

## Asian Regional Workshop on Mainstreaming Land Rights and Climate Change in Agricultural Food Systems

11-12 February 2026  
Brentwood Suites, Quezon City, Philippines





Founded in 1979, the Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC) is a regional association of national and regional networks of civil society organizations (CSOs) in Asia actively engaged in promoting food sovereignty, land rights and agrarian reform, sustainable agriculture, participatory governance, and rural development.

ANGOC member networks and partners work in eight Asian countries together with some 3,000 CSOs and community-based organizations (CBOs). ANGOC actively engages in joint field programs and policy discussions with national governments, intergovernmental organizations (IGOs), and international financial institutions (IFIs).

The complexity of Asian realities and diversity of CSOs highlight the need for a development leadership to service the poor of Asia – providing a forum for articulation of their needs and aspirations as well as expression of Asian values and perspectives. Thus, the ANGOC network promotes land and resource rights, smallholder agriculture, and human rights and civic participation, by serving as a platform for Asian CSOs to generate knowledge, share tools, and conduct constructive policy dialogues.

ANGOC is a member of the Alliance for Land, Indigenous and Environmental Defenders (ALLIED), Global Land Tool Network (GLTN), Global Forum on Agricultural Innovation and Research (GFAiR), Indigenous Peoples' and Community Conserved Areas and Territories (ICCA) Consortium, and International Land Coalition (ILC).

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Founded in 1990, APAARI is a membership-based, apolitical, multi-stakeholder, and intergovernmental regional organization that aims to catalyze collective action to improve agri-food systems in the Asia-Pacific region. It brings together regional, national, and global stakeholders to bridge gaps and strengthen agri-food research and innovation systems towards more sustainable development in the Asia-Pacific region.

APAARI works at two levels. The APAARI Secretariat plays a key role in coordination and facilitation of knowledge exchange and capacity development based on the needs of the members. APAARI also works as a community that helps the Association diversify and enhance its role in agri-food development by capitalizing on the strengths of its members and partners to collectively deliver results that contribute to the Sustainable Development Goals (SDGs). The engagement with members on thematic areas is mainly achieved through grants and projects.

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# Asian Regional Workshop on Mainstreaming Land Rights and Climate Change in Agricultural Food Systems

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## WORKSHOP SUMMARY REPORT



# Asian Regional Workshop on Mainstreaming Land Rights and Climate Change in Agricultural Food Systems: Workshop Summary Report

## **Organizers:**

Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC)  
Asia-Pacific Association of Agricultural Research Institutions (APAARI)  
Department of Science and Technology-Philippine Council for Agriculture, Aquatic and Natural  
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Global Forum for Agricultural Innovation and Research (GFAiR)

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## Introduction to the regional workshop

**Asia is home** to 75 percent of the world's farming households, 80 percent of whom are small-scale farmers and producers. They have served as the backbone of Asian agriculture and food security. Ironically, the majority of them are resource-poor and lack access to productive assets, especially land and water. They also lack access to financial services, education opportunities, advisory services, infrastructure, and well-functioning markets. It is no surprise that poverty and hunger remain largely rural and agricultural in the developing countries of the region.

Compounding this situation, Asia and the Pacific Region is experiencing the highest frequency and magnitude of extreme weather events. Not only are countries in this continent the most hit by natural disasters, but they are also considered the most vulnerable. Climate change has been affecting agriculture — as rural livelihoods and livelihood assets become more exposed and vulnerable to changes in rainfall patterns.

Thus, if global commitments to realize the Sustainable Development Goals (SDGs), in particular the eradication of hunger and rural poverty, then agriculture research and development should understand and accept the centrality of small farmers, indigenous peoples, and fisherfolk. Among the challenges include:

- What should be the priorities for agriculture at the country and regional levels, and how should scientific research be placed at the service of these?
- How do we strengthen linkages between research and extension to benefit the rural poor?
- How can we build greater scientist-policymaker-farmer-CSO linkages in pursuing such national and regional agenda?
- How do we build greater participation and “ownership” of small farmers, fisherfolk, and indigenous peoples in such processes? How do we build more accountable and aware public institutions?

At the same time, enhancing food security will require technological and institutional innovations, supported by government policy and public investments. Protecting communities from immediate losses during increasingly frequent climate emergencies is a crucial element in addressing tenure security as a long-term climate adaptation strategy. When tenure security is uncertain or contested, recovery from climate shocks is slower.

Most vulnerable to the direct effects of climate change are rural smallholders who have weak or no land tenure rights, as poverty forces people to cultivate marginal lands and occupy fragile lands or areas that are vulnerable to flooding, high tides, and storm surges. Poor smallholders may be aware of the risks, but they often have few options. With no secure land tenure, rural smallholders have no capacity and incentives to mitigate and/or adapt to climate-induced stress. Moreover, rural smallholders without secure land rights are more prone to land grabbing, land loss, and migration due to the effects of climate change.

***"The organizers made an important point in the Aide Memoire: land has a social function. This is not just a legal or technical issue. Recognizing the social function of land strengthens policy design, helps safeguard cultural and nutritional values, and orients land-use decisions toward long-term societal benefit rather than short-term gains alone... I commend the organizers for placing land rights at the heart of climate and food systems discussions. Addressing climate change in agriculture without addressing tenure insecurity risks leaving the most vulnerable behind."***

**(Keynote address of Lionel Dabbadie, FAO Representative in the Philippines)**

Yet, public understanding of the links between climate change, disasters, and land tenure is still very limited, leading to poor prevention and wrong response, while those without land or are near landless remain voiceless, and are often left out of climate change discussions.

Thus, the Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC), in partnership with Land Portal Foundation, initiated a collective action (CA) with the Global Forum on Agricultural Innovation and Research (GFAiR) through the financial support of the European Commission (EC). Such collective action aims to foster better-informed and more inclusively designed climate disaster prevention and resilience policies by mainstreaming the land rights of the rural poor in the climate discourse. This CA aims to emphasize the role of local and Indigenous communities as important land stewards, offering a variety of examples and best practices that help mitigate and adapt to climate change.

***"Agricultural and food systems are shaped by a complex interplay of environmental, economic, and social factors. Climate change continues to disrupt agricultural productivity, water availability, and ecosystem stability, while globalization reshapes trade patterns, competitiveness, and market access of farmers and agri-based enterprises."***

**(Opening remarks, Dr. Reynaldo Ebor, Executive Director, DOST-PCAARRD)**

As an initial effort of this CA to mainstream land rights in the climate agenda at the regional and national levels, an Asian regional workshop was organized jointly by ANGOC and the Asia-Pacific Association of Agriculture Research Institutes (APAARI), in partnership with GFAiR and the Department of Science and Technology-Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD) last 11-12 February 2026 in Quezon City, Philippines. The workshop discussed these challenges and recommended courses of action towards building "productive, equitable, and resilient agricultural systems. The workshop explored practical ways for civil society organizations (CSOs) to constructively engage and collaborate with National Agricultural Research Institutions (NARIs) and APAARI.

***“We are looking forward to the convergence factor we need to consider while drafting the framework for this partnership, and a lot of effort has been imbibed from the National Agriculture Research Institutions, who played a very important role in giving us the insights – in terms of consultations or through the surveys, which served as background work for this workshop.”***

**(Opening remarks, Samitha Manohar, Membership and Partnership Manager, APAARI)**

In particular, a framework for partnership has been presented, discussed, and agreed upon with the view of contributing to research and innovation towards sustainable and equitable agrifood systems, by integrating land rights and good land governance in the climate agenda in the region. ■

## Context

**Research and development** on food and agriculture in recent decades have focused on increasing productivity, prompted by uncertainties of food supply. These undertakings have secured the food needs of the global population, as affirmed by FAO in *The State of Food and Agriculture of 2023*, which states, “agrifood systems generate significant benefits to society, including the food that nourishes us, and jobs and livelihoods for over a billion people.”<sup>1</sup>

However, this development pathway opened opportunities to commercialize food and agriculture, attracting multinational corporations to establish large-scale plantations, congregating international value chains, and marketing taking on a global scale. Today, just a handful of powerful agri-corporations dominate each of 11 key industrial agrifood sectors – from seeds and fertilizers to grocery retail and food delivery.<sup>2</sup>

At the same time, while recognizing the impacts of scientific research on poverty and food security, civil society organizations (CSOs) have advocated for greater focus on community-led, farmer-based research and extension, sustainable farming systems, and greater recognition of indigenous knowledge and gender equity, among others.<sup>3</sup> While thematic priorities vary among these groups, they are consistent in focusing on vulnerable smallholder producers with insecure land tenure, high vulnerability to environmental disasters, and weak market linkages.

And why is this so? In the developing countries of Asia, poverty and hunger remain predominantly rural and agricultural. Ironically, it is the small food producers who are most vulnerable to hunger. Small farmers and producers, rural artisans, and indigenous peoples are often deprived of access and control over productive resources (i.e., land, water, forests, and coastlines) on which they depend for livelihoods.

Indeed, many are forced to eke out a living from their fragile environments – sacrificing long-term sustainability for immediate survival. The rural youth, meanwhile, migrate to towns and cities in search of work, adding to the growing numbers in urban slums.

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<sup>1</sup> FAO. 2023. The State of Food and Agriculture 2024 – Value-driven transformation of agrifood systems. Rome. <https://doi.org/10.4060/cd2616en>

<sup>2</sup> ETC Group (2022). Food Barons 2022: Crisis Profiteering, Digitalization, and Shifting Power. September 2022.

<sup>3</sup> ANGOC. Summary Report - Towards Building Asian CSO Consensus on Agricultural Research, Extension & Farmer Linkages: A Discussion on Issues & Priorities.

## The imperative of land tenure and its connection to climate change

**In developing countries in Asia**, poverty is prevalently rural and agricultural. Chronic rural poverty is caused by landlessness and the lack of secure tenure, which continues to rise in many countries. Poor governance contributes to landlessness.

***“When farmers and communities have confidence in their rights to land and natural resources, they are far more likely to invest in sustainable land management, adopt climate-resilient practices, and plan beyond the next planting season. They think long-term. They innovate. They take calculated risks.”***

**(Keynote address, Lionel Dabbadie, FAO Representative in the Philippines)**

Land rights may be held individually, or collectively in a family, a group, a community, or the State. Land may also be part of open-access regimes where specific rights are assigned with little or no operational tenure rules with respect to resource use and management (UN-Habitat, 2019). Land tenure, on the other hand, refers to the way in which interests in land are held by people or entities such as the State. Land tenure systems define how land rights are allocated within societies, the security of those rights, and how they are enforced (FAO, 2002). Land tenure rights, therefore, influence the way that land and natural resources are used and can have a direct impact on the environment and on climate change.

Inappropriate land development (such as mining, quarrying, logging, or large-scale plantations – often authorized through issuance of licenses and leases; as well as over-exploitation of forests) can lead to massive deforestation, siltation of rivers, and toxicity of the soils. Extractive activities can cause the release of greenhouse gases (GHGs) that contribute to climate change; it also increases the exposure of people in the area to the impacts of natural disasters (e.g., mudflows, soil erosion, flooding, and strong winds) when they occur.

Exploitation of forests, in some cases, is also driven by poverty among the marginalized sectors who suffer from tenure insecurity (i.e., poor settlers and smallholder farmers). Faced with limited livelihood opportunities and land-use options, many are forced to exploit forests in unsustainable ways to meet their immediate needs (e.g., charcoal-making or timber-cutting).

In a region most prone to natural disasters and the impacts of climate change, and home to the world's poorest who depend on land for their life and livelihoods, land tenure becomes more relevant.

Around 72 percent of the total frequency of intense natural disasters was recorded in Asia and Pacific between 1971 to 2020 (Thomas, et. al., 2013). Further, in 2006 to 2015 data of the Annual Disaster Statistical Review Reports, six of the top ten countries most hit by natural disasters are in Asia including China, India, Philippines, Bangladesh, Pakistan, and Nepal (Guha-Sapir, et. al., 2016).

### Basic concepts and terms

**Land tenure** is the relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land (and natural resources). Land tenure systems determine who can use what resources for how long, and under what conditions (FAO, 2002).

**Tenure security** is the certainty that a person's rights to land will be recognized by others and protected in cases of specific challenges. People with insecure tenure face the risk that their land rights will be threatened by competing claims and even lost due to eviction (FAO, 2002).

**Climate change** is defined as "any change in the climate over time, whether due to natural variability or [...] human activity." However, the United Nations Framework Convention on Climate Change focuses specifically on climate change that is "attributed directly or indirectly to human activity" and is "in addition to natural climate variability."

**Hazards, disasters, and risks.** A hazard refers to a severe or extreme event, such as a flood, storm, cold spell, or heatwave, etc., which occurs naturally anywhere in the world. A hazard only becomes a disaster when human lives are lost, and livelihoods damaged or destroyed (UNDRR, 2020). Risk refers to the level of exposure of people to the potential harm of hazards, such as living in a flood-prone area.

**Mitigation** refers to measures aimed at minimizing the extent of global warming by reducing emission levels and stabilizing greenhouse gas concentrations in the atmosphere.

**Adaptation** refers to adjustments in natural or human systems in response to actual or expected climate stimuli or their effects, which moderate, harm, or exploit beneficial opportunities. In other words, they are measures to reduce harm and strengthen the capacity of societies and ecosystems to cope with and adapt to climate change risks and impacts (as cited in Brookings Institution, 2014).

**Resilience** is the "capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation" (IPCC, 2014).

**Vulnerability to climate change** is the "degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity" (IPCC, 2001).

**Disaster risk reduction (DRR)** refers to a set of measures that prevent or reduce the damage caused by natural hazards such as earthquakes, floods, droughts, and storms. These include, for instance, early warning systems; hazard mapping, vulnerability analyses and planning; building codes; and, training of first responders. At farm or household level, these may include diversification of livelihoods or protection measures against strong winds and floods (as adapted from Caron, et. al., 2014).

Extreme climatic events (such as typhoons, floods, and droughts) can erode or inundate homes and farmlands, render them unproductive, or challenge existing tenure relationships to the disadvantage of vulnerable groups, resulting in forced migration and displacement of populations. Communities may also gradually be detached from their former homes and lands as a result of slow-onset environmental degradation, such as sea-level rise, salinization of soils, and changes in weather patterns.

Those who are poor and lack land tenure rights are among the most vulnerable 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 lands or areas that are vulnerable to flooding, high tides, and storm surges. Moreover, the lack of tenure security limits people's choices and diminishes their capacity to recover and rebuild when a disaster strikes.

***"Across the (Asian) region, the vulnerability of small-scale farmers and rural communities to climate risks is closely linked to land, water, and productive resources. Addressing these challenges requires stronger and more sustained collaboration among research institutions, civil society organizations, and policymakers."***

***(Opening remarks, Dr. Reynaldo Ebor, PCAARRD)***

*Certain sectors are likely to be the most affected by the impacts and constraints of climate change. Women (especially those who are unable to inherit property) and holders of secondary rights (i.e., tenants, sharecroppers, pastoralists, and those who lease, use or occupy land) become particularly vulnerable as the lack of documentation and formal recognition on the land and property rights of these sectors hinder their access to relocation options or compensation for property loss. As stated by the UN Human Rights Council, climate change "poses an immediate and far-reaching threat to people and communities around the world and has implications for the full enjoyment of human rights."<sup>4</sup>*

<sup>4</sup> UN Human Rights Council Resolution 7/23.

***“Secure land rights are essential for women's empowerment, for equity, and for creating the right incentives for sustainable investment in land and natural resources. But beyond the environment and economic dimensions, land tenure is also a deeply moral and humanitarian issue. At its core, it's about dignity, security, and fairness, about people having ownership and confidence in their future.”***

***(Opening message, Joanna Kane Potaka, Executive Director, GFAiR)***

In reclaiming affected property, 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 some cases, those with no secure tenure may be prevented from returning to their areas, and from repairing and rebuilding their homes, especially if the land is later classified as a “high-risk” area.

Land tenure security, thus, is crucial for climate change adaptation and disaster prevention. When there is tenure security, families invest better in their homes and farms. The specific type of tenure (i.e., being an owner, lessee, tenant, or agricultural worker) determines the range of options that farmers have in managing their farms — the farming system, irrigation, use of inputs, choice of crops, or when to plant. For example, tenant farmers with short-term leases may not use soil protection measures, plant trees, or improve pastures.

***“When tenure is uncertain, short-term survival takes precedence. Why invest in soil health, tree planting or climate-smart practices if a farmer is not sure whether s/he will still be there next year? Vulnerability deepens, not because farmers do not care, but because insecurity narrows their choices.”***

***(Keynote address, Lionel Dabbadie, FAO Representative in the Philippines)***

Secure land tenure enhances resiliency insofar as it contributes to “improved food and water security, more sustainable livelihoods, reduced forced and unplanned human mobility that leads to landlessness, reduced environmental degradation, less poverty, reduced conflict over land and resources, etc.” These increase the resiliency of families and communities in the light of shocks and stresses brought by natural disasters and climate change. ■

## The land-food-climate trillema

**Climate change has heavily impacted the agriculture sector**, as rural livelihoods and livelihood assets become more exposed and vulnerable to changes in rainfall patterns. One of the most outstanding impacts of climate variability and extremes is the recent rise in global hunger and severe food crises, which affects all dimensions of food security – food availability, access, utilization, and stability (FAO, et al., 2019).

Due to sea-level rise and/or storm surges, salinity is expected to increase, which may further reduce the quantity and quality of land suitable for agriculture. At the same time, the decreased availability of surface water for irrigation can exert more pressure on groundwater extraction, thus resulting to deteriorated water quality, land subsidence, and subsequent lower crop yields (ADB, 2012).

In terms of climate change mitigation, land is both a source and a sink of greenhouse gases (GHG). According to the IPCC (2019), people use about a quarter to one third of the world's land's potential production for food, feed, fiber, timber, and energy. Land also provides the basis for many other *ecosystem functions and services*. The land sector (agriculture, forestry, and land use) accounted for 13 to 21 percent of global total *human* GHG emissions in the period 2010 to 2019. The way in which land is allocated, used, and governed has significant impacts on overall GHG emissions and climate change.

And where communities experience insecure land tenure, these climate shocks translate much faster into food insecurity and poverty.

***“The commercialization of agriculture, the expansion of global value chains, and the concentration of market power have fundamentally altered how food is produced, traded, and consumed. Climate-induced disasters have also repeatedly threatened the livelihoods of farming and fishing communities. In simple terms, our agrifood systems have become more productive, but also more fragile, especially for those with the least room to absorb shocks.”***

***(Keynote address, Lionel Dabbadie, FAO Representative in the Philippines)***

However, the links between land tenure and climate change are still not well understood or fully appreciated. Much of the current literature focuses on the *macro* and *physical* impacts of climate change on land, with insufficient attention given to the *social* impacts of climate

change from the perspective of poor people, and how it affects their access to livelihoods, social relationships, and security of tenure on the land.

This is because discussions on climate change are often framed by a global perspective and focus on the collective use (or abuse) of land and natural resources. On the other hand, land tenure — the relationship between people and land — is traditionally understood from the level and perspective of individuals, families, and communities. The connection becomes clearer only when viewed from a broader perspective, from which relationships can be observed.

Meanwhile, public understanding of the links between climate change, disasters, and land tenure is still very limited, leading to poor prevention and wrong responses, while those without land or who are near landless remain voiceless and are often left out of climate change discussions. In most situations, people affected by natural disasters are often treated as a problem rather than an active partner in climate action. The planning and implementation of adaptation and mitigation programs are often top-down, and communities are excluded from discussions and decision-making.

Thus, there is a need to build evidence and stories towards a better understanding and appreciation of land tenure issues in climate change discussions. In preparation for the regional workshop, five community stories were documented in support of public awareness and advocacy on how land rights enhance the capacities of communities to address or cope with the impacts of climate change. In fact, rural communities can lead climate solutions in their localities. These include adopting sustainable land use and governance practices, transitioning to sustainable agriculture, promoting indigenous knowledge, diversifying their livelihoods and crops, including growing climate-resilient varieties, and sustainable and participatory management of community forests and rangelands, among others. ■

## Community stories on land tenure and climate change nexus

### Overview of the stories

To illustrate and build evidence, the following community stories were documented, presented, and discussed during the regional workshop:

Theme	Story	Description
<p><b>Customary tenure, use, and governance</b></p> <p>(How recognizing customary land rights and practices of indigenous communities helps build local capacity to mitigate and adapt to climate change)</p>	<p><b>Restoring ecosystem services led by indigenous peoples in Mt. Kalatungan Range, Philippines</b> (by Xavier Science Foundation [XSF], Philippines)</p>	<p>This case study documents the experience of indigenous peoples' communities in the Mt. Kalatungan Range, Bukidnon, who have protected and conserved forest ecosystem for generations but were later displaced from their ancestral lands, resulting in severe social and environmental consequences. The responses of various stakeholders in the landscape highlight the critical interconnection between land tenure security and climate change in the care of our common home.</p>
<p><b>Women, land rights, and resiliency</b></p> <p>(How women's rights, especially over land, improve the capacities of families and communities to implement resilience actions)</p>	<p><b>From insecurity to resilience: The role of land rights in climate change adaptation</b> (by Association for Land Reform and Development [ALRD], Bangladesh)</p>	<p>This case study in Bangladesh draws on ALRD's ongoing project documentation and relevant literature, including the Women-led Collective Advocacy for Climate Action and Equal Stake in the Soil project, as well as focus group discussions with women paralegal workers, farmers, and community representatives. It captures local perspectives on land rights, climate change adaptation, and community resilience, particularly women's experiences in responding to major cyclones and severe riverbank erosion in villages of Bauphal, Patuakhali.</p>

Theme	Story	Description
<p><b>Women, land rights, and resiliency</b></p> <p>(How women’s rights, especially over land, improve the capacities of families and communities to implement resilience actions)</p>	<p><b>Structural violence against women farmers in land control amidst climate change</b> (by Bina Desa [BD], Indonesia)</p>	<p>This story highlights the multiple and interrelated threats brought about by climate change, especially of women in selected villages from Lumajang and Bulukumba Regencies. The findings show that ecological pressures are intertwined with unequal land tenure structures and governance. Uncertain land tenure limits farmers’ — particularly women’s — capacity for long-term land management and climate adaptation, while climate change exacerbates agrarian risks by reducing productivity and livelihoods, disproportionately affecting women due to restricted land access under gender-biased inheritance norms and State land arrangements.</p>
<p><b>Land rights and sustainable land/resource use</b></p> <p>(How secure tenure rights encourages sustainable land use by communities in ways that protect and restore their environment)</p>	<p><b>Land tenure: The missing link in a climate-resilient and environmentally-sustainable future</b> (by South Asia Rural Reconstruction Association [SARRA], India)</p>	<p>This case study in India by SARRA documents the experiences of clusters of small settlements in Tirupati District, Andhra Pradesh — predominantly inhabited by Scheduled Caste and Scheduled Tribe communities — in confronting extreme weather events, particularly droughts and cyclones. It highlights collective community responses to manage climate-related risks and to build resilience by addressing land rights and improving access to agricultural resources.</p>

Theme	Story	Description
<p><b>Land rights and sustainable land/resource use</b></p> <p>(How secure tenure rights encourages sustainable land use by communities in ways that protect and restore their environment)</p>	<p><b>Pathways to sustainable land use through secured land rights: A case story on riverbed restoration in Deukhuri, Dang District</b> (by Community Self-Reliance Centre [CSRC], Nepal)</p>	<p>This case study highlights how riverbank communities in the Rapti River basin respond to erratic rainfall and intensified monsoon flooding. Through coordinated efforts of local farmers, cooperatives, self-help groups, and climate-focused organizations, communities have restored degraded land using low-cost soil conservation techniques, intercropping, and climate-smart agriculture practices despite ongoing challenges with informal tenure, which limits access to government support.</p>

## Restoring ecosystem services led by indigenous peoples in Mt. Kalatungan Range

*Xavier Science Foundation, Inc. (XSF)*

Mt. Kalatungan, located in Bukidnon province in Northern Mindanao, is the fifth highest peak in the Philippines. A Key Biodiversity Area, it is home to 342 plant species and 129 animal species. The mountain range is a major source of water for households and industries in downstream communities, including major cities like Cagayan de Oro and Iligan.

It is also home to the Manobo and Talaandig indigenous peoples, who consider the entire mountain a sacred forest. The indigenous peoples (IPs) have been instrumental in protecting the forests, water resources, and biodiversity of the mountain using indigenous knowledge sustainable practices (IKSP).

However, the IPs had no legal rights to their ancestral lands. Logging was rampant. Small-scale mining companies leveled off hills. Plantations were established even in sloping areas. Timber poaching, charcoal making, and quarrying activities were unchecked. These destructive and unsustainable activities resulted to soil erosion and was a disaster waiting to happen for downstream communities.

Disaster struck on 16 December 2011. Typhoon Sendong (internationally named Washi) hit Northern Mindanao with rain that lasted the whole night. Degraded forests combined with steep and narrow ridges of the river systems caused severe flooding to Cagayan de Oro City. Typhoon Sendong caused 1,268 deaths, 6,071 injuries, and 181 missing persons, and 12 billion pesos in property damage. An estimated 400,000 people were rendered homeless in Cagayan de Oro and Iligan cities, mostly informal settlers living near riverbanks.

Determined not to let this devastation happen again, residents of Cagayan de Oro committed to reforest the slopes of Mt. Kalatungan, specifically the Batang sub-watershed. This was implemented through the Payment for Ecosystems Services (PES), an approach where beneficiaries of ecosystem services (clean water, carbon storage, biodiversity) financially reward those who manage, conserve, or restore the ecosystems that provide these benefits.



PES-Kalatungan is a coming together of IPLCs and residents of Cagayan de Oro and nearby municipalities to prevent another Sendong-type devastation.  
*Photo by XSF.*

Under the PES-Kalatungan project, individuals and corporate entities from Cagayan de Oro and nearby areas voluntarily gave money to the *Miarayon Lapok Lirongan Tinaytayan Talaandig Tribal Association (MILALITTRA)*, an IP organization that holds the Certificate of Ancestral Domain Title (CADT) over 11,367 hectares of Mt. Kalatungan. Xavier Science Foundation Incorporated (XSF), a non-governmental organization that has been assisting MILALITTRA for a long time, manages the fund.

MILALITTRA had been awarded a CADT in 2003 that provides them land tenure security and bestows them the confidence to protect what belongs to them. The awarding of CADT has become possible with the enactment of the Indigenous Peoples Rights Act (RA 8371 or IPRA), in 1997. In recognition of the need to protect Mt. Kalatungan and its downstream communities, MILALITTRA allotted part of their ancestral domain as planting site for PES.

PES-Kalatungan was formally launched in 2014 with the support of relevant government agencies, local government units, and CSOs under the guidance of the Cagayan de Oro River Basin Management Council.

In November 2019, or after five years of implementation, more than 100 hectares have been planted with a survival rate of 86 percent. Activities were cancelled in 2020 due to the COVID-19 pandemic. In 2021, XSF resumed PES activities, this time partnering with the *Nagkahiusang Manobong Manununod sa Yutang Kabilin (NAMAMAYUK), Inc.*, an IP organization in Pangantucan, Bukidnon. The initiative resulted to 30 hectares being planted with endemic trees and coffee, with a 99 percent survival rate (as of 2024).

The success of PES-Kalatungan shows that land tenure security, in this case in the form of a CADT, empowers IP communities to restore their forests and even earn from it – in collaboration with communities that directly benefit from their efforts in protecting their ancestral lands.

**For more details, see the link:** <https://angoc.org/portal/collective-action-on-land-tenure-and-climate-change-restoring-ecosystem-services-led-by-indigenous-peoples-in-mt-kalatungan-range-philippines/> [www.angoc.org]

## From insecurity to resilience: The role of land rights in climate change adaptation

*Association for Land Reform and Development (ALRD)*

Bangladesh is one of the most vulnerable countries in the world when it comes to climate-related hazards. Violent cyclones almost every year cause catastrophic damage, resulting to loss of life, destruction of homes, erosion of land, and devastation of crops. The impact of these cyclones is often magnified by tidal surges, leaving communities in ruins.

Being situated within one of the world's river deltas, Bangladesh faces severe riverbank erosion as a significant environmental challenge. Hundreds of square meters can collapse into a river in a matter of minutes during the monsoon season (June to October).

The ALRD study focused on the villages of Nimdi, Dhulia, and Dhandi under the Nazirpur Union, Bauphal sub-district, Patuakhali district in the southern part of Bangladesh, near the Bay of Bengal. The area is in between two major rivers and char<sup>5</sup> lands. River erosion, cyclones, and high tides are common occurrences in the area. Approximately 2,000 people reside in the three villages, whose primary means of livelihood are farming and fishing.

Around 40 percent of the population owns agricultural land, while others either work on other people's land or occupy *khas* (public) land without any legal documentation, earning their living as sharecroppers, fishers, or agricultural laborers.<sup>6</sup>

Respondents noted that river erosion is a major cause of landlessness. Women disproportionately suffer the effects of climate-induced events, yet they are often marginalized when it comes to land ownership. Despite legal provisions, women rarely inherit land in actual practice. Young people also face challenges in accessing cultivable land, as ownership largely remains with older generations.

When loss of land due to river erosion occurs, families lose both their homes and farms, forcing them to seek shelter on embankments, roadsides, or even migrate to urban areas. This cycle of displacement and disaster exacerbates poverty, making long-term recovery and resilience increasingly difficult for affected families.

With support from non-governmental organizations (NGOs) and civil society organizations (CSOs), communities in the three villages have taken proactive measures to restore the environment, enhance resilience to climate change, and improve livelihoods and food security. They restored irrigation channels, repaired river embankments and roads, conserved soil, and established early warning systems for disasters.

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<sup>5</sup> A char in Bangladesh is a type of riverine island or shoal formed by sediment deposition in the country's major river systems. A char is a highly dynamic landmass, frequently appearing and disappearing due to erosion and accretion, and is often inhabited by communities relying on agriculture and fishing, despite being vulnerable to flooding.

<sup>6</sup> An analysis on women's land rights in the rural communities of Bangladesh, 2022, published by ALRD and Landesa.

Community members benefitted from training and capacity-building programs on climate-resilient agriculture, sustainable resource management, and disaster preparedness. The community was even able to reactivate the Union Disaster Management Committee (UDMC). Traditionally focused on early warning systems, relief distribution, and rehabilitation activities, the re-tooled UDMC has initiated the process of providing landlessness certificates to village residents (both men and women), helping them secure recognition and support in the aftermath of displacement.



Community women and men are making people aware to prepare for an upcoming cyclone. *Photo by ALRD.*

These efforts demonstrate that local resilience is achievable. However, the depth and sustainability of these actions heavily depend on security of tenure.<sup>7</sup> Participants noted that when families have secure land tenure, they are more willing to invest in sustainable resilience measures. These measures include protecting their homes, ensuring safe shelter for livestock, installing tube wells, creating irrigation channels, and improving soil fertility.

Women who have recognized land rights feel confident in participating in family and community planning and decision-making. Secure land tenure also enables households to access government loans, subsidies, and disaster relief schemes.

**For more details, see the link:** <https://angoc.org/portal/collective-action-on-land-tenure-and-climate-change-case-study-from-insecurity-to-resilience-the-role-of-land-rights-in-climate-change-adaptation/> [www.angoc.org]

## Structural violence against women farmers in land control amidst climate change

*Bina Desa (BD)*

The history and practice of land tenure in Indonesia, as reflected in Lumajang Regency (East Java) and Bulukumba Regency (South Sulawesi), demonstrate the complexity of the country's tenure system and agrarian governance, which is still dominated by State and

<sup>7</sup> Bangladesh: Increasing Community Participation and Strengthening Union Disaster Management Committees; published by Landesa, 2025.

corporate claims to land. This situation often clashes with the historical, customary, and livelihood rights of local communities – especially women – whose position is increasingly vulnerable in the land tenure structure.

The case study focused on two communities: a) Pasrujambe Village in Lumajang Regency; and, b) Salassae Village in Bulukumba Regency. In Lumajang, the overlap between the State-Owned Forest Management Enterprise (*Perhutani*) and forest-dwelling communities demonstrates tenorial conflicts stemming from the formal and legal designation of forest areas without meaningful participation of local communities.



Routine observations in the research field by farmers' group. Photo by Bina Desa.

In Bulukumba, the protracted land conflict between indigenous communities and PT London Sumatra Indonesia (Lonsum Company) demonstrates how the legacy of colonial land tenure, reinforced by State laws, continues to clash with customary rights, even after the State's legal recognition of customary forests.

These two cases emphasize that formal recognition of tenorial rights is not enough. The people still must fight through legal and political mechanisms to obtain substantive agrarian justice.

Climate change increases the vulnerability of rural communities. In Pasrujambe, plant pest and diseases due to shifts in variability of the rainy and dry seasons wreak havoc on the community's livelihood. In Salassae, flooding is the most dominant disaster. The two villages are also prone to tornadoes and landslides.

The impact of climate change on both villages is manifested in decreased crop yields, increased workload of farmers (both men and women), and financial losses of up to 362.4 million Rupiah (USD 21,677) per year.

The climate crisis has become a reality that exacerbates agrarian vulnerability and triggers conflicts over land and natural resources. The situation becomes even more critical when limited land is taken over by businesses and State-owned corporations, even if said land has already been recognized as customary land.

While still actively advocating for their land rights, farmers pragmatically adapt to climate change-induced disasters by adopting natural farming methods and establishing a local social savings system (*arisan*), which provides collective savings in the form of money, livestock, and joint businesses, and serves as a shared economic reserve to support agricultural activities and address the risk of climate change.

The community's women join organizations and form study groups for sharing knowledge and experiences. They conduct training programs and build collective businesses. They grow vegetables in their backyards using intercropping techniques to reduce food expenses.

Land tenure security plays a crucial role in determining the ability of poor communities, particularly women farmers, to cope with the impacts of climate change and disasters. Research findings indicate that secure access to and control over land is a key prerequisite for farmers to build adaptation and mitigation capacity, such as establishing sustainable cultivation systems and maintaining soil fertility.

**For more details, see the link:** <https://angoc.org/portal/collective-action-on-land-tenure-and-climate-change-structural-violence-against-women-farmers-in-land-control-amidst-climate-change/> [www.angoc.org]

## Land tenure: The missing link in a climate-resilient and environmentally-sustainable future

*South Asia Rural Reconstruction Association (SARRA)*

Land tenure in India is governed by a patchwork of laws and State-level regulations, resulting in a highly uneven system of ownership, access, and use. Insecure tenure weakens the ability of smallholders, tenants, women, and marginalized groups to withstand and adapt to climate change.

Tirupati district in Andhra Pradesh State is primarily inhabited by Scheduled Castes (SC) and Scheduled Tribes (ST). Land cultivated by SC and ST families are a mix of small *pattas* (formal land titles), tenancy, and cultivating government-assigned lands. A larger number of families, however, are tenants who lease land from upper-caste landlords on a yearly basis. The precarious tenure of Tirupati farmers make them ineligible for crop insurance or agricultural loans, which make them more vulnerable when disasters strike.

Andhra Pradesh is frequented by climate-induced disasters. It was hit by a severe drought/monsoon failure in 2024, and a devastating cyclone in 2025. The cyclone resulted in 112,000 hectares of crop loss amounting to 52.65 billion Rupees. Tirupati district accounted for 38 million Rupees worth of crop loss and damage. The cyclone affected 1.8 million people across the State.



*Participatory Rural Appraisal (PRA) in Panduru Village. Photo by SARRA.*

The drought led SC and ST families to leave their land fallow, which resulted to loss of income and food security for a year, and led them to migrate in search of jobs. Scarcity of

fodder led to distress sales of livestock, a critical buffer against such shocks. Children quit school to work as unskilled laborers. Many families were plunged into debt. Worse, without formal land titles, tenant farmers could not claim crop insurance. Landlords evicted farmers who were unable to pay their lease. Tensions arose over access to dwindling water resources.

Faced with a lack of government support, the communities have initiated their own responses. They pooled labor, including the youth, to de-silt the community's traditional water-harvesting tank. Communities, spearheaded by the women, also adopted a collective seed bank system for drought-resistant millet varieties, vegetable seeds, and medicinal plants and roots, ensuring the availability of seeds for the next season.

The needs of the people forced them to organize themselves and collaborate with other groups. Community-based organizations have taken the lead in managing the community seed bank and promoting the cultivation of drought-resistant crops, taking the initiative to protect themselves from climate-induced shocks.

However, these are reactive measures to ensure survival. For landless tenants to actively engage in climate adaptation measures, they should be given formal recognition of their use rights over commons<sup>8</sup>, forests, and assigned lands. Tenant farmers, women, and youth should be enabled to directly participate in planning resilience strategies through the creation of village-level Climate and Land Rights Forums.

Government must also ensure that communities can access institutional credit, crop insurance, and subsidies regardless of formal titles, through innovative verification (e.g. Self-Help Group-certified tenancy, Gram Sabha<sup>9</sup> endorsements).

Community seed banks, water tank management committees, and collective land use planning mechanisms should be recognized by the State as institutions that blend traditional knowledge with modern resilience strategies.

As for women, they should be given joint *pattas* to ensure that they are not excluded from climate-related support and decision-making.

**For more details, see the link:** <https://angoc.org/portal/collective-action-on-land-tenure-and-climate-change-land-tenure-the-missing-link-in-a-climate-resilient-and-environmentally-sustainable-future/> [www.angoc.org]

## Pathways to sustainable land use through secured land rights: A case story on riverbed restoration in Deukhuri, Dang District

*Community Self-Reliance Centre (CSRC)*

Approximately 62 percent of households in Nepal's Deukhuri Valley are either landless or informal settlers, with the indigenous *Tharu* community comprising around 45 percent of

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<sup>8</sup> In India, commons are shared natural resources such as forests, water bodies, and pastures that are managed by communities

<sup>9</sup> Gram Sabha – village assembly of all registered voters

the population. Many families cultivate public land or engage in sharecropping under informal agreements, often without written contracts, and the terms are typically renegotiated annually. Large portions of fertile land are held by institutions such as the Swargadwari Trust and Sanskrit University. This context of unregistered tenancy and institutional land control hassled to recurring displacement of sharecroppers and underscores the urgent need for formalized land rights and equitable access.



Fallow riverbeds have been transformed into productive vegetable plots. *Photo by CSRC*

The Rapti river, which flows through the valley, has shaped both the landscape and the livelihoods of its people. Fertile riverbed lands lie unproductive year after year, despite their potential to support food production and ecological restoration. In recent years, erratic rainfall patterns and intensified monsoon flooding linked to broader climate change trends have repeatedly inundated the Rapti river basin.

Unregistered farmers are most vulnerable when crop destruction occurs due to inundation because they are unable to claim compensation or support due to their informal status.

Deukhuri Valley has emerged as an exemplary model for land rights advocacy, as landless and indigenous communities reclaimed the riverbed and public lands for cultivation. It started in 2013, when CSRC conducted a detailed context analysis in a number of communities with Land Rights Forums. Landless farmers families, small farmers, and sharecroppers under informal arrangements were identified. Likewise, resource mapping was used to assess available land.

In the process, it became evident that large stretches of riverbed land were lying unused. Due to strong clamor from landless families and small farmers, the municipal government formally allowed them to use riverbed areas at zero rent.

The initiative commenced with 96 families on 44.02 hectares in the Parsa area, 86 families on 14.9 hectares in Parsiya, 25 families on 2.71 hectares in Bhagwanpur, 23 families on 5.42 hectares in Takyapur, and 82 families on 10.84 hectares in Dharampur. Rice, maize, groundnuts, sweet potato, and vegetables were cultivated on once barren riverbeds. To-date, riverbed cultivation has expanded to all four municipalities of the valley, with 952 families farming 219 hectares of land.

Despite challenges, riverbank communities have mobilized to restore degraded land. Farmers adopted low-cost soil conservation techniques such as contour planting and mulching. Some have experimented with intercropping legumes to improve soil fertility and reduce erosion. They introduced erosion-resistant methods to replant groundnuts and sweet potatoes, conducted training sessions on climate-smart agriculture, and collectively advocated for the recognition of informal tenure rights.

As the practice expanded, local governments institutionalized it by developing policies and operational guidelines, ensuring fair access, transparency, and long-term continuity.

The Deukhuri Valley experience demonstrates that secure land rights is fundamental to building sustainable, climate-resilient agriculture among landless and marginalized communities. The riverbed farming initiative strengthened food security, improved household incomes, and restored degraded river systems, all while reinforcing the dignity and agency of land-poor farmers.

These gains underscore the importance of formalizing land access arrangements and ensuring that land governance frameworks are inclusive, transparent, and responsive to the needs of vulnerable groups. Where written agreements and structural leasing systems exist, farmers are more likely to invest in soil conservation, agroecology, and long-term stewardship.

**For more details, see the link:** <https://angoc.org/portal/collective-action-on-land-tenure-and-climate-change-pathways-to-sustainable-land-use-through-secured-land-rights-a-case-story-on-riverbed-restoration-in-deukhuri-dang-district/>  
[[www.angoc.org](http://www.angoc.org)]

### Takeaways

- Sectors without tenure security face the greatest risks from climate change impacts and natural disasters.
- Poverty pushes people to live in vulnerable areas and conditions.
- Natural disasters (erosion, landslides, flooding, salinization) can directly result in significant loss of land, leading to migration and livelihood shifts.
- As land is submerged or eroded due to calamities, landmarks are erased, known boundaries disappear, and legal documents are destroyed — thereby causing local land disputes or worsening existing ones.
- Natural disasters create opportunities for secondary land occupation and land grabs, due to population displacement.
- People without secure tenure may lose out on permanent shelter assistance and face greater difficulty reclaiming or relocating to affected property.
- Women are especially vulnerable, particularly where they cannot inherit property and land is registered under a husband or male relative.
- While the poor are aware of the risks posed by natural hazards, many are forced to accept or ignore such reality, given their lack of options, and in order to carry out their livelihoods.

- Land tenure security is crucial for climate change adaptation and disaster prevention. Secure land tenure increases resiliency of families and communities in the light of shocks and stresses brought by natural disasters and climate change.
- When tenure is secure, families invest better in their homes and farms. Secure land rights encourage communities — especially women and marginalized groups — to invest in sustainable practices (e.g., soil conservation, agroforestry, etc.).

### **Recommendations**

Climate change raises questions for land policy in addressing wider issues of land tenure, access, and redistribution, land use, management of common property resources, environmental protection, resettlement in the face of natural calamities and hazards, and potential conflicts to which climate change may be contributing.

Based on the stories presented and the ensuing discussions, the following recommendations are outlined: a) mainstream land tenure issues in climate change discussions and ensuring an engaged stakeholder participation; b) reframing the policy discourse on climate change; and, c) addressing land tenure rights and security in the context of natural disasters.

### **Mainstreaming land tenure issues in climate change discussions and ensuring an engaged stakeholder participation:**

- Raise concerns and discuss with stakeholders on the need to address land tenure issues in climate change responses, and in natural disaster policies and programs.
- Ensure the full involvement of local stakeholders (particularly those most vulnerable to climate change, including indigenous peoples and local communities, women, and the poor and marginalized) in the selection, evaluation, implementation, and monitoring of policy instruments for land-based climate change adaptation and mitigation.
- Enable communities to gain formal recognition of their use rights over commons, forests, and assigned lands, giving them confidence to invest in climate adaptation measures.
- Ensure access to and security of land rights for women farmers, including recognition of collective ownership, equal inheritance rights, and prioritization of women in agrarian reform programs.
- Integrate climate justice into agrarian and agricultural policies by making tenure security a key prerequisite for climate change adaptation and mitigation.
- Translate climate information into local languages and use culturally relevant communication methods.
- Train community paralegals (preferably women and youth) to assist with land documentation, inheritance claims, and dispute mediation.
- Conduct community-based awareness campaigns on climate risks, adaptation, and mitigation.
- Create village-level Climate and Land Rights Forums, where tenant farmers, women, and youth can directly participate in planning resilience strategies.
- Ensure full participation of local stakeholders not only in the assessment of local climate vulnerabilities but also in the co-design of resilience actions.

- Provide mechanisms to actively address land use that leads to land degradation and over-exploitation of land and water resources.
- Ensure climate funds and other support directly reach the vulnerable population.
- For longer-term climate change adaptation and disaster preparedness, land use planning at the local level should be guided by scientific hazard mapping studies, a national policy on land use, and a policy on ensuring land tenure security for those likely to be affected by land use plans.

### **Re-framing the policy discourse on climate change:**

- Government should accelerate and expand agrarian reform through land redistribution and strengthening land rights security, particularly for smallholder farmers, women farmers, and poor and marginalized rural communities.
- Governments should undertake a review of major national laws on climate change and natural disasters to determine whether they explicitly address the links between climate change and disasters and tenure rights.
- Governments should adopt a framework that ensures the protection of tenurial rights in the face of natural and man-made hazards.
- Women farmers should be recognized as a key group in climate change adaptation and mitigation strategies, to mainstream gender justice perspectives in climate and agricultural policies.
- Indigenous people's rights to land should be legally recognized and protected to foster food security and sustainability of existing knowledge about land use, which can increase opportunities for adaptation and mitigation.
- Implementation of natural farming as an official climate mitigation and adaptation strategy at the village level should be widely promoted and incentivized.
- Mainstream land rights into climate change policies and disaster risk reduction strategies.
- While many governments include agriculture as a priority for adaptation within their Nationally Determined Contributions (NDCs), very few address issues of tenure security and land governance. Thus, governments should include clear commitments that recognize and strengthen tenure of vulnerable communities in their NDCs and National Adaptation Plans (NAPs).
- Use mitigation programs to improve tenure security. Forests, watersheds, drylands, and other agricultural lands could provide important environmental services for mitigation, but are often held under insecure tenure. In such cases, providing tenure security could be used as an incentive or a reward for participation in environmental protection and in the sustainable use and management of resources.
- Promote and implement a landscape approach to make policy, governance, and management more space- and scale-sensitive.

### **Addressing land tenure rights and security in the context of natural disasters:**

- Building disaster preparedness and resilience should focus on ensuring tenure security for all. This may include the need to reassign tenure rights towards broader development goals of ensuring greater land equity, redistribution, and tenure security.

- Improved land governance should be a part of climate change adaptation. Land tenure should be a central consideration in vulnerability/risk assessments and in adaptation planning processes.
- Ensure that a gender perspective, including efforts to ensure gender equality, is included in all planning for climate change mitigation and adaptation. Similarly, the rights of children, older persons, minorities, migrants, and others in vulnerable situations must be protected.
- Support indigenous peoples in asserting their land rights and in collaborative ecological engagements in governing their territorial landscapes. As such, customary approaches to the management of land and resources should be supported.
- Governments should address tenure in disaster prevention and preparedness programs, and ensure that tenure concerns are addressed in relief and rehabilitation programs.
- Train community members (especially women and youth) on climate change, disaster risk reduction (DRR), early warning systems, and sustainable land management (SLM).
- Institutionalize community representation in local Disaster Management Committees and local climate planning bodies. ■

## A closer look at Asian farmers

### Targeted approach

The Asian agricultural landscape represents a variegated picture of actual tillers and claimants to the land.

Farmers have traditionally been defined by their land holdings and labor arrangements vis-à-vis the land. In turn, these landholdings and labor arrangements are determined by development variables: farm size, agricultural technology, land tenure, and level of support services.

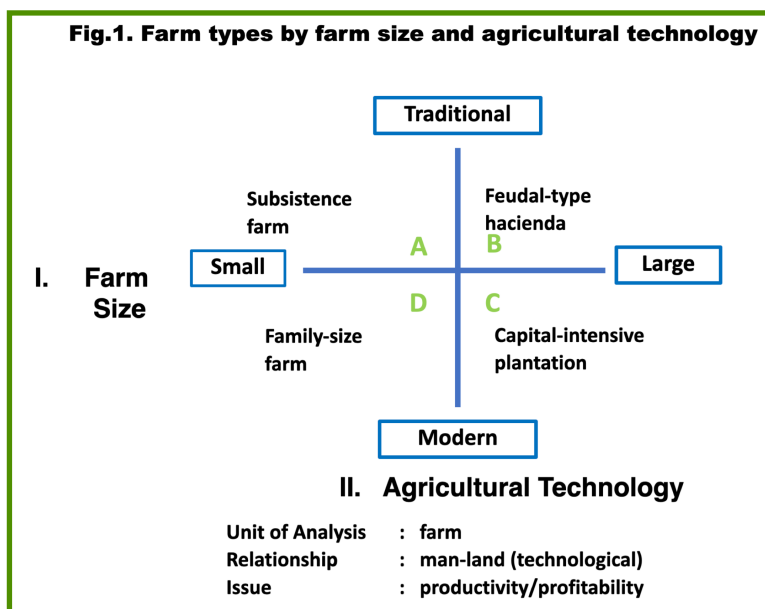
The typology thus generated can be used as a tool for profiling, analysis, research agenda formulation, and/or planning for agrarian reform and rural development in various contexts.

### Farm Types by Size and Technology

The first pair of variables relates farm size to agricultural technology. Its unit of analysis is the farm as a productive entity. The peasant is seen in terms of his/her technological relationship to the land (i.e., person-land technological relationship), and the focus is on productivity. Stretching across a spectrum, farm size may be characterized as small or large, while agricultural technology may be traditional or modern.

In Figure 1, the kinds of farms and their expected levels of productivity generate four farm types, i.e.,

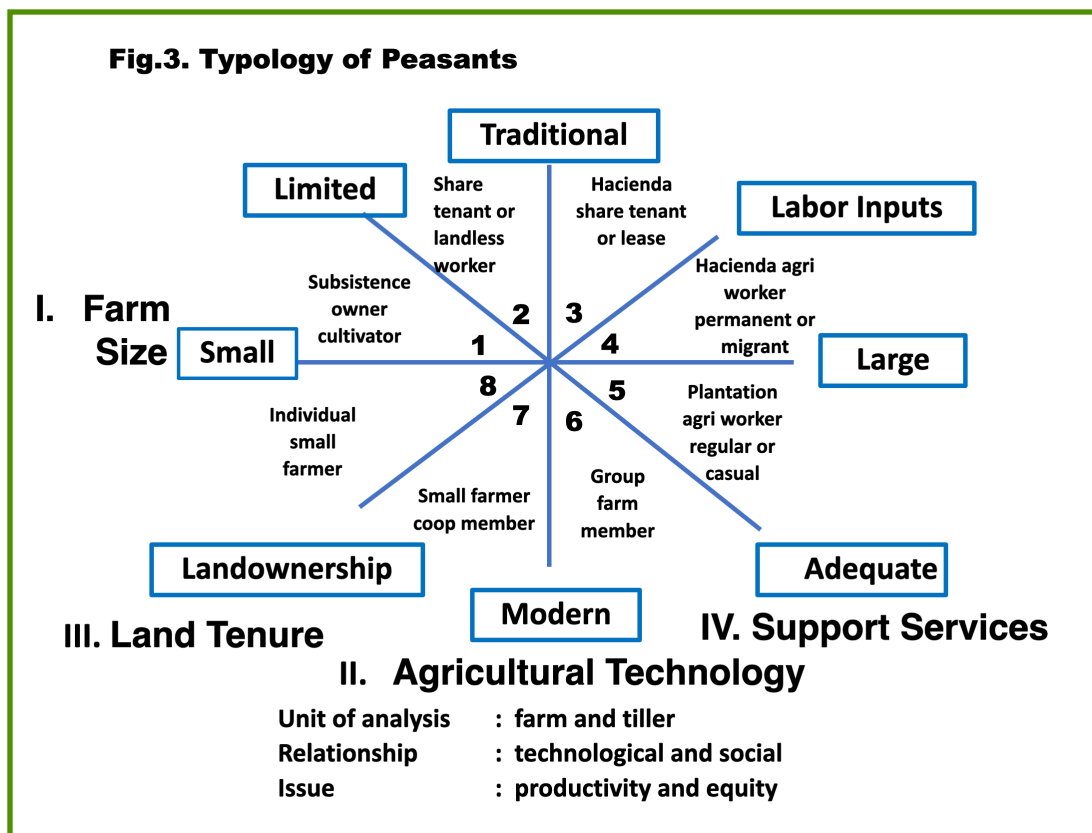
- A - subsistence smallholding (with low productivity);
- B - feudal type hacienda (with medium productivity);
- C - plantation in an export crop economy (with high productivity per unit of labor);
- D - family-size farm, combining labor-intensive practices of the farming household with modern technology (with high productivity per unit area).



Changes in agricultural parameters may lead in two directions: with appropriate technology, from farm A to B to C; and with technological innovation, from farm A to D.



**Fig.3. Typology of Peasants**



With some overlaps, these eight types of peasants are described as follows:

<b>TYPE 1</b>	The <b>subsistence owner-cultivator</b> , commonly found today in upland or rainfed areas, oftentimes an indigenous native farmer, or a small settler in a pioneer area: the peasant in the classical sense, i.e. with her/his own family farm, independent, and bound to traditional agriculture.
<b>TYPE 2</b>	The <b>sharecropper under a small landlord</b> , or landless worker hiring out her/his labor to other small farmers at seasonal periods, sometimes in a sub-tenancy arrangement, or through labor arrangements that represent disguised forms of share tenancy, involving specific farm tasks such as “free” weeding or transplanting in exchange for an exclusive right to the harvester’s or thresher’s share of the harvest.
<b>TYPE 3</b>	The <b>share tenant or lessee</b> within an hacienda setting. Patron-client relations are more pronounced with expectations of landlord reciprocity. Several landed estates devoted to rice, coconut, sugarcane, etc. may actually be fragmented for cultivation purposes among many small tenants of this type.
<b>TYPE 4</b>	The <b>hacienda agricultural worker</b> , whether permanent or migrant, like the <i>dumaans</i> and <i>sacada</i> in sugar areas, usually under an administrative hierarchy composed of <i>encargado</i> , <i>cabo</i> , and <i>contratista</i> . Although capital-intensive in some of the production phase and integrated in an agro-industrial system (like the sugar and coconut industries), haciendas of this type continue to adopt traditional methods of agriculture — resulting in inefficient production and the “high costs of cheap labor.”
<b>TYPE 5</b>	The <b>agricultural worker</b> , regular or casual, within a plantation economy that is capital-intensive, and oftentimes linked to transnational corporations for capital and marketing requirements. Cash crops may be pineapple, banana, coffee, palm oil, or rice. Many of these crops are grown in the fertile areas of Asia.

<b>TYPE 6</b>	A <b>member of a group farm</b> or a land consolidation project where group activities in production, credit, and marketing are stressed. Communal ownership of the land is invoked. Cultural minorities with a tradition of communal landownership may fit in this category once readier access to credit and markets is affordable. Several pilot projects are being tried out in Asia and other localities.
<b>TYPE 7</b>	A <b>small farmer linked to a cooperative network</b> or a corporation. Compact farm clusters, moshav-type cooperatives and linkage schemes are experiments along this line. One aberration would be for a small holder to lease out her/his land to a corporation under onerous conditions which would make her/him eventually lose control of his basic resource, the land.
<b>TYPE 8</b>	The <b>individual small farmer receiving some government support</b> in the form of a crop loan, irrigation service, farm-to-market roads, etc. Agrarian reform beneficiaries on rice and corn lands are target groups for this “integrated approach” of the Philippine government. Without a farmers’ organization or cooperative, however, these services are limited or may even be curtailed.

### ***Some development issues***

After surveying these eight peasant types, certain issues emerged.

- Can and should a dual economy in Asian agriculture persist? Types 1 to 3 are often characterized as belonging to a “backward” subsistence economy in contrast to the more “progressive” Types 4 and 5 needed by countries for foreign exchange earnings. On the other hand, with the reduction of the land frontier, land conflicts have arisen between representatives of the two economies, oftentimes to the detriment of the smallholder.
- Types 4 to 5 highlight the growing significance of *landless agricultural workers* – or the “proletarianization of the peasantry.” Indeed, landless workers (who neither own nor have tenants’ rights to the land) are becoming increasingly visible not only under Types 4 to 5, but also in Types 2 to 3 areas. What are the alternatives for resolving the problems of landlessness and rural unemployment?
- In the light of population pressure and advances in farm technology, what are the realizable models for agrarian reform and rural development in this century? Can the individual family-size farm remain as the long-range paradigm for agrarian reform? Or can agrarian reform models move more flexibly among Types 8, 7, and 6?

In many respects, Types 7 and 6 embody the twin goals of rural development for higher productivity and greater equity — by combining elements of a modernized agricultural technology, security of land tenure, greater access to public services, and, depending on local conditions, in small- or large-scale farming units. The likely route for a dual thrust of agrarian reform would be counterclockwise, following a redistributive model, from Types 2 and 1 to Types 8 and 7; and, clockwise, following a collective model, from Types 3, 4, and 5 to Type 6.

In summary, Types 1, 2, and 3 are arrangements of the past, if public policy and economic rationale are heeded. Types 4 and 5 continue to dominate the export crop economy, but with serious implications for the well-being and participation of peasant households in their own development according to farm size, tenure, technology, and support structure.

A number of challenges in relation to agricultural research vis-à-vis the different types of peasants were thus identified:

- Adaptation study on the impact of climate change, focusing on the vulnerability across the eight types of peasants
- Approaches in framing land tenure into the research agenda
- Developing models of linking farmers to the market, where farmers can get a fair price for their produce
- Facilitating farmers' access to information and documentation of local innovation development
- Making agriculture exciting for the youth
- Localization of research findings and translation to local languages
- Comparative policy analysis of tenure reforms and their impact on agricultural productivity and climate adaptation outcomes
- Development of tenure-sensitive innovation frameworks within national agricultural research systems
- Integration of agroecology, nature-based solutions, and climate information services into national research programs
- Evaluation of scalability and cost-effectiveness of climate adaptation technologies for smallholders
- Gender-responsive and indigenous knowledge-based research methodologies
- Participatory innovation platforms linking researchers, farmers, and policymakers ■

## Partnerships – the pathway towards transforming agrifood systems

### ***Advancing community-led, science-based research and innovation in Asia***

Given that the problems are complex and multifaceted, a wholistic approach of looking at the interplay of land tenure, climate change, and food security towards transforming the agrifood systems is recommended. Recognizing the social function of land increases the opportunities to emphasize the cultural, as well as the nutritional importance of food systems and provides an important reference point when designing land use, and particularly change of land use, regulations, and policies.

***“Without inclusive, publicly oriented science, land and climate policies risk becoming technically sound but socially unworkable. That is why collaborative research matters. It bridges evidence and lived experience, allowing policy discussions to be both technically robust and socially grounded. This work takes time, patience and listening, but it is exactly the space this regional workshop seeks to cultivate.”***

***(Keynote address, Lionel Dabbadie, FAO Representative in the Philippines)***

In recent years, public fora and dialogues on agricultural research and extension between CSOs and public-funded research institutes have been initiated and produced positive results. This collaboration is recommended to be continued to contribute to this urgent need of transforming agrifood systems.

Public-funded agricultural research continues to play a vital role in promoting food security and nutrition, sustainable farming, and the livelihoods of smallholder farmers. It produces *open-access* innovations – such as climate-resilient seeds and agroecological practices. Moreover, public research is able to focus on crops, farming systems, and regions often neglected by the private sector due to low commercial returns (e.g., subsistence crops, drylands, indigenous practices) yet serves the needs of marginalized communities.

National Agricultural Research and Education Systems (NARES) in Asia and the Pacific play a critical role in generating context-specific evidence, developing climate-resilient technologies, and informing policy reforms. However, research agenda often remain fragmented across land governance, climate adaptation, and agrifood systems transformation. Strengthening convergence across these domains will enhance the relevance, uptake, and impact of agricultural research and innovation.

While recognizing the impacts of scientific research on poverty and food security, CSOs have also advocated the need for greater focus on community-led, farmer-based research and extension, sustainable farming systems, greater recognition of indigenous knowledge and gender equity, among others. While thematic priorities vary among these groups, they are consistent in focusing on vulnerable smallholder producers with insecure land tenure, high vulnerability to environmental disasters, and weak market linkages.

Their voices have gathered robust support from various sectors, leading to the formation of social movements such as those advocating for land rights, organic farming, agroecology, and regenerative agriculture. CSOs carry a responsibility to develop community-based approaches for health and nutrition, food security, poverty alleviation, climate change, environment protection, and rural development -- incorporating the principles of equity, productivity, and resiliency.

Thus, a partnership between ANGO and APAARI has been explored towards contributing in addressing these challenges.

***“We are honored to contribute to the discussions leading to the draft partnership framework for this initiative. We view this effort as a valuable opportunity to strengthen the connection between agricultural research and the lived experiences of farming communities.”***

**(Dr. Reynaldo Ebor, Executive Committee Chair of APAARI  
and Executive Director of DOST-PCAARRD)**

A cornerstone of the partnership is the recognition that land tenure security is a foundational enabling condition for agricultural innovation systems. As such, secure land and resource rights influence farmers’ willingness to invest in long-term productivity improvements, adopt climate-smart technologies, and participate in formal markets and research initiatives. Integrating tenure considerations into agricultural R&D planning will enhance the scalability and sustainability.

***“APAARI, as a regional platform of National Agricultural Research Institutions, will facilitate alignment of research priorities across countries, promote South-South knowledge exchange, and strengthen science-policy interfaces. Through its networks, APAARI can support evidence generation, peer learning, and dissemination of good practices across Asia and the Pacific.”***

**(Samitha Manohar, Membership & Partnership Manager, APAARI)**

Specifically, it is hoped that this partnership will facilitate convergence in undertaking agricultural research and innovation towards the following outcomes:

- Eradicating hunger among small-scale farmers, fisherfolk, and indigenous communities by securing their land and resource rights, and building on community-centered food production and consumption.
- Implementation of agroecological practices in farms, communities, and agricultural landscapes towards contributing to climate change mitigation and adaptation.
- Building resilience and social protection of small-scale producers for them to withstand and adapt to the impacts of climate change, market volatility, natural disasters, and land tenure insecurity.

### Asia-Pacific Association of Agricultural Research Institutions (APAARI)

APAARI is an apolitical, membership-based, and multistakeholder platform established in 1990 under the auspices of the United Nations Food and Agriculture Organization, with the goal of strengthening agri-food research and innovations for sustainable development in Asia and the Pacific.

The association has members in 33 countries working in the areas of natural resource management, risk mitigation, inclusive development, and policy advocacy. APAARI's key programs involve knowledge management, partnerships and networking, capacity development, and policy advocacy.

Among APAARI's strategic interventions are: South-South collaboration, blockchain, SPS digitalization, E-phyto, global collective action on inclusive digital transformation, capacity building, small and marginal farmer engagement, and public-private partnerships.

APAARI works through its members, composed of UN Member States, National Agricultural Research Institutions (NARIs), and national, regional, and global development organizations. It also extensively collaborates with the private sector.

The proposed **Partnership on Agricultural Research and Innovation** will highlight the challenges faced by small-scale farmers<sup>10</sup> and recommend actionable areas and tools towards building "productive, equitable, and resilient agricultural systems." This will focus on various structural challenges that limit farmers' ability to benefit from climate-smart technologies.

***"At GFAiR, a core focus is to advocate for and catalyze co-partnerships and collective action, ultimately to contribute towards strengthening and transforming the agri-food research and innovation system. More than just partnership, co-partnership goes a lot further – from co-designing to co-implementing, and resulting in real co-ownership, which not all partnerships or collaborations achieve."***

**(Joanna Kane Potaka, Executive Director, GFAiR)**

<sup>10</sup> Refers to smallholder farmers, fisherfolk, and indigenous peoples

Such partnership shall link regional collective action with national research priorities and policy processes. It is strategic as it provides a platform to harmonize research agendas, clarify institutional roles, and strengthen policy-relevant research and innovation across countries.

***“DOST-PCAARRD sees strong potential for the proposed partnership to complement national and regional initiatives, facilitate cross-country and cross-sectoral learning, and strengthen the science–policy–practice interface. The partnership can serve as a regional platform for generating evidence, sharing good practices, and translating research outputs into policy-relevant and socially inclusive interventions.”***

**(Lilian Bondoc, Director of Policy Coordination and Monitoring Division, DOST-PCAARRD)**

The overriding approach in this partnership is a participatory and collaborative engagement among science-based research institutions, farmer organizations, cooperatives, CSOs, local government units, academic institutions and private sector organizations.

Partnership engagements would range from a) conduct of joint research, b) joint implementation of field programs, and c) undertaking joint policy and advocacy. In the formulation of research agenda, the collaboration can take the form of joint document review, focus group discussion, multi-stakeholder consultation/workshops, joint planning and validation meetings. Dissemination of research outputs and publications can be done through National Research and Development Conferences.

### ***Process undertaken in developing the Draft Framework for Partnership***

A survey questionnaire was drafted by ANGOC to determine the need and feasibility of fostering a partnership between ANGOC and NARI members of APAARI. The draft questionnaire was piloted with the DOST-PCAARRD, a NARI member of APAARI in the Philippines. It focused on the institution’s research agenda, research challenges, policy directions, and possible research focus with small-scale producers. These topics generated inputs on the partnership framework’s key elements: objectives, thematic areas, mechanisms for engagement, and format, among others. The questionnaire was subsequently updated for circulation to other NARI members of APAARI.

The APAARI Secretariat facilitated the transmittal of the online survey questionnaire to its members during the first week of November 2025. Responses of seven (7) APAARI members were then consolidated by ANGOC. Further inputs and feedback of APAARI members were solicited in an online meeting with APAARI members and partners on 16 January 2026 – providing significant inputs in drafting the Partnership Framework. Inputs from CSO writers of community stories on the land tenure-climate change nexus were likewise obtained.

Subsequently, the *draft* Partnership Framework was presented and discussed during the Asian regional workshop on 11-12 February 2026. Based on the inputs received, the said document was finalized and included in this workshop summary report.

Thematic research agenda under this partnership focuses on three interlinked areas critical to transforming agricultural food systems:

- **Tenure Security.** Focuses on understanding and strengthening secure access to land and resources for small-scale farmers, fisherfolk, and indigenous communities. Research explores how land rights, governance, and tenure systems influence livelihoods, food security, and the ability of communities to plan and invest sustainably. This will also include comparative policy analysis of tenure reforms and their impact on agricultural productivity and climate adaptation outcomes as well as the development of tenure-sensitive innovation frameworks within national agricultural research systems.
- **Climate Resilience.** Examines strategies and practices that enable rural communities and agricultural systems to anticipate, withstand, and adapt to climate change impacts. This includes climate-smart agriculture, agroecological practices, disaster risk reduction, and adaptive capacity building. Researches will explore integration of agroecology, nature-based solutions, and climate information services into national research programs. Evaluation of scalability and cost-effectiveness of climate adaptation technologies for smallholders will also be included.
- **Social Justice and Inclusive Development.** Investigates approaches that ensure participation, empowerment, and equitable benefits for marginalized groups — particularly women, indigenous peoples, and smallholders — in agricultural innovation, policy-making, and rural development initiatives. Gender-responsive and indigenous knowledge-based research methodologies will be pursued. Participatory innovation platforms linking researchers, farmers, and policymakers will also be established.

The regional workshop participants, thus have reaffirmed the responses of APAARI's members in the survey questionnaire and subsequent online meeting — NARIs are **open to consultation processes with various stakeholders** such as government agencies, academe, farmers, fisherfolk, indigenous peoples, CSOs, and policymakers. Participants are excited to pursue collaborative engagements between CSOs and NARIs in linking land tenure, climate change, and agricultural food systems.

Towards this end, the framework for partnership has been approved and enhanced by the results of the parallel group discussions on the ways forward. ■

## Ways forward

Workshop participants have defined the next steps in operationalizing the partnership framework along the following areas: a) mechanism, b) communication, c) forms of collaboration, d) research, and e) research agenda.

### ***On partnership mechanism***

This partnership will be coordinated by ANGOC and APAARI as part of the collective action of the GFAiR on mainstreaming land rights of the rural poor in the food security and climate discourse.

To formalize the partnership, a Memorandum of Understanding (MoU) between ANGOC and APAARI will be drafted, concurred, and signed by the two parties. A Joint Steering Committee composed of representatives from ANGOC and APAARI will provide strategic oversight. Thematic Working Groups will be activated, composed of researchers, CSOs, and farmer representatives, to ensure balanced representation of scientific and community perspectives.

While the formal arrangements are being prepared, an initial activity is to link CSO members of ANGOC with NARI members of APAARI in Bangladesh, Cambodia, India, Indonesia, Nepal, the Philippines, and Sri Lanka. Members of the three Thematic Working Groups (Land Tenure Security, Climate Resilience, and Social Justice & Inclusive Development) are encouraged to continue the dialogue process to share initiatives and research studies.

### ***On communication***

Platforms for continuous sharing of information and knowledge shall be created. Possible forms include group email and group chats (WhatsApp, Viber). CSOs may be invited to participate in quarterly online meetings convened by APAARI. Similarly, an invitation may be extended to NARIs on webinars organized by ANGOC.

### ***On forms of collaboration***

Two streams of collaboration shall be undertaken. First is knowledge sharing through the provision of information, education & communication (IEC) materials. Another form is through regular sharing of updates and research outputs, both by CSOs and NARIs. The second stream can take the form of capacity building. Possible areas of intervention may include the sharing of assessment and monitoring tools or providing opportunities for the application of research outputs.

***“We can be stronger together with this collective action on land tenure and climate change, and I look forward not only to supporting this collective action, but also exploring how we can go further in combining our efforts to become a more effective advocacy body.”***

**(Joanna Kane Potaka, Executive Director, GFAiR)**

### **On research**

An initial step is to map existing research studies conducted by members of ANGOC and APAARI on: a) land tenure, b) climate resilience, and c) social justice and inclusive development. Some of these research studies may be translated into local languages.

A discussion paper may be prepared to outline the protocols for future joint research by CSOs and NARIs. Among the elements to be observed are participatory and collaborative, with the overall approach of community-led research. As such, research should be multi-sectoral and multi-dimensional, and takes on a systems approach looking into different dynamics of the environment, economic, social, and cultural. At the same time, communities shall be involved in tracking progress and emerging outcomes of research and joint activities of CSOs and NARIs.

It is also important to define and mainstream the narrative of the importance of land tenure in agricultural research.

### **On research agenda (2026 to 2028)**

- **Land Tenure Security** *Focuses on understanding and strengthening secure access to land and resources for small-scale farmers, fisherfolk, and indigenous communities. Research explores how land rights, governance, and tenure systems influence livelihoods, food security, and the ability of communities to plan and invest sustainably.*

<b>Topic</b>	<b>Relevance</b>	<b>Key Actions</b>
Land rights policies in selected countries (tenure situation of smallholder farmers and indigenous communities)	To understand the current state of land governance in selected countries and its impact on small farmers and other marginalized sectors.	<ul style="list-style-type: none"> <li>• Co-design research framework</li> <li>• Joint CSO-NARI research based on agreed protocols</li> <li>• Involvement of communities in formulation, data gathering, analysis, and assessment</li> </ul>
Youth and local migration	<ul style="list-style-type: none"> <li>• Lack of interest of youth in farming and the increasing local migration</li> </ul>	

Topic	Relevance	Key Actions
Youth and local migration	<ul style="list-style-type: none"> <li>• Inventory of policies that support youth going into farming</li> <li>• Developing programs on youth involvement in farming</li> </ul>	<ul style="list-style-type: none"> <li>• Co-design research framework</li> <li>• Joint CSO-NARI research based on agreed protocols</li> <li>• Involvement of communities in formulation, data gathering, analysis, and assessment</li> </ul>
Typology of land ownership and share cropping arrangements	<ul style="list-style-type: none"> <li>• Identify appropriate sharing system for a specific tenurial instrument</li> <li>• Identify suitable arrangements for different types of farmers</li> <li>• Identify policy implications</li> </ul>	

- **Climate Resilience** *Examines strategies and practices that enable rural communities and agricultural systems to anticipate, withstand, and adapt to climate change impacts. This includes climate-smart agriculture, agroecological practices, disaster risk reduction, and adaptive capacity building.*

Topic	Relevance	Key Actions
Addressing and responding to the needs of local communities affected by climate change	<ul style="list-style-type: none"> <li>• Sharing of climate information services on potential disasters (i.e., early warning and preparedness)</li> <li>• Promotion of SMART agriculture</li> <li>• Harmonization of government agencies' response to climate change</li> </ul>	<ul style="list-style-type: none"> <li>• Co-design research framework</li> <li>• Joint CSO-NARI research in Cambodia, India, and the Philippines</li> </ul>
Promotion of agrobiodiversity for sustainable food production	<ul style="list-style-type: none"> <li>• More research on traditional agricultural practices and use of bio-varieties</li> <li>• National Resource Accounting of traditional knowledge and practices</li> <li>• Proper land use and planning in a landscape</li> </ul>	<ul style="list-style-type: none"> <li>• Co-design research framework</li> <li>• Joint CSO-NARI research in Cambodia, India, and the Philippines</li> <li>• Establish pilot sites</li> <li>• Seed exchange</li> <li>• Farmer-to-farmer exchange</li> </ul>
Scaling inclusive climate smart agriculture through social equity	<ul style="list-style-type: none"> <li>• To what extent do agricultural green zones with protected informal tenure reduce food price volatility?</li> <li>• Increases income and nutrition</li> </ul>	<ul style="list-style-type: none"> <li>• Co-design research framework</li> <li>• Joint CSO-NARI research</li> </ul>

Topic	Relevance	Key Actions
Dynamic land governance for resilient food basins	How can the integration of socially-recognized land rights into digital credit scoring models improve the adoption of climate resilient technologies among farmers without formal legal titles?	<ul style="list-style-type: none"> <li>• Co-design research framework</li> <li>• Joint CSO-NARI research</li> </ul>

- **Social Justice and Inclusive Development** *Investigates approaches that ensure participation, empowerment, and equitable benefits for marginalized groups – particularly women, indigenous peoples, and smallholders – in agricultural innovation, policy-making, and rural development initiatives.*

Topic	Relevance	Key Actions
Inclusive economic and business development of agri-systems	<ul style="list-style-type: none"> <li>• How to make farmers as entrepreneurs engaging in business endeavors?</li> <li>• Business model for win-win situation for farmers (profitable but not losing ownership and control of land)</li> </ul>	<ul style="list-style-type: none"> <li>• Co-design research framework</li> <li>• Joint CSO-NARI research</li> </ul>
Documentation of good practices or models for inclusive development and social justice	<ul style="list-style-type: none"> <li>• Knowledge sharing</li> <li>• Linkage with the private sector</li> </ul>	<ul style="list-style-type: none"> <li>• Co-design research framework</li> <li>• Joint CSO-NARI research</li> <li>• Convene business and farmer groups</li> </ul>
Documentation of indigenous knowledge on farmers' adaptation to climate change	<ul style="list-style-type: none"> <li>• Enhance capacities for climate change adaptation</li> <li>• Identify policies that hinder the promotion on indigenous knowledge and practices</li> </ul>	<ul style="list-style-type: none"> <li>• Co-design research framework</li> <li>• Joint CSO-NARI research</li> </ul>

***“I look forward to a dialogue where we can collaborate and foster partnership and facilitation, which are the two key areas in which we want to work together with all of you.”***

**(Samitha Manohar, Membership and Partnership Manager, APAARI)**

The participants underscored the value added of partnership to the organizations, while recognizing the differences in institutional objectives and approaches, and the need to strive for consensus. To effect transformation in the agri-food systems, knowledge and policy work should go hand-in-hand. ■

## Annex A

### ***PARTNERSHIP on AGRICULTURAL RESEARCH and INNOVATION:***

#### **Enhancing Research Agenda towards linking land Tenure, Climate Change, and Agricultural Food Systems**

Research and development on food and agriculture in recent decades have focused on increasing productivity, prompted by uncertainties of food supply. These undertakings have secured the food needs of the global population. The State of Food and Agriculture in 2023 affirmed this outcome, where “agrifood systems generate significant benefits to society, including the food that nourishes us and jobs and livelihoods for over a billion people.”<sup>11</sup>

With the changing climate and increasing globalization, however, agriculture now faces major challenges. Among others, these developments have resulted in food insecurity and increasing rural poverty as livelihood assets become more vulnerable to changes in rainfall and drought patterns and are exposed to commercial pressures.

The Intergovernmental Panel on Climate Change (IPCC) in its 2023 Synthesis Report conveyed that an increase in global surface temperature will affect approximately 3.3 to 3.6 billion people living in vulnerable contexts. Many countries in Asia and the Pacific are among the most vulnerable to climate-induced stress.

Understanding these negative impacts is challenging because of the interconnectivity of various areas and sectors – producers, businesses, governments, and other stakeholders in the entire value chain. With the extensive expanse of the value chains and their social, economic, and environmental impact, assessment will be difficult to undertake.

National Agricultural Research and Education Systems (NARES) in Asia and the Pacific play a critical role in generating context-specific evidence, developing climate-resilient technologies, and informing policy reforms. However, research agendas often remain fragmented across land governance, climate adaptation, and food systems transformation. Strengthening convergence across these domains will enhance the relevance, uptake, and impact of agricultural research and innovation.

Moreover, while climate change affects everyone, those who are poor and lack land tenure rights are among the most exposed to the direct effects of climate change. Poverty forces these communities to cultivate marginal lands and occupy fragile areas that are at risk of flooding, high tides, and storm surges.

The Global Forum on Agricultural Innovation and Research (GFAiR) stressed that small-scale farms account for 84 percent of all farms worldwide, but operate only around 12 percent of all agricultural land, and produce roughly 35 percent of the world’s food needs. Thus, GFAiR stressed that “in transforming agrifood systems, small-scale farmers should be at the center stage.”<sup>12</sup>

<sup>11</sup> FAO, 2023. The State of Food and Agriculture 2024 – Value-driven transformation of agrifood systems. Rome. <https://doi.org/10.4060/cd2616en>

<sup>12</sup> See <https://www.sciencedirect.com/science/article/pii/S0305750X2100067X>

Land tenure security is a foundational enabling condition for agricultural innovation systems. Secure land and resource rights influence farmers' willingness to invest in long-term productivity improvements, adopt climate-smart technologies, and participate in formal markets and research initiatives. It is fundamental to enabling long-term investments in climate-resilient and sustainable agri-food systems. Thus, this initiative is timely and highly responsive to the intersecting challenges faced by small-scale farmers, fisherfolk, and indigenous peoples.

### **Desired Outcome**

Given that the problems are complex and multifaceted, an all-inclusive approach of looking at the interplay of climate change, food security, and resource governance towards transforming the food systems is recommended. Recognizing the social function of land, for example, increases the opportunities to emphasize the cultural, as well as the nutritional importance of food systems, and provides an important reference point when designing land use.

This Partnership Framework between the Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC) and the Asia-Pacific Association of Agriculture Research Institutions (APAARI) is initiated towards addressing these challenges.

Specifically, it is hoped that this partnership will facilitate convergence in undertaking agricultural research and innovation towards the following outcomes:

- Eradicating hunger among small-scale farmers, fisherfolk, and indigenous communities by securing their land and resource rights, and building on community-centered food production and consumption.
- Implementation of agroecological practices in farms, communities, and agricultural landscapes towards contributing to climate change mitigation and adaptation.
- Building resilience and social protection of small-scale producers for them to withstand and adapt to the impacts of climate change, market volatility, natural disasters, and land tenure insecurity.

The proposed *Partnership on Agricultural Research and Innovation* will highlight the challenges faced by small-scale farmers<sup>13</sup> and recommend actionable areas and tools towards building "productive, equitable, and resilient agricultural systems." This will focus on various structural challenges that limit farmers' ability to benefit from climate-smart technologies.

Such a partnership shall link regional collective action with national research priorities and policy processes. It is strategic as it provides a platform to harmonize research agendas, clarify institutional roles, and strengthen policy-relevant research and innovation across countries.

APAARI will facilitate alignment of research priorities across countries, promote South–South knowledge exchange, and strengthen science – policy interfaces. Through its networks, APAARI can support evidence generation, sharing good practices, and translating research outputs into policy-relevant and socially inclusive interventions.

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<sup>13</sup> Refers to smallholder farmers, fisherfolk, and indigenous peoples

## Partnership Principles and Arrangements

This proposed partnership subscribes to the nine principles that GFAiR has outlined:

- The objectives of a partnership should be set collaboratively to ensure shared ownership from the outset.
- The networks and communication platforms established through a partnership should ensure transparent access and facilitate free knowledge exchange.
- Responsibilities should be shared effectively through jointly agreed distribution and accountability.
- Joint activities should foster mutual learning by reflecting on successes and challenges.
- A partnership should be designed to enhance collective research capacities.
- Within a partnership, benefits and merits should be equitably shared and managed.
- Results of a partnership should be shared widely in forms that enable their application.
- The outcomes of a partnership should be relevant, credible, and sustainably supported by shared resources.
- The Partnership Principles should be applied flexibly to fit each partnership's specific context.

The overriding approach in this partnership is a participatory and collaborative engagement among science-based research institutions, farmer organizations, cooperatives, CSOs, local government units, academic institutions, and private sector organizations.

Convergence may be strengthened by aligning the partnership's outputs with national research priorities, climate strategies, and food security/systems transformation agenda, ensuring relevance and uptake.

Partnership engagements would range from a) conducting joint research, b) joint implementation of field programs, and c) undertaking joint policy and advocacy. In the formulation of a research agenda, the collaboration can take the form of joint document review, focus group discussion, multi-stakeholder consultation/workshops, joint planning, and validation meetings. Dissemination of research outputs and publications can be done through National Research and Development Conferences.

These engagements will support community-based and other location-specific R&D initiatives designed to improve food production and income generation among smallholder farmers and fisherfolk. It will empower local communities by providing access to science-based technologies, strengthening local organizations, and integrating research outcomes into local development and land-use planning.

### Thematic Research Agenda

The thematic research agenda under this partnership focuses on three interlinked areas critical to transforming agricultural food systems:

*Tenure Security* - Focuses on understanding and strengthening secure access to land and resources for small-scale farmers, fisherfolk, and indigenous communities. Research explores how land rights, governance, and tenure systems influence livelihoods, food security, and the ability of communities to plan and invest sustainably. This will also include comparative policy analysis of tenure reforms and their impact on agricultural productivity and climate adaptation outcomes, as well as the development of tenure-sensitive innovation frameworks within national agricultural research systems.

*Climate Resilience* - Examines strategies and practices that enable rural communities and agricultural systems to anticipate, withstand, and adapt to climate change impacts. This includes climate-smart agriculture, agroecological practices, disaster risk reduction, and adaptive capacity building. Researchers will explore the integration of agroecology, nature-based solutions, and climate information services into national research programs. Evaluation of the scalability and cost-effectiveness of climate adaptation technologies for smallholders will also be included.

*Social Justice and Inclusive Development* - Investigates approaches that ensure participation, empowerment, and equitable benefits for marginalized groups – particularly women, indigenous peoples, and smallholders – in agricultural innovation, policy-making, and rural development initiatives. Gender-responsive and indigenous knowledge-based research methodologies will be pursued. Participatory innovation platforms linking researchers, farmers, and policymakers will also be established.

### **Potential Partners**

The Partnership is open to interested institutions and organizations. Agricultural research Institutions in Asia and the Pacific, Civil Society Organizations, farmer federations and networks, rural cooperatives, academic institutions, local and national government agencies, private sector institutions, and other relevant organizations will be invited to participate. Mechanisms and processes will be established to facilitate effective collaboration.

### **Coordination and Management**

This Partnership will be coordinated by ANGOC and APAARI. It will form part of the collective action of the GFAiR on mainstreaming land rights of the rural poor in the food security and climate discourse.

To formalize the partnership, a Memorandum of Understanding between ANGOC and APAARI will be drafted, concurred, and signed by the two parties. A Joint Steering Committee composed of representatives from ANGOC and APAARI will provide strategic oversight. Thematic Working Groups will be activated composed of researchers, CSOs, and farmer representatives to ensure balanced representation of scientific and community perspectives.

### **Assessment and Planning**

To ensure sustainability and measurable impact on resilience, equity, and food security outcomes, an annual assessment and planning will be convened. This will include, among others, the review of research and prioritization of future collaborative activities.

### **Citation:**

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### **Disclaimer:**

The views expressed in this document do not necessarily reflect those of EU and IFAD.



The **Department of Science and Technology-Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD)** is one of the sectoral councils

under the Department of Science and Technology (DOST). It was formed through the consolidation of the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD) and the Philippine Council for Aquatic and Marine Research and Development (PCAMRD) on 22 June 2011 pursuant to Executive Order No. 366.

Originally established in November 1972 as the Philippine Council for Agricultural Research (PCAR), it became the Philippine Council for Agriculture and Resources Research (PCARR) to include mines research in 1975. Affirming the role of S&T in development, PCARR changed its name to Philippine Council for Agriculture and Resources Research and Development (PCARRD) in 1982. The Council was tasked to provide a unified and focused direction for the country's agricultural research. In 1987, the Council was renamed the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development, but retained the acronym PCARRD.

With expanded coverage, functions, and responsibilities, the Council formulates policies, plans, and programs for science and technology-based R&D in the different sectors under its concern. It coordinates, evaluates, and monitors the national R&D efforts in the agriculture, aquatic, and natural resources (AANR) sector.

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The Global Forum on Agricultural Innovation and Research (GFAiR) was jointly established by FAO, IFAD, World Bank, and CGIAR and is the only multi-stakeholder global forum in which public, private, and civil actors, across all aspects of the generation, access, transformation and use of agri-food knowledge, come together through their own representative mechanisms, to collectively shape the future of agriculture and realize desired SDG impacts.

In December 1994, an International Consultation entitled "Towards a NARS Vision of International Agricultural Research" was convened by IFAD in Rome, within the framework of the process of renewal of the CGIAR System. Some 80 National Agricultural Research System leaders came together and produced a Declaration with concrete actions to strengthen NARS-CGIAR partnership. The Lucerne Ministerial-Level Meeting, which followed in February 1995, urged the CGIAR "to accelerate the process of systematizing participation by NARS of developing countries in setting and implementing the Consultative Group's agenda".

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This publication provides highlights of the **Mainstreaming Land Rights and Climate Change in Agricultural Food Systems workshop**, held on 11-12 February 2026 in Quezon City, Philippines, which brought together researchers, policymakers, and civil society organizations to address the growing challenges facing Asia's agricultural food systems in the context of climate change.

While advances in agricultural productivity have helped meet global food needs, the rise of large-scale agribusiness and the increasing impacts of climate change continue to threaten the livelihoods of smallholder farmers, particularly those with insecure land tenure.

The regional workshop underscores the importance of integrating land rights, climate resilience, and sustainable agricultural practices in shaping future food systems. By promoting community-led research, recognizing indigenous knowledge, and strengthening policies that support vulnerable farmers, the event aims to foster dialogue and collaboration through a framework for partnership toward building productive, equitable, and resilient agricultural food systems across the region.

