

# ON SOLID GROUND

ADDRESSING LAND TENURE ISSUES FOLLOWING NATURAL DISASTERS

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## Bangladesh

**ERODING RIVERS, ERODING LIVELIHOODS  
IN BANGLADESH**

### **Environmental context**

Bangladesh is the most densely populated country in the world. Its 144,000 square kilometres are home to an estimated 150 million people. About 45 percent (2004) of them live below the national poverty line and around 36 percent are living on US\$ 1 per day. Agriculture contributes largely to the national economy, with 60 percent of employment provided by the agricultural sector (including crops, livestock, fisheries and forestry) in 1995/6. Rural poverty is highest but urban poverty is growing.



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FOR A BETTER URBAN FUTURE



Bangladesh

Bangladesh

Bangladesh

Bangladesh

Bangladesh

### FREQUENCY OF DISASTERS DURING 1990-2007

CYCLONES	EARTHQUAKES	FLOODS	LAND SLIDES	TORNADOS	WIND STORMS
10	2	28	2	6	26



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### THE MOST SEVERE FLOODING IN MODERN HISTORY

In September 1998, Bangladesh saw the most severe flooding in modern world history. Two thirds of the country was underwater, 1,500 people died, 30 million were homeless, and damages totalling US\$ 1,200 million were incurred. One of the reasons for the severity of the 1998 floods was the serious forest and soil degradation throughout the watershed catchment area (up and down stream), which increased water run-off.

Bangladesh is also among the most disaster-prone countries in the world, Between 1970 and 1998, the country experienced 170 large-scale disasters. The frequency and intensity/scale of floods have increased, with eight major floods between 1974 and 2004. With the current climate change, triggered by man-made disasters (e.g. deforestation, soil erosion) it is expected that the scale, intensity and frequency of disasters will continue to increase. This means that people in Bangladesh will have to cope with the impacts of floods, river erosion, cyclones and other natural disasters on a more regular basis.

The geographical setting of Bangladesh makes the country particularly vulnerable to natural disasters. The mountains and hills bordering almost three-fourths of the country, along with the funnel shaped Bay of Bengal in the south, have made the country a meeting place of life-giving monsoon rains, but also subject it to the catastrophic ravages of natural disasters. The country is located in the low-lying Ganges-Brahmaputra river delta, which is one of the most fertile plains in the world. At the same time it is extremely vulnerable to floods, river erosion and cyclones, as well as politically motivated conflicts over water issues since most rivers originate outside of the country. Upstream activities such as deforestation increase the magnitude of damages caused by floods.

The task of sustaining the very limited resource base – land, in particular – is aggravated by population growth, poverty and over-exploitation, with consequent environmental degradation. This in turn adds to the country's vulnerability to natural disasters, especially floods and river erosion, which have a high impact on land tenure and land use issues.

**Flooding.** Many parts of Bangladesh are flooded every year by heavy rainfall and the overflow of river banks. Most parts of the country are less than 12 metres above sea level, and it is believed that about 50 percent of the land would be flooded if the sea level were to rise by 1 metre.

Due to high population pressure and skewed land ownership patterns, farming households and settlements, primarily poor ones, are increasingly pushed onto marginal land in high-risk flood areas. One important example of such marginal, flood-



prone areas are the highly unstable chars (temporary state-owned lands within and adjoining the major rivers). As these chars can be 'new' land arising from sand deposits, land ownership of these areas is at times highly disputed.

**River erosion.** River erosion is a serious threat that people living along the rivers and the coastal areas have to face on a daily basis. Given the population density and unequal land distribution, many poor rural people 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 become homeless due to river bank erosion every year, and are forced to migrate within the locality or to urban areas, thus contributing to the growing number of urban poor. When river erosion occurs very fast and suddenly, people can lose everything overnight. In other instance, river erosion is more gradual and people have time to move their assets but loss of cultivatable land and homestead is inevitable.

River erosion is sometimes referred to as the silent tsunami, given the magnitude of its consequences. For example, between 1981 and 1992, 728,000 people were displaced by river erosion, or an average of 64,000 people each year. In char areas, the figures are even higher: more than 250,000 people become

« River erosion also affects national borders. According to a government estimate, the country has already lost nearly 15,000 hectares of its land due to erosion caused by 15 common rivers with India and Myanmar. »

victims of land erosion every year, and annual economic losses are estimated at TK 1,000 crore (about US\$ 145,350). Many of the people losing their land have no other options than moving to major urban centres, and some end up as pavement dwellers, with even a slum shack beyond their reach. The Centre for Environmental and Geographic Information Services (CEGIS) has calculated that 155,280 hectares of land have been eroded between 1973 and 2007. Moreover, CEGIS forecasts that in the coming years, about 29,000 people living along the major rivers will lose their homes and land each year. What is most worrying is the increasing frequency and intensity of the erosion in recent years.



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**Cyclones.** Cyclones are very strong winds combined with intense rainfall. The 1991 Gorky Cyclone took the lives of 120,000 people and caused serious damage to survivors' livelihood assets and community infrastructure. The recent super cyclone SIDR in 2008 affected more than 9 million people in the southern

districts of Bangladesh and caused serious damage to houses, infrastructure, peoples' assets and standing crops. The number of deaths was considerably less due to more effective early warning systems in place and a wider availability of cyclone shelters. However, the number of cyclone shelters is insufficient to

## FLOODING, RIVER EROSION, CYCLONES... AND MORE

- **Droughts.** Although Bangladesh is a high-rainfall country, droughts occur; the drought in 1973 contributed to the severe nation-wide famine in 1974. Often coinciding with seasonal drought is the Monga period, when food stocks run out and there are virtually no job opportunities in October and November before the main harvest season in December. The situation becomes worse if preceded by a devastating flood. Thousands of poor people go without adequate food for weeks. According to estimates by the World Food Programme, 80-90 percent of people (20-30 million) affected are agricultural day labourers who are then forced to take consumption loans and migrate to other areas for work, leaving behind their families. They can also be forced to give up sharecropped and/or owned land, leading to a further concentration of land ownership.
- **Earthquakes.** The occurrence of small-magnitude earthquakes in Bangladesh is quite frequent. Earthquake records indicate that more than 100 moderate to large earthquakes have occurred in Bangladesh since 1900, of which more than 65 took place after 1960. Fifteen new epicentres have been identified inside Bangladesh since January 2001. This clearly indicates an increased frequency of earthquakes in the country.
- **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. 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.



accommodate the number of people in need of them. Besides, poor people living in high-risk areas usually live too far from the shelters. At times, the land they used to farm or live on might have disappeared or been damaged in such a way that it is no longer suitable for cultivation. Families also run the risk of losing their title deeds and no longer being able to prove their ownership of the land.

## Major land tenure issues

### *Land ownership and landlessness*

About 28.7 million households – about 88.4 percent of all households in Bangladesh – live in rural areas. Therefore, for most Bangladeshi people, land and agriculture-based livelihoods are fundamental. Ownership of land determines the status of an individual in rural society. Land-rich people enjoy political power and yield considerable social influence. 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; and
- 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 they account for about 40 percent of the agricultural land area.

The measurement of landless in Bangladesh differs according to the definition found in the statistical sources. The Land Occupancy Survey (LOS) of 1977 and 1978 and the national survey on Land Occupancy carried out by the Bangladesh Bureau of Statistics in collaboration with USAID, developed and distinguished three categories of landless households:

- Landless I – Household with no land whatsoever
- Landless II – Those who own only homestead but no other land and
- Landless III – Those who own homestead and 0.2 hectares of 'other' land.

The 1978 LOS found 29 percent of rural households who owned no cultivatable land. In 1983-1984 the Agricultural Census reported a total of 8.7 million rural landless households. More recently the preliminary report of the 2008 Agricultural Census found 3.26 million rural households as landless (11.4 percent of the total rural households) and 7.9 million rural tenant households (27.8 percent of all rural households).

The increase in landlessness can be greatly explained by river erosion, which is causing an increasing number of households to become landless, forcing them to migrate to urban areas or settle on other marginal and disaster-prone land.



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### Distributing khas land

Many rural households have become landless after cyclones, floods and river erosion. Floods often render their lands unsuitable for cultivation and inhabitable. Cyclones are often accompanied by floods and cause the land to be washed away, along with the destruction of dams, irrigation canals, houses, etc. After losing their farm and homestead land, people have to find new land and often settle on so-called *khas* land, which

is officially state-owned land often located in marginal areas along the coasts and rivers. Settlement on and allocation of *khas* land is often highly disputed and highly insecure from a legal tenure perspective.

Since its independence, the Government of Bangladesh has enacted many laws and policies regarding the distribution of *khas* land. However, the laws, 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 to rehabilitate the landless by creating seven cluster villages in the chars in Noakhali, Lakshmipur and Feni districts. In 1987, the Ministry of Land launched the Land Reforms Action programme, an initiative to strengthen and

## ADDRESSING THE LANDLESS AND RIVER EROSION

The *Sikosti-Poisti Act* (Dilluvion-Alluvion Act), formulated initially during British rule, was adopted with some amendments in 1972, soon after independence. The act stated that if any land lost by river erosion and reappearing later on due to changes in river courses (accretion) would be owned by the government and declared as *khas* land (state-owned land) for redistribution to poor and landless families. The spirit of the Act was to rehabilitate poor landless people as well as minimize land grabbing and associated violence 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 influential local elites and large farmers. Often lengthy litigations 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 by stating that the accreted land should go back to the previous owner provided it was developed within 30 years. Although this amendment seemed a way forward, there were challenges in identifying and measuring the actual location or site. Moreover, the 30-year clause is too long for poor farmers. Often they prefer to sell the submerged land to large land owners at below-market prices. This amendment of the Act has led to many conflicts, lengthy litigations and often armed violence centred around old and newly accreted areas of land.



enforce previous resettlement programmes for distribution of *Khas* and unoccupied state-owned land to landless families. Several resettlement programmes such as Adarsha Gram (AG), Asrayan and Abashan have been implemented, and some are ongoing. The beneficiary families are selected through the local administration and then settled in communities ranging from 30-300 families. The families are provided with government *khas* land for homesteads, agricultural and community purposes and 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 households headed by unmarried women or widows with only daughters or no children at all. In addition, the government has imposed ceilings (60 Bighas, or about 8 hectares) on land ownership to redistribute land from holdings above the “ceiling” to the landless or those with holdings below an efficient farm size.

So far progress in redistributing *khas* land has generally been mixed due to vested interests of the landowning class, lack of political will, the inefficiencies in the way the local and national administration are organized, and the absence of an updated, systematic and universally

## KHAS DISTRIBUTION – THE NUMBERS

The estimated amount of total identified *khas* land in Bangladesh is 1.2 million hectares, although some claim this to be an underestimation. In 2001, official sources claimed that about 44 percent of 325,000 hectares of agricultural *khas* land had already been distributed among the landless families. However, discrepancies arose 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 fulfillment of only 17 percent by mid 1990. In several other cases, while distribution was shown to have been completed on paper, reality showed that no actual transfers had taken place.

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

### Gaps and obstacles in accessing *Khas* land in rural areas

Steps	Obstacles/Gaps
Identification	<ul style="list-style-type: none"> <li>• A large portion of land is not surveyed and/or not recorded</li> <li>• Illegally occupied by influential people</li> </ul>
Notification	<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 until it is too late</li> </ul>
Application	<ul style="list-style-type: none"> <li>• Illiterate people cannot fill in the form and cannot apply themselves and depend on others to help creating obligations toward their ‘helpers’.</li> <li>• A fee is often demanded for providing, completing or accepting the form</li> <li>• False applications from large land owners</li> </ul>
List names	<ul style="list-style-type: none"> <li>• Applications are (often falsely) screened out for being filled out incorrectly</li> </ul>
Selection	<ul style="list-style-type: none"> <li>• Bribes are sometimes paid to pass the selection stage by legitimate and illegitimate applicants</li> </ul>
Recording	<ul style="list-style-type: none"> <li>• Bribes must be paid at each stage</li> </ul>
Distribution	<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 bribe</li> <li>• Land is given to ineligible people</li> </ul>
Utilization	<ul style="list-style-type: none"> <li>• Powerful people already own the land and block access and/or file a competing claim (often supported by false documentation)</li> <li>• Rich or influential people demand a share of the produce</li> </ul>
Follow Up	<ul style="list-style-type: none"> <li>• Powerful people bribe officials to swing outcome in their favour and/or threaten the recipient from proceeding</li> <li>• Recipients cannot afford to proceed with case because of high expenses</li> </ul>

Source: Reports of Care-Bangladesh and Political Economy of *Khas* Land in Bangladesh by Abul Barakat

urban areas in search of viable livelihood options. In addition, continuing river erosion affects the resettlement programmes as some of the rehabilitated villages have disappeared. And one must not overlook the highly disaster-prone agro-ecological environment in which these programmes have to operate.

Besides the challenges of land tenures issues, resettlement programmes have a number of other weaknesses:

- They often lack an understanding of living and livelihood patterns of the affected populations, which is reflected in the structural design 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 like health, government services and credit facilities. Remoteness limits the scope of livelihood options and income-generating opportunities.
- Settlements are at times not well planned and often take up grazing grounds of nearby villages, leading to conflicts over resource use and scarcity of locally available livestock fodder.

### *Effective policies for those who lose their land due to natural disasters*

Although the Land Reform Ordinance of 1984 included provisions to protect people from being evicted from their homesteads and recognized the rights of sharecroppers, there are no proper and effective policies in place for people who lose land due to river erosion or floods.

There are several reasons for the lack of progress in the formulation of a realistic land policy vis-à-vis natural disasters, and its effective implementation:

- **Land constraints.** In Bangladesh per capita availability of cultivable land stands at a miniscule .09 hectares, indicating a very limited scope for any comprehensive redistribution of land. Insufficient appreciation of the overall land constraints has led to an ineffective attention to redistributive land reform. Important issues like the optimal utilization of public or state land resources including urban land have been relatively neglected. In addition to the already existing landless households, the opportunities for resettlement of households affected by natural disasters are limited.

- **Regional variation in land resources.** There has been a general lack of awareness of the regional variation with regard to land resources and land problems. An important example is the availability of khas land for redistribution to the rural poor. Bulk availability of khas land is concentrated in relatively regional few pockets. A successful implementation of khas land redistribution demands a concentration of efforts in these identifiable regional pockets rather than a single approach for the whole country.

- **Bottlenecks for the implementation of land reform.** The history of implementation of land reform has been full of failures and bottlenecks. Arguments like lack of political will are insufficient explanation for such failures. The inefficiencies both in the system of land administration and the associated court process, and in the work of ex-officio authorities in key decision making positions on land reform programmes, could be at the root of such implementation failures.

The issues of implementation failures and land violence call for a land administration reform besides redistributive and tenure reforms. Land governance should be a key issue in such land administration reform, which should also consider issues related to disasters and land tenure and be linked to current disaster management and response frameworks and policies.

- **Absence of any centralized system of information on land resources and land rights.** While a great deal of information exists, it is scattered and/or



**Flaws in the land administration system also contribute significantly to another little appreciated source of rural misery, namely pervasive land violence. Land violence is already very much part of daily reality but tensions and violence are further aggravated after more households have lost land due to floods and river erosion.**







duplicated in various land-related offices. In addition, land record documentation is sometimes damaged or destroyed by floods and cyclones. Because of such fragmentation in information keeping, routine scrutiny of ownership information does not take place at the time of registration. This allows for the registration of numerous false land transfers, followed by court cases. The bulk of civil and criminal litigations 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 a significant challenge to the successful implementation of land reform programmes handling of land disputes. Technologies such as GIS and satellite mapping (including of newly accreted and reclaimed land) could be used for collecting and maintaining information on land resources and tenure issues and also made available at local levels of administration.

## Government context

### *Land reform legislation for khas lands*

Two major land reform legislations were passed in 1972 and in 1984. The new independent government of Bangladesh introduced a land settlement policy for the landless and marginal farmers. Before liberation in 1971, land revenues were the largest single source of income of the provincial government. Therefore the land settlement policy was guided by considerations of income revenues rather than those of equity and social justice. Khas lands were settled upon payment

of salami (deposits), which were more or less equal to the market price of the land. Only rich and influential people, who could pay, obtained such land settlements in their own names or in the name of their henchmen. Currently, khas are settled free of salami to the landless people as defined in the land settlement policy.

Another important provision with respect to security of tenure is the prohibition of eviction of agricultural tenants from their homestead land. Previously, tenants could lose and be evicted from their homestead lands after a court auction, e.g. to recover outstanding debts. Other major changes were exemption of land taxes for families owning less than 25 bighas (about 3.2 hectares), legal recognition of sharecroppers and introduction of minimum wage for agricultural labour. Unfortunately, there is little dissemination of this legislation. A survey in 1991 showed that nearly 90 percent of the rural population was unaware of the tenancy reforms of 1984.

### *Land administration and management*

The present-day 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, for implementing land reform legislation and safeguarding tenants' rights. The Department of Land Registration under the Ministry of Law, Justice and Parliamentary Affairs records changes arising through sale, inheritance or other forms of transfer, reports changes to the Ministry of Land, and collects the Immovable Property Transfer Tax. Other agencies



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« No major institutions or line agencies are responsible for land tenure issues, although land tenure issues are crucial issues in many natural disasters. »

playing a more minor part 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.

Land administration covering legal and fiscal cadastre is run through the administrative units of the country. The country is divided into six divisions headed by Divisional Commissioners.

The six divisions are divided into 64 districts, headed by a collector who is also the District Magistrate and Deputy Commissioner. The collector is responsible for the entire land revenue administration in the district, approving settlement of government land and changes in classification of land according to their usage and acquisition of land for development. The districts are further divided into 465 sub-districts, the upazila, which is the basic administrative unit. The central government at this level is represented by the Upazila Nirbahi Officer who, among other tasks, supervises the revenue administration in the area. There are several Tahsil offices in each Upazila, which are local field units for collecting land revenue.

### *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, coordinating immediate relief operations and recovery and rehabilitation programs. 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. 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.

Other ministries such as the Ministry of Agriculture and the Ministry of Public Works and Housing are called upon for certain disaster responses (for example, the Ministry of Public Works and Housing in relation to earthquakes – for coordinating reconstruction efforts and ensuring a proper implementation of the building code). The Ministry of Agriculture is responsible for research and extension activities to support the farmers during droughts.

### *Strengthening the response*

**Creating guidelines that specifically address land tenure and disasters.** 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 responses. Union Disaster Management Committees must conduct participatory community risk assessments with particular attention to specific vulnerable groups within communities. However, the guidelines developed for the community risk assessment do not include issues around land tenure and disasters. Although the Union and Disaster Management Committees should be responsible for monitoring and maintaining primary contact with landless families



## National Committees on Disaster Management and 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 concerns
	Inter-Ministerial Disaster Management Co-ordination 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 Program Implementation Board (CPPIB)	Secretary, Ministry of Food and Disaster Management	To review preparedness activities in the face of initial stage of an impending cyclone
	Disaster Management Training and Public Awareness Building Task Force (DMTATF)	Director General of Disaster Management Bureau (DMB)	To co-ordinate 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 co-ordinate 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 co-ordinate activities of concerned NGOs in the country
	Committee for Speedy Dissemination of Disaster Related Warning/ Signals (CSDDWS)	Director General of DMB	To examine, ensure and find out the ways and means for speedy dissemination of warning/signals among people

during pre- and post-disasters period, due to lack of resource and policy guidelines, this is not happening. They only certify landless families in response to a specific khas land resettlement programme.

Their duties and responsibilities in relation to land tenure issues could be strengthened as follows:

- During participatory community risks assessments, include information on land ownership distribution and reasons for landlessness and identification of landless families and those vulnerable to losing land due to 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 should make sure that beneficiaries have safe and secure places in their homes to store their valuables including land deeds, maps etc.

**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 of people living in disaster-prone areas. Initiatives such as early warning systems showed their merits during the SIDR cyclone in 2007, as the death toll of around 4,000 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, not only in terms of saving their own lives but also in identifying ways of protecting their livelihoods. They must be directly engaged in the design and management of early warning systems (including choice of message dissemination) and construction of locally appropriate infrastructure such as multi-purpose cyclone shelters and well-maintained embankments.

**Strengthening Disaster Management Committees.** DMCs at district, upazila and village or levels should take the main lead in planning and implementing community-based disaster preparedness plans to disasters likely to affect their areas. The DMCs should have a broad membership that includes community representatives such as fishers and farmers. In addition, the government must accelerate its efforts to tackle chronic vulnerability by guaranteeing access

to essential services including health, education, water, and sanitation during any type of disasters, giving priority to the vulnerable and poor.

#### **Considering land tenure in resettlement programmes.**

Post-disaster rehabilitation support, including land tenure, require more attention from policy makers and coordination among government bodies and local institutions. For example, during early recovery stages, agencies in charge of resettlement planning and programmes must determine that the resettlement areas identified are not located in hazardous zones and that the lease deeds for land ownerships are clear and registered to ensure tenure security for the resettled households. Also the beneficiary households should be well identified and belong to the most affected and needy category of households. Too often, resettlement programmes are not implemented with care, causing problems during implementation and for the long term. For example, people are again affected by natural disasters because they have been resettled in marginal, disaster-prone areas or land titles deeds registration is disputed, leading to land settlement disputes or violence.

## **PARTICIPATORY DISASTER MAPPING**

Participatory disaster mapping is a valid tool in supporting and planning community-based disaster preparedness programmes. Maps are drawn by the communities highlighting important information about major forms of land use, land ownership patterns, physical structures (such as houses, schools, clinics, water wells, markets, important roads), disaster-prone/vulnerable 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. Such programmes will be able to address issues on projected population growth, infrastructure development needs, main sources of income and include environmental components such as conservation areas. These maps and plans can also be used as an effective tool to help communities become more aware of the major disaster areas in their communities, the implications and possible plans to mitigate their occurrence and impact.

#### **Capturing the relationship between land tenure issues and natural disasters in key policy frameworks.**

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.

#### **LAND TENURE AND RELATED INSTITUTIONS**

Ministry of Land  
Ministry of Law, Justice and Parliamentary Affairs,  
Department of Land Registration  
Ministry of Forests, Fisheries Department,  
Directorate of Housing and Settlement, and the  
Department of Roads and Railways  
National Disaster Management Council (NDMC)  
Inter-Ministerial Disaster Management Co-  
ordination Committee (IMDMCC)  
National Disaster Management Advisory  
Committee (NDMAC)  
Cyclone Preparedness Program Implementation  
Board (CPPIB)  
Disaster Management Training and Public  
Awareness Building Task Force (DMTATF)  
Focal Point Operation Coordination Group of  
Disaster Management (FPOCG)  
NGO Coordination Committee on Disaster  
Management (NGOCC)  
Committee for Speedy Dissemination of Disaster  
Related Warning/ Signals (CSDDWS)



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