

Field experiences (and cases) on climate change, natural disasters and land tenure issues

Discussion context

Two of the deadliest typhoons to hit the Philippines in recent years—Typhoon Washi (*Sendong*) in 2011 and Typhoon Haiyan (*Yolanda*) in 2013—provide the discussion and analytical contexts for the two case studies and two provincial consultations conducted on the link between climate change and land tenure issues. Moreover, a desk review was conducted regarding land and tenure issues brought about by these two typhoon events.

Typhoon Haiyan (November 2013) was the strongest typhoon to hit the Philippines in recorded history, packing winds at a speed of 315 kilometers per hour with gusts as strong as 380 kilometers per hour. It caused 6,300 deaths, with 1,062 missing (NDRRMC, 2013). It also prompted the largest single displacement in recent history, with some four million people reportedly displaced from their homes. Three years later, in 2016, more than 800 thousand individuals (200 thousand households) remained with no permanent housing, and thousands had erected temporary shelters in vulnerable coastal “danger zones” or “no-dwelling zones” (IDMC, 2017). Typhoon Washi (December 2011) meanwhile ranks as the third deadliest typhoon ever to hit the country, causing 1,286 deaths and 49 missing, with some 132,00 families rendered displaced or homeless (NDRRMC, 2012).

Summary of key findings and discussions

Tenure insecurity and vulnerability. The lack of tenure security of poor people increases their vulnerability and risks to the direct effects of climate change. Poverty forces people to cultivate marginal lands that may be too steep, too dry, too wet or prone to erosion, or else to occupy fragile public land, drainage systems, and easements beside waterways or coastal areas that are vulnerable to flooding, high tides, and storm surges. Moreover, informal settlements especially in urban areas are often densely packed, with housing made of temporary and semi-permanent materials, and with a lack of planned infrastructure which hampers reaction or response to emergencies. The lack of tenure reduces the incentives and capacity for people to invest in housing improvements or to modify their living environment to protect their homes against floods, landslides, etc. Thus, many poor households fall into a constant cycle of disrepair and rebuilding after each disaster. While most of the poor are aware of the risks of their homes to natural hazards, they choose to accept or ignore such reality, in order to live closer to their sources of livelihood.

In the case of Typhoon Washi, heavy rainfall in the highlands caused flash floods and landslides that sent mud and logs crashing down on communities near the river, mountain, and sea. Hardest hit were Cagayan de Oro and nearby Iligan City where at least 1,000 people were killed overnight. Those living near riverbanks and low-lying areas were most affected, including large numbers of informal settlers and neighborhoods that were part of Cagayan de Oro City’s socialized housing program (Franta, et al., 2016).

Limited choices, cycles of vulnerability. The lack of tenure security limits people’s choices and diminishes their capacity to recover and rebuild from a disaster. If not adequately addressed, the tenure of insecurity may create cycles of vulnerability, as displaced persons with no rightful claim to land are likely to: (i) fall deeper into poverty with unrestored livelihoods; (ii) move back into their former areas of displacement or relocate to unsafe land, or (iii) form residual caseloads of landless groups without access to land and permanent housing (Oxfam, 2014).

Reclaiming affected property. People with secure tenure are more confident about reclaiming their property if the damage is not permanent. In contrast, affected households with no secure tenure are likely to have greater difficulty in relocating or reclaiming their original occupied properties following a disaster (Eleazar, 2010). In the case of Haiyan and Washi, many of those with no secure tenure were prevented from returning to their areas, and from repairing and rebuilding their homes, as these were deemed to be “high-risk” areas.

Destruction of boundaries and land records. Disasters may cause the destruction of titles, land records and cadastral maps, and the shifting of physical and natural boundaries. Families also lose important documents that may be difficult or costly to reconstitute. Moreover, official reports regarding disaster losses focus more on public infrastructure, and do not include the loss of land records and boundaries. Disaster funds do not cover the expenses required by the agencies to reconstitute their records, conduct cadastral surveys or provide land title reconstitution services for affected families (Eleazar, 2010). This affects the work on rebuilding, as the tasks of delineation and rehabilitation of private parcels are left entirely to private owners. Boundary disputes may arise as parcels are re-delineated via new surveys.

Permanent shelter programs. People without secure tenure may lose out on permanent shelter assistance. Shelter programs in response to Typhoon Yolanda potentially excluded informal settlers and lessees, as the eligibility criteria under the *Omnibus Shelter Assistance* included the need for legal ownership or a guarantee of long-term occupation through the submission of a lease agreement covering a ten (10)-year minimum occupancy over the land to be used to build shelter⁹ (Alvarez, 2017).

No-build zones. In the aftermath of Typhoon Haiyan, the Office of the Presidential Assistant for Rehabilitation and (OPARR)¹⁰ and the Department of Environment and Natural Resources (DENR) declared a “40-meter no-build zone” along the coastlines of Eastern Samar and Leyte, two of the worst-hit areas. Given the absence of existing legislation on this matter, the declaration was based on protocols outlined in Article 51 of the *Philippine Water Code*, established in 1976 by virtue of PD 1067. This led to confusion in the policy’s interpretation and implementation—as noted by local government units (LGUs), line agencies, and humanitarian agencies—as it affected some 200,000 people who faced the prospect of prolonged displacement. The “no-build zones” was later changed to “no-dwelling zones,” meaning that structures can be built in the area, but not inhabited (IRIN, 2014).

Several questions were raised regarding these “no-build” zoning regulations:

- a. A 40-meter distance from the shoreline may not guarantee safety from a super-typhoon. But the usual predicament faced by government is: how does one find the right balance between

protecting tenure rights and livelihoods (especially for marginalized sectors), and the need to ensure public safety?

- b. Does the designation of “no-dwelling zones” mean that lands can be used (or leased out by government) for tourism, commerce and industry, but not for residential purposes? How will this affect other sectors, such as the fisherfolk?
- c. Finally, what is the basis for the 40-meter “no-build zone?” At best, local zoning and land use regulations should be based on scientific studies (such as geo-hazard mapping), and guided by a national policy.

Similarly, following the destruction brought by Typhoon Washi, some areas near the Cagayan River that had previously been occupied by informal settlements were declared to be “no-build” zones. However, some re-occupation occurred in spite of the restriction (Franta, et al., 2016).

Relocation and resettlement. Massive numbers of families needed to be relocated and permanently resettled elsewhere in the aftermath of major disasters. Following Typhoons Haiyan and Washi, relocation and resettlement programs in Eastern Visayas and Cagayan de Oro City encountered several tenure-related problems:

- a. *Lack of standard eligibility criteria for relocation.* In many cases, lessees and/or tenants of apartments and boarding houses were deemed ineligible for relocation assistance. In other cases, informal settlers living outside the “no-build zones” but who were nonetheless refused permission to rebuild, were also excluded from permanent resettlement sites (Oxfam, 2014).
- b. *Lack of safe public lands for relocation.* While funding for housing is available, there has been a lack of suitable and adequate public lands for the relocation of affected families in the wake of major disasters such as Typhoons Haiyan and Washi. LGUs have limited funds for the purchase of private lands (Alvarez, 2017). Thus, years after the disasters, hundreds of thousands still wait for permanent relocation, many remain in temporary shelters, and many remain in high-risk zones (IDMC, 2017).
- c. *Land conversion for resettlement areas.* To address the issue of lack of lands for resettlement sites, the Department of Agrarian Reform (DAR) issued Administrative Order (AO) No. 9 series of 2014 on “Special Rules on Application for Land Use Conversion Necessary for the Construction of Resettlement Areas for those Affected by Typhoon Yolanda.”¹¹
- d. *Lack of livelihoods and utilities in relocation communities.* For those living in the relocation sites, sources of income are rare. Other sites are located in hazardous areas or lack basic services like potable water. For those who travel to the core of the city to make their living, a significant portion of their income goes to transportation costs. Thus, many opt to remain in high-risk areas even if given a chance to relocate (Franta, et al., 2016).
- e. *Residual caseloads.* Finally, there is a danger of long-term residual caseloads of displaced persons. Displacement impacts on the ability of people to resume their livelihoods. Residual caseloads of displaced people often return to unsafe lands because to them, the advantages of

disaster-prone areas (i.e., being near sources of livelihood, low transport costs) are perceived to outweigh the risks (Eleazar, 2010).

Studies indicate that there are three main ways by which the tenure of internally-displaced persons are deemed as “permanently resolved:” (i) when they return to their homes and places of origin; (ii) when they are permanently resettled; or (iii) when they relocate or migrate to other places as an adaptation strategy. However, in reality, poor families often use combinations of these three approaches in their survival strategies. For example, a household head might return to high-risk areas for livelihood, while the rest of his/her family remains in the permanent resettlement site.

Eviction of tenants. In Guian and Quinapondan, Eastern Samar, tenants in coconut farms were being evicted by their landowners as they were unable to pay their lease rentals after Typhoon Haiyan had damaged their crops. Moreover, some landlords harvested the fallen coconut trees and sold them as lumber, without giving the tenants a share of the proceeds from the sale. Also, some landowners began to sell the lands without the knowledge of their tenants (Alvarez, 2017). (See box article: case study 1)

In response to the issue of evictions, DAR issued AO No. 2-2014 that states “no tenant shall be ejected, dispossessed or removed from his/her landholding due to non-payment of lease rentals as a result of a fortuitous event.” It also allowed the re-negotiation of new leasehold arrangements. Moreover, AO No. 2-2014 also specified that in the case of cut coconut trees, the net proceeds (after deducting expenses for cutting and hauling) shall be divided between tenant and landowner on a 75-25 sharing arrangement. Furthermore, in cases where the landowner decides to sell the land, the law gives tenants the “preferential right to buy the agricultural landholding.”

However, the question lies in the capacity of government to monitor and implement the legal rights of tenants and leaseholders. Even prior to Haiyan, the 50-50 share tenancy arrangement has been prevalent among tenanted coconut farms in Eastern Samar, instead of the 75-25 leasehold sharing in favor of tenants as required under The Agricultural Land Reform Code (RA 3844) and The Comprehensive Agrarian Reform Law (RA 6657). Moreover, many tenants have no written contracts. The DAR also seems to have no database or registry on the total lands that should be covered by leasehold contracts or agreements. Annual targets set by the local DAR are merely based on the *renewal* of existing contracts (Lim, 2016).

Displacement of fishing communities. Artisanal fisherfolk have been the sector hardest hit by Typhoon Haiyan. As most of them live near coastal areas, and have no formal and legal tenure to their homelots, they were summarily displaced and relocated after the typhoon. And as they were temporarily relocated, other people came forward to claim some of the coastal areas that the fisherfolk previously occupied, and subsequently applied for a Foreshore Lease Agreement with the DENR (Alvarez, 2016). Under Section 108 of the Philippine Fisheries Code of 1988 (RA 8550), fisherfolk are entitled not just access to fishing grounds, but they are entitled to be in designated fisherfolk settlement areas “where certain areas of the public domain, specifically near the fishing grounds, shall be reserved for the settlement of the municipal fisherfolk.”¹²

But while the establishment of fisherfolk settlements is mandated by RA 8550, there are still no clear guidelines how this can be implemented (Rodriguez, 2017).

Case Study 1: Linking Tenure and Climate Change: Haiyan in Eastern Samar

Issues of land rights and tenure often arise in the aftermath of major calamities and disasters, due to the displacement of communities and the need for relocation programs.

After Typhoon Haiyan/*Yolanda* hit the municipalities of Guian and Quinapondan, Eastern Samar, not only did the farmers and fisherfolk find themselves without their homes, crops and livelihoods, they were also being driven off the land. Tenants were being evicted by their landowners as they were unable to pay their lease rentals after the typhoon had damaged their crops. Moreover, some landlords harvested the fallen coconut trees to sell as lumber, without giving the tenants a share of the proceeds. Also, landowners began to sell the lands without the knowledge of their tenants.

Fisherfolk were the most vulnerable to displacement as their homes and livelihoods were destroyed. While they were temporarily relocated, other people came forward to claim the coastal areas that the fisherfolk previously occupied, and subsequently applied for a Foreshore Lease Agreement with DENR.

Meanwhile, many problems were encountered in resettlement. Public lands were limited but LGUs could not afford to acquire private lands for relocation sites. In Guian, prospective beneficiaries questioned the selection process for resettlement, citing that some of the beneficiaries were not residents of the municipality, while earlier beneficiaries had leased their awarded housing units and used the money to return to their original home sites.

For those seeking shelter assistance from the Department of Social Welfare and Development (DSWD), one eligibility criteria under the Core Shelter Assistance (CSA) and Modified Shelter Assistance (MSA) programs was the need for a guarantee of ownership or long-term occupation for at least 10 years for the land to be used as shelter, thus potentially excluding informal settlers and lessees.

The “no-build zones” policy covering 40 meters from the coastline left confusion among both the communities and the LGUs. Meanwhile, the Comprehensive Land Use Plans (CLUPs) in Eastern Samar were also found to be outdated.

Source: Alvarez, K. (2017). Linking Land Tenure and Climate Change: The Case of Haiyan in Eastern Samar, Philippines. Quezon City: ANGOC.

Overlapping tenure. Major disaster events have served to un-mask and expose the status of contested lands, as well as the pre-existence of erroneous surveys. For instance, in the island of Homonhon, Guian, Eastern Samar, it was discovered that tenant-tillers had been executing leasehold contracts with alleged landowners, even though the land was found to be classified as public “timberlands.” In Quinapondan, Eastern Samar, many cadastral surveys were found to be erroneous. In other cases, multiple tax declarations were discovered over the same property.

Land speculation and landgrabs. Calamities create opportunities for land speculation and landgrabs as a result of population displacement. In the aftermath of Typhoon Haiyan, reports of developers and powerful elites grabbing abandoned land were widespread. In Tacloban city, the local government headed by a prominent political family prevented reconstruction by informal settlers on land which it owned, supposedly because the site is disaster-prone. However, it was found out later that the national government had expressed interest in purchasing the land to

expand the runway of Tacloban's airport to accommodate international flights—a project that would ultimately work to the advantage of the political family (Bradshier, 2013).

In Sicogon Island, Iloilo, local elites in collaboration with a development corporation used the devastation of properties and livelihood of fisherfolks brought on by Typhoon Haiyan, to execute a long-standing plan to launch a high-end tourism hub on the island. After the typhoon, landlords reportedly offered cash incentives and zero-cost relocation for affected households to waive their rights to the land and to permanently vacate the island. The renouncement of rights to the land included the withdrawal of Comprehensive Agrarian Reform Program (CARP) application and the dropping of cases filed against landowners. Acceptance of these offers would allow them to receive relief goods. Majority of those who accepted these offers were those without titles to the land and those who were not eligible for the government's agrarian reform program (Uson, 2017).

LGU responsibilities. Under the Local Government Code of 1991, LGUs have the duty to carry out emergency measures in response to man-made and natural disasters and calamities. LGUs are also given the responsibility and powers: (i) to expropriate property “for public use, purpose, or welfare for the benefit of the poor or landless;” (ii) to prepare Comprehensive Land Use Plans (CLUPs), reclassify lands, and institute zoning; and (iii) to undertake programs and projects for low-cost housing and mass dwellings (for city and provincial LGUs).

Land use planning and LGUs. Questions have been raised on the capacity of LGUs to undertake CLUPs that integrate disaster risk-reduction measures, while making development plans risk-sensitive. LGUs in Eastern Samar were observed to have outdated CLUPs (Alvarez, 2017). In Cagayan de Oro City, the victims of Typhoon Washi included beneficiaries of the city's earlier socialized housing program that was found to be located in a flood-prone area (Franta, et al., 2016). Proper land use planning, if grounded on science-based assessments, will reduce the risk of future displacement or eviction of vulnerable communities.

Hazard mapping. Several initiatives have been started at the national and provincial and city levels to undertake hazard mapping and assessments for more effective disaster risk reduction and management. However, there is need for capacity building among LGUs and communities to integrate disaster risk management in local development planning, to include regulations on land use.

National land use policy. A national land use policy is needed to guide LGUs in updating their CLUPs. However, the legislative Bill on the National Land Use and Management Act (NLUA) has long been pending in Congress.

Protecting the watersheds. When Typhoon Washi struck in December 2011, torrential rains in the uplands led to the sudden swelling of the Cagayan River, bringing down mud and debris that caused catastrophic flooding downstream in Cagayan de Oro City. Illegal logging, small-scale mining, timber poaching, and quarrying in the uplands had triggered erosion, landslides and flooding (Ravanera, 2017). This case shows how watershed management remains a major challenge in the Philippines, as many cities are located on flat plains between the coast and upland water catchment areas. Watersheds extend across several political jurisdictions, making comprehensive management policies difficult to develop and enforce (Franta, et al., 2016).

Payment for Environmental Services (PES) approach. In Northern Mindanao, a working partnership was initiated in 2014 between citizens of Cagayan de Oro and the Talaandig indigenous community in Talakag, Bukidnon (through their association called MILALITTRA) for the protection of the Batang sub-watershed that feeds into the Cagayan de Oro river system.

Case Study 2: Linking Tenure and Climate Change: MILALITTRA in Mt. Kalatungan, Bukidnon

The Mt. Kalatungan mountain range spans 3 municipalities and Valencia City in Bukidnon. It is a key biodiversity area and supports the headwaters that feed into 35 river systems within the Cagayan de Oro River Basin. However, years of illegal logging, small-scale mining, timber poaching, and quarrying have degraded the forest ecosystem, resulting in uncontrolled soil erosion, landslides and flooding. Thus, when Typhoon Sendong struck in December 2011, torrential rains led to widespread and catastrophic flooding in the downstream cities of Cagayan de Oro and Iligan. This led to a public outcry for reforestation and better protection of the upland watershed areas.

The *Talaandig* indigenous community covers 4 barangays in Talakag, Bukidnon. Under an association called MILALITTRA, the community was earlier awarded 11,367 hectares of land under a Certificate of Ancestral Domain Title (CADT) issued in 2003. The headwaters from the MILALITTRA-controlled slopes of Mt. Kalatungan flows into the Batang sub-watershed of the Cagayan de Oro river basin, and was found to be the main source of floodwaters that hit Cagayan de Oro during Typhoon Washi/*Sendong*. Thus, the reforestation of the Batang sub-watershed was deemed crucial to prevent another catastrophe.

One partnership innovation was the Payment for Environmental Services (PES). Under the PES scheme, MILALITTRA would act as a “seller” of ecosystem services. It proposed to develop and protect 1,648 hectares (816 hectares for agroforestry and 832 hectares for reforestation). The “buyers” would be the beneficiaries from this scheme, i.e., downstream businesses, cooperatives, academic institutions, households, and individuals. Xavier Science Foundation would act as fund manager and intermediary for this scheme. Three years after its launching on May 2014, the project generated Php 4.2 million from 14 investors, and planted 61 hectares.

The recognition of MILALITTRA’s community land rights through a CADT enables the indigenous community to negotiate with, and enter into legal contracts with external partners. The traditional land governance system of the Talaandigs is anchored on their culture of protecting and regenerating the forest, as their ancestors have done for generations.

MILALITTRA’s spatial data on its traditional territory when it applied for a CADT in 2003, provides the baseline data for measuring impact with quantifiable indicators. A follow-up mapping done in 2013, 10 years after CADT, showed an improved net forest cover of 9 percent from 2003 to 2013:

Area classifications	Percent change
Remained as forests	33 %
Non-forest to forest	13 %
Forest to non-forest	4 %
Remained as non-forest	50 %
Total area	100 %

The MILALITTRA case could provide a compelling case for recognizing traditional land governance systems as an approach towards protecting the country’s remaining forests, and in adapting to climate change.

 Source: Ravanera, R. (2017). *Linking Land Tenure and Climate Change: The Case of MILALITTRA in Mt. Kalatungan*. Quezon City: ANGOC.

Under this Payment for Environmental Services (PES) scheme, MILALITTRA would act as a “seller” of its ecosystem services through reforestation and forest protection in the uplands. The “buyers” would be the downstream “beneficiaries” of this ecosystem service, consisting of businesses, cooperatives, academic institutions, households, and individuals. MILALITTRA was earlier awarded 11,367 hectares of land under a Certificate of Ancestral Domain Title (CADT) issued in 2003. The tribe manages its ancestral domain through indigenous traditional systems and governance. *(See box article: case study 2)*

Review of legislations on climate change and tenure¹³

A 2017 scoping study by La Viña and Tan reviewed selected Philippine laws and international instruments to determine whether or not they explicitly address the links between climate change and disasters, and tenurial rights to land, forests and fisheries.

Three sets of laws were reviewed, as follows:

a. Philippine laws on climate change and natural disasters:

- ◇ Climate Change Act of 2009 (RA 9729)
- ◇ Philippine Disaster Risk Reduction and Management Act of 2010 (DRRM)
- ◇ People’s Survival Fund (RA 10174)

b. Philippine laws with provisions on land tenure rights:

- ◇ 1987 Philippine Constitution
- ◇ Public Land Act of 1936
- ◇ Indigenous Peoples Rights Act of 1997 (IPRA)
- ◇ National Integrated Protected Areas System of 1992 (NIPAS Act)
- ◇ Comprehensive Agrarian Reform Program of 1988 (CARP), as amended by CARP Extension with Reforms of 2009 (CARPER)
- ◇ Urban Development and Housing Act of 1992 (UDHA)
- ◇ Agriculture and Fisheries Modernization Act of 1997 (AFMA)
- ◇ Local Government Code of 1991 (LGC)
- ◇ Revised Forestry Code of 1975 and Executive Orders on Community-based Forest Management and Sustainable Forest Management
- ◇ Fisheries Code of 1998, as amended in 2015

c. International agreements to which the Philippines is a party:

- ◇ Climate change agreements: (i) United Nations Framework Convention on Climate Change of 1992 (UNFCCC); and (ii) the Paris Agreement of 2015
- ◇ Sendai Framework for Disaster Management 2015-2030
- ◇ Voluntary Guidelines on the Governance of Tenure (VGGT)