CASE STUDY

THEME 5: Rebuilding after disasters

How tenure security/insecurity affects the post-disaster capacity of people to recover and rebuild

Land emerges, land disappears: Char dwellers continue fighting for land tenure security

A case study of Char Bangla, a riverine char land in the coastal region of southern Bangladesh

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Char Bangla is one of over 145 *chars* in the Southern part of Bangladesh. A *char* is created in the dynamics of erosion and accretion in the rivers of Bangladesh. The *char* emerges as an island within the river channel, or as land attached to the riverbanks. Once vegetated, such lands offer opportunities for settlement or agricultural activities.

Char Bangla was formed in this way. It began to form along the Bura Gouranga river in the 1960s and gradually took the size of a large *char* land in the 1980s. Char Bangla is now nearly 1,012 hectares in size. Located in Char Biswas Union in Galachipa *upazila* (sub-district) in Patuakhili, Char Bangla is populated by about 500 landless families.

Who owns the chars?

According to State policy, when a *char* is raised in a river, it is first handed over to the Forest Department, which undertakes its

Key Messages

- Land titling will enhance the adaptive capacity of the char people.
 Otherwise, they will exhaust their resources and undergo physical and mental stresses in the process of securing land titles and addressing land conflicts.
- Char Bangla dwellers have adapted to climate change through a
 variety of ways, including changing their cropping patterns along with
 the seasons; timing their cultivation according to predictions of natural
 disaster; switching to occupations that are more adapted to the
 weather and climate; diversifying their crops; and, changing their
 eating habits, among others. But an injurious coping strategy that they
 have resorted to to cutting their spending on health and on their
 children's education, with all the negative anticipated outcomes.
- Landless families in the coastal areas will continue to face the frequency and intensity of cyclones and other extreme weather events.
 Unless their land tenure security is strengthened, they will continue to struggle to face disasters and to rebuild in the aftermath.

forestation for 20 years. In parts of the *char* that are fit for human settlement, the State administration grants a one-year lease for cultivation for landless people.

In 2019, the Department of Land Records and Survey (DLRS) started the Diara Survey — a special kind of survey to determine how many *chars* are found in Galachipa sub-district, in Paruakhali district and to measure their area coverage.

Originally, the *char* lands were listed as *khas* land in the State land account. The agriculture *Khas* Land Management and Settlement Policy 1997 had redefined who comprised landless households. According to the Policy, the landless refer to: (1) households that depend on agriculture but do not have land of any kind (neither homestead nor agriculture); and, (2) households that are dependent on agriculture, have homestead land less than 0.10 acre (0.04 hectare) in size, but do not have agricultural land.

Eighty percent of the inhabitants of *char* lands have no land of their own and are considered as ultra-poor. They live on leased land and are vulnerable to various forms of exploitation. They struggle for a living without access to proper sanitation, primary healthcare and

education, basic infrastructure, and protection of the law. They are excluded from State initiatives and institutional services (e.g., legal aid, health, education, livelihoods, social protection, village court, and formal judiciary).

In the years 2005, 2006 and 2007, the landless people of Char Bangla each received a one-year lease from the administration. Five years later, some land grabbers and landlords (*jotdars*) came in and tried to claim the *char* land. In particular, they brought in their own tenants (sharecroppers) to cultivate the land and thereby displace the settlers. Disputes erupted between the tenant recruits and the farmers, prompting the administration to stop the settlement of the *char* land. Criminal and civil suits were filed, but as a result, the people lost their land, causing them great financial hardship.

In 2006, the landless people filed a writ petition in the High Court challenging the administration's decision to withhold the one-year lease that it had earlier granted. Six years later, in 2012, the High Court finally ruled in favor of the farmers, and directed the administration to allocate the one-year lease in favor of the landless people until the Diara Survey has been completed.

The High Court also instructed the administration to form a committee to monitor and complete the Diara Survey within one year.

At first, the Deputy Commissioner (DC) of Patuakhali district did not comply with the High Court's order. This prompted the farmers to file a contempt petition against him. Only then did the DC begin undertaking the Diara Survey. The COVID-19 pandemic halted all related activities, but in 2021 the Diara Survey resumed and it is still ongoing.

In cooperation with the non-government organization (NGO), the Association for Land Reform and Development (ALRD), and their partner organizations, the landless people held several meetings with the DC, Upazila Nirbahi Officer (UNO), the Assistant Commissioner (Land), and Regional Officers overseeing the Diara Survey. They also submitted several memorandums citing various irregularities in the conduct of the Diara Survey. This clearly shows that the process of getting settlement for landless people in *char* areas is quite timeconsuming and complicated.

Impact of disasters on char dwellers

Climate disasters like flood and river erosion put a lot of pressure on *char* dwellers. So do erratic weather patterns, such as hotter summers and milder winters. It has been observed that there are now only four seasons instead of the usual six. This has negatively affected farmers' production calendars and expected incomes.

Country context

With a population of 163 million living in an area of 147,570 square kilometers (or 1,252 persons per square kilometer) [World Bank, 2016], Bangladesh is one of the most densely populated countries in the world. Over 70 percent of the population lives in rural areas and is mainly engaged in agriculture and related activities. More than two-thirds of the rural population is landless or functionally landless (owning less than 0.2 hectare of land), and 26.4 percent live below the national poverty line with over half of these being classified as very poor [BBS, HIES, 2016]. Endowed with limited land and other natural resources, and with a high population density, poverty is a pervasive problem in rural Bangladesh.

According to a 2016 World Risk Report by the United Nations University, Institute for Environment and Human Security (UNU-EHS), Bangladesh was ranked fifth in the disaster risk index. Between 1970 and 1998, 171 large-scale water-related hazards, such as cyclones, storm surges, droughts, floods, and river erosion disasters, killed an estimated half a million people and affected more than 400 million. The poor are hit hardest because they live in greater density in the most poorly constructed housing in settlements on lands prone to hazards - particularly along the 700 kilometers of coast affected by storm surges [CERP, PPA Report, WB, 2005].

The morphology of the country's rivers is highly dynamic and river bank erosion is also a regular phenomenon, particularly along the banks of the main rivers. The present rate of the Jamuna bank erosion is about 1,770 hectares per year while bank erosion by Padma River is about 1,298 hectares per year. Lower Meghna erodes at a rate of 2,900 hectares per year (Bangladesh Delta Plan 2100, 2018). On average, an estimated 20 to 25 percent of the country becomes inundated due to river spilling and drainage congestion. Extreme situation results when the three major rivers (the Ganges, the Brahmaputra, and the Meghna) reach their flood peak at the same time. In general, 55 to 60 percent of the country is inundated during extreme flood events. Annually up to 20,000 to 30,000 households lose their homes, land and livelihood as a result of erosion and thus become destitute (EKN, 2007).

Land in the *chars* is used for purposes of settlement as well as cultivation. As much as 90 percent of the *chars* that are not eroded in the first four years of their emergence are used for either cultivation or settlement. After seven or eight years, both settlement and agricultural practices are commonly found in the *chars*. Reliable data on landholding size in the *chars* is difficult to obtain. Some parcels of *char* land may have claimants even though they are submerged. Other areas change classification from water to land, or from grassland to cropland. Other lands are strictly *khas* (public) land: some *char* lands are *khas* land, but not all *khas* lands are char lands.

Like the rest of Bangladesh, Char Bangla sustained the full impact of Cyclone Sidr in 2007 and of Cyclone Aila in 2009. Patuakhili District, where Char Bangla, is located, was one of the hardest hit areas.

Salinity in water and soil is one of the adverse impacts of climate change hazards, such as cyclones, floods, storm surges, droughts, and changing temperature patterns. In all of these cases, agricultural land in coastal areas is degraded. During Cyclone Aila, the pressure of 10-to 13-meter-high tidal surges broke the river embankment, resulting in the intrusion of saline water into agricultural land and shrimp farms. Along with prolonged waterlogging, this resulted in increased salinity in water and soil. Agricultural land became unproductive, and farmers growing rice, jute, and sugarcane suffered massive crop failures. Farmers tried to plant *boro* rice, which can grow under poor conditions, but the land had become too degraded even for that.

Furthermore, to produce *boro* rice, pulse, or other crops, farmers had to take out loans, which created additional financial burden on smallholders, marginal farmers, laborers, and sharecroppers.

Responses by the community

Today, 320 families living in Char Bangla still lack tenure security. Like Siraj (see Box on the next page), they do not know whether or not they will have a piece of land of their own in the future. After the two devastating cyclones, Sidr and Aila, and because of the destructive floods caused by river erosion year after year, Char Bangla people have diversified their occupations: most engage in agriculture and fishing. Twenty-five percent rely on three occupations (agriculture, fishing, small treading); and about 10 percent engage in four

Siraj Khan, 65, has been living with his family on Char Bangla for the last 27 years. He has never had a piece of land to call his own. He catches fish in the nearby Galachipa river and cultivates rice on a small low-lying piece of land in the neighboring area.

In 1993, a group of families, including his own, settled in the *char* area, which was nothing but a jungle at the time. They cleaned up the area and began living there. During the first five years of their stay, they were left undisturbed and they lived relatively peacefully.

Siraj relates:

"Five years later some influential people from other areas showed up and started claiming that they were the landowners. In 2007, Cyclone Sidr hit our community. The strong winds did not affect us that much, but the storm surge damaged our houses. We took refuge in a local shelter home, intending to rebuild our houses thereafter. But soon after Cyclone Aila hammered us. Again, the storm surge caused more damage than the cyclone wind. Water rose four feet higher than before. Since our homes were all makeshift houses, all were destroyed except for a few. The flood did not last long, but all our crops were damaged. Since Char Bangla is very far from the sub-district headquarters, we got neither relief nor media coverage. At that time, most of the people lived by fishing. Luck was on our side, and we caught a lot of fish in the river. But danger remains, as tide water rises to our house during the new moon and the full moon. At present, the Diara survey (a special survey for one or more char lands) is going on. We are hoping that in the near future, the government will grant us khas land in accordance with the policy. We will fight for our land rights just as we will continue to fight to survive climate disasters.

occupations (agriculture labor, non-agricultural wage labor, fishing, small scale trading). Other Char Bangla farmers have opted to leave their community and migrate to other places.

Another adaptive practice of the Char Bangla dwellers is to change their cropping patterns along with the seasons, time their cultivation according to predictions of natural disaster, and to switch to occupations that are more adapted to the weather and climate. They have tried to cultivate crops according to the season or climate. They have grown mostly *boro* and *rabi* paddy, guided by the seasons from January to June: January for planting, March for weeding *boro* paddy, and, from May to June for harvesting *boro* paddy. They have started cultivating vegetables, pulse, and, sometimes jute.

They have also changed their eating habits. During the flood period, *char* dwellers are forced to sell their cattle to purchase food for the family and to forestall the death of their livestock.

Coastal belt *char* dwellers are also encouraged to diversify crops. They grow saline water-tolerant crops, and vegetables such as pumpkin, ladyfinger, eggplant, and spinach, which require a minor irrigation system. This strategy has proved to be effective for long-term planning but not in the short-term.

Migrant and non-migrant households have also reduced their expenditures on health and education. The possible reasons could be that the affected households had stopped sending their children to school and made them work instead. This strategy however is expected to result in other problems related to skills (education) and labor.

Analysis

The majority of the poor and extreme poor have little access to assets, most important of which is land. Land, indeed, determines the economic condition in rural Bangladesh where agriculture and fisheries are the major pillars of the household economy. Land also determines social standing and political power. A family without land — a deprivation in and of itself — and without higher education is caught in a vicious cycle of poverty. Thus, landlessness appears to be one of the key factors for social exclusion and capability deprivation. Capability deprivation further leads to other deprivations and exclusion from employment, higher education, standard housing, and social security.

It is quite evident that human actions are responsible for the acceleration of climate change. As climate change advances, the frequency and intensity of extreme weather events, such as cyclones, heat waves, flooding, droughts, and heavy precipitation, are going to increase significantly. Although the global frequency of tropical cyclones is expected to decrease or remain essentially unchanged, they may become more intense.

Landless families in the coastal areas will continue to face the frequency and intensity of cyclones and other extreme weather events.

Unless their land tenure security is strengthened, they will continue to struggle to face disasters and to rebuild in the aftermath.

Recommendations

- Properly designed participatory approaches to adaptation can play a role in reducing vulnerability in disaster-prone areas.
- Char land people, animals, and agricultural products require adequate protection and shelter from extreme weather events.
- Local awareness about climate change should be enhanced for the generation of local people's knowledge.
- Insurance for crops could be introduced for *char* land people.
- Knowledge and resources for crop diversification should be developed, as well as adaptive agricultural practices. Crops like wheat, corn, and watermelon can be planted but they should fetch the proper market price.
- Both the print and electronic media can play a significant role in spreading information down to the community level on how to cope with the impact of climate change.
- Land titling will certainly enhance the adaptive capacity of the landless people. Otherwise, they will exhaust their resources (money, crops, time, social capital, among others) and undergo physical and mental stresses in the process of securing land titles and addressing land conflicts (including court cases, criminal allegations, and other disputes).
- Secure tenure can improve the adaptation capacity of women and children. The insecure land tenure of the family impacts more on women and children, who frequently forego their basic needs, such as food, health, shelter, education, livelihood, and, security, thus making them less resilient to climatic disasters. Women also can not apply their indigenous knowledge related to family farming and homestead gardening due to lack of land or land tenure security.

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(EU)].

CASE STUDY

Climate change affects us all, but the landless more than others

A case study of how tenure security/insecurity affects the postdisaster capacity of communities in Helambu and Melamchi Municipalities, Nepal

Prepared by Jagat Deuda, Community Self-Reliance Centre (CSRC)

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.

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.

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.

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 therefore 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.

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 into 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 are covered by 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 are not covered 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 search for livelihoods (Uprety, 2021).

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 community plays a pivotal role in helping the affected families, such as aiding search and rescue efforts, 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.

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 landowners, possessing one acre (0.4 hectare) of land. Only 23.8 percent of women own land¹, especially in urban areas.

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). Nepal experiences recurring incidences of earthquakes, 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.

 $^{^{1}}$ Women's ownership of land has increased mainly because of the government subsidy up to 40 percent on land registration fee in the name of woman.

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

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

The faces of loss and survival

Mr. 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. Mr. Guragai's loss was not accounted for. At the time, Mr.Guragai feared that if the government decided to provide compensation, only the landlord would receive it, and not him nor his family. True enough, since his losses were not recorded, he was considered as ineligible for aid.

The five-member family of Ben Bahadur Thapa Magar and Kalawati Thapa Magar resides in Helambhu municipality. During the Melamchi flood, his family lost the land that they were cultivating. Their land is Guthi (Trust), which is government or public land classified as formal tenure land by the National Land Policy 2015. Mr. Magar 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.

Ms. 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

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 risks. The government must prioritize developing the land use plans at local, provincial and federal levels, identify "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 also 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 landholders 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.
- The 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 reduced to sand dunes and boulders. Sand mining in the river is expected to increase, leading to increased risk of floods.

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CASE STUDY

Land rights take center stage in Asia's fight against climate change

Prepared byb Pubudini Wickramaratne¹ and Rashmini de Silva,² Oxfam

The impacts of the climate crisis on land are immense: it causes loss of land, soil erosion, and land degradation that forces changes in land use. It threatens the land rights of communities, causes displacement, affects food security, and aggravates land inequality. These impacts have led to greater competition for land, and increased pressures on land use. Communities struggle to cope with loss and damage, unable to recover from them or to improve their climate resilience.

Oxfam listened to women and men from Bangladesh, Nepal, Sri Lanka, and Timor-Leste who shared their stories on how the climate crisis has caused loss and damage to their lands, and the impact this has had on their lives.

The stories demonstrate that land ownership is a key factor in determining people's eligibility to receive assistance to recover from loss and damage. Those who could prove land ownership received

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Key Messages

- The rural poor who lack land tenure security are less able to adapt to the impacts of the climate crisis because they cannot make the necessary farming decisions and investments designed to improve their resilience and adaptive capacity.
- Proof of land ownership is the key that opens access by the rural poor to government support that is crucial for recovery from climateinduced loss and damage. Many of the rural poor are unable to show such proof and thus are excluded from support that they need to rebuild their lives and livelihood following loss and damage from climate change.
- The impact of the climate crisis goes beyond socio-economic ruin, but also results in the loss of a person's standing in her/his community.
 Without land, the rural poor suffer the degradation of their identity and pride.
- Women and girls face the risk of violence from men when the family's fortunes sink. They are also forced to take on the main responsibility for keeping the family together when the men leave their homes for work elsewhere. They are always harder hit in the aftermath of climate-induced loss and damage.

compensation and alternative land or relocation benefits, while those who did not own the land or could not show proof of their rightful ownership and tenure struggled to obtain these benefits. Similarly, land ownership gave access to membership in farmer societies through which government extension services relating to climate adaptation and mitigation as well as climate finance were channeled.

The stories we heard show the importance of secure land tenure to avoid, minimize, and address loss and damage, particularly for the most vulnerable, and to increase their climate resilience.

Lack of decision-making power over land, coupled with power imbalances and overlapping inequalities, increases the climate vulnerability of farmers and prevents them from taking steps to avoid loss and damage.

In Sri Lanka, 80 percent of lands belong to the State³ and are distributed among people under the Land Development Ordinance⁴ and the State Land Ordinance.⁵ These two laws provide the mechanisms under which State land can be distributed to persons. The policy of the State has been that State lands ought not to be transferred to people as freehold, and hence the permits and grants under which State lands are distributed contain many conditions requiring development of the land as per specifications mentioned in the permits and restrictions on selling or otherwise disposing of the lands. However, the implementation of these laws has been slow and involves prolonged administrative processes. Even where State lands have been distributed to people, much of the control and decision-making power related to these lands is retained by the State.

K.P. Somalatha is a paddy farmer from the drought-stricken Monaragala District in Sri Lanka. She occupies State land that had been given to her through a land grant by the government. Even though she has rights to her land, Somalatha explains how the State still retains control over the land, seriously affecting farmers' ability to adapt to climate change and at times forcing them to find livelihoods other than farming.

"We used to cultivate paddy in two seasons but with the unpredictability of rain, we have reduced it to one. Rice farmers struggle to earn a profit with low-yielding harvests, [and also] only once a year because we do not have enough water."

Even though State lands have been allocated to people by the government, crucial decisions such as those pertaining to water allocation, the kind of fertilizer and other farming inputs to be used,

³ Law & Society Trust, 'State Lands and Land Laws: A Handbook' (2015) < https://www.lstlanka.org/wp-content/uploads/ 2022/ 02/Booklet-2-State-Lands-English-1.pdf>accessed 14 June 2023

⁴ Land Development Ordinance No. 19 of 1935

⁵ State Land Ordinance No. 8 of 1947

and the seed varieties to be planted, are still made for farmers by the government agriculture officials, leaving little or no decision-making power to the farmers with paddy lands located under irrigation systems.

"Our land was awarded to us by the State through a grant and for which we received a land certificate. However, we are landholders in name only. We cannot really make any decisions about our land. We want to cultivate indigenous paddy varieties which require less water and produce a higher yield while using less amounts of agrochemicals. But State officials prioritize corporate profits. We very rarely get any compensation for droughts, and when we do, the amount we receive does not cover even 10 percent of the loss we suffer."

Prolonged droughts in Somalatha's village have diminished groundwater levels. As a result, their lands are no longer arable. Rural farmers struggle to cope with these losses and damages. They often fall into debt or stop farming altogether. The domino effect of having limited to no control of one's land has severe economic and non-economic implications which go beyond their lack of resilience to climate change.

Land ownership is a key criterion for membership in farmer societies through which agriculture extension services, including crop insurance, and drought relief, are provided.

In Sri Lanka, farmer and irrigation societies are one of the main mechanisms through which government-led support is channeled to agricultural communities. As land ownership is a prerequisite for membership of these societies, farmers who do not have formal ownership of lands are unable to access agriculture extension services, support for adaptation and mitigation measures, crop insurance, and drought or flood relief provided by the government.

Namal Sanjeewa is a fourth-generation farmer from Badulla District in Sri Lanka. Namal cannot access drought relief because he does not own his farmland.

"We have occupied these lands for over three generations, but the State refuses to give us land permits, saying that we are living on encroached State land. They refuse to release irrigated water from reservoirs to our lands because they want us to vacate the area and give our lands to a private company for sugar cane plantation. We do not receive any agriculture extension services or technical support for climate mitigation or adaption from the Agrarian Services Department. Since we do not own the land, we are not recognized as farmers. We are unable to register for crop insurance or drought relief for the same reason."

High temperatures, irregular rainfall patterns and prolonged droughts have degraded their lands and rendered the soil infertile. Harvests are going down. Without assistance from the government and without secure land tenure, farmers like Namal are unable to make investments to adapt to these climatic changes. Thus, they continue to suffer loss and damage year after year.

"We carry these losses to our next cultivating season. It affects our families, our children's education, household food security, health and all aspects of our lives. Recovery after a drought seems next to impossible to us. The State refuses to formalize our ownership and we are forced to watch our farming communities deteriorate in the face of extreme drought. In addition to our livelihood, our dignity and worth as small-scale food producers is at stake."

There are around 163 farming families in his village facing a similar predicament to Namal. Unable to bear the continued losses and increasing debt, many of these farmers are gradually moving away

from agriculture to daily wage labor or have migrated to cities to find jobs.

Loss and damage to land exacerbate existing gender inequalities and trigger a chain reaction of socio-economic consequences for women and girls.

Land degradation due to lack of water and prolonged droughts has reduced yields and has had a significant impact on farming communities in Bangladesh. It has affected not only farmers but also agricultural workers, creating a ripple effect within agricultural communities.

Shaheena Aktar is a daily-paid agricultural worker from Nowapara, a village in Cox's Bazar, Bangladesh.

"Because of lack of water, the harvest is low. I am not paid properly by the landowner when the income from the crops is low. We have to travel far to bring water to irrigate the land because water is scarce here. It takes a lot more time, but I am not paid for the extra hours I work. Although we work in the same field, men are paid more than we are."

The consequences of reduced household income disproportionately affect women and girls.

"I am a single mother. I live in a rented house. If I do not get paid, I cannot pay rent, buy food, or send my daughter to school. If women do not bring in enough money from their farming work, they are beaten up by their husbands. This is very common in my village. Because families do not have enough money, girls discontinue their education or are married off early. Early marriage is quite common in my village." The intricate chain reaction of socioeconomic consequences which start with the loss of land productivity or degradation of soil leads to generational inequalities, especially for women.

Climate-induced migration increases the care burden on women and exposes them to harassment and violence.

Shamsun Nahar is a farmer from Hajrakhali, a village in Satkhira, Bangladesh. Her region is characterized by high soil salinity levels due to water logging and river erosion. This has lowered the productivity of their farms. As a result, the men are forced to migrate to cities in search of employment, leaving behind women with increased responsibilities and exposure to vulnerabilities.

"Our household income is affected when our farmlands produce low yields. It affects the food we eat, our children's education and even our dignity. We cannot depend on our farmlands as our sole source of income. It is very common for men to move away to [distant] regions to earn money to support their families."

This increases the burden on the women who are left behind in the village.

"Women have to walk long distances to collect water. When a family's income is affected or reduced, it creates a lot of pressure on the women and leads to domestic violence."

Loss of land has many consequences, including diminishing one's status and position in society.

H.M. Morshed lives along the banks of the Bishkhali river in Dhaalbhanga village in Barguna, Bangladesh, where floods due to cyclones and tidal upsurges and riverbank erosion are highly prevalent. His house was destroyed by cyclones Aila and Sidr and he lost almost 80 percent of his family's land to river erosion.

"When the Bishkahli river had a solid embankment, my land was protected and I could cultivate there. After the floods broke the embankment, further erosion took the lands away, and now the banks of the river are very close to my house. As we lose more of our land, we will have less and less land to make a living from."

For Morshed, apart from losing his lands, the biggest setback that he has suffered was to his status in society.

"When I had my land, I was regarded highly in my community. After the river took my land, my position in society dwindled. I would not be facing these economic hardships if I had my land. People who own land can recover faster after a disaster."

Land ownership influences a person's status or position in society. Loss of land due to the climate crisis not only has economic consequences but also non-economic losses related to a person's status in their community.

Lack of land ownership increases the vulnerability of communities and decreases their ability to recover from loss and damage.

Chanahari Chaudhary is a farmer from Chandrapur Municipality in Nepal, an area prone to floods, drought, river erosion and heavy rainfall. Chanahari's family used to cultivate paddy, vegetables and maize on his land, which has now been converted to a riverbank.

"My land was destroyed by floods. Our main source of income was farming. I used to earn 150,000 Nepalese Rupees, or about 1,175 US Dollars, a year. After our land was destroyed, my family and I were forced to take on daily-paid labor work to make ends meet. We could barely buy food or educate our children after the floods destroyed everything. We subsequently

leased some land and started cultivating mangoes and vegetables."

Chanahari reports that he received little to no support from the government to rebuild his life and livelihood following the disaster. His story reflects how loss and damage to land and its consequences are often irreversible.

Farmers who do not possess formal ownership of their land are extremely vulnerable in the context of natural disasters. In the absence of evidence of their right to the land, they risk losing it. Thus, following a disaster, some farmers decide to remain in their communities, which are still hazardous, rather than to migrate or relocate. This traps them in highly vulnerable environments and exposes them to further risks.

Communities who owned land could only access governmentled support after Cyclone Seroja affected Timor-Leste.

Timor-Leste suffered heavy loss and damage due to Cyclone Seroja in April 2021. People living in flood-prone, high-risk zones in the capital Dili and other municipalities lost their lands and homes.

The scale of the impact caused by the cyclone prompted the government to enact Decree Law No. 7/2021, which provides for government assistance to victims of serious accidents or disasters. In particular, the law enabled landowners to leave Dili to rebuild their lives elsewhere.

Meanwhile, affected Dili households that returned to their home villages received housing construction materials and 1,000 US Dollars for labor costs. However, this government assistance was not available to people without land. As a result, many families returned to still unsafe areas to rebuild their houses. Besides the dangers this posed to their safety, the families also risked being evicted from what was considered as a government-owned land.

Dilva Coreira lives close to the Timorese naval base in Hera with her husband and five children. She moved there as a young girl when her father, who was a fisherman, was relocated from Bidau-Mota-Klaran to Hera in 1991 by the Indonesian Department of Fisheries along with 200 other fisher families. Her village is surrounded by the sea on one side and large fish ponds on the other.

"We have lived there for 30 years and are very worried about our rights to the land. When the government registered this land, they did not write down our names or give us any documents, so we are concerned that they did not register the land in our names. We have asked for information, but the government has not explained our rights to us. We have heard that the government will relocate us to a new area in Dili or to a rural area, but they have not explained the real benefits and risks of these options to us.

We have lost not only our homes but also our income from agriculture. We do not know where we will get the support we need to re-establish our livelihoods as farmers and fisherfolk, or what will happen to our land."

Through cracks and crevices, land matters...

These stories demonstrate that loss and damage to land not only affects the land rights of communities, but also has an impact on other aspects of their lives. These experiences also show that secure land tenure is a significant factor that enables communities to better respond to the climate crisis. Secure land tenure empowers communities to make decisions and investments to improve their climate resilience. Land ownership enables communities to receive assistance and climate finance to address and recover from loss and damage. Oxfam therefore advocates for strengthened land tenure rights as a pathway to address the climate crisis.

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The full paper can be accessed via: https://policy-practice.oxfam.org/resources/loss-and-damage-to-land-voices-from-asia-621531/#:~:text=paper%20(5%20MB),Overview,lands%20and%20impacted%20their%20lives

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