister in charge of the Ministry of Food and Disaster Management | To implement disaster management policies and decisions of NDMC/Government  |
|                                   | National Disaster Management Advisory Committee (NDMAC)                           | An experienced person having been nominated by the Prime Minister  | To carry out advisory activities  |
|                                   | Cyclone Preparedness Programme Implementation Board (CPPIB)                       | Secretary, Ministry of Food and Disaster Management                | To review preparedness activities in the face of the initial stages of an impending cyclone   |
|                                   | Disaster Management Training and Public Awareness Building Task Force (DMTATF)    | Director General of Disaster Management Bureau (DMB)               | To coordinate disaster-related training and public awareness activities of the Government, NGOs and other organizations   |
|                                   | Focal Point Operation Coordination Group of Disaster Management (FPOCG)           | Director General of DMB  | To review and coordinate activities of various departments/agencies related to disaster management. Also to review the Contingency Plan prepared by concerned departments |
|                                   | NGO Coordination Committee on Disaster Management (NGOCC)                         | Director General of DMB  | To review and coordinate activities of concerned NGOs in the country  |
|                                   | Committee for Speedy Dissemination of Disaster Related Warnings/ Signals (CSDDWS) | Director General of DMB  | To examine, ensure and discover the ways and means for speedy dissemination of warning signals among the population   |
| SUB-NATIONAL LEVELS (Field Level) | District Disaster Management Committee (DDMC)                                     | Deputy Commissioner (DC)   | To coordinate and review disaster management activities at the district level   |
|                                   | Upazila Disaster Management Committee (UZDMC)                                     | Upazila Nirbahi Officer (UNO)                                      | To coordinate and review disaster management activities at the Upazila level  |
|                                   | Union Disaster Management Committee (UDMC)  | Chairman of the Union Parishad                                     | To coordinate, review and implement disaster management activities of concerned unions  |
|                                   | Pourashava Disaster Management Committee (PDMC)                                   | Chairman of Pourashava (municipality)                              | To coordinate, review and implement disaster management activities within its area of jurisdiction  |
|                                   | City Corporation Disaster Management Committee (CCDMC)                            | Mayor of City Corporations   | To coordinate, review and implement disaster management activities within its area of jurisdiction  |



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and Housing, which are also called upon for certain disaster responses. The Ministry of Public Works and Housing may intervene in relation to earthquakes, i.e. to coordinate reconstruction efforts and ensure a proper implementation of the building code. The Ministry of Agriculture is responsible for research and extension activities to support farmers during droughts. However, the SOD does not include any major institutions and line agencies responsible for land tenure issues, even though land tenure issues are crucial issues in many natural disasters.

In 2003, the Comprehensive Disaster Management Programme (CDMP) was approved by the Bangladeshi Government as a key strategy to advance and coordinate risk reduction efforts by the government, NGOs, the private sector and communities themselves. It aims to reduce long-term risk and to strengthen operational capacities for responding to emergencies and disaster situations, including actions to improve recovery from these events. The National Plan on Disaster Management sets out a series of key strategic objectives such as community empowerment, strengthening and improving emergency response, and partnership building among the different agencies and line ministries. Many ministries are involved in different ways but it is striking to notice that the Ministry of Land is neither included in the SOD nor referred to in the National Plan on Disaster Management<sup>39</sup>.

The provision of shelter for landless people is an activity to be carried out by the central authority as and when desired, and is dependent on a political decision being taken. In any land settlement programme, the process is begun at the local administrative level with registration of landless people, selection of beneficiaries, and preparation of proposals for settlement on *khas* lands. However, resettlement on *khas* land is a regular and routine administrative process, and not yet aligned with responses to natural disasters and rehabilitation procedures. For example, the case of Sidr landless victims showed that large numbers of landless families awaiting rehabilitation have not yet been resettled (see section 3.7). Also, river erosion can cause a sudden increase in new landless households, which cannot easily be addressed within regular land resettlement programmes. By river erosion alone, an estimated 250 000 people are made homeless every year.

### 3.3 Disaster management policy within the Poverty Reduction Strategy framework

The Poverty Reduction Strategy Paper (PRSP) includes a policy matrix (number 07) on Comprehensive Disaster Management with respect to poverty reduction and growth. In addition, disaster management is included in three policy matrices: food security, promotion of

<sup>39</sup> Bureau for Disaster Management. 2008. National Plan for Disaster Management 2008–2015. Government of Bangladesh. See also <http://www.cdmp.org.bd/reports>.



the use of ICT in disaster management, and ensuring social protection for women against vulnerability and risk. The policy matrix 07 on disaster management envisages:

- Mainstreaming disaster management and risk reduction into national policies, institutions and development processes (introduction of Disaster Impact and Risk Assessment (DIRA))
- Strengthening disaster management and risk reduction capacity
- Ensuring knowledge management on disaster risk reduction
- Enhancing community level capacity for disaster risk reduction (community level preparedness, response, recovery and rehabilitation)
- Ensuring social protection of women, children, elderly, people with disabilities and other vulnerable groups, against vulnerability and risk.

But once again, the policy matrix on disaster management within the PRSP does not refer to or highlight the importance of land tenure issues.

### 3.4 Present mechanism for addressing the causes of natural disasters

Over the years the government of Bangladesh, with support from donors and international agencies, has developed several mechanisms to respond to disasters in terms of their effects, but even more so in terms of their causes. Table 5 gives an overview of disasters, their causes, and responses aimed at addressing some of the underlying causes of these, as far as it is possible to do so.

### 3.5 Disaster management at the union level

The National Disaster Management Plan 2008–2015 outlines guidelines and procedures for Union Disaster Management Plans (UDMP) for each Union, outlining both disaster risk reduction strategies and emergency response. Union Disaster Management Committees have to conduct participatory community risk assessments, giving particular attention to specific vulnerable groups

**TABLE 5 – Type of disasters, their causes and present response mechanisms**

| DISASTERS                 | CAUSE OF DISASTERS  | RESPONSES (POLICY AND IMPLEMENTATION)   | AGENCY RESPONSIBLE  |
|---------------------------|---|---|---|
| Floods                    | <ul style="list-style-type: none"> <li>• Excess water flow during the monsoon</li> <li>• Unplanned infrastructure development</li> <li>• 92 percent of total catchment area is along river border areas</li> <li>• Drainage congestion due to river bed siltation</li> <li>• Deforestation in upper catchment area</li> </ul> | <ul style="list-style-type: none"> <li>• FAP (Flood Action Plan)</li> <li>• National Water Policy</li> <li>• Flood forecast and inundation modelling</li> <li>• Dredging of river beds</li> <li>• Construction of embankments with sluice gates</li> </ul>  | <ul style="list-style-type: none"> <li>• CDMP (Comprehensive Disaster Management Programme)</li> <li>• Disaster Management Bureau</li> <li>• Ministry of Food and Disaster Management</li> </ul>  |
| River erosion             | <ul style="list-style-type: none"> <li>• Floods</li> <li>• Flash floods</li> <li>• Heavy rainfall</li> <li>• Farakkha (Overflow of rivers controlled in India)</li> </ul>   | <ul style="list-style-type: none"> <li>• River training</li> <li>• Embankment</li> </ul>  | <ul style="list-style-type: none"> <li>• Bangladesh Water Development Board</li> </ul>  |
| Droughts                  | <ul style="list-style-type: none"> <li>• Less and uneven rainfall in the dry season and wet season</li> <li>• Non-availability of surface water in the dry season</li> <li>• Fluctuation of ground water table</li> </ul>   | <ul style="list-style-type: none"> <li>• Agricultural research and extension works</li> <li>• Intensive afforestation programmes</li> <li>• Re-excavation of channels and ponds in rural areas</li> <li>• Augmentation of surface water flow</li> <li>• Construction of water reservoirs</li> </ul> | <ul style="list-style-type: none"> <li>• Ministry of Food and Disaster Management</li> <li>• Ministry of Agriculture</li> </ul>   |
| Cyclones and storm surges | <ul style="list-style-type: none"> <li>• Geographic location of Bangladesh</li> <li>• Coastal configurations and bathymetry of the Bay of Bengal</li> <li>• Location of ITCZ near the Equator and its shifting with the apparent movement of the Sun across the Bay</li> </ul>  | <ul style="list-style-type: none"> <li>• Strengthening of CPP (Cyclone Preparedness Programme)</li> <li>• Awareness-building programmes for the target group</li> <li>• Reliable and timely warnings and effective warning dissemination systems</li> </ul>   | <ul style="list-style-type: none"> <li>• CDMP (Comprehensive Disaster Management Programme)</li> <li>• Disaster Management Bureau</li> <li>• Local Disaster Action Plans for grass roots levels along the coastal belt</li> <li>• Ministry of Food and Disaster Management</li> </ul> |
| Tornadoes                 | <ul style="list-style-type: none"> <li>• Intense ground heating and low level moisture incursion from the Bay of Bengal, pre- and post-monsoon</li> <li>• Conjugation of western disturbance with locally developed low pressure areas</li> </ul>   | <ul style="list-style-type: none"> <li>• Proper radar network</li> <li>• Reliable and timely forecast capability</li> <li>• Awareness-building programmes</li> <li>• Quick search and rescue system</li> </ul>  | <ul style="list-style-type: none"> <li>• Local Administrative Body</li> <li>• Disaster Management Bureau</li> <li>• Ministry of Food and Disaster Management</li> </ul>   |
| Earthquakes               | <ul style="list-style-type: none"> <li>• Geographical location of Bangladesh along major and moderate faults</li> </ul>   | <ul style="list-style-type: none"> <li>• Proper implementation of building code (1993)</li> <li>• Inventory of equipment for rescue operation</li> </ul>  | <ul style="list-style-type: none"> <li>• National Housing Authority</li> <li>• Ministry of Public Works and Housing</li> </ul>  |



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within communities<sup>40</sup>. However, the guidelines developed for the community risk assessment do not include issues surrounding land tenure and disasters.

The Union and Pourashava Disaster Management Committees should be responsible for monitoring and maintaining primary contact with landless families during pre- and post-disaster periods, but because of a lack of resources and also policy guidelines, this is not happening. They only certify landless families in response to any specific *khas* land resettlement programmes. Their duties and responsibilities in relation to land tenure issues could be strengthened as follows:

- During participatory community risk assessments: include information on landownership distribution and the reasons for landlessness; identify landless families and those vulnerable to losing land in future disasters.
- Capacity building and preparedness measures should include identification of available land for rehabilitation at the union/ward level.
- People living in areas identified as risk spots should submit copies of their land titles to the Upazila and

district administration as proof of their ownership. In the event of loss of property, they could claim for rehabilitation.

- During reconstruction of shelters, agencies will make sure that beneficiaries have safe and secure places in their homes to store their valuables, including land deeds, maps and other documents related to land titles.

### 3.6 Reducing vulnerability to disasters

While it is impossible to prevent natural events such as the Sidr cyclone and major floods, it is possible to reduce vulnerability to disasters for people living in disaster-prone areas. Initiatives such as early warning systems have shown their merits: during the Sidr cyclone of 2007 the death toll of around 4000 was far less than the previous major cyclone in 1991, which caused 120 000 deaths. Disaster preparedness programmes make communities aware of their needs and teach them how to cope with disasters such as cyclones, floods and river erosion, not only in terms of saving their own lives but also in terms of

<sup>40</sup> The Union Parishad is the lowest administrative unit of Bangladesh. There is a Disaster Management Committee at the Union level (UDMC), chaired by the elected chairman of the respective Union Parishad. Other UDMC members include all government department heads at the union level, members of the Union Parishad and NGO representatives. The committee is required to meet bimonthly during normal periods, and as and when necessary during emergency situations.





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identifying ways of protecting their livelihoods (for example, by moving livestock to higher areas). They must be directly engaged in the design and management of early warning systems (including choice of message dissemination), and also in the construction of locally-appropriate infrastructures, such as multi-purpose cyclone shelters and well-maintained embankments.

Both the SOD and the Comprehensive Disaster Management Programme need to be well aligned and committed to activate and strengthen Disaster Management Committees (DMC) at district, *upazila*, and village or 'union' levels. These committees should take the lead in planning and implementing community-based disaster preparedness plans for disasters that are likely to affect their areas. The DMCs should have a broad membership that includes community representatives such as fishermen and farmers. In addition, the government must accelerate its efforts to tackle chronic vulnerability, by guaranteeing access to essential services (e.g. health, education, water, and sanitation) during any type of disasters, giving priority to the vulnerable and poor<sup>41</sup>.

Participatory disaster mapping is a valid tool for supporting and planning community-based disaster

preparedness programmes. Such maps are drawn by the communities, highlighting important information such as major forms of land use, landownership patterns, physical structures (e.g. schools, clinics, water wells, markets, important roads), disaster-prone areas (e.g. steep slopes, flood prone areas, ground water conditions), and environmental issues. These maps should be widely shared and easily accessible by the communities, and can serve as a first step in the planning process for disaster preparedness programmes. These programmes will be able to address issues such as projected population growth, infrastructure development needs, and people's main sources of income; they may also include environmental components such as conservation areas. The maps and plans can also be used as an important and effective awareness-raising tool, to make communities more conscious of the major potential disaster areas in their locality, the implications of such disasters, and possible plans to mitigate their occurrence and impact.

There are several development programmes that try to reduce people's vulnerability to disasters such as floods. One of these is the DFID-funded Chars Livelihood Programme (CLP), whose work includes physically trying to raise the homestead lands of selected beneficiaries.

<sup>41</sup> *After the Cyclone: Lessons from a Disaster*. Oxfam Briefing Note, February 2008.

Other programmes – such as CARE’s Shouhardo and the EU-funded HISAL (Haor Initiative for Sustainable Alternative Livelihood) programme by Concern Worldwide – work closely with UDMCs in a number of ways. For example, they help to strengthen their capacity and help them in realising several flood protection measures, such as replanting indigenous trees along community banks (to reduce wave erosion), and introducing early-maturing rice varieties which can be harvested before flash floods are likely to occur.

However, post-disaster rehabilitation and adequate support for livelihoods, including land tenure, are areas which require more attention from policy makers. Coordination among government bodies and local level institutions is required, as highlighted by the Sidr case below. During early recovery stages, agencies in charge of resettlement planning and programmes must consider for example that the resettlement areas identified are not located in hazardous zones, and ensure that the lease deeds for landownership are clear and registered to ensure tenure security for the resettled households. The beneficiary households should also be clearly identified and belong to the most affected and needy category of households. Too often, resettlement programmes are rushed and not implemented with sufficient care, causing problems during their implementation and also in the long term: people are again affected by natural disasters because they have been resettled in marginal, disaster-prone areas, or registration of land title deeds is disputed, leading to violence over land and disputes over land settlements.

### 3.7 Case Study: Sidr cyclone

The southern districts of Bangladesh were severely hit by the powerful Sidr cyclone on 15th November, 2007. More than nine million people were affected, and the death toll was around 4000. It is estimated that more than 563 000 houses and 2240 schools and colleges were destroyed; 955 000 houses and 11 490 educational buildings were partially damaged within the affected districts. After cyclone Sidr’s landfall, the government, armed forces, local civil organizations and volunteers, all moved quickly to mount search-and-rescue operations and to distribute food, water, clothing and other emergency items to cyclone survivors. The reduced death toll compared with previous cyclones<sup>42</sup>

is a testament to improved community preparedness measures and a huge credit to the 43 000 volunteers working under the government-funded ‘Cyclone Preparedness Programme’.

#### SIDR AND LAND TENURE ISSUES

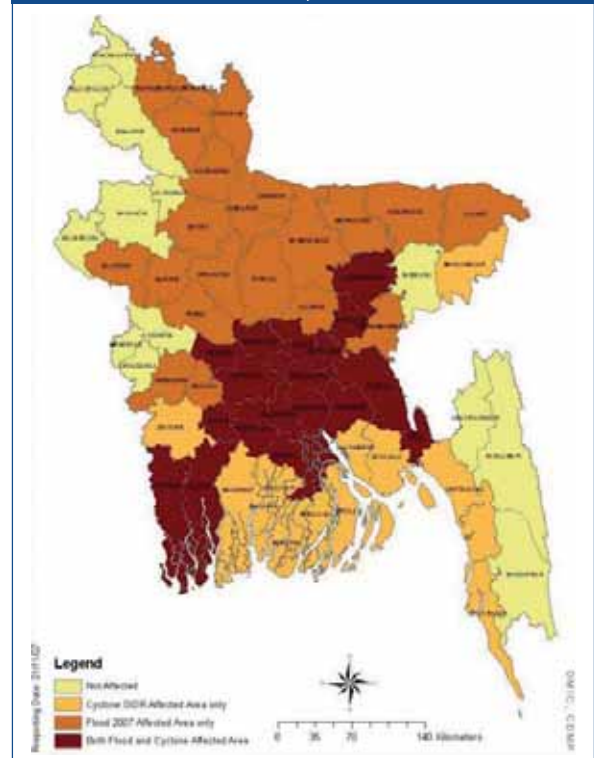
A reconnaissance survey on landlessness in the six Sidr-hit areas was conducted by UN-Habitat to gather in-depth information on shelter conditions of the affected households. The survey results showed that 31 percent had no homestead land whatsoever, and about 66 percent had homestead land with land rights certificates that proved ownership (see Table 6).

**TABLE 6 – Land tenure status of Sidr affected households**

| LAND TENURE OF RESPONDENTS                          | FREQUENCY  | PERCENT      |
|---|------------|--------------|
| Have a land rights certificate                      | 115        | 63.19        |
| Had a land rights certificate but have lost it      | 6          | 3.30         |
| Never had a land rights certificate but occupy land | 4          | 2.20         |
| Don't have any land on which a house can be built   | 57         | 31.31        |
| <b>Total</b>  | <b>182</b> | <b>100.0</b> |

Source: Socio-economic survey of Sidr hit households, UN-Habitat, Dec 2007.

**FIGURE 1 – Flood 2007 and cyclone Sidr affected area**



<sup>42</sup> The Cyclone Sidr death toll of approximately 4000 people is 35 times lower than the 1991 Gorky cyclone and 125 times lower than the 1970 cyclone Bhol.





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It was found that a significant proportion of the affected households, and one of the most vulnerable groups were landless people, both pre- and post-cyclone. When the Sidr cyclone hit, they were living on the outside of the embankments. They experienced the highest degree of losses to their homes and assets; most of these families continued to live off what remained of the land outside of the river embankment, without any legal land rights certificates. As a result, they are likely to be overlooked or neglected in terms of housing assistance, and displaced if no measures for rehabilitation are taken. Several NGOs including Oxfam International called for the government to take a pro-active approach to support landless people, both in terms of addressing their short- to medium-term shelter and livelihood needs, as well as accelerating existing land policy reforms and government-run resettlement programmes. There has been a strong call by CSOs and NGOs to establish a clear timeframe for *khas* land resettlement programmes and for addressing current policy loopholes, which favour rich landowners over landless people in the re-allocation of land<sup>43</sup>.

#### POST SIDR GOVERNMENT PROGRAMME

A recent circular from the MoFDM describes the annual development plan allocation, for 2008–2009, as regards construction of flood shelters in flood prone and river erosion prone areas<sup>44</sup>. About 1000 barracks are to be built for 10 000 Sidr-affected families in eight coastal districts, at an estimated cost of US\$ 15 million. Around 74 multi-functional flood shelters will be constructed in the flood prone and river erosion prone areas to provide shelter during disasters. In normal times, these shelters will serve as educational buildings. Critics suggest that these programmes are not well thought through, and merely serve the interests of the programme-implementing agencies and contractors, rather than the affected people. Similar barracks have been built in previous Asrayan and Grihayan projects, and proved not to be sustainable. Often, existing cyclone shelters are not user-friendly, and sometimes do not cater for the specific needs of women and children. It is feared that the proposed flood shelters will show similar design and construction flaws and will for the most part be underutilized. Also, certain issues are not reflected in the proposed government-led Sidr rehabilitation programme, such

<sup>43</sup> *After the Cyclone: Lessons from a Disaster*. Oxfam Briefing Note, February 2008.

<sup>44</sup> Ministry of Food and Disaster Management. 2008. Annual Development Programme 2008–2009.



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as land tenure conditions, supporting and building up livelihood strategies, and the participation of people during rehabilitation, planning and implementation.

However, an encouraging development is that the Ministry of Land has been granted a donation by the Japanese government for Sidr-affected landless people, to help with their rehabilitation and to guarantee their land tenure rights. The Adarsha Gram project will serve about 40 000 people in 12 districts, covering about 122 resettlement sites located on *khas* land areas already identified and earmarked for resettlement programmes, even before the Sidr cyclone occurred<sup>45</sup>.

### 3.8 The Bhumi Bank: a way to address land tenure issues in disaster prone areas?

The concept of a Land Bank, such as exists in the Philippines, and whose aim is to target the allocation and redistribution of *khas* land to landless people in

disaster-prone areas, may also work in Bangladesh. The Land Bank is the fourth largest bank in the Philippines in terms of assets and loans, and is also the largest government-owned bank; it mainly provides services in rural areas. The Bank was established in 1963 as part of the national land reform programme. It acts as an intermediary by purchasing land from large agricultural estates and selling this to small landholders and the landless<sup>46</sup>. The major characteristics of the Land Bank are:

- It is a government financial institution that strikes a balance between fulfilling its social mandate of promoting rural development, and remaining financially viable.
- The Land Bank has successfully managed this balancing act, as evidenced by the continued expansion of its loan portfolio in favour of its priority sectors: farmers and fisher folk; small, medium and micro enterprises; livelihood loans and agribusiness; agro-infrastructure and other employment-related projects.

<sup>45</sup> Ministry of Land. 2008. The Adarsha Gram Project report, June 2008. Government of Bangladesh.

<sup>46</sup> <http://www.landbank.com>.

- The Land Bank is by far the largest formal credit institution in rural areas of the Philippines. Its credit delivery system is able to penetrate a substantial percentage of the country's total number of municipalities.

Moving on from its initial role as the financing arm of agrarian reform, the Land Bank has evolved into a full service commercial bank. But the essence of its existence has not changed, and it continues to play an important role in the rural economy.

The Philipinnes' Land Bank could serve as a model for a similar public bank in Bangladesh, called the Bhumi Bank, *bhumi* meaning 'land'. The Bhumi Bank might play the following roles:

- Be involved in land valuation, compensation to owners of private agricultural lands, and the distribution of land among landless and migrant farmers;
- Provide credit services to landless and migrant farmers so that they can purchase land;
- Provide access to credit for both small traders and marginal farmers, for demand-driven entrepreneurship;
- Cater to the special needs of disadvantaged groups such as female-headed households, various tribal groups and the disadvantaged elderly;
- Serve a vital role in promoting rural development, covering both farm and non-farm enterprises, with the aim of enhancing rural livelihoods.

In the long term, the Bhumi Bank could play a role in regulating the value of land in local growth centres (i.e. district and Upazila/union centres). It might also be involved with conserving farmland and common property resources, or open spaces such as grazing land (as in the *char* areas), or forests and water bodies. The Bhumi Bank would act as a public authority to hold, manage and develop all land-based properties as noted above. It would play a role in ensuring more effective and equitable property acquisition and disposition (including *sikosti* and *poisti* lands, see also section 2.6). The Bhumi Bank would keep and maintain records on *khas* land, including landholding patterns, patterns of land use, land distribution and information on common property resources. In addition, the Bhumi Bank would perform any other normal banking operations and transactions as carried out by other commercial banks. It could offer various insurance schemes with soft premiums in order to safeguard crops, livestock and homesteads against any natural and man-made calamities. For the Bhumi Bank to be effective, extensive research and strategic planning at all institutional levels would be required, as well as

genuine commitment on the part of both central and local governments. Following the example of the Land Bank, the Bhumi Bank could also play an important role in addressing some of the current land tenure inequalities, and strengthen the resilience of people living in disaster-prone areas of Bangladesh.

### 3.9 Some conclusions

In summary, the poor in Bangladesh, and especially the landless poor, are disproportionately affected by natural disasters. They primarily depend on climate-sensitive sectors such as agriculture and fisheries, have limited scope to respond to and cope with the impact of disasters, and tend to live in more exposed and marginal areas such as the chars, flood plains, and along river and coastal banks. Landownership patterns in Bangladesh are highly skewed, with 10 percent of the population owning almost 50 percent of the agricultural land. This rich 10 percent often comprises absentee landowners living in urban areas who rent/lease their land on cash or sharecropping terms. Many of the rural poor do not own any land and lack opportunities to find agricultural wage labour; as a result, some are trapped into insecure and unfavourable sharecropping arrangements. Others migrate to newly-formed char settlements in high risk areas, their only viable alternative. In the absence of more effective and more equitable land tenure arrangements, the poor and landless will remain extremely vulnerable to disasters and the impact of climate change.

There are several land redistribution programmes in place, but their progress and positive effects are the subject of debate. The absence of an up-to-date, systematic and universally accepted source of information on land resource availability and land rights is one of the key barriers to the successful implementation of land reform programmes, and the effective handling of land disputes. Availability of *khas* land is limited and also concentrated in a few areas. There is a need to consider regional variations when designing implementation strategies, to ensure that land reform programmes are effective. In addition to genuine political commitment, a reform of the land administration to streamline current systems and organizational structures will make land reform programmes more transparent, efficient and effective. programmes more transparent, efficient and effective.

Some legal provisions are made to deal with specific land tenure issues reflecting disaster-prone conditions, such as the *Sikosti-Poisti* Act. In practice, this Act is not a success, because of the ineffectiveness





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of the current land administration and the inherent high transaction costs for the poor and landless: in terms of time, money and limited access to information and support services.

Current disaster management programmes do not pay sufficient attention to the importance of land tenure issues, which are a key factor increasing poor people's vulnerability to disasters. Similarly, post-disaster rehabilitation programmes are ineffective at supporting landless and affected households in rebuilding their livelihoods. The relationship between land tenure issues and disasters is not reflected and integrated in several key policy frameworks, such as the Poverty Reduction Strategy Paper, the National Plan on Disaster Management 2008–2015, and the Standing Order on Disasters. In practice, there needs to be a stronger link between land distribution and resettlement programmes, and disaster preparedness and rehabilitation programmes.

Current initiatives on community-based disaster preparedness are a positive step in the right direction. Involving communities in the mapping of disaster-prone areas, in assessing the major forms of land use and the quality of specific land areas, and in listing vulnerable groups (e.g. landless households, women-headed households and minority groups), will improve disaster preparedness and disaster response programmes by making them more location specific and more effective at the implementation stage, because they will be based on local institutions and knowledge systems. Experiences from the Bhoomi project in the Indian State of Karnataka – where digitalized land records are increasing access to and transparency of information – could prove a viable method of making Bangladeshi rural households less vulnerable to land disputes when title deeds and documentation is lost to natural disasters.



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# Abbreviations and Acronyms

|        |  |
|--------|--|
| AC     | Area Commissioner  |
| AG     | Adarsha Gram   |
| BBS    | Bangladesh Bureau of Statistics  |
| BDT    | Bangladesh Taka (Bangladesh National Currency)                         |
| BIDS   | Bangladesh Institute of Development Studies                            |
| CAP    | Country Assistance Programme   |
| CARE   | Cooperative for Assistance and Relief Everywhere                       |
| CCDMC  | City Corporation Disaster Management Committee                         |
| CDMP   | Comprehensive Disaster Management Programme                            |
| CDSP   | Char Development and Settlement Project                                |
| CEGIS  | Centre for Environmental and Geographic Information Services           |
| CLP    | Chars Livelihood Programme   |
| CPP    | Cyclone Preparedness Programme   |
| CPPIB  | Cyclone Preparedness Programme Implementation Board                    |
| CSDDWS | Committee for Speedy Dissemination of Disaster Related Warning Signals |
| CSO    | Civil Society Organization   |
| DC     | Deputy Commissioner  |
| DDMC   | District Disaster Management Committee                                 |
| DIRA   | Disaster Impact and Risk Assessment                                    |
| DMB    | Director General of Disaster Management Bureau                         |
| DMTATF | Disaster Management Training and Public Awareness Building Task Force  |
| DFID   | Department For International Development                               |
| EU     | European Union   |
| FAB    | Flood Action Plan  |
| FAO    | Food and Agriculture Organization                                      |
| FPOCG  | Focal Point Operation Coordination Group of Disaster Management        |
| GIS    | Geographic Information System  |
| GoB    | Government of Bangladesh   |
| HISAL  | Haor Initiative for Sustainable Alternative Livelihoods                |
| ICT    | Information and Communication Technologies                             |
| IMDMCC | Inter-Ministerial Disaster Management Coordination Committee           |
| IRIN   | Integrated Regional Information Networks                               |
| ISPAN  | Irrigation Support Project for Asia and the Near East                  |
| ITCZ   | Intertropical Convergence Zone   |
| LOS    | Land Occupancy Survey  |
| MDG    | Millennium Development Goal  |
| MoFDM  | Ministry of Food and Disaster Management                               |
| NDMAC  | National Disaster Management Advisory Committee                        |
| NDMC   | National Disaster Management Council                                   |
| NGO    | Non-Governmental Organization  |
| NGOCC  | NGO Coordination Committee on Disaster Management                      |
| ORCHID | Opportunities and Risks of Climate Change and Disasters                |
| PDMC   | Pourashava Disaster Management Committee                               |

|       |  |
|-------|--|
| PRSP  | Poverty Reduction Strategy Paper                   |
| RDRS  | Rangpur Dinajpur Rural Service                     |
| SOD   | Standing Orders on Disasters                       |
| TK    | Taka (Bangladesh national Currency)                |
| UDMC  | Union Disaster Management Committee                |
| UN    | United Nations                                     |
| UNDP  | United Nations Development Programme               |
| UNO   | Upazila Nirbahi Officer                            |
| UP    | Union Parishad                                     |
| USD   | United States Dollar                               |
| USAID | United States Agency for International Development |
| UZDMC | Upazila Disaster Management Committee              |
| WFP   | World Food Programme                               |
| WHO   | World Health Organization                          |