

**BOOK REVIEW:  
“ENDOWED WISDOM: KNOWLEDGE OF NATURE AND  
COPING WITH DISASTERS IN BANGLADESH”**

The publication entitled, “Endowed Wisdom: Knowledge of Nature and Coping with Disasters in Bangladesh”, is written by Hasan SHAFIE, Mamunur RASHID and Shantana HALDER under the auspices of CDMP, phase one, component\_\_\_\_\_.

The experience of sustaining recurrent disaster impacts and the survival capacities of the local communities are by far the basic strengths of disaster management in Bangladesh– one of the most hazard prone countries of the world. Local communities are on the forefronts as both the immediate disaster victims as well as the first line of responders during any such emergency situations. Eventually, people have gained ample experience of dealing with disasters and are indeed optimistic enough to find opportunity in every difficult situation they encounter. Local communities have accumulated over the centuries enormous indigenous knowledge on how to sustainably utilize their natural resources engaging a variety of innovations to deal with natural disaster. Community people’s experience, knowledge base and response practices regarding disasters provide the subject matter of the book under review.

Bangladesh is now encountering natural hazard induced emergencies on an unprecedented scale causing widespread human, material, economic or environmental losses. Therefore, the imperatives are to build disaster-resilient economic and social infrastructure, as well as thereby building resilient communities in Bangladesh. We have to act decisively now to facilitate the mainstreaming of disaster risk reduction into development planning frameworks to ensure a safer Bangladesh (for future generations) focusing vulnerabilities. Local communities are the essential focal point for our efforts to set the Hyogo Framework for Action in motion for saving lives and livelihoods. Hence, disaster professionals need to listen to and learn from the community people so that their initiatives become grounded in indigenous knowledge and experience.

Indigenous knowledge is, historically speaking, the root of all knowledge and is unique to a culture or society. This knowledge is orally transmitted from generation to generation and has been the basis for agriculture, food preservation, health care, conservation and the wide range of other activities including preparedness and mitigation of disasters that sustain a society and its encompassing environment for many centuries. The Local people have a vast knowledge of the ecosystems in which they live and of ways of using natural resources sustainably. Today, there is a grave risk that much indigenous knowledge is being lost and, along with it, valuable knowledge about ways of living sustainably and specifically surviving disasters both ecologically and socially.

The book aims at exploring the indigenous knowledge and coping strategies found in the regions prone to flood, flash flood, water logging, salinity intrusion, cyclone, drought and wild life disturbances in Bangladesh. In order to document different coping strategies, within and between regions and ethnic groups, the research was founded upon extensive fieldwork conducted in selected sixteen districts: Jessore, Satkhira, Shariatpur, Pirojpur, Bandarban, Bagerhat, Faridpur, Sunamganj, Sirajganj, Nawabganj, Naogaon, Nilphamari, Gaibandha, Cox’s Bazar, Natore and Rajshahi districts. The selection of the districts was based on the proneness to high frequency and large scale hazard impacts. In each districts, unions and villages therein were selected according to a set of indicators which would reflect the diversity in different contexts. The fieldwork for primary data collection was carried out over a period of 12 weeks, between February and May 2008.

Flood is the most severe hazard in Bangladesh according to the magnitude of damage and frequency of occurrence. Good community coping responses related to flood and river bank erosion were collected from

different locales of seven flood plain districts and a coastal district. People do not get fresh drinking water during flood as tube wells remain under flood water. Consequently people practice different strategies for coping to supplement their need of water. The community people raise the plinths of the tube wells so that flood water can not submerge them. Rural people use mud stoves for cooking food and they use pieces of dry wood, jute sticks, and shrubs, branches of trees, straws and the agricultural wastes collected at the harvesting time, after drying them in the sun they preserve fuels to meet the crisis. Indigenous knowledge bases of different study areas have been proven to help contribute to the community's ability to mitigate the impact of regular flood and river bank erosion crisis. In general, the indigenous knowledge of housing structure reduces the vulnerability of flood and river bank erosion. People grow many food grains like *china*, *kaon*, maize, *pera*, *felon*, etc in different fallow and pocket lands and plants of different vegetables around homesteads for reducing the vulnerability. The community people also practice different alternative practices such as cultivation of ground nuts, sugarcanes, onions, banana, duck rearing, conservation and cultivation of *kashban* etc.

Significant ethnographic information on the episodes of good community coping responses related to flash flood from three different locales are described in the flash flood chapter. The hazard pattern, season, vulnerabilities and different coping are sketched here. Flash flood destroys the agric field and crop most severely and in a short time. Indigenous knowledge, in different study areas, has proven to help contribute to the community's ability to mitigate the impact of regular flash flood events. In general, the indigenous knowledge of housing pattern reduces the vulnerability of flash flood. They plant different grass and plants in the homesteads and river banks for protection of their individual and community Properties. People prepare dry fish and grow different vegetables around homesteads for reducing the vulnerability. These practices ensure food security in *haor* areas. Duck rearing, harvesting different plants and firewood are some alternative economic activities. These practices provide maximum utilization of their capacity with maximum economic returns. These good community practices of coping are elaborated in the proceeding discussions.

Water logging is a major and commonly prevailing hazard in four districts of the southwest Bangladesh. In Jessore and Satkhira it has become a round the year phenomenon. Water logging has some unique characteristics, as discussed earlier, that makes it difficult to determine the onset and end of the event. Therefore, its potential long duration requires people to adopt different approaches to reduce their impacts. Indigenous coping strategies, in different study areas, have proven to help contribute to the community's ability to mitigate the impact of regular water logging events. The changed circumstances have compelled people to innovate such agric practices, floating agriculture that does not require the earthen surface of the soil. They also improvised *kandi* method for cultivation of crops in the submerged lands. Dewatering evacuates the standing water from affected areas.

The good community coping strategies related to salinity are comprised of the south-west and eastern coastal area of Bangladesh. Satkhira and Bagerhat are situated in the south-west coastal area which is very flat, low and is criss-crossed by numerous rivers and canals. It is the base of the famous mangrove area called the Sundarbans. Cox's Bazar district is situated in the eastern coastal region which is covered by hilly areas and it has a long beach. Due to salinity the study areas are vulnerable to mainly livelihood resources like agricultural land, agric products, fresh water fishes and working opportunity of the community people. The community people practice different strategies of coping to mitigate the impact of regular salinity event. In order to ensure food security in the changed ecological condition, they have taken initiative to cultivate *kewra* which can be grown well in the saline land. The community people practice different coping strategies to meet the drinking water crisis, such as rain water harvesting, preserving fresh drinking water in coastal zones, sourcing and harvesting drinking water – Ring-well, and pond water conservation for drinking purpose. Due to salinity the lands of the areas cannot grow normal agric products. They have adopted some coping strategies

such as shrimp Cultivation, reed cultivation and mat weaving, cultivation of prawn *renu*, crab aquaculture, salted lives and silted Livelihood: *Golpata*, and salt Cultivation since long.

Cyclone and storm surge are the most severe hazard in the coastal areas of Bangladesh. Cox's Bazar is one of the most vulnerable areas of the country to cyclone and storm surge. There are effective early warning systems as well as some indigenous knowledge based indicators which help community people to predict the likelihood and intensity of cyclone and storm surge. The coastal people can hardly avoid these hazards by any means. So, they try to cope with these hazards and take some initiatives to reduce the vulnerability. The community people try different structures in house making only to withstand the severity of the hazard; effectively adopted one is *pusher bari*. They also practice plantation of vegetation around the homestead which reduce the speed of the wind of cyclone and also decreases the velocity of water with the storm surge.

Good community coping responses related to drought and aridity are illustrated from different locales of Rajshahi, Nawabgonj, Naogaon, Gaibandha and Nilphamari. Indigenous knowledge, in different study areas, has been found to be practiced to mitigate the impact of regular drought events. In general, the indigenous knowledge of and management increases moisture retention, improves soil fertility and crop yield, and reduces surface runoff and thus withstanding soil erosion. People grow tree species like mango, Mahogany and Jackfruit, and plants different vegetables around homesteads. This practice of homestead gardening provides healthy ecosystem for humans as well as other species. People do not get sufficient water in the dry season as ground water recedes further below. Consequently people practice different strategies of coping to complement their need of water. The storage of water by making small embankments for segmenting irrigation channel has gained wide popularity in Barind tracts. Digging ponds also facilitates storage of water for domestic and agricultural purposes.

Although the forest area is shrinking at an alarming rate in Bangladesh wildlife disturbances are quite common hazard found in the three districts (Satkhira, Bandarban and Cox's Bazar). Elephant attack is a regular event in Cox's Bazar and Bandarban through out the year. But it is increased during the harvesting period in those areas. Among other wildlife induced hazards, rat flood has stricken the hill tracts after almost 50 years. Agriculture, the main source of livelihood, becomes vulnerable due to rat and elephant attacks. On the other hand, the tiger mainly attacks people who are working in the forests and sometime they come to the locality in search of foods. In that case, houses and some infrastructures are damaged. The absence of any early-warning system for wild animal attack remains as the challenge for people and professionals in reducing or mitigating the consequences of animal disturbance. However, the present book provides overshadow of how people are coping with all these hazards in Bangladesh.

The escalation of severe disaster events triggered by natural and man-made hazards is increasingly threatening both sustainable development and poverty-reduction initiatives. The loss of human lives and the rise in the cost of reconstruction efforts and loss of development assets have forced the issue of disaster reduction and risk management higher on the policy agenda of affected governments as well as multilateral and bilateral agencies and NGOs. This publication entitled, "Endowed Wisdom: Knowledge of Nature and Coping with Disasters in Bangladesh", has been written with that purpose. We hope it will educate and inspire further practical efforts at the community level while contributing to the overall global movement for disaster resilient communities and risk reduction. As an original work of its kind, the good practices and lessons learned presented in this book would ultimately contribute to raising community preparedness and reducing our vulnerability to future hazards. Besides, Bangladesh being the most resilient country, the experience of the communities in Bangladesh can be replicated in other parts of the world too. This book will not only be useful to the disaster professionals in Bangladesh but will also act as an awakening call to governments and other stakeholders at other countries to document, recapture and incorporate this invaluable knowledge in disaster sustainable development.