

FROM TRAGEDY TO RESILIENCY: A JOURNEY FROM THE 2006 GUINSAUGON LANDSLIDE

Local Government Unit
St. Bernard, Southern Leyte, Philippines



Strengthening
Climate
Resilience

SCR

Case Study
Summary
PHILIPPINES

Which of the three pillars does this project or policy intervention best illustrate?

- Tackling Exposure to Changing Hazards and Disaster Impacts**
- Enhancing Adaptive Capacity**
- Addressing Poverty, Vulnerability and their Causes**

Since it reactivated its Municipal Disaster Coordinating Council (MDCC), St. Bernard in partnership with different NGOs has conducted a series of trainings on disaster preparedness, risk reduction, mitigation & climate change adaptation (CCA) for municipal officials, community leaders and other community members. These capacity building activities covered topics from disaster preparedness, mitigation, emergency response, and many others. Drills on flood, tsunami, landslide, and earthquake were also conducted in villages and schools.

The LGU has also implemented many small-scale flood, landslide and multi-hazard mitigation projects that have helped reduce the risk & vulnerability of St. Bernard against hazards. These mitigation actions include the construction of gabions, dredging of river, mangrove planting to mitigate typhoon surges, bamboo planting & set-up of coconet (*tough netting made of coconut husks to anchor soil on slopes*) in steep mountain slopes to lessen the risk of landslides, and many others. A comprehensive early warning system (EWS) was also established and vulnerable communities exposed to risk/danger zones were relocated to areas less prone to hazards.

Livelihood programs were implemented especially for farmers who were affected by drought. Alternative livelihoods like the cultivation of fruit trees and associated crops were promoted at the community level. Food security and innovative agricultural systems that can ensure better crop yield are also being implemented by the LGU in cooperation with local and international NGOs.

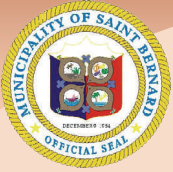
On governance, the town has been recognized for successfully incorporating disaster preparedness & risk reduction into its Executive-Legislative agenda and in 2008, the town was also awarded for having the best disaster contingency plan and disaster risk reduction management program.



In 2006, one of the world's worst landslide hit Southern Leyte that almost wiped out the entire 480 hectares in **Barangay Guinsaugon**, one of the 16 villages of the town of St. Bernard. The disaster left in its wake 28 injured, 410 registered survivors and buried alive at least 1,000 people. The town had experienced other disasters in previous years, but St. Bernard was unprepared for the magnitude of the Guinsaugon disaster. After the tragedy, hazard assessments were conducted by the Philippine Institute of Volcanology and Seismology (PHIVOLCS), Mines and Geosciences Bureau (MGB) and NGOs like CARE Philippines and the results revealed that 70% of the total land area of St. Bernard is highly vulnerable to many hazards.

Because of this, St. Bernard strengthened its existing Municipal Disaster Coordinating Council (MDCC) and under the leadership of current municipal head, **Mayor Rico Rentuza**, the town has increasingly taken measures towards building its resilience. Two years after the tragedy, St. Bernard has received the prestigious **Gawad Kalasag Award**, an annual Presidential Award given to the municipality / province / city which has the most exemplary Disaster Coordinating Council and for having the best *Contingency Plan and Disaster Preparedness / Disaster Risk Reduction Management Program* in the country. Despite limited funds, St. Bernard, being a 4th Class* municipality held a pro-active stance. Mayor Rentuza, together with the MDCC, strengthened its resilience through significant capacity-building projects, regular flood- tsunami-landslide-earthquake drills, incorporating Disaster Preparedness in the Executive-Legislative agenda, small-scale and non-structural mitigation projects, Early Warning Systems, among many other interventions. These were accomplished through a pro-active approach and through the cooperation, help, and support of the community, and various NGOs including CARE Philippines under the ACCORD Project; GTZ; the Philippine National Red Cross, and Plan Philippines, among others.

*municipalities are divided according to income level. A 4th class municipality has an annual income between PHP 20 to 30 million (USD600-645 thousand) for the last 3 years



PRO-ACTIVE DISASTER RISK MANAGEMENT

the right choice for effective local governance

Given its geographical location's hazard / risk vulnerability profile, St. Bernard municipality was faced with the options: to either pack up, leave and relocate all inhabitants from its 16 villages to a "safer" place (avoidance); wait for another disaster to happen and respond accordingly (reactive); or prepare and take action to minimize damages where possible before another disaster could take place (pro-active). St. Bernard has chosen the "pro-active" disaster risk reduction / management approach, striving towards the goal and vision of a "resilient St. Bernard." Notably, the local government unit (LGU) has ensured that disaster risk reduction and climate change adaptation programs, trainings and activities are incorporated in its annual development planning and budgeting. Also, the LGU works in partnership with a host of local and international organizations who share in supporting the rebuilding of the affected areas and preparing the at-risk communities in St. Bernard. Capacity building programs were implemented, community organizations were formed, livelihood and resettlement projects are continuously being undertaken, and various other programs / projects / adaptation actions are implemented with and through the support of the LGU to make St. Bernard truly a resilient community.

The LGU has Incorporated disaster risk reduction in its development planning processes particularly in the development and implementation of the Executive and Legislative Agenda (ELA) that incorporates disaster-proofing the development priorities; and the Annual Investment Plan (AIP) innovatively using local resources such as the Calamity Fund & Economic Development Fund, pro-actively shifting from using these funds from emergency response to disaster preparedness, mitigation, and climate change adaptation projects.

Other DRR Initiatives

- ◆ Activities for developing and strengthening community capacities for disaster preparedness and mitigation:

Participatory risk assessment, Multi-hazard mapping; Training on CBDRM and disaster preparedness for community and community trainers.

- ◆ Activities for strengthening LGU capacities disaster risk reduction: Developing standards, guidelines and protocols on emergency response; Emergency response preparedness training; Municipal contingency planning; Barangay contingency planning; Evacuation drills for communities and schools.
- ◆ Setting-up the St. Bernard Emergency Response Unit (SBERU)
- ◆ Setting-up a community-based early warning system
- ◆ Provision of disaster preparedness and EWS equipment
- ◆ Small-scale mitigation projects: Construction of gabion (*large wire baskets, filled with rocks to stabilize shorelines or slopes*) as flood mitigation measure; Dredging of Lawigan River
- ◆ Relocating communities in danger zones to areas less-prone to hazards
- ◆ Establishment of Coconet on mountain steep slopes to lessen landslides in St. Bernard
- ◆ Updating the Comprehensive Land Use Plan (CLUP) using identified risk factors such as results of the READY multi-hazard mapping, capacities and vulnerabilities of communities and municipalities
- ◆ Establishment of permanent relocation sites to relocate households living along the riverbanks prone to flood/ flashfloods and households lying along the coast who are prone to storm surge and even tsunami, through the partnership with Gawad Kalinga.
- ◆ Establishment of Flood Early Warning System by GTZ. The EWS operates by telemetered device that would transmit data (such as rainfall volume and water level of floods at the upstream river) to the Operation Center via radio frequency and thus alert people



From the top: Community participatory risk assessment at the community; Evacuation drills at communities and schools; Municipal contingency planning activity; Rain gauge in the community-based early warning system

Climate Change Adaptation Actions

The Local Government Unit (LGU) of St. Bernard has initiated a “ridge to reef” approach in protecting and conserving natural resources especially for the Hinabian-Lawigan Watershed. In the up-land areas, with the help of DENR and GTZ, the municipality has a program on restoration and conservation of the ecosystem like reforestation, and Assisted Natural Regeneration (ANR) projects like agro-forestry, and bamboo plantation. There is also the promotion of alternative livelihoods like fruit-trees and other associated crops to communities, and planting of bamboo as mitigation measures against soil erosion along riverbanks especially during heavy rains.

Establishment of mangrove greenbelt and rehabilitation of mangrove areas to mitigate typhoon surge is also one of the activities being implemented for averting climate change impacts in St. Bernard. Initiated by the LGU headed by Mayor Rico, the youth are taking the lead in planting

mangrove along the coastline, including the planting of bamboos along the riverbanks to lessen the impacts of strong water current during flooding causing major damages to farmlands to reduce the continuous soil erosions within the riparian zone.

In the past, farmers lost their crops due to black bug infestation and long periods of drought. Livelihood Programs were initiated by the municipality using its own resources and by tapping external resources from national agencies and different NGOs as well. Food facility programs are also set to be implemented in the municipality. CARE Nederland has launched their project “Making Safe Food Available and Accessible to Rural Poor Households in the Philippines”. GTZ’s project, “Enhancement of Food Security in the Visayas” (EFOS) will rehabilitate irrigation systems to increase rice production yield as well as to provide an additional income to farmers so they can buy food and provide basic needs for their families.

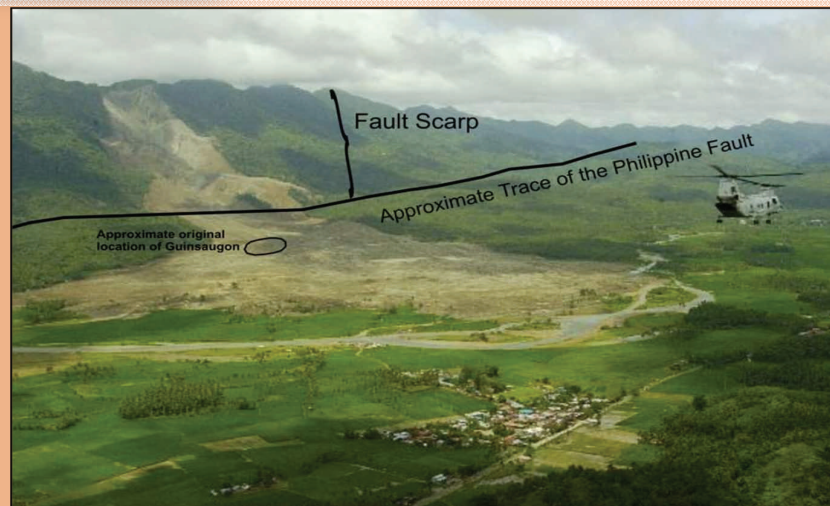
Children & Youth Camp on Climate Change and Disaster Preparedness



Since 2006, over 400 children and youth leaders from Southern Leyte has participated in numerous climate change and disaster preparedness camps held in the province. Its goal was to educate the young generation about global warming and climate change increase awareness of how these phenomena increase vulnerability to hazards. Camp participants came up with a “declaration of practical and doable things” that they can do at home and in the community to avert climate risks and minimize global warming. Some of the youth led initiatives to avert climate risks with included planting mangroves, trees, and bamboo.



Guinsaigon, in St. Bernard, Southern Leyte made headlines around the world on February 17, 2006 when, after two weeks of heavy rains, a portion of Mt. Kan-abag collapsed, covering the Guinsaigon village with hundreds of tons of rocks, mud and debris and burying alive at least 1,000 people. It occurred at about 10:30 in the morning when a cliff face of a ridge straddling the Philippine Fault collapsed in a rockslide-debris avalanche event, translocating and subsequently burying the Guinsaigon village in the town of Saint Bernard. Up to ten smaller landslides had occurred within the previous week in the vicinity of St. Bernard, but Guinsaigon was the worst-hit community. The landslide occurred along the steep fault scarp of the Philippine Fault Zone, a large and active tectonic structure that traverses the entire length of the Philippines. The village of Guinsaigon was located at the foot of the scarp, directly along the path of the downward moving mass of earth. Heavy rainfall and a minor earthquake of magnitude 2.6 were the dominant factors that triggered the Guinsaigon avalanche. Among the worst of the tragedies was the burial of the local elementary school, located nearest to the mountain ridge, as the landslide occurred when the school was in session and full of children. At that time, the school had 246 students and seven teachers; only one child and an adult were rescued. Eighty women who were taking part in the celebration of the fifth anniversary of the Guinsaigon Women’s Health Association also lost their lives in the avalanche. Millions of pesos were lost in infrastructure and agricultural damage in the area. The communities adjacent to Guinsaigon were also directly affected and were also evacuated due to further threats of landslides in the area. Southern Leyte lies along the active Philippine Fault Line, very near the Philippine Trench and is located within the so-called “Ring of Fire”. A Rapid Assessment conducted by the Mines and Geosciences Bureau (MGB) after the Guinsaigon landslide found that out of the 500 barangays or communities,



104 are highly susceptible and 136 moderately susceptible to landslides. In view of this reports, 35,931 persons, 12,494 families and 19,259 hectares of land are affected by the threats of landslides in eight municipalities and one city in Southern Leyte. In addition to landslides, Geo-hazard maps produced by the READY Project also show that St. Bernard is vulnerable to hazards like typhoon, flooding, earthquake, tsunami, liquefaction, and storm surge.

Lessons Learned

These are the lessons learned based on the LGU experiences in implementing disaster risk reduction (DRR) and climate change adaptation (CCA) activities in St. Bernard:

- ◆ **Multi-sectoral participation.** During the formulation of the Barangay Development Planning, active participation from all sectors in the community has been solicited. All sectors should be represented. Farmers, business, women's group, senior and others were obliged to attend the Land Use-based Barangay Development Planning Formulation Workshop held in every community. The premise was based on the fact that people in the community know better what their needs and problems are, they know better what their concerns are.
- ◆ **Listening to the voice of the most vulnerable.** "Those who have less in life must have more in law". Listening to the voice of the most vulnerable means adopting a rights-based approach, where the less fortunate and people at-risk (elderly people, children, people with disabilities, women and people living in hazard prone areas) are given the first priority to be served.
- ◆ **Accountability and transparency to whom we serve.** Transparency and accountability to beneficiaries is imperative and foremost. Accountability and transparency to donors follow.
- ◆ **Advocacy and enabling legislations.** The institutionalization of DRR and CCA into the local development planning has been achieved with the support of legislations like the ELA (Executive and Legislative Agenda). In order for there to be a harmonious relationship between the Executive and Legislative departments in the municipality, there should be a supportive resolution from the Sangguniang Bayan regarding the MOA authorizing the Mayor to engage in partnerships with CSOs on DRR/CCA activities.
- ◆ **Political Will.** The Mayor and the municipal Officials must demonstrate strong and determined commitment to implementing DRR and CCA, without bias to any political affiliations or social-economic divisions.

Resources:

"FROM TRAGEDY TO RESILIENCY: A Journey from the 2006 Guinsaugon Landslide to the 2008 Gawad Kalasag Award" a presentation by Mayor Rico Rentuza, Municipality of St. Bernard, Southern Leyte

Municipality of St. Bernard, Southern Leyte Contingency Plan, July 2009



Above: Gabion wall construction as flood mitigation measure.

Below: Already constructed gabion wall



For more information on this project, please contact:

MUNICIPAL DISASTER COORDINATING COUNCIL (MDCC)
Municipality of St. Bernard
Southern Leyte, Philippines

HON. RICO RENTUZA
Municipal Mayor
Email: Igu_saintbernard@yahoo.com
<http://www.saintbernard.gov.ph>



Strengthening Climate Resilience

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Strengthening Climate Resilience (SCR) is a DfID funded programme that aims to enhance the ability of governments and civil-society organisations in developing countries to build the resilience of communities to disasters and climate change as part of their development work. The programme seeks to develop a 'climate smart' approach to managing disaster risk and development with the aim to protect society from the threats posed by climate change.

For more information on SCR, please contact Mr. Atiq Kainan Ahmed, Plan International, Asia Regional Office, email: atiq.ahmed@plan-international.org

