

HUMBOLDT-UNIVERSITÄT ZU BERLIN



**SLE Publication Series - S231-**



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**Being Prepared  
Disaster Risk Management in the Eastern  
Visayas, Philippines**



# Being Prepared Disaster Risk Management in the Eastern Visayas, Philippines

An SLE study prepared for the GTZ.

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Berlin, 20.12.2007

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## Executive Summary

The **Philippines** is one of the most hazard-prone countries in the world and is regularly affected by typhoons, floods, landslides, earthquakes, tsunamis and volcanic eruptions. **Samar** and **Leyte**, the two major islands of **Region VIII** (Eastern Visayas), were the focus area of this study. Situated within the so-called “typhoon belt” they are recurrently ravaged by winds, storm surges and continuous heavy rain leading to floods in a relevant part of the productive and inhabited land area.

Two **watersheds** on these islands, the **Binahaan** watershed (Leyte) and the **Catarman** watershed (Northern Samar) constituted the **research area**. Both comprise mainly rural municipalities and *barangays* (villages) and are heavily reliant on copra (coconut) production, rice and, to a lesser degree, vegetables and fruit trees.

**Disaster Risk Management** (DRM) in the Philippines was the focus of the research. The definition of a disaster is when the effects of a **hazard** exceed the capacities of a community or society to cope through its own means. Disasters are understood as a correlation of **hazards**, i.e. extreme (natural) events combined with the **vulnerability** of a society and the inadequacy of its **capacities to cope** with the event.

In the light of recent tragedies and economic losses induced by disasters, the focus of international cooperation is shifting from relief to **disaster prevention and mitigation**. The Government of the Philippines is following this concept and a climate for change in the institutional disaster management system is apparent.

Chapter 2 describes the context of the study. The German Development Cooperation (**GTZ**) in the Philippines supports DRM in Region VIII through its Environment and Rural Development Programme (EnRD). The DRM component is financed by the Federal Ministry for Economic Cooperation and Development (**BMZ**) and the Disaster Management Programme of the European Union (**DIPECHO**). The research was commissioned by the GTZ-DRM Sector project operating worldwide and the GTZ-EnRD programme to **contribute to the ongoing processes on optimizing disaster management** in the Philippines.

In line with the emphasis on disaster prevention and mitigation and in the context of changing national guidelines, the objective of the research team was to assess **DRM integration into local development planning** and to recommend mechanisms for its **mainstreaming**. In a subsequent step **needs for capacity development** at all levels of self-governance were evaluated to strengthen and optimize the existing system.

An assessment of **national structures for DRM** and the interventions and **approaches of international organizations** in Region VIII provided one base for the analysis and for best practice examples. A second base was an analysis of the **perception of risk** of the population, their livelihood assets in a vulnerability context and their mechanisms for coping with disasters. Here the **sustainable livelihoods approach** was chosen as the **analytical framework** in order to place livelihoods at the centre of the analysis and to consider disasters in relation to their impacts on environmental, physical, human, political and financial assets. **Participatory methods** of the Participatory Rural Appraisal (PRA) toolbox were used to gather information at village, municipal and provincial levels. Semi-structured interviews and workshops were conducted at the regional as well as at the national level and with representatives of international organizations. The diversity of sources of information was to ensure the reflection of the **views of different levels** of the community.

Chapter 3 presents **the institutional framework** to allow a better understanding of existing mechanisms and the ongoing debate in the Philippines: The current disaster management system of the Philippines relies on so-called **disaster coordination councils** (DCCs) which were institutionalized **at all administrative levels** in 1978 by Presidential Decree (PD) 1566. These DCCs are responsible for strengthening local self-reliance in the case of disasters by organizing response and preparedness structures; and for drafting a preparedness plan and implementing it in the case of a disaster. At provincial, municipal and *barangay* level a **Calamity Fund** exists which amounts to **5 percent** of the **local budget** earmarked for disaster response and, since 2003, also for disaster preparedness.

The administrative framework **is inadequate** at all local government levels. If at all, DCCs at *barangay* and municipal level collaborate to manage the effects of disasters. The **Calamity Fund is insufficient** to cope with even minimal disaster effects and the development budget is too low to plan for long-term disaster prevention structures. The provisions of PD 1566 perpetuate a top-down system difficult to operate effectively and giving little incentive for local initiative. The approach remains **response-oriented** and **dependent on the next higher level**. The motivation of local chief executives, or initiatives launched by higher administrative levels play a key role in determining the nature of DRM structures at local level.

The need for **reform** is acknowledged, and a **New Philippine Disaster Management Bill** is awaiting ratification. The objectives of this Bill are to optimize self-reliance at the local level, to promote a **shift towards disaster prevention** and mitigation, and to regulate the integration of DRM into development planning. The main difference with respect to the existing legislation is the **institutionalization of permanent disaster management structures** at all administrative levels. Despite

the fact that all actors involved recognize the need to overhaul the existing system and that the main thrusts of the reform are not disputed, the reform itself has been in the pipeline since the year 2000.

Permanent disaster risk management structures would contribute to **mainstreaming DRM into planning, in order** to better **monitor** the implementation of the plans as well as the use of the funds earmarked for disaster-related issues. Permanent DRM units could play an important role in **capacitating departments** at the same administrative level and the next lower Local Government Unit (LGU) to better perform their disaster-related tasks. They would also ensure that communities are prepared for the potential risk and that response structures and communication lines are operational, rapid and efficient.

The province of Albay and, more recently, the province of Northern Samar has institutionalized a permanent disaster management unit at provincial level. Both provide encouraging evidence that **permanent structures** can, in the long run, **help to better prepare communities**. In the first years of their existence, the disaster management units should be coached to ensure that their performance responds to the needs and reasons for their creation.

International organizations could **lobby for a reform** along the lines of the new disaster management bill in order to optimize the system. In the meantime, they endeavour to **strengthen** existing **local capacities** to better perform at their respective levels of intervention. While the main trigger for becoming involved in DRM in Region VIII was the landslide in Guinsaugon (Southern Leyte, 2006) **most agencies aim at a long-term engagement** following a disaster in order to establish effective prevention and preparedness structures. For these agencies, DRM constitutes a cross-cutting issue that is increasingly integrated in all of their programmes.

The most relevant initiative in DRM in the Philippines is currently the **READY project**, bringing together different national agencies working on DRM and international donors, namely the United Nations Development Programme (UNDP) and AusAID. READY is coordinated by the Office of Civil Defence (OCD) and has established a multi-agency working group **to strengthen community awareness on DRM**.

Chapter 4 explores the *barangay* and municipal levels in order to understand the **livelihood situation**, the **perception of risk** by local people and the **existing vulnerability** related to disasters. The results of this assessment provide a basis for: proposing interventions that reduce people's vulnerability to disasters; identifying disaster prevention measures that should be integrated into the planning process (Chapter 4) and drawing up recommendations for capacity development adapted to the situation on the ground (Chapter 6). The livelihood asset pentagon from the

**Sustainable Livelihood Approach** was used to provide an overview of livelihood characteristics that make people vulnerable to disasters.

Disasters are not necessarily devastating events that are reported in the world media: in the area covered by this research, **regularly occurring, small-scale floods**, generally associated with typhoons, destroying crops but hardly affecting infrastructure, represent the main threat to the development of the region.

The population is well aware of the flood risk they are exposed to and can predict with reasonable accuracy when they will be inundated, by observing the water level and its turbidity. They cannot envisage any measures that they themselves could take to better cope with the effects on their livelihoods. In a general problem ranking **disasters** were **not identified as a priority**. The main problems encountered by the interviewed population are related to livelihood such as health, education, employment, and security. Casualties and damage to infrastructure are not the main concerns during and following disasters in the area covered by this research. It is the **impact on livelihoods, namely the destruction of crops, which poses the major problem**.

Addressing vulnerability is a time-consuming and complex process necessitating a multi-dimensional approach and encountering many structural problems. A DRM approach focussing only on technical interventions and training for disaster preparedness is insufficient. Livelihood problems must be addressed and the research team suggests further study of: **submergence tolerant rice** varieties; **improved seed management**; **diversification of crops** and **sources of income** (alternative livelihoods); **crop insurance**, and **comprehensive watershed management**, including environmental and technical interventions.

Chapter 5 analyses the **integration of risk reduction measures in development planning**, currently one of the most important activities in DRM with the focus shifting to long-term prevention and mitigation strategies including the reduction of vulnerability as described above. This integration process generally includes two aspects:

Firstly, DRM can be regarded as a **cross-cutting issue** that should be taken into account in all planning sectors (e.g. environment, health, infrastructure, etc.). The aim is to **plan with a DRM perception** in hazard-prone areas in order to: (i) **avoid** any building activities that do not immediately reduce the disaster risk in high-risk areas (spatial planning aspect); (ii) **ensure** that projects or structures do not exacerbate the disaster risk, and (iii) ensure that structures are able to **withstand** disasters.

Secondly, certain DRM measures can be regarded as **stand-alone issues** in planning, since they do not have a function that extends beyond the DRM aspect.

These comprise **specific prevention measures** such as dams, rip-raps or slope stabilization in landslide-prone areas and measures that prepare for the risk that remains even if prevention measures are in place.

The **Local Development Code** provides for planning offices at all levels. However, decentralization has occurred predominantly in administration and to a lesser extent in local policies. The process is **incomplete** in terms of fiscal decentralization, with only limited fiscal autonomy at lower administrative levels, making municipalities and *barangays* **highly dependent on the Internal Revenue Allotment (IRA)**. Planning in the Philippines is complex and is characterized by numerous sector-specific programmes. The **Joint Memorandum Circular 2007** is a long overdue attempt to improve this process by **harmonizing** the different **plans** and reducing their number.

The **planning** situation at **higher levels** (national, regional, provincial) can be defined as **comprehensive and well established**. However, it **requires enforcement** capacities, particularly with respect to ensuring that development guidelines are adopted at local levels. Planning at **municipal level** lacks a holistic approach and focuses more on annual planning. The municipal planning and development council **has insufficient staff and resources** to fulfil its duties. **At barangay level** the planning situation is **inadequate**. This is partly due to insufficient finances to fund development projects and this is combined with **limited planning skills** and capacities. **Coordination** between different administrative levels is often not optimal. **Top-down planning** is predominant, as lower levels often fail to present their respective plans in time for consideration. Planning is further hampered by a **high turnover of staff**, due to elections occurring every three years. **Planning lacks continuity and reliability**, especially with regard to the implementation of long-term programmes. Political issues also lead to a **prioritization of short-term projects**, and successful programme implementation is often impeded by widespread corruption.

Planning documents at all administrative levels were analysed with regard to the inclusion of DRM measures. The extent of **DRM integration decreases at the lower** and more decentralized **administrative levels**. A lack of adequate hazard and risk maps that constitute the basis for integrating DRM aspects into planning was apparent at all levels.

At **provincial level**, DRM aspects are considered within the Provincial Physical Framework Plan, with particular attention attributed to flood-related aspects.

The integration of DRM in the **municipal planning process** is dependent on the initiatives of the Local Chief Executive (LCE) and the Municipal Planning and Development Officer. Land Use Plans acknowledge disaster-related aspects, but do not translate these into comprehensive prevention strategies. Existing Disaster

Preparedness Plans were comprehensive, but neglected disaster prevention measures.

At **barangay level**, planning activities are only dealt with under the Annual Investment Plan (AIP) and DRM measures hardly feature in these plans. Furthermore, no Disaster Preparedness Plans exist.

In order to optimize DRM in planning it should be integrated (i) in Land Use Plans and (ii) in Development Plans.

Land Use Plans should contain **land-use classifications** based on detailed risk maps and should identify **high-risk areas**, that are exempt from development, and medium-risk areas where all projects require '**Hazard Compliance Certificates**'. These should ensure that the disaster risk is taken into account when planning and implementing the project. The **starting point** for DRM integration into the planning process is the availability of **reliable risk maps**. So far, only hazard maps for selected areas of Region VIII have been produced; the collection of **vulnerability data** is still in its infancy and the process appears to be lengthy, expensive and demands increased expertise.

Development Plans should **mainstream DRM in all sectors** (social, economic, environment, etc.). Action plans listing prevention, preparedness and response measures will serve as the basis for integrating DRM activities into the respective planning sectors.

The gap between the planning stage and actual project implementation will not narrow until LGUs have at their disposal additional **finances for DRM-related measures**. Therefore, in the short term it is suggested to support LGUs in **generating additional local revenues** and in **tapping external funding sources**, as well as permitting the **Calamity Fund to accumulate** and ensuring that this fund will also be used for disaster preparedness. In the long term it is recommended to **adjust the Calamity Fund to the risk level** that the LGU is facing and to oblige the national level to release additional finances for DRM. This would, however, necessitate changes in legislation. The same applies to the creation of permanent actors to improve proactive DRM. The fact remains that planning with a DRM perspective will only enhance disaster risk management if the **implementation of these plans** can be **assured**. **Integrating DRM** in the planning process could at the same time **promote** more **strategic thinking** through linkages between levels, sectors and departments.

Chapter 6 examines existing and needed **capacities**. One reason for insufficient bottom-up planning and inadequate implementation of plans, is a **lack of resources and skills** at the lower levels of governance. So far, decentralization has not been accompanied by an adequate capacity-building process allowing each level to take

over its full responsibilities. Few *barangays* have acquired the necessary capacities for self governance and **capacity-building at all levels should be a priority** if LGUs are to become self-reliant and more resilient to natural hazards.

In the context of DRM, **capacities are the sum of physical resources and skills, formal and informal social systems, as well as attitudes and belief systems** that empower individuals and social units to cope with extreme events. They provide the foundations for development and can be built upon when planning interventions to reduce vulnerability.

**Barangays** are regularly **confronted with hazards** affecting their livelihoods. They have reasonably functioning response systems but difficulties with long-term coping. Their organizational capacities for disaster preparedness and mitigation as well as for mid- term planning, are limited and need to be strengthened.

**Municipalities** have **greater funds**, more **professional employees** and a broader vision on issues and plans. Yet their **capacities for vertical and horizontal** communication appear moderate, resulting in insufficiently comprehensive plans, and *ad hoc* management. The current capacities should be used to help **develop holistic and binding plans** allowing for better coordination with the provinces and improved **training capacities** to disseminate knowledge to *barangays*, thus creating a sounder base for municipal plans and activities.

**Provincial** administrations see their role in **capacitating and supporting** lower level LGUs. They define major thrusts and coordinate and consolidate the framework for action of their LGUs. Furthermore, provinces have **leeway** regarding the **institutional framework** for DRM. Northern Samar has institutionalized a permanent Provincial Disaster Management Unit whilst Leyte perseveres with the classical arrangement where DRM is managed solely by the disaster coordination council. **Provinces need to be supported in order to build capacities at the local levels.** In addition, the holistic DRM concept and how it can be translated into concrete preventive measures needs to be propagated.

**A challenge** to these interventions is the prevailing attitude favouring **top-down** and **ad hoc decision making**. Decades of response-oriented disaster management and institutions providing relief goods have created a “dole out” mentality and **demotivated people** to maintain self-help mechanisms. The high turnover of staff linked to **a poor transfer of knowledge, information and responsibilities**, results in a need for **regular refresher training**.

A number of **structural changes** in the **administrative framework** have been proposed, leading to the installation of **permanent disaster management structures** or core staff to establish continuity and to facilitate coordination and capacity development at all levels. A coherent but flexible capacity development

strategy based on **capacity development modules** has been designed, addressing the needs for capacity development, without neglecting the differences from level to level: a **basic module** leading to more **awareness** and better **disaster preparedness** based on detailed **risk assessment** and an **advanced module** aiming at **improved bottom-up planning** capacities taking disaster risk into consideration. The modules could be offered as **training of trainers** to capacitate the recipients to disseminate and apply the module.

The modules are integrated into a **three-phase strategy** that allows for prompt interventions in areas in need of immediate attention, without neglecting those medium- and long-term measures that assure sustainability. **External capacity development agencies** would primarily assume the **role of facilitators** rather than that of principal trainers. Existing capacities in different disciplines are used and further strengthened to ensure ownership and sustainability. In the **long-term**, external support would gradually diminish however the training structures and modules would remain and improve with experience. As a consequence, the planning process would **reflect the needs at the lower levels**, including requests for technical training, as proposals from the lower levels are integrated into the planning of the next higher level.

**The following recommendations summarize the analysis undertaken:**

- Disaster Risk Management without livelihood development is insufficient. In the research area this implies income diversification and the quest for flood tolerant varieties.
- DRM needs to be institutionalized through the creation of permanent structures and focal persons that support the whole DRM cycle.
- International organizations should lobby with decision-makers to support the proposed New Disaster Management Bill for the Philippines.
- In order to mainstream DRM into spatial and development plans, accurate risk maps reflecting hazards and vulnerability need to be drafted. These maps should identify high risk areas, areas for limited use and core areas for development.
- Hazard Compliance Certificates should be required for activities in areas of limited use. High risk areas should be free of construction and economic activities.
- A calamity fund adjusted to the risks faced by communities should allocate the budget for disaster response and preparedness. The fund should be accumulated and not be used for bonuses.

- Preventive activities should be considered in the sector planning at all levels. National contributions could serve as incentives to use a “disaster lens” when planning projects.
- Capacity development should improve the response system by raising awareness, and clarifying responsibilities and communication lines. In a subsequent step it should support long-term, strategic and bottom-up planning with DRM featuring as a factor in the plans.