



Massive floods from Melamchi river damaging settlements near Melamchi Bazar. *Photo by Shreedhar Paudel.*

Climate Change Affects Us All, but the Landless More than Others

A Case Study of How Tenure Security/Insecurity Affects the Post-Disaster Capacity of Communities in Helambu and Melamchi Municipalities

By Community Self Reliance Centre (CSRC)

Key Messages

- Policies on climate change are largely silent on land and tenure issues. Organizations working on land and climate change need to work collaboratively to increase understanding on how to integrate the two issues.
- In post-disaster response, recovery and reconstruction, land tenure or possession of land ownership certificates must not be the exclusive eligibility criteria for availing of the government compensation package.
- The government and all stakeholders concerned must immediately secure the resettlement and proper rehabilitation of all displaced families. The government must allocate “safe” land areas to resettle the displaced families.



Google image depicting the coverage and meeting point of the Indrawati and Melamchi rivers. *Source: Sabin Nepal*

In June 2021, heavy monsoon rains engorged the Melamchi and Indrawati rivers, sending torrential floodwaters cascading towards the rural municipality of Helambu and the municipality of Melamchi, both located in the Sindhupalchok District in the Bagmati Province of Nepal.

The floods had a devastating impact on the people of Melamchi. Five people lost their lives, six people were injured, and 20 individuals went missing. A total of 337 houses were fully damaged, resulting in the displacement of 525 families. The flood also had a significant impact on agriculture. Over 1,600 hectares of cropland — which were a lifeline for subsistence farmers — were lost. Farmers' livelihoods were destroyed and food security was threatened. In addition, the complexity of land tenure systems in the region exacerbated the challenges faced by the affected communities in their efforts to rebuild and recover.

Land Tenure in Nepal in the Context of Climate Change

Different types of land tenure have existed in Nepal over the years. Raikar, Guthi, Birta, Jagir, Kipat, have been the major land tenure types (MoALMC, et al., 2018).

The National Land Policy 2015 groups the different land tenure types in three categories, as follows:

- Formal tenure includes Raikar land, Guthi land, government land and public land that are legally recognized in related legislation and policy documents of the Government of Nepal.
- Non-formal tenure covers lands that are included in the field book after the cadastral survey; lands with official records and documented revenue payments but are not covered by the cadastral survey; lands without documentary evidence are self-settled, and can be addressed under existing laws.
- Informal tenure refers to lands that have been used and occupied for long periods of time even without documentary evidence of ownership; and encroached land which cannot be addressed by existing laws.

These land tenure systems are exploitative and inequitable and have historically caused starvation among the Nepali peasantry and inflicted a tremendous amount of hardship in their pursuit of livelihoods (Uprety, 2021).

Land distribution in Nepal is highly skewed. An average land holding size is 0.86 hectare. Forty-seven percent of households own only 15 percent of the total agricultural land, with each landholding having an average size of less than 0.5 hectare. About 29 percent of households do not own any land (Adhikari, 2008). Nepal's deeply

discriminatory and hierarchical society has excluded Dalits, women, and indigenous peoples from getting access to and control over land. Forty-four percent of Dalits in the Terai are landless while 22 percent of Dalits in the hill are landless (CSRC, 2012). About 80 percent of the indigenous population are marginal land owners, with less than one acre (0.4 hectare) of land, and only 23.8 percent of women own land, especially in urban areas.

Landless and small landholding farmers are at greater risk of disaster because of their increased exposure and low adaptive capacity to cope, resulting in landlessness. Nepal is ranked as the world's fourth most vulnerable country to anthropogenic climate change.

At the same time, it is the 20th most vulnerable country in the world to multiple-hazards (MoHA and DPNet-Nepal, 2015). Highly prone to earthquakes, Nepal experiences recurring incidences of floods, landslides, and fire.

The most profound impacts of climate change will be on the agriculture sector, water resources, public health, and energy. The Eastern Himalayas experience widespread warming of 0.01 to 0.04°C per year. The amount of rainfall is declining over the whole central and eastern regions. Almost all types of land degradation exist in the country, particularly soil erosion, landslides, and flooding.

Disasters and New Inequalities

Unequal Access to Disaster Loss Compensation

In general, climate disasters force families to leave their homes: they lose their land and property.



Satellite images of Melamchi River in 2019 and 2022 show the increase in its size brought about by the extreme monsoon rains. *Source: CSRC.*

However, the severity and duration of such displacement -- and prospects for recovery -- are not the same for all affected people. Land tenure security determines how easily and how quickly displaced people can rebuild and bounce back from a disaster.

In the aftermath of a disaster, the government often provides a compensation package to make up for losses suffered by affected communities. Unfortunately, access to such support is closely tied to land tenure. This policy excludes tenants, sharecroppers, and those who lease or occupy land from receiving immediate assistance and compensation. In addition to being excluded from compensation, tenants and others in informal land tenure situations face the threat of eviction. This exacerbates their vulnerability and instability.

Women, who often have limited access to property and land rights due to cultural norms and legal barriers, are especially vulnerable in this context. They are disproportionately affected by land-related issues and may not benefit from compensation or inheritance of property.

Ineligibility for Livelihood Loans

Displaced families who have lost their source of income need to find other livelihoods. Because the compensation package from the government is neither enough nor provided in a timely manner, affected families are forced to take out loans to tide them over. However, banks require collateral against the loan, such as a deed to land, house, and other property. An informal land tenure certificate will not do. Thus, families that cannot access formal credit have to rely on informal lenders and pay high interest on the loan.

Conditional Post-Disaster Rebuilding

Displaced families endure harsh living conditions in temporary shelters, which often lack basic amenities and can be overcrowded, making daily life a significant struggle.

Access to government housing support has become a challenge for some families due to the unavailability of land for building new houses. This situation is particularly problematic for those living on trust land or are working as tenants. As a result of these challenges, some families are forced to permanently relocate to urban areas, leaving behind their traditional rural livelihoods and communities.

Responses by the Community

The significance of community response during the disaster is crucial. The community plays a pivotal role in aiding the affected families, such as search and rescue, providing food, and arranging temporary shelter. Moreover, the community offers temporary accommodation to several individuals who have been displaced due to disasters. Their efforts do not stop there – the community also actively participates in the treatment and

care of the injured individuals, underscoring the essential role they play in times of crisis.

The degree of mobilization and self-organization increases the likelihood of the community's participation in reconstruction efforts and of enhanced social inclusion.

The Faces of Loss and Survival

Devi Prasad Guragai lives in Helambhu Rural municipality-6, which was badly affected by the Melamchi flood. He had been working as a tenant, as his forefathers did before him, and in return received half of the harvest. Mr. Guragai said that his half of the yield had been sufficient to feed his family and to cover their other needs. In 2021, the Melamchi flood washed away their entire land and paddy. Following the disaster, an employee from the local government came to record the loss incurred by the landlord. Devi's loss was not accounted for. He fears that if the government decided to provide compensation, only the landlord would receive it, and not him nor his family. Since his losses were not recorded, he is ineligible for aid.

Devi's land is *Guthi* (Trust), which is government or public land classified as formal tenure land by the National Land Policy 2015. He used to grow cardamon and banana as his family's main source of income. The flood washed away their land and they have yet to receive compensation for their losses.

Kalawati Thapamagar works as a wage laborer to support her family. Her husband suffers from mental illness and cannot work. Her family built a house on a small parcel of Guthi (Trust) land, for which they have a temporary certificate. In the wake of the

Melamchi flood, Ms. Thapamagar attempted to apply for a bank loan. However, the bank would not accept land with a temporary certificate as collateral. The family thought of selling the land but decided not to, as it was all that they had left after the floods. They continue to live a hard life with very little income.



Kalawati Thapamagar, *photo by CSRC.*

Responses by the Authorities

Resettlement remains a distant dream for displaced families. The government program for resettling the displaced families is lagging behind and to this day not a single family from the Melamchi area has been resettled.

Some families opt to find settlement areas outside of the government program. Unfortunately, many settlement areas in Melamchi are at extremely high risk of disasters. These settlements, which are located on floodplains and steep hills, are highly vulnerable to floods and landslides. Nevertheless, people continue to live in these “unsafe” areas even after a disaster because they say they have no better options.

In fact, even government sponsored resettlement programs fail to consider possible disaster impacts in the resettlement areas. Riverbanks

are often considered by the government as preferred areas for resettling displaced families, when in fact, these areas are at high risk of floods and inundation and expose the displaced families to another set of disasters.

The option of rebuilding their homes is not possible for many affected families. The compensation amount being offered by the government is not sufficient to purchase a minimum amount land and to build a decent house. Where families had initially received some money, the compensation stopped after the first installment.

As a result, the situation of displaced families continues to deteriorate. Many of these families have survived several monsoons, winters, and summers -- living in temporary shelters that pose health risks, particularly to children, the elderly, and pregnant and lactating mothers. A few cases of premature deaths of family members and relatives of these families have been reported. Water facilities and toilets are limited but are shared by several families. Overall, the living situation of displaced families is not dignified and families require immediate assistance.

Recommendations

Policy Recommendations

- The government must recognize that improved tenure security is an important enabler of climate change adaptation. Land tenure issues must be prioritized in the development of climate adaptation strategies and actions.
- Policies on climate change are largely silent on land and tenure issues. Organizations working on land and climate change need to work collaboratively to increase understanding on how to integrate the two issues.
- In post-disaster response, recovery and reconstruction, land tenure or possession of land ownership certificates must not be the exclusive eligibility criteria for availing of the government compensation package.
- Land use planning is essential to reduce disaster vulnerabilities and risk. The government must prioritize developing the land use plans

at local, provincial and federal levels, locate “unsafe” areas, and take appropriate measures to protect people from disasters.

- The government and all stakeholders concerned must immediately secure the resettlement and proper rehabilitation of all displaced families.
- The government must allocate “safe” land areas to resettle the displaced families and relax administrative processes in land registration.
- Securing the equal rights of women and men to land is essential for post-disaster recovery, social equity, and economic growth. *The right to own land not only enhances women’s status and position in the family but in the post-disaster situation, this entitlement plays a major role in reducing vulnerabilities.*

Community (Melamchi) Level Recommendations

- Losses incurred by tenants, sharecroppers, and other secondary compensation need to be accounted for and included in the compensation package.
- The compensation package should cover not just the loss of people’s houses but also the loss of arable land.
- Local government must check and regulate sand mining in the Melamchi river. After the Melamchi floods, a large area of arable land along the riverbank has been transformed to sand dunes and boulders. Sand mining in the river is expected to increase, leading to increased risk of floods. ■

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