

ARISE Case Studies in Disaster Risk Management



Safe Places, Safe Communities (An Evacuation Shelter for the People of Tanauan)

In the aftermath of Typhoon Haiyan in 2013, a majority of the designated evacuation centers (mostly in the form of school buildings or public gymnasiums) were severely damaged. In the drive to build back better and safer, the Philippine Disaster Resilience Foundation and its partners aimed to build safer and more structurally sound, dual-purpose evacuation centers that are hazard-adaptive and sensitive to the needs of Persons with Disabilities (PWDs), women, and children.

RISK

ACTION

IMPACT

OUTPUT

Tanauan is a municipality with a total population of 53,310 and 12,386 households coming from 54 barangays.

Tanauan was one of the hardest hit towns by Super Typhoon Haiyan (locally known as Yolanda). In many localities, the designated evacuation centers were completely destroyed. With stronger typhoons expected due to climate change, Tanauan, like many other municipalities, will need typhoon resilient infrastructures and facilities in place to help reduce the municipality's overall vulnerability to potential hazards.

Not long after Haiyan, several typhoons also passed and which caused severe flooding and landslides. This emphasized further the need for hazard adaptive structures and facilities.

After conducting a series of studies on the area (soil testing and hazard analysis) and interviews on the local community's experience, PDRF, in partnership with the local government of Tanauan and the United Methodist Committee on Relief (UMCOR), constructed a two-story, four-classroom building that can be used as an evacuation center in case of emergencies. The evacuation center, the design of which was donated to PDRF, can withstand the impact of natural hazards such as typhoons, flooding, and storm surges.

When another typhoon struck in late 2014, many residents of Tanauan were forced to evacuate further inland, causing overcrowding. The newly established evacuation center in the town proper aims to provide safe shelter and help ease overcrowding during disasters. The evacuation center has been regarded as a model for safer, hazard resilient design. With the lessons learned in the construction of the first center, the design has been enhanced to make it more appropriate to the safety needs of the community.

The design meets both local and international standards for a disaster resilient evacuation center. It has been adopted by the donor swith other NGOs working on building them in Tanauan and Tacloban.

Apart from having space for evacuees, the evacuation center also has bathrooms at both levels, a kitchen area, alternative power and water sources, room partitions for the benefit of women and children, and a ramp leading up to the second floor to help improve accessibility for Persons with Disabilities (PWDs).

At present, the evacuation center is being used as a school building to hold classes, training sessions and town hall gatherings. With the structure in place, the local community has engaged in several capacity-building exercises (including drills and camp management training) in order to further enhance their capacity to respond to disasters.

PDRF has made the final design available to interested organizations.



Storm surge inundation map for the Municipality of Tanauan, Leyte



The four classroom, two-storey school building that also functions as an evacuation center in Barangay Canramos, Tanauan, Leyte



ARISE Case Studies in Disaster Risk Management



Lessons Learned

What makes this initiative valuable to the community is that the structure is designed to withstand the impact of existing and potential hazards. Working closely with the firm which initially worked on the design, and together with the local government, the evacuation center for Tanauan was enhanced. It was important for the team to conduct tests such as soil analysis and hazard analysis to ensure that the building will be safe during disasters. However, it is worthy to note that building a hazard-adaptive and needs-sensitive evacuation center is not enough. Programs that enhance community involvement (disaster risk reduction and management capacity-building) were also crucial in helping the overall capacity of the municipality to respond to disasters.

BUSINESS CASE

REPLICATION OPPORTUNITIES

PDRF aims to contribute in building hazard-adapted safe spaces for communities, complete with facilities and basic services for evacuees.

Provision of safe shelter for the community will help improve the overall capacity of local government units to respond to disasters.

The evacuation center design has been used by other implementing agencies. To date, PDRF has built two (2) centers while three (3) more centers are being constructed.

With endorsements from relevant government agencies, the technical designs are made publicly available to aid other organizations planning to build a disaster-resilient evacuation center.

How does the project support the implementation of the Sendai Framework targets?

	men account his journament and migration of the containing and the grant and grant					
1	Reduce disaster mortality by 2030	х				
2	Reduce number of affected people by 2030	х	Providing resilient, safe places in strategic locations close to the community will help reduce vulnerability during disasters. Incorporating community-based capacity-building activities that will help increase awareness of hazards in the area and strengthen disaster preparedness will help decrease the number of people who will potentially be affected during disasters.			
3	Reduce economic loss by 2030					
4	Reduce infrastructure damage and disruption of services by 2030					
5	Increase countries with DRR national/local strategies by 2020	х				
6	Enhance international cooperation to developing countries		336			
7	Increase the availability of and access to EWS* and DR information to people by 2030	х				

How does the project contribute to the ARISE Themes?

1	Disaster Risk Management Strategies	Х	
2	Investment metrics		The strategies implemented in this project contribute mainly to the
3	Benchmarking and Standards	Х	urban risk reduction and resilience theme of ARISE. The project also aims to improve the standards of building evacuation centers by considering the basic needs of PWDs, women and children in the design process.
4	Education and Training	Х	
5	Legal and Regulatory		
6	Urban Risk Reduction and Resilience	Х	
7	Insurance		



For More Information

UNISDR ARISE

UNISDR ARISE TEAM arise@un.org http://www.unisdr.org/partners/pri vate-sector

Philippine Disaster Resilience Foundation

Rene S. Meily rsmeily@hotmail.com

http://www.pdrf.org