



**Organización de las Naciones
Unidas para la Alimentación
y la Agricultura**



**Tratado Internacional
sobre los Recursos Fitogenéticos
para la Alimentación y la Agricultura**

**TRATADO INTERNACIONAL SOBRE LOS RECURSOS
FITOGENÉTICOS PARA LA ALIMENTACIÓN
Y LA AGRICULTURA**

**SEXTA REUNIÓN DEL GRUPO ESPECIAL DE EXPERTOS TÉCNICOS
SOBRE LOS DERECHOS DEL AGRICULTOR**

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**PROYECTO DE EVALUACIÓN DEL ESTADO DE APLICACIÓN DEL
ARTÍCULO 9 DEL TRATADO INTERNACIONAL**

Nota del Secretario

El presente documento contiene el proyecto de evaluación sin editar del estado de aplicación del artículo 9 del Tratado Internacional sobre los Recursos Fitogenéticos para la Alimentación y la Agricultura (derechos del agricultor)

Habida cuenta de la extensión del documento y de los recursos extrapresupuestarios sumamente limitados, el proyecto de evaluación no se ha traducido en esta etapa.

La versión final de este proyecto de evaluación incorporará las contribuciones y las recomendaciones de la sexta reunión del Grupo de Expertos.

La versión actualizada del proyecto de evaluación será posteriormente editada por profesionales y traducida a los idiomas oficiales pertinentes de la FAO antes de ponerla a disposición del Órgano Rector del Tratado Internacional en su 11.ª reunión para que la examine.

**DRAFT ASSESSMENT OF THE STATE OF
IMPLEMENTATION OF ARTICLE 9 OF THE
INTERNATIONAL TREATY**

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ABBREVIATIONS AND ACRONYMS

AAFC	Agriculture and Agri-Food Canada
ABS	Access and Benefit-Sharing
AEGIS	A European Genebank Integrated System
AGUAPAN	Asociación de Guardianes de Papa Nativa del Centro del Perú
ARC	Agriculture Research Center
ARDC	Agriculture Research and Development Centre
ASA	Articulação do Semi-árido Brasileiro
BFICSS	Bauta Family Initiative on Canadian Seed Security
BSF	Benefit-sharing Fund
Bt	Bacillus thuringiensis
BUCAP	Biodiversity Use and Conservation in Asia Program
CBD	Convention on Biological Diversity
CBDC	Community Biodiversity Development and Conservation
CBR	Community Biodiversity Register
CFPRA	Campagao Farmers' Production and Research Association
CGC	Crop Germplasm Committee(s)
CGIAR	Consultative Group for International Agricultural Research
CIAT	International Center for Tropical Agriculture (Centro Internacional de Agricultura Tropical)
CIFSRF	Canadian International Food Security Research Fund
CIMMYT	International Maize and Wheat Improvement Center
CIP	International Potato Center
CSB	community seed bank(s)
CWR	crop wild relative(s)
DUS	distinctness, uniformity and stability
EAFRD	European Agricultural Fund for Rural Development
ECOWAS	Economic Community of West African States
ECPGR	European Cooperative Programme for Plant Genetic Resources
EOSA	Ethio-organic Seed Action
EWNRA	Ethio Wetlands and Natural Resources Association
FAO	Food and Agriculture Organization of the United Nations
FFF	Farmers Field Schools
GAC	Global Affairs Canada
GEF	Global Environmental Facility
GEVES	Variety and Seed Study and Control Group
GI	Geographical Indications

GIAHS	Globally Important Agricultural Heritage Systems
GMO	genetically modified organism(s)
GNIS	Groupement National Interprofessionnel des Semences et plants
IAFSI	Indigenous Agriculture and Food Systems Initiative
IALS	Indigenous Awareness Learning Series
ICARDA	International Center for Agricultural Research in the Dry Areas
ICTA	Instituto de Ciencia y Tecnología Agrícola
IDRC	International Development Research Centre
INC	Indigenous Network Circle
INCA	Instituto Nacional de Ciencias Agrícolas
INIA	National Institute of Agrarian Innovation
INFAT	Instituto de Investigaciones Fundamentales en Agricultura Tropical
INRAB	Institut National des Recherches Agricoles du Bénin
IPA	Indigenous Protected Area(s)
IPR	intellectual property right(s)
ISAO	Indigenous Support and Awareness Office
ISRI	Indigenous Student Recruitment Initiative
LI-BIRD	Local Initiatives for Biodiversity
MAEC	Agro-Environmental and Climate Measures
MELCA	Movement for Ecological Learning and Community Action
MLS	Multilateral System of Access and Benefit-sharing
MTA	Material Transfer Agreement(s)
NAFRI	National Agriculture and Forestry Research Institute
NARC	National Agricultural Research Council or Centre
NAREEEAB	National Agricultural Research, Extension, Education, and Economics Advisory Board
NARO	National Agriculture and Food Research Organization
NBSAP	National Biodiversity Strategy and Action Plan
NGO	non-governmental organization(s)
NIAHS	Nationally Important Agricultural Heritage Systems
NPGS	National Plant Germplasm System
PAA	Food Acquisition Program
PABRA	Pan-Africa Bean Research Alliance
PAMPAT	Project for Market Access of Typical Agrofood Products
PBR	plant breeders' rights
PCS	Plant Cultivation System
PDO	protected designation of origin
PGI	protected geographical indication

PGR	plant genetic resources
PGRFA	plant genetic resources for food and agriculture
PPB	participatory plant breeding
PVE	plant variety enhancement
PVP	Plant Variety Protection
PVPB	Plant Variety Protection Board
PVS	participatory varietal selection
SAFS	Sustainable Agricultural Farming System
SEARICE	Southeast Asia Regional Initiatives for Community Empowerment
SECO	State Secretariat for Economic Affairs of the Swiss Confederation
(S)MTA	(Standard) Material Transfer Agreement
SQCC	Seed Quality Control Centre
STB	Science and Technology Branch
TSG	traditional specialties guaranteed
UNEP	United Nations Environment Programme
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNIDO	United Nations Industrial Development Organization
UPOV	International Union for the Protection of New Varieties of Plants
USC Canada	Unitarian Service Committee of Canada (SeedChange)
USDA	United States Department of Agriculture
Utviklingsfondet	Norwegian Development Fund
WFP	wild food plant(s)

SECTION 1. EXECUTIVE SUMMARY

This Executive Summary presents a regional overview of the state of implementation of Article 9 of the International Treaty on Plant Genetic Resources for Food and Agriculture (International Treaty). It reflects the diverse measures, experiences, and challenges encountered across Africa, Asia, Europe, Latin America and the Caribbean, the Near East, North America, and the Southwest Pacific. While countries have made notable progress in recognizing and supporting the implementation of Article 9 on Farmers' Rights, the nature and extent of implementation differ across and within regions, reflecting varying national contexts, priorities, and capacities.

This summary below provides a concise synthesis of efforts, by regions, to recognize farmers' contributions to the conservation and development of plant genetic resources (PGR), protect traditional knowledge related to plant genetic resources for food and agriculture (PGRFA), promote benefit-sharing arising from the use of PGRFA, enhance participation in decision-making, and support the rights of farmers to save, use, exchange, and sell farm-saved seed/propagating material. It also highlights persistent challenges, emerging needs, and promising practices that can inform future action by Contracting Parties and stakeholders.

Key messages

- **All regions have taken steps to implement Farmers' Rights**, reflecting diverse legal, cultural, and socio-economic contexts. Measures include recognition of farmers' contributions, protection of traditional knowledge, benefit-sharing initiatives, participatory governance, and support for farmers' seed systems. Some countries have adopted comprehensive policies, while others rely on project-based or community-led initiatives. However, comprehensive stand-alone Farmers' Rights legislation remains rare, with most provisions embedded in broader legal frameworks.
- **Recognition of farmers' and local and indigenous communities' roles** is widespread, often through awards, community seed banks, seed or biodiversity fairs, heritage designations, and conservation programs.
- **Protection of traditional knowledge related to PGRFA** is often promoted through access and benefit-sharing (ABS) frameworks, biodiversity strategies, community registers, documentation initiatives, and Indigenous-led conservation areas. Nonetheless, challenges remain in fully safeguarding traditional knowledge associated to PGRFA.
- **Non-monetary benefit-sharing is the most common mechanism**, including access to genetic resources, access to technology and information on PGRFA, participatory plant breeding, capacity building, and market support for traditional varieties. Monetary benefit-sharing remains more limited and difficult to operationalize.
- **Farmers' participation in decision-making** is facilitated through advisory bodies, technical committees, multistakeholder platforms and community governance structures, though influence on policy outcomes varies. Strengthening inclusive and consistent participation remains a priority.
- **The right to save, use, exchange, and sell farm-saved seeds** is recognized in various forms across regions. However, legal and regulatory barriers often constrain these practices, requiring balanced approaches that support both formal and farmer-managed seed systems.
- **Gaps and needs include** fragmented legal frameworks, weak institutional coordination, insufficient financial and human resources, regulatory and market barriers to farmer-managed seed systems, limited public awareness, and socio-economic inequalities, and in some regions, gender-related barriers linked to customary norms.

AFRICA

African countries have made significant progress in advancing Farmers' Rights. Many countries have implemented policies and initiatives aimed at supporting farmers' contributions to the conservation and sustainable use of plant genetic resources. While a comprehensive, stand-alone Farmers' Rights law is yet to be adopted in most African countries, significant strides have been made through the integration of Farmers' Rights provisions into broader agricultural, biodiversity, and access and benefit-sharing (ABS) legislation.

Efforts to recognize and support the enormous contributions of farmers and indigenous communities to the conservation and development of PGRFA are underway in many countries. Initiatives include recognizing agricultural heritage systems, organizing diversity shows, and supporting community-based biodiversity management through seed banks, participatory breeding, and knowledge-sharing platforms.

The protection of traditional knowledge associated with PGRFA is also progressing. Various legal instruments, including ABS frameworks and seed laws, incorporate provisions aimed at safeguarding this knowledge. However, practical implementation is hampered by limited resources, insufficient institutional capacity, and weak enforcement mechanisms. Additionally, community seed banks and biodiversity registers have emerged as practical tools for documenting and preserving traditional knowledge, yet their sustainability often depends on external funding and technical support.

Equitable benefit-sharing from the use of PGRFA is another area where progress is visible. Support for on-farm conservation, capacity building, and improved market access are some of the tangible benefits extended to farming communities. Nonetheless, challenges such as restrictive seed certification standards, limited funding, and inadequate institutional coordination hinder the full realization of benefit-sharing objectives.

Farmers' participation in decision-making processes related to the conservation and sustainable use of plant genetic resources is gradually improving. Some countries have established participatory governance structures and platforms for farmer engagement, like community seed banks and federations representing farmer interests in national policy forums. However, barriers such as limited resources, institutional weaknesses, and socio-economic disparities, including gender inequalities, continue to restrict meaningful participation for many farmers.

The right of farmers to save, use, exchange, and sell farm-saved seed is recognized in many national laws, but its practical application is often limited by policies favouring formal seed systems. Informal seed exchange networks continue to play a crucial role in maintaining agrobiodiversity, yet these practices operate in a legal grey area, exposing farmers to potential sanctions.

ASIA

Asia has made notable strides in advancing the recognition and protection of Farmers' Rights with the adoption of meaningful measures by several countries. A landmark example is the adoption of a comprehensive law on Farmers' Rights in one country, considered among the most comprehensive globally, which addresses the rights of farmers to save, use, exchange, and sell seeds, recognizes traditional knowledge, and establishes benefit-sharing mechanisms through a national gene fund. Elsewhere, countries have taken a more fragmented approach, integrating Farmers' Rights provisions within broader agricultural, biodiversity, or ABS frameworks rather than through dedicated legislation.

Recognition of farmers' contributions is widely promoted through national awards, recognition systems, biodiversity fairs, and community initiatives. Yet, many of these initiatives remain project-driven, with limited long-term institutional support, which constrains their sustainability and wider impact.

The protection of traditional knowledge related to PGRFA has seen some advancement through legal instruments, biodiversity acts, and community initiatives. Documentation of traditional knowledge, community biodiversity registers, and seed fairs have been effective in preserving and promoting this knowledge. However, the erosion of traditional practices, driven by modernization and weak policy

enforcement, continues to pose challenges. Efforts by civil society organizations have been instrumental, though they operate under constraints of limited resources and reach.

In terms of benefit-sharing, countries have established legal mechanisms aligned with the International Treaty and the Nagoya Protocol. Non-monetary benefits include community seed banks, participatory breeding programs, and enhanced access to a diversity of PGRFA, among others. Initiatives to support on-farm conservation, capacity building, and market access have shown promise but require stronger institutional and financial backing.

Participation of farmers in decision-making processes is recognized in various national policies and institutional mechanisms promoting stakeholder engagement and institutional representation, though actual influence remains limited due to funding and outreach challenges.

Farmers' involvement in national agricultural councils, biodiversity strategies, and seed policy dialogues has been encouraged, though actual influence on policy outcomes is often limited by resource constraints and institutional barriers.

The rights of farmers to save, use, exchange, and sell farm-saved seed remain central to traditional agricultural systems in Asia. While recognized in many national laws, the practical realization of these rights is often hindered by regulatory frameworks that prioritize formal seed systems. Despite these challenges, traditional seed exchange networks, community seed banks, and farmers' fairs continue to play a vital role in maintaining agrobiodiversity at the grassroots level.

EUROPE

European countries have made significant efforts to advance the recognition and implementation of Farmers' Rights. Many countries have introduced legal frameworks, policies, and community-driven initiatives that support farmers' contributions to maintaining plant genetic resources and safeguarding traditional knowledge.

Across the region, there is growing recognition of the vital role farmers play in conserving agrobiodiversity. Several countries have integrated Farmers' Rights provisions into biodiversity, agricultural, and rural development policies. Initiatives such as awards, recognition systems, and support for seed networks highlight national efforts to acknowledge and incentivize farmers' contributions to conservation.

The protection of traditional knowledge is also receiving increased attention. Countries have adopted measures to document and preserve knowledge linked to local varieties and traditional practices, often through national inventories, community biodiversity registers, and cultural events. Nevertheless, traditional knowledge remains at risk of being marginalized, especially in the face of modern agricultural policies that prioritize standardized approaches over local adaptations.

Benefit-sharing mechanisms are progressively being integrated into national legal and policy frameworks, guided by the Nagoya Protocol and EU regulations. Non-monetary benefits — such as support for on-farm conservation, access to genetic resources, and participatory breeding programs — are being actively promoted. However, on-farm and *in situ* conservation efforts are frequently under-resourced and depend on voluntary initiatives without long-term institutional support. Financial incentives through agri-environmental schemes and targeted conservation programs have been effective in making biodiversity-friendly farming economically viable.

Farmers' participation in decision-making processes has been institutionalized in many European countries through advisory councils, technical committees, and consultation mechanisms. These platforms ensure that farmers' perspectives are considered in national strategies related to plant genetic resources. Increased organization of farmers into networks and associations has also improved their visibility and capacity to engage with policymakers. Public consultations provide another mechanism for farmers to influence policy and legal development.

The right of farmers to save, use, exchange, and sell farm-saved seeds is recognized through various legal instruments. Simplified procedures for registering conservation and "amateur" varieties have facilitated the use and marketing of traditional seeds. However, balancing farmers' rights with plant

breeders' rights, and navigating complex regulatory frameworks, continues to pose challenges, particularly for small-scale and traditional farmers.

LATIN AMERICA AND THE CARIBBEAN

Latin America and the Caribbean has taken important legal, policy, and grassroots measures to recognize, protect, and promote the rights and contributions of farmers, indigenous peoples, and local communities.

Several countries have embedded Farmers' Rights within their constitutions and national laws, explicitly recognizing the essential role of farmers and indigenous communities in conserving and sustainably using PGRFA. Legal frameworks often link the protection of traditional knowledge with broader goals of food sovereignty, environmental sustainability, and rural development. Community-based initiatives, such as agrobiodiversity fairs, seed networks, participatory plant breeding, and community seed banks, have been widely promoted.

Protection of traditional knowledge has been a particular area of focus. Many countries have adopted legal measures that safeguard collective intellectual property rights, regulate access to genetic resources, and ensure benefit-sharing with local communities. Beyond formal legislation, efforts to document and revitalize traditional practices through catalogues, cultural events, and educational programs are helping to bridge the gap between ancestral knowledge and modern agricultural innovation. These initiatives have not only contributed to preserving traditional knowledge but also strengthened the adaptive capacity of farming communities in the face of climate change. However, the erosion of traditional knowledge due to urban migration and modern agricultural practices complicate efforts.

Benefit-sharing mechanisms, both monetary and non-monetary, are well integrated into national strategies. Countries have developed policies that support farmers through capacity-building, participatory research, and access to diverse genetic materials. Initiatives such as guaranteed minimum price schemes for socio-biodiversity products, structured production chains, and competitive funding for agrobiodiversity conservation have created economic opportunities for small-scale farmers. However, challenges remain in fully implementing these frameworks, particularly in ensuring consistent funding, enhancing institutional coordination, and raising awareness among farmers of their rights.

Participation of farmers in decision-making processes has been strengthened through the establishment of multistakeholder platforms, technical committees, and community-based governance structures. These mechanisms have facilitated dialogue between farmers, policymakers, and researchers, ensuring that farmers' voices are heard in the development of agricultural and biodiversity policies. Legal recognition of farmers' and indigenous peoples' roles in governance processes further underscores the region's commitment to inclusive policy-making.

The rights of farmers to save, use, exchange, and sell farm-saved seeds are recognized in several national laws, with community-driven seed exchange systems playing a vital role in maintaining agrobiodiversity. Nonetheless, regulatory hurdles and the need to align traditional seed systems with formal certification standards continue to pose challenges. Efforts to reform seed policies and recognize farmers' seed systems are ongoing in many countries.

NEAR EAST

Near East countries have made steady progress in recognizing Farmers' Rights by introducing a variety of measures to support farmers' contributions to the conservation and sustainable use of PGRFA. Although no country has yet adopted a stand-alone Farmers' Rights law, national policies, agricultural laws, and biodiversity strategies across the region increasingly incorporate elements that align with the International Treaty's objectives.

In several cases, farmers' contributions are formally recognized through awards, festivals, and initiatives that celebrate the conservation of traditional varieties. Naming new crop varieties after

collaborating farmers and designating agricultural heritage sites have further strengthened recognition efforts and raised public awareness of the critical role of farming communities.

The protection of traditional knowledge is also gaining attention. While direct legal recognition remains limited, many countries have introduced measures to document and safeguard farmers' knowledge associated with plant genetic resources. This includes intellectual property laws with provisions for traditional knowledge, national documentation initiatives, and community-driven conservation programs. Farmer associations and community seed networks play a crucial role in preserving and exchanging knowledge, while special efforts are being made to involve women and marginalized groups in conservation activities.

Benefit-sharing mechanisms are progressively developed through national ABS laws and policies aligned with the Nagoya Protocol. While some countries have introduced dedicated legislation, others are integrating benefit-sharing provisions into existing frameworks for biodiversity and agricultural development. Non-monetary benefits, such as support for on-farm conservation, access to diverse genetic resources, and participatory research initiatives, are widely promoted, contributing to improved seed systems and local adaptation strategies. Participatory approaches in agricultural innovation and research have been embraced in several countries, with farmers involved in seed selection, varietal evaluation, and breeding programs.

Collaborative projects with research institutions and international organizations have facilitated the restoration of traditional seed systems and enhanced the resilience of farming communities. Market access initiatives, including preferential pricing schemes and support for value chain integration, are helping small-scale farmers derive economic benefits from their conservation efforts.

Farmers' participation in decision-making processes related to the conservation and sustainable use of plant genetic resources has been strengthened in several countries. National committees and multistakeholder platforms increasingly include farmer representatives, ensuring that their perspectives are considered in policy development. Community-based governance structures, cooperatives, and farmers' associations also provide avenues for participation, particularly in seed system management and biodiversity conservation initiatives.

The rights of farmers to save, use, exchange, and sell farm-saved seed is recognized to varying degrees across the region. While seed laws in many countries focus primarily on regulating formal seed markets and protecting breeders' rights, some initiatives have sought to support traditional seed systems. Programs for seed multiplication, local variety registration, and community seed exchanges are helping to preserve farmers' practices. However, comprehensive legal frameworks explicitly safeguarding these rights are generally lacking, and regulatory barriers continue to pose challenges for smallholder farmers engaged in traditional seed-saving and exchange practices.

NORTH AMERICA

In North America, both Canada and the United States of America have implemented a range of measures that address Farmers' Rights. Recognition of farmers' and Indigenous communities' contributions to the conservation of PGRFA is embedded in the region's legal and policy frameworks. In Canada, constitutional recognition of Indigenous rights is complemented by policies that support Indigenous-led conservation initiatives. Programs such as the Indigenous-led Conservation Support Funding and the Indigenous Agriculture and Food Systems Initiative exemplify this commitment, fostering partnerships between Indigenous communities, researchers, and government institutions. Similarly, the United States of America has developed mechanisms that recognize and protect Indigenous knowledge and land stewardship, through initiatives like the Agricultural Conservation Easement Program.

Both countries actively promote the protection of traditional knowledge relevant to PGRFA. In Canada, the adoption of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) into domestic law has reinforced commitments to protect traditional knowledge, ensuring its integration into biodiversity conservation strategies. While legal mechanisms continue to evolve, national policies emphasize Indigenous participation in environmental governance and the incorporation of traditional

practices into resource management. In the United States of America, the protection of traditional knowledge is facilitated through federal policies and agency-level consultations with Indigenous communities, ensuring that traditional knowledge informs land management and conservation efforts.

Benefit-sharing in North America is primarily implemented through public investments in research, conservation funding, and technical cooperation. Initiatives supporting participatory plant breeding, seed-saving networks, and Indigenous conservation leadership ensure that farmers and local communities' benefit from the sustainable use of plant genetic resources. While specific legal frameworks for benefit-sharing are still developing, non-monetary benefits such as access to germplasm, capacity building, and collaborative research are well-established. Canada's Indigenous Support and Awareness Office, along with initiatives like the Agricultural Living Laboratories, fosters collaboration between Indigenous communities and researchers, enhancing conservation and sustainable use practices. Community-driven seed exchange programs and participatory breeding initiatives also play a vital role in strengthening local seed systems.

Participation of farmers and Indigenous communities in decision-making processes is facilitated through advisory committees, participatory governance structures, and community-led research initiatives. In Canada, bodies such as the Advisory Committee under the Plant Breeders' Rights Act and various community-based projects ensure that farmers' perspectives are included in policy development. Similarly, in the United States of America, structures like the Plant Variety Protection Board and Crop Germplasm Committees provide platforms for farmer engagement.

The rights to save, use, exchange, and sell farm-saved seed are recognized in both countries, albeit within regulatory frameworks that balance these rights with seed quality standards and intellectual property protections. In Canada, exemptions within the Seeds Act and Plant Breeders' Rights Act allow for certain traditional practices, while maintaining standards for plant health and market integrity. The United States of America adopts a similar approach, permitting farm-saved seed use under specified conditions. However, navigating these regulations can be complex for small-scale farmers and community-based seed systems.

SOUTHWEST PACIFIC

In the Southwest Pacific, countries are progressively engaging with the principles of Farmers' Rights. Despite diverse national contexts and capacities, several initiatives reflect growing recognition of farmers' and local and indigenous communities' crucial roles in conserving and sustainably using plant genetic resources.

While no country in the region has yet adopted comprehensive legislation specifically dedicated to Farmers' Rights, elements of these rights are reflected in broader environmental, biodiversity, and agricultural policies. In one country, Indigenous Protected Areas have been established, supporting voluntary land management by Indigenous communities that integrates traditional and scientific knowledge for *in situ* conservation of crop wild relatives. Community-driven projects, such as participatory plant breeding initiatives, have also been implemented, fostering recognition of farmers' contributions and promoting on-farm genetic diversity.

Efforts to protect traditional knowledge related to plant genetic resources are evolving. Although dedicated legislation is limited, several countries embed traditional knowledge protection within broader biodiversity conservation strategies. Formal mechanisms, like Indigenous Protected Areas, empower communities to manage their lands and resources, ensuring that traditional practices are maintained. In parallel, community-based initiatives, often supported by international partnerships, are crucial for documenting and preserving local knowledge, particularly in the native food sector.

Benefit-sharing measures in the region are developing through ABS policies. While enforceable legal frameworks are still emerging, some countries have drafted national policies that seek to operationalize benefit-sharing linked to the use of plant genetic resources. Participation in the International Treaty's Multilateral System facilitates access to genetic resources, with genebank collections distributed under the Standard Material Transfer Agreement.

On-farm and *in situ* conservation efforts receive support through national biodiversity strategies and Benefit-sharing Fund projects. Indigenous Protected Areas and National Reserve Systems empower local communities to actively engage in conservation, blending traditional stewardship with formal conservation goals. Initiatives like the Seed Savers' Network and farmer-led conservation of wild banana species exemplify grassroots engagement. However, in several contexts, the focus of national programs leans towards crop adaptation to environmental change, sometimes at the expense of maintaining traditional varieties and diverse seed systems. Capacity-building and awareness-raising efforts are increasingly prioritized. Initiatives embedded within Indigenous Protected Areas include education and training programs that enhance local conservation capacities. Government-led workshops and extension services promote seed conservation techniques and the use of traditional varieties.

The participation of farmers in decision-making processes related to PGRFA is gradually improving, though formal mechanisms remain limited. In one country, Indigenous Protected Areas provide a platform for community-led management decisions. Elsewhere, stakeholder consultations on seed and ABS policies present opportunities for broader engagement, yet institutional mechanisms for farmers' direct participation are still underdeveloped.

The right of farmers to save, use, exchange, and sell farm-saved seed lack explicit legal protection across the region. While traditional seed-saving practices continue through informal networks, they are not formally recognized or safeguarded by national legislation. In one country, plant breeders' rights legislation allows for certain exemptions that permit farmers to condition and propagate farm-saved seed, offering partial support to traditional practices. However, comprehensive policies supporting farmers' seed systems are yet to be established.

SECTION 2. BACKGROUND

2.1 The origin and conceptual foundation of Farmers' Rights

This section provides a concise overview of the origin and conceptual development of Farmers' Rights to frame the current state of implementation of Article 9 of the International Treaty. It does not aim to present a comprehensive historical account of the evolution of the concept, which has been documented in detail through various dedicated processes and studies.¹

Farmers' Rights emerged in the international policy arena in response to the recognition of the vital contributions of farmers, particularly in centers of origin and diversity, to the conservation and development of plant genetic resources for food and agriculture (PGRFA). These contributions, made over generations, underpin global food security, agricultural sustainability, and biodiversity conservation.

The concept of Farmers' Rights was first articulated in the 1980s, evolving alongside discussions on plant breeders' rights and the equitable sharing of benefits derived from the use of PGRFA. Civil society actors and developing countries emphasized the need to acknowledge and reward farmers' roles in maintaining agrobiodiversity, especially in the context of growing intellectual property protections for breeders.²

Key milestones include the introduction of Farmers' Rights into international negotiations at the FAO in 1986, with subsequent landmark resolutions adopted by the FAO Conference. Resolution 4/89³ provided an agreed interpretation of the International Undertaking on Plant Genetic Resources, aiming for fair benefit-sharing. Resolution 5/89⁴ explicitly recognized Farmers' Rights as rights arising from farmers' contributions to PGRFA conservation and improvement, emphasizing the need for international support to ensure these contributions continue. This resolution recognized Farmers' Rights in the International Community as trustee for present and future generations of farmers.⁵

These early resolutions outlined objectives that continue to guide Farmers' Rights: ensuring global recognition of farmers' roles, securing sufficient resources for conservation, supporting farming communities in protecting agrobiodiversity, and enabling farmers to share in the benefits derived from the use of genetic resources.

The Keystone Dialogues (1988–1991) further shaped the conceptualization of Farmers' Rights. These multistakeholder discussions, chaired by Prof. M.S. Swaminathan, fostered consensus on key issues such as common heritage, intellectual property, and benefit-sharing, paving the way for broader recognition of Farmers' Rights in global policy through their formal recognition by the FAO Conference.⁶

The 1996 Global Plan of Action (GPA) for the Conservation and Sustainable Utilization of PGRFA, adopted as part of the Leipzig Declaration, reaffirmed the need to implement Farmers' Rights, a priority further emphasized in the Second GPA adopted in 2011. These plans provide frameworks for coordinated action at national, regional, and international levels, with specific measures supporting Farmers' Rights. The Report on the State of the World's PGRFA, published by FAO in 1998, further

1 Notably, an extensive overview of the historical developments and discussions on Farmers' Rights is available in the working document prepared for the first meeting of the Ad Hoc Technical Expert Group on Farmers' Rights (IT/GB-8/AHTEG-FR-1/18/3, [Overview of the Historical Developments and Discussion on Farmers' Rights](#)). Further detailed information can also be found in the [Educational Module on Farmers' Rights](#) developed under the International Treaty, as well as in academic and policy literature, including the Background Study [The History of Farmers' Rights: A Guide to Central Documents and Literature](#) by Regine Andersen and published by the Fridtjof Nansen Institute in 2005.

2 [The Educational Module on Farmers' Rights](#).

3 [Resolution 4/89](#)

4 [Resolution 5/89](#)

5 [C 89/24 - Interpretation of the International Undertaking on Plant Genetic Resources](#), appendix 2, page 9.

6 [Farmers' Rights in the Keystone Dialogues](#)

explored the implementation of Farmers' Rights, focusing on the establishment of an international fund and efforts to define their scope and components.⁷

The culmination of these efforts was the adoption of the International Treaty on Plant Genetic Resources for Food and Agriculture (the International Treaty) by the FAO Conference in 2001 (Resolution 3/2001).⁸ The International Treaty, which entered into force in 2004, enshrines Farmers' Rights in Article 9, providing a comprehensive, legally recognized framework for their realization at the national and international levels.

2.2 Farmers' Rights in relevant international fora

Farmers' Rights gained further attention through global environmental and sustainable development processes. Chapter 14 of Agenda 21 (1992), approved at the UN Conference on Environment and Development held in Rio de Janeiro in 1991, called for strengthening the global system for PGRFA conservation, explicitly referencing the implementation of Farmers' Rights.⁹¹⁰ Similarly, the Convention on Biological Diversity (CBD, 1992) recognized the importance of traditional knowledge through Article 8(j),¹¹ aligning with the principles of Farmers' Rights.

Furthermore, the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas¹² references the right to seeds and reinforces principles aligned with Article 9 of the International Treaty.

The alignment of Farmers' Rights with these broader frameworks underscores their importance for achieving global goals related to food security, climate resilience, and equitable development.

2.3 Farmers' Rights in the context of the International Treaty

Article 9 of the of the International Treaty recognizes the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centres of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production throughout the world.

The provision calls on Contracting Parties to take measures to protect and promote Farmers' Rights, in accordance with national laws and priorities.

Key components of Farmers' Rights under the International Treaty include:

- Protection of traditional knowledge relevant to PGRFA.
- Equitable participation in benefit-sharing arising from the utilization of PGRFA.
- Participation in decision-making, at the national level, on matters related to the conservation and sustainable use of PGRFA.
- The rights of farmers to save, use, exchange, and sell farm-saved seed, subject to national law and as appropriate.

⁷ [The Educational Module on Farmers' Rights](#). The second and third Reports on the State of the World's PGRFA were published in 2010 and 2025, respectively.

⁸ [FAO - C 2001/REPORT](#)

⁹ [The Educational Module on Farmers' Rights](#)

¹⁰ [Overview of Historical Developments and Discussions.pdf](#)

¹¹ [Article 8\(j\) - Traditional Knowledge, Innovations and Practices](#)

¹² [United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas \(UNDROP, 2018\)](#)

Figure 2.1
Key components of Farmers' Rights under Article 9 of the International Treaty



While Article 9 provides the primary legal foundation, other provisions of the International Treaty also support Farmers' Rights. Articles 5 and 6, on conservation and sustainable use of PGRFA, and Article 13, on benefit-sharing under the Multilateral System, create complementary obligations and mechanisms. The Benefit-sharing Fund (BSF), established under Article 13, supports projects that contribute to the realization of Farmers' Rights by enhancing access to plant genetic resources, capacity-building, and technology transfer.

Together, these interconnected articles create a cohesive framework that recognizes farmers as key custodians of biodiversity, while advancing food security and resilience. The preamble of the International Treaty further underscores these principles, affirming that *“the right to save, use, exchange and sell farm-saved seed and other propagating material, and to participate in decision-making regarding, and in the fair and equitable sharing of the benefits arising from, the use of plant genetic resources for food and agriculture, are fundamental to the realization of Farmers' Rights, as well as the promotion of Farmers' Rights at national and international levels”*.

2.4 Intersessional work and Resolutions of the Governing Body of the International Treaty

Since the International Treaty's entry into force, its Governing Body has addressed Farmers' Rights at each of its sessions, adopting a series of resolutions to provide guidance and support to Contracting Parties.

Early resolutions, such as Resolution 2/2007¹³ and Resolution 6/2009,¹⁴ emphasized the importance of exchanging experiences and promoting the practical implementation of Article 9. These resolutions invited Parties and stakeholders to submit views and best practices, fostering a culture of information sharing and mutual learning.

Recognizing the need for more structured support, Resolution 5/2015¹⁵ requested the Secretariat with compiling information and best practices on the implementation of Farmers' Rights under Article 9 of the International Treaty, and to prepare a study on the lessons learned, including policies and legislation.

¹³ [Resolution 2/2007](#)

¹⁴ [Resolution 6/2009](#)

¹⁵ [Resolution 5/2015](#)

This led to an online consultation¹⁶ and, notably, the Global Consultation on Farmers' Rights held in Bali in 2016, which provided a platform for stakeholders to discuss challenges and experiences for realizing Farmers' Rights.¹⁷

o *The Ad Hoc Technical Expert Group on Farmers' Rights (AHTEG-FR)*

A significant step was the establishment of the Ad Hoc Technical Expert Group on Farmers' Rights (AHTEG-FR) at the Seventh Session of the Governing Body (Resolution 7/2017).¹⁸ The AHTEG-FR was mandated to:

- produce an Inventory of national measures, best practices, and lessons learned on the realization of Farmers' Rights, as set out in Article 9 of the International Treaty (the Inventory).
- based on the Inventory, develop "Options for encouraging, guiding and promoting the realization of Farmers' Rights, as set out in Article 9 of the International Treaty".

At its Eighth Session, the Governing Body welcomed the Inventory and the establishment of its online version.¹⁹ At its Ninth Session in 2022, the Governing Body welcomed the work of the AHTEG-FR and noted the *Options for encouraging, guiding and promoting the realization of Farmers' Rights, as set out in Article 9 of the International Treaty*.

o *Other key decisions of the Governing Body*

At its Ninth Session, the Governing Body endorsed further work, including the First Global Symposium on Farmers' Rights, held in New Delhi in 2023.^{20, 21} The Symposium brought together a broad range of stakeholders to share experiences and identify priorities for future action.²²

At the same Session, the Governing Body requested the Secretariat *to make an assessment on the state of implementation of Article 9 of the International Treaty and to present criteria and an outline of the assessment at its Tenth Session and the full report at its Eleventh Session; such assessment should be based on the compliance reports and on submissions in the Inventory as well as on other relevant information*.

At its Tenth Session, the Governing Body, through Resolution 7/2023²³ re-convened the AHTEG-FR with the task of reviewing the Assessment and advising on how the use of the Options can be promoted.

¹⁶ The results are presented in the document "*Results of the online consultation to gather views and needs on the implementation of Farmers' Rights*":

<https://openknowledge.fao.org/server/api/core/bitstreams/6e0cf9de-6c2f-405e-9afa-e4221a9eb49b/content>

¹⁷ [Proceedings of the Global Consultation on Farmers' Rights](#)

¹⁸ [Resolution 7/2017](#)

¹⁹ [Inventory | International Treaty on Plant Genetic Resources for Food and Agriculture | Food and Agriculture Organization of the United Nations](#)

²⁰ [Resolution 7/2022](#)

²¹ The Governments of Italy and Norway provided financial resources that made the organization of the Global Symposium possible.

²² [Report from the Global Symposium on Farmers' Rights](#)

²³ [Resolution 7/2023](#)

Box 2.1**Farmers' Rights: Key Developments and Milestones****1980s**

- Emergence of the concept of Farmers' Rights as a response to the growing recognition of the critical role played by farmers in conserving and enhancing PGRFA.

1986

- Introduction of the concept of Farmers' Rights in international negotiations within FAO.

1988-1991

- Convening of the Keystone Dialogues in Madras and Oslo, advancing shared understanding among stakeholders and laying the groundwork for the formal recognition of Farmers' Rights by the FAO Conference.

1989

- Adoption of Resolution 4/89 by the FAO Conference, providing the Agreed Interpretation of the International Undertaking on Plant Genetic Resources.
- Adoption of Resolution 5/89 by the FAO Conference, explicitly recognizing Farmers' Rights as arising from farmers' contributions to the conservation and improvement of PGRFA.

1991

- Inclusion of Farmers' Rights in Chapter 14.59(a) of Agenda 21, adopted at the UN Conference on Environment and Development, calling for the strengthening of the Global System on the Conservation and Sustainable Use of PGRFA and measures to implement Farmers' Rights.

1992

- Identification of Farmers' Rights as an outstanding matter in the Nairobi Final Act of the Conference for the adoption of the agreed text of the CBD.
- Acknowledgment of the importance of traditional knowledge and the role of indigenous and local communities in biodiversity conservation and sustainable use through Article 8(j) of the CBD, aligning with the principles of Farmers' Rights.

1999

- Highlighting of Farmers' Rights in the UN Economic and Social Council's (ECOSOC) study on the Right to Food as essential to sustainable food supplies and the realization of the right to food.

2001

- Adoption of the International Treaty on Plant Genetic Resources for Food and Agriculture by the FAO Conference (Resolution 3/2001).

2004

- Entry into force of the International Treaty, enshrining Farmers' Rights in Article 9.

2006

- Recognition of the contributions of farmers and local and indigenous communities to PGRFA conservation by the Governing Body of the International Treaty during its First Session through a Ministerial Declaration.

2007–2009

- Adoption of Resolutions 2/2007 and 6/2009 by the Governing Body of the International Treaty, promoting the exchange of experiences and practical implementation of Farmers' Rights and inviting submissions of views and best practices.

2015

- Adoption of Resolution 5/2015 by the Governing Body of the International Treaty, requesting the Secretariat to compile information and best practices and to prepare a study on the lessons learned.

2016

- Organization of the Global Consultation on Farmers' Rights in Bali, Indonesia, providing a platform for multistakeholder dialogue on challenges and opportunities for realizing Farmers' Rights.

2017

- Establishment of the Ad Hoc Technical Expert Group on Farmers' Rights (AHTEG-FR) by the Governing Body (Resolution 7/2017), mandated to produce an Inventory of national measures, best practices, and lessons learned on the realization of Farmers' Rights, and to develop Options for encouraging, guiding and promoting the realization of Farmers' Rights.

2019

- Presentation of the Inventory of national measures, best practices and lessons learned, and the Options for encouraging, guiding, and promoting the realization of Farmers' Rights to the Governing Body at its Eighth Session.
- Welcoming by the Governing Body of the Inventory and its online platform.

2022

- Acknowledgement by the Governing Body at its Ninth Session of the work undertaken by the AHTEG-FR and endorsement of further work on Farmers' Rights, including the organization of the First Global Symposium on Farmers' Rights and the preparation of the first assessment of the state of implementation of Article 9.

2023

- Reconvening of the AHTEG-FR by the Governing Body at its Tenth Session to support the review of the assessment and advise on the promotion of the Options.
- Convening of the First Global Symposium on Farmers' Rights in New Delhi, India, bringing together stakeholders to share experiences and identify priorities for promoting the implementation of Farmers' Rights.

2025

- Presentation of the Assessment of the state of implementation of Article 9 of the International Treaty to the Governing Body at its Eleventh Session.

SECTION 3. INTRODUCTION

Farmers' Rights are a cornerstone of the International Treaty, recognizing the past, present and future contributions of farmers in all regions of the world in conserving, improving and making available PGRFA, which are vital for global food security, climate resilience, and sustainable agriculture. Article 9 of the International Treaty encourages Contracting Parties to take measures to protect and promote Farmers' Rights, specifically regarding the protection of traditional knowledge related to PGRFA, equitable sharing of benefits arising from the utilization of PGRFA, participation in making decision, at the national level, on matters related to the conservation and sustainable use of PGRFA, and the rights that farmers have to save, use, exchange, and sell farm-saved seed/propagating material, subject to national law and as appropriate.

Since the entry into force of the International Treaty in 2004, the implementation of Farmers' Rights has gained increasing attention at national, regional, and global levels. Across the world, countries have introduced diverse measures to promote the implementation of these rights, reflecting their specific legal, cultural, and socio-economic contexts. While these efforts illustrate a shared commitment to the objectives of the International Treaty, the implementation of Farmers' Rights has evolved along different trajectories across regions, shaped by varying capacities, priorities, and national circumstances.

In recognition of the need for a comprehensive understanding of these developments, including the current status and needs, the Governing Body of the International Treaty, at its Ninth Session, requested the Secretary "subject to the availability of financial resources, to make an Assessment of the state of implementation of Article 9 of the International Treaty [...]; such Assessment should be based on the compliance reports and submissions to the Inventory as well as on other relevant information".²

The primary objective of the Assessment is to provide a consolidated overview of how Farmers' Rights have been recognized, protected, and promoted across regions. It seeks to capture not only the measures taken but also the experiences gained, the factors limiting progress, and the emerging needs and gaps. By analyzing implementation gaps and needs, the Assessment aims to support informed decision-making by the Governing Body and guide future decisions to further the realization of Farmers' Rights.

The scope of the Assessment encompasses the implementation of the provisions of Article 9 and the resolutions on Farmers' Rights adopted by the Governing Body.³ It covers the period since the International Treaty's entry into force, with a particular focus on the current status and recent developments.

Recognizing the diversity of agricultural systems, institutional and governance structures, and socio-cultural contexts, the Assessment adopts a regional perspective to examine implementation trends and experiences. It provides region-specific analyses for Africa, Asia, Europe, Latin America and the Caribbean, the Near East, North America, and the Southwest Pacific, allowing for the identification of both commonalities and region-specific approaches. Particular attention is given to innovative policies and practices, community-based initiatives, and multistakeholder collaborations that have contributed to the realization of Farmers' Rights.

SECTION 4. APPROACH AND METHODOLOGY

4.1 Data sources and collection methods

The Assessment of the state of implementation of Article 9 of the International Treaty was conducted meticulously, following the outline endorsed by the Expert Group (hereafter, the outline).²⁴ The Secretariat gathered data and information from various available resources, including:

- *National reports*

The primary sources of information for the data analysis are the National Reports on the implementation of the International Treaty (hereafter, national reports).²⁵ As of April 2025, the Secretariat of the International Treaty has received a total of 97 National Reports from all the regions: Africa (23), Asia (11), Europe (29), Latin America and the Caribbean (16), Near East (12), North America (2), and Southwest Pacific (4).

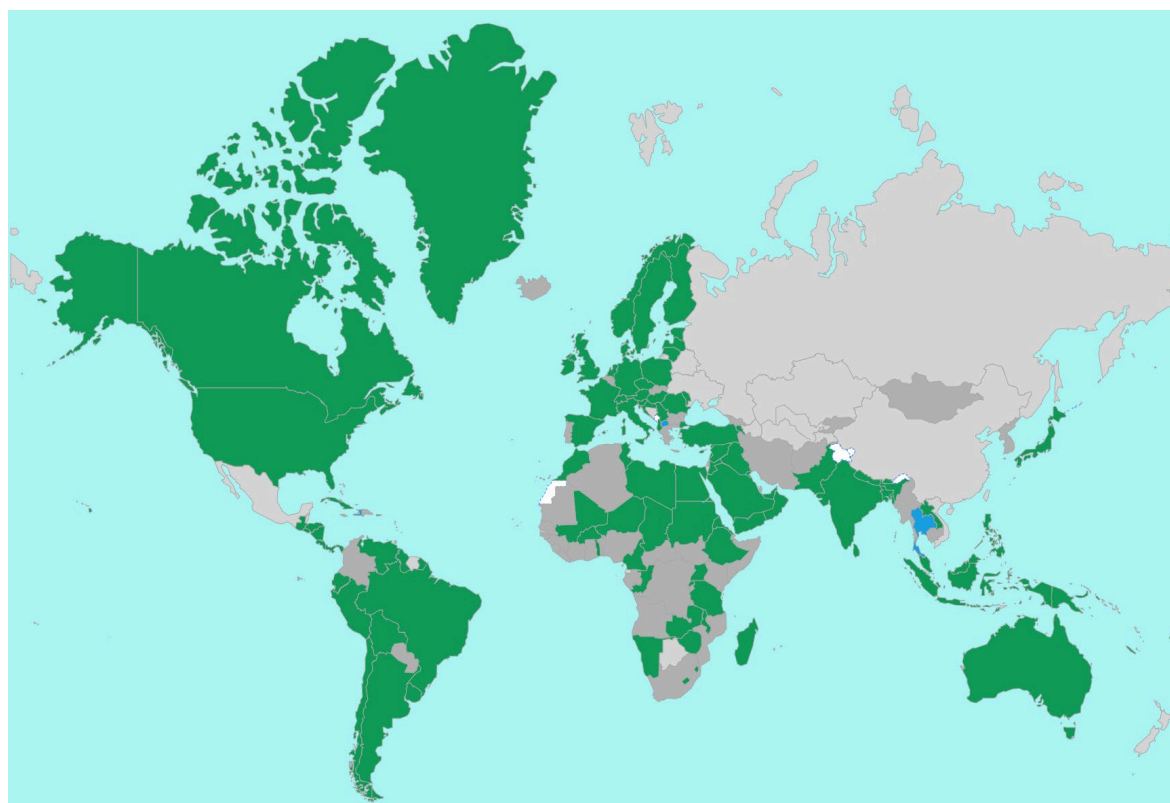
For each of the main articles of the International Treaty, the national reports comprise mandatory questions (e.g. yes/no and multiple-choice questions) and optional questions, for which respondents are requested to either substantiate their answers or to provide additional details. For the purpose of this assessment, the data collection process focused primarily on the answers to the following questions:

- Question 19 on Farmers' Rights (Article 9);
- Questions 1, 2 and 3 on the General obligations (Article 4);
- Questions 8 and 9 on On-farm and in situ conservation of PGRFA (Article 5);
- Question 14 on Sustainable use of PGRFA (Article 6);
- National commitments and international cooperation (Article 7);
- General remarks on implementation of the International Treaty.

²⁴ [IT/GB-11/AHTEG-FR-5/24/Report, Appendix 2.](#)

²⁵ These are the country reports on implementation of the International Treaty received from Contracting Parties pursuant to Section V.1 of the "[Procedures and operational mechanisms to promote compliance and address issues of non-compliance](#)" (Resolution 9/2013), for which an updated [Standard Reporting Format](#) was adopted by the Governing Body in 2019 ([Resolution 7/2019](#)).

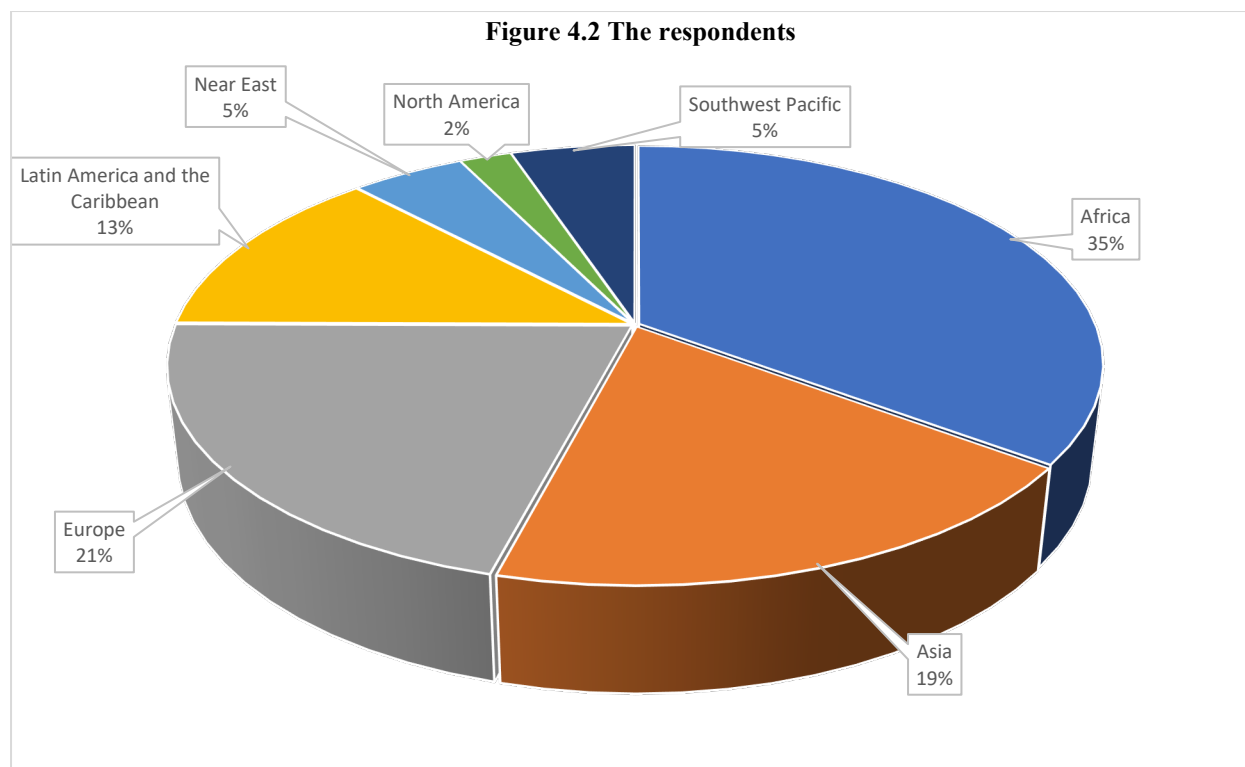
Figure 4.1
Map of Contracting Parties having submitted a report (depicted in green)



Source: Map from UN Geospatial Service. The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Sudan and South Sudan has not yet been determined.

- *Multistakeholder survey responses*

The results of the multistakeholder survey conducted by the Secretariat from 12 December 2024 to 31 January 2025 provided valuable complementary information. The multistakeholder survey was conducted online and made available in English, French, and Spanish. It generated 233 responses from 91 countries, including four non-Contracting Parties, across seven regions: Africa (82), Asia (44), Europe (49), Latin America and the Caribbean (30), Near East (11), North America (5), and Southwest Pacific (12). The survey gathered responses from UN bodies, CGIAR Research Centers, farmers' organizations, Indigenous Peoples' and local communities' organizations, civil society organizations, academia, and the public and private sectors, operating at various levels. The respondents comprised 30% individuals in their personal capacity, 26% representatives of institutions, 25% on behalf of groups or institutions, and 19% from the national focal points of the International Treaty.



The multistakeholder survey was designed to engage all Contracting Parties and interested stakeholders in gathering comprehensive information regarding the state of implementation of Article 9 of the International Treaty. In particular, it aimed to supplement the data and information from national reports and other sources. The questionnaire was structured around the provisions of Article 9 and included supplementary questions so that all the necessary information stipulated in the outline²⁶ may be gathered, such as:

- a) Measures, experiences, and lessons learned from the implementation of Farmers' Rights;
- b) Measures (or factors) limiting the implementation of Farmers' Rights;
- c) Supplementary information related to the implementation of Farmers' Rights;
- d) Gaps and needs with regard to the implementation of Farmers' Rights; and
- e) Prospects and plans for further implementation of Farmers' Rights.²⁷

- *The Inventory*

The *Inventory of national measures, best practices, and lessons learned from the realization of Farmers' Rights, as set out in Article 9 of the International Treaty* (the Inventory), is an online catalogue of national measures and practices provided by the Contracting Parties and interested stakeholders. As of April 2025, there are 233 measures and practices available. Several of these measures are also described in the National Reports.

4.2 Data analysis

The data collected from the national reports and the multistakeholder survey were organized into separate tables in MS Excel by country and combined by region into seven separate databases for each of the seven regions, i.e. Africa, Asia, Europe, Latin America and the Caribbean, Near East, North Africa, and Southwest Pacific, in preparation for data analysis.

²⁶ Appendix 2 of the IT/GB-11/AHTEG-FR-5/24/Report

²⁷ The activities are inspired by the outcomes of the Global Consultations on Farmers' Rights held in India, and based on the suggested activities on how the use of the *Options* can be promoted.

Answers to all mandatory questions of the national reports and the multistakeholder survey (e.g. yes/no, multiple choice and ranking) were filtered in MS Excel to calculate numbers and percentages and the results are presented in bar charts and/or in the narratives.

Free-text responses to questions of the national reports and the multistakeholder survey were ordered thematically and presented in tabular format (as supplementary tables). Syntheses of the responses are presented in the narratives.

The information from the Inventory was used to support the analysis of the data collected from the national reports and the multistakeholder survey as presented in the Assessment. Measures and practices were integrated and cross-checked whenever they were referenced in the narratives. Moreover, the Inventory also served as a key source for the development of text boxes throughout the Assessment.

The Section 5.6.2 “Realization of Farmers’ Rights” contained in the *Third Report on the State of the World’s Plant Genetic Resources for Food and Agriculture* (FAO, 2025) was reviewed as a supplementary source. Because that section presents findings at the global level, it contributed little original information to the present region-focused assessment. Instead, it was used primarily as an external benchmark to verify the internal consistency and completeness of the data generated from the primary sources described above.

4.3 The presentation of the Assessment of the state of implementation of Article 9 of the International Treaty

The Assessment of the state of implementation of Article 9 of the International Treaty is presented in Section 5. It is organized by region, covering Africa, Asia, Europe, Latin America and the Caribbean, Near East, North America, and Southwest Pacific. For each region, the analysis follows a uniform structure to ensure consistency. Each regional section begins with a brief introduction, followed by a structured presentation of the outcomes of the analysis, organized around the provisions of Article 9 (with experiences and lessons learned under the relevant provision, when such information is available) as follows:

- Recognition of the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development (Article 9.1)
- The protection of traditional knowledge relevant to PGRFA (Article 9.2a)
- Farmers’ right to participate in benefit-sharing (Article 9.2b)
- Farmers’ right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of PGRFA (Article 9.2c)
- Farmers’ right to save, use, exchange, and sell farm-saved seed, subject to national law and as appropriate (Article 9.3)
- Gaps and needs with regard to the realization of Farmers’ Rights

Examples of implemented measures for each provision of Article 9 are provided for all the regions, when available.

The prospects and plans for further implementation of Article 9 as gathered from the multistakeholder study are summarized in Section 6.

4.4 Limitations and challenges encountered in the preparation of the Assessment

The robustness of the present assessment is tempered by three inter-related constraints.

First, the quantity of information available by region for analysis varied markedly. While some regions submitted a near-complete set of national reports and an ample number of replies to the multistakeholder survey, others provided only a handful of information from their country reports or survey responses.

Second, even where national reports were available, many lacked detailed or up-to-date descriptions of legislative, institutional or programmatic measures relevant to Article 9 of the Treaty. The incomplete coverage introduces potential bias and inevitably limits the granularity of the findings.

Finally, a persistent challenge lays in the limited understanding — among both government and non-government respondents — of the scope of Farmers' Rights. Numerous initiatives that, in substance, promote and protect Article 9 were not identified as such by national focal points and therefore went unreported in the official submissions. This conceptual gap likely led to systematic under-estimation of the volume and diversity of activities promoting the realization of Farmers' Rights, particularly in domains such as seed exchange, participatory breeding and community seed banking, including missing the possible link to other sectors of relevance to PGRFA.

Together, these limitations underscore the importance of continued capacity-building and awareness raising to improve the quality and consistency of future analysis. They also point to the potential value of refining future provisioning of information resources.

SECTION 5. THE STATE OF IMPLEMENTATION OF FARMERS' RIGHTS

5.1 AFRICA

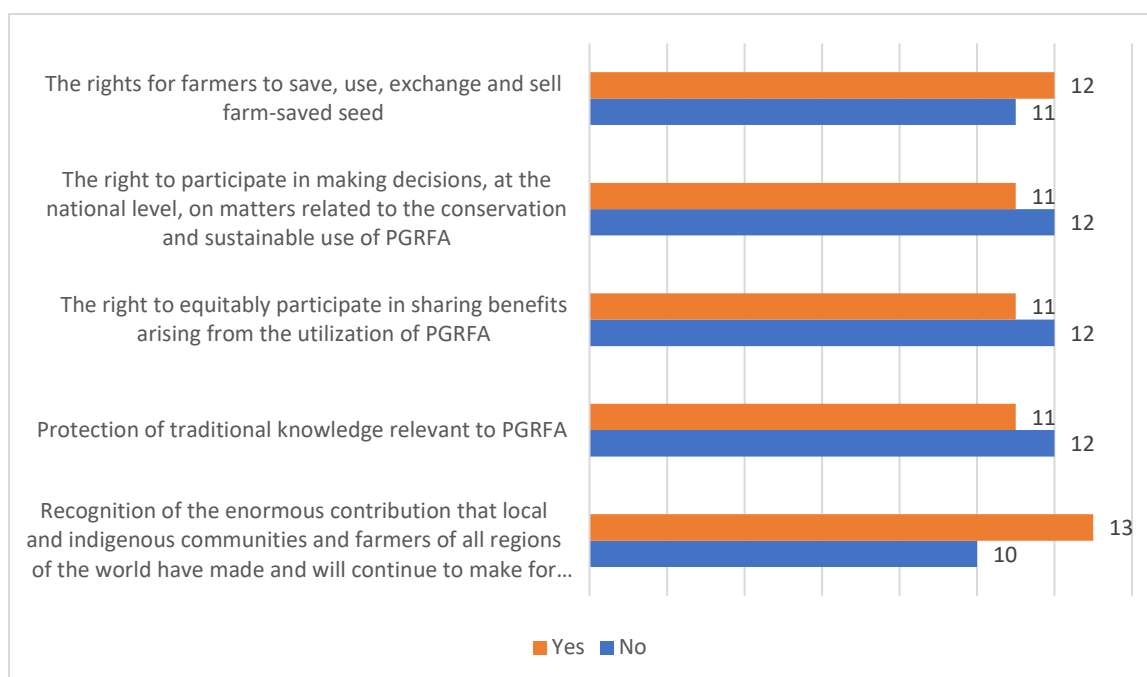
There are 50 countries in Africa, including 44 countries who are contracting parties to the International Treaty and 1 country who has signed it. By April 2025, a total of 23 countries from this region have submitted a national compliance report to the Secretariat of the International Treaty.

The information below summarizes the information found in the 23 national reports submitted to the Secretariat of the International Treaty, supplemented with information gathered from the multistakeholder survey (82 responses from 24 countries) conducted by the Secretariat, and the submissions from the Inventory (40 submissions).

Among the 23 countries from Africa who submitted a national compliance report, a total of 15 countries report having taken some measures to protect and promote Farmers' Rights (about 65%), including in relation to (see Figure 1.1):

Figure 1.1

Number of reporting countries from Africa (n = 23) who have taken measures in relation to:



Although no African country has adopted a stand-alone, all-encompassing legislation on Farmers' Rights, some countries have adopted laws or proclamations that articulate Farmers' Rights in specific articles or a dedicated implementing decree. For example, one country has drafted a decree on the rights of farmers and local communities to implement its Act on access to PGRFA and the sharing of benefits resulting from their use. The need to adopt an enabling legal and policy framework dedicated to the protection and promotion of Farmers' Rights is acknowledged by many countries from the region.

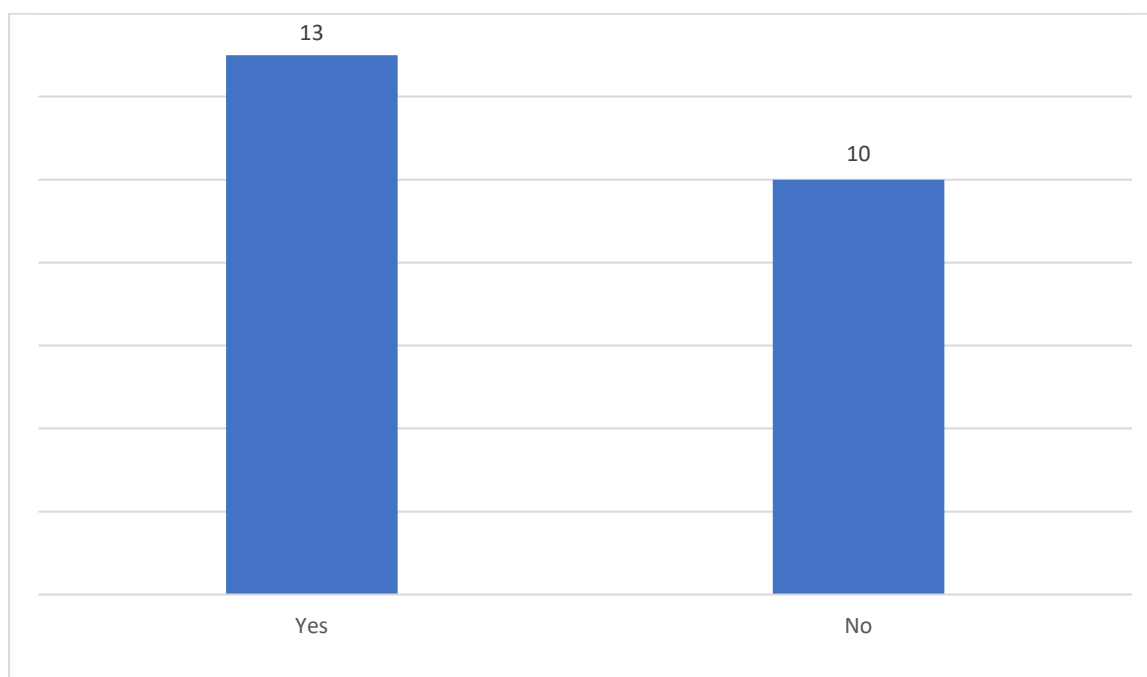
PROVISIONS OF ARTICLE 9

5.1.1 Recognition of the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development (Article 9.1)

A total of 13 countries, or 57% of reporting countries from Africa, have taken measures to recognize the contribution of farmers and local and indigenous communities to PGRFA conservation and development.

Figure 1.2

Number of reporting countries from Africa (n = 23) who have taken measures to recognize the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development



In one country, two sites including farming systems and hanging gardens have been recognized by the FAO as Globally Important Agricultural Heritage Systems (GIAHS). While reflecting the close links between the cultivated fields, the natural ecosystem and the local flora and fauna, these sites contribute to the protection of traditional knowledge and biodiversity conservation. Their recognition as GIAHS reflects the long-standing commitment of local communities to looking after these sites and protecting their heritage for future generations. In another country, farmer groups have received recognition through their participation in national and international diversity shows, agricultural shows, cross-site and cross-country visits, enhancing their visibility and appreciation.

According to the information gathered from the multistakeholder survey and the Inventory, the measures introduced or applied to promote the recognition of farmers and local and indigenous communities' contributions to PGRFA conservation and development are predominantly implemented at national and local levels. These measures are mainly executed through technical cooperation programs. The primary focus of these initiatives is to assist farmers and farming communities in enhancing agricultural production, sustaining local crop diversity, managing agricultural biodiversity for food security, improving livelihoods, and increasing resilience against climate challenges. Project activities encompass the support to community-based agricultural biodiversity management, establishment of community seed banks (CSBs), value chain development, creating knowledge sharing platforms, FFS, seed fairs, participatory plant breeding (PPB), varietal development and selection, improvement of seed delivery systems, facilitation of access to quality seeds, procurement of

germplasm, and provision of other technical assistance aimed at strengthening the capacities of farmers and farmers' organizations.

Experiences and lessons learned

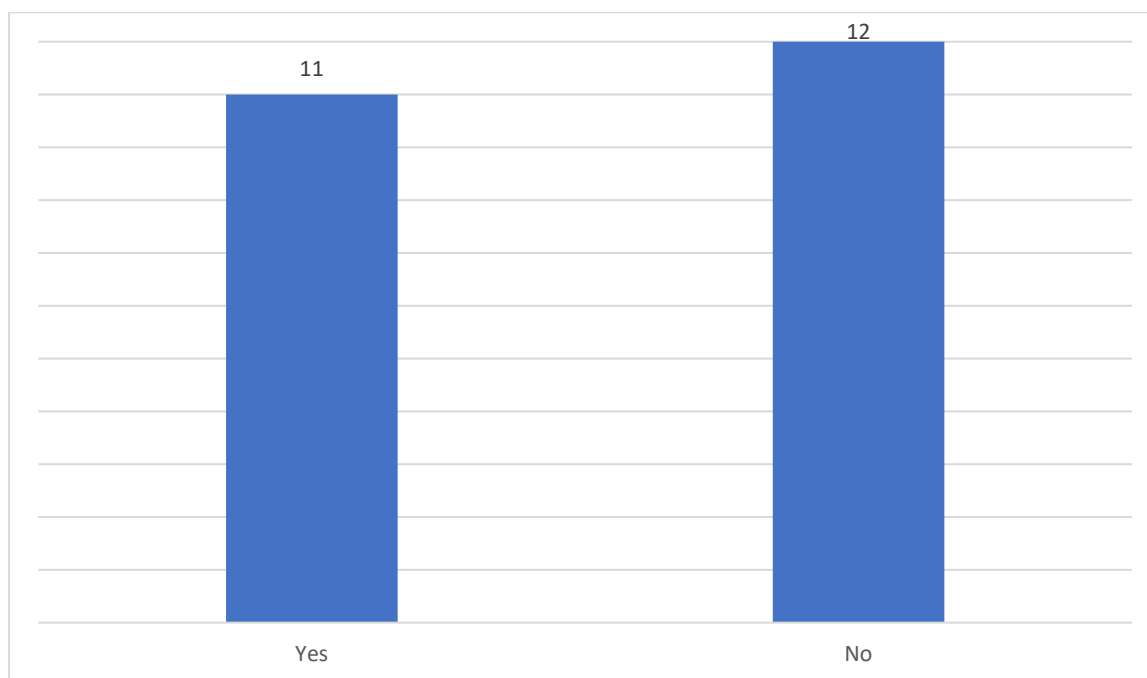
Based on the available information, below is the summary of the experiences and lessons learned regarding measures introduced to recognize the contributions made by local and indigenous communities and farmers in the conservation and development of PGRFA:

- Partnering with institutions, farmers, and local communities is crucial for researching, developing, and improving crop varieties suited to specific environments and preferences.
- Establishing supportive legal frameworks that recognize Farmers' Rights and farmers' varieties through a comprehensive consultative process, as well as local dialogues with farming communities, is crucial in promoting these rights.
- Supporting farmers in gaining access to a diverse range of genetic materials, improving their knowledge and skills in seed saving and multiplication, recovering lost varieties, and raising awareness about local food systems is essential for achieving food security and economic stability.
- Farmers are increasing their knowledge and experience in local seed saving and multiplication, recovering lost varieties, and spreading awareness about local food systems.
- Investing in capacity building, including raising awareness of the value of PGR, developing value chains, and enhancing farmers' knowledge and skills in sustainable agricultural practices, plays a crucial role in mitigating the impacts of climate change, fostering resilience within farming communities and contributing to livelihood development while improving crop productivity and diversity.
- Supporting community-based initiatives, farmer-led or farmer-managed seed system and related activities (such as CSBs), seed lots, PPB, participatory varietal selection (PVS), seed fairs, and other activities, are practical measures helping farmers to connect and support each other in sustaining local crop diversity and livelihoods and thus realizing Farmers' Rights.
- A legal framework specific to Farmers' Rights is essential, in addition to national strategies or action plans. Policies should enable farmers to save, use, exchange, and sell seeds, which is important for conserving and sustainably using PGRFA.
- Farmers appreciate it when their efforts are recognized and supported by the central government.
- Initiatives and programs for the promotion of Farmers' Rights need to be intensified and integrated into national programs and strategies with sustained financial resources.
- Platforms such as seed and food fairs are important for farmers and communities to share knowledge, improve crop production, and sell and exchange seeds.
- The role of CSOs is highlighted in creating awareness and advocacy for the rights of farmers related to PGRFA, and empowering farmers through training and capacity-building activities.
- Conservation and sustainable use of PGRFA relies on the availability and sustainability of funding. Several respondents recalled having national strategies and/or legal frameworks, but they were not operationalized or implemented due to a lack of financial resources.
- Collaborative projects between research institutions and local farmers have empowered communities by integrating traditional knowledge with scientific methods through PPB and varietal selection.

5.1.2 The protection of traditional knowledge relevant to PGRFA (Article 9.2a)

A total of 11 countries, or 48% of reporting countries from Africa, have taken measures to protect traditional knowledge relevant to PGRFA.

Figure 1.3
Number of reporting countries from Africa (n = 23) who have taken measures to protect traditional knowledge relevant to PGRFA



Such measures have either been adopted as stand-alone instruments or as part of broader agricultural or environmental laws and strategies. For example, in some countries, laws and proclamations specifically addressing the protection of traditional knowledge and genetic resources provide mechanisms to secure community rights as linked to cultural and biological diversity. Elsewhere, provisions to safeguard traditional knowledge and cultural heritage related to plant genetic resources are integrated within laws on access and benefit sharing (ABS). In some contexts, agricultural and seed laws also establish traditional varieties as part of the national heritage that should be protected in the interests of local communities. The protection of appellations of origin and geographical indications further support the preservation of the traditional knowledge embodied in local products.

Complementing this, some biodiversity strategies and forest policies explicitly address traditional knowledge systems and provide for the preservation of indigenous knowledge related to local varieties, including through the development of variety registers at the national and community levels.

Beside legal and policy measures, various community-oriented initiatives aimed at strengthening traditional knowledge systems have been developed. CSBs have become central mechanisms for not only conserving and exchanging seeds but also reinforcing traditional agricultural practices and thereby preserving traditional knowledge.

Experiences and lessons learned

The responses within the region provided valuable experience and lessons on safeguarding traditional knowledge associated with PGRFA. These experiences are summarized below, in no particular order:

- Highlighting the value of traditional knowledge in conserving and using PGR sustainably can help communities improve their livelihoods and value local products.

-
- Farmers have a wealth of knowledge on managing and sustaining PGR, and they are generally willing to share traditional knowledge associated with PGR, but they may withhold information if researchers/outsideers probe into the use values of these resources.
 - Seed fairs motivate farmers to improve crop productivity and serve as a social platform for knowledge and seeds exchange.
 - Platform are needed to facilitate knowledge sharing.
 - Despite the importance of Farmers' Rights to national food and nutrition security, policy and legal frameworks do not fully support them. There is a need for transparent measures and good monitoring and evaluation frameworks to track progress.
 - Community-based resource management and documentation initiatives play a crucial role in maintaining and disseminating traditional knowledge.
 - The lack of financial resources and technical capacity from national governments limits the implementation of legal and policy frameworks to protect knowledge.
 - Capacity building, training, and advocacy campaigns organized by civil society organizations (CSOs) focus on seed saving, PPB, and the importance of traditional knowledge.
 - National research institutions and other organizations are promoting modern conservation techniques while respecting traditional methods and enhancing the understanding of the nutritional value of indigenous crops.
 - Some countries have adopted policies and legal frameworks aimed at protecting traditional knowledge. For example, in Rwanda, the government requires written permission from relevant authorities and knowledge holders to access traditional knowledge. In Kenya, the Constitution acknowledges the rights of communities to their cultural heritage and traditional knowledge. The Kenya Environmental Management and Coordination Act and the Seeds and Plant Varieties Act contain provisions that can be interpreted as protecting traditional knowledge related to agriculture and biodiversity. Additionally, the Kenya “Protection of Traditional Knowledge and Cultural Expressions Act (2016)” states that “the owners and holders of traditional knowledge authorize or prevent others from exploiting their knowledge.” Communities are thus empowered to create rules for usage, prevent misuse, and seek legal recourse to stop unauthorized use.
 - Documenting and cataloguing such as recording indigenous crop cultivation systems, seed varieties, and crop management techniques are vital activities to preserve traditional knowledge.
 - Recovering lost crop varieties is essential, and there is growing awareness among consumers about the importance of these varieties in sustaining local food systems.
 - Promoting recognition of traditional agricultural systems, biodiversity sites, and other sites of cultural values and associated knowledge systems serve as a way to protect traditional knowledge.

Box 1.1**Recognizing, collecting, and documenting farmers' varieties and traditional knowledge on PGRFA**

Between 2015 and 2018, Community Biodiversity Registers and Biocultural Community Protocols were established in Benin to support Farmers' Rights and improve the management of PGRFA. The project, led by Institut National des Recherches Agricoles du Bénin (INRAB), part of the Consultative Group for International Agricultural Research (CGIAR), successfully created community biodiversity registries to document and promote the diversity of crops, forage, and agroforestry systems within participating communities.

The Biocultural Community Protocols developed during this project empower local communities to capitalize on their countries' commitments to the International Treaty and the Nagoya Protocol. By establishing robust mechanisms for regulating access to genetic resources, these protocols enable communities to freely exchange crop genetic resources among themselves and access invaluable genetic materials from CGIAR Centers, facilitating collaborative evaluation trials. A pivotal lesson from this endeavor is the necessity of maintaining continuous and meaningful interactions with community members and representatives, ensuring that their voices and needs drive the engagement process.

In Japan, a remarkable initiative led by the Ministry of Agriculture, Forestry and Fisheries, in partnership with the National Agriculture and Food Research Organization (NARO), has resulted in the creation of an extensive database for farmers' varieties and landraces. This invaluable resource compiles essential information regarding agricultural traits, origins, traditional uses, and current conditions, aiming to promote conservation, utilization, and breeding of these vital genetic resources. Engaging local farmers and communities in this process is not just beneficial—it's essential for sustaining the legacy of traditional varieties and landraces.

Similarly, in Nepal, the Community Biodiversity Register (CBR) was successfully piloted as part of a global agrobiodiversity project led by Local Initiatives for Biodiversity (LI-BIRD), the Nepal Agricultural Research Council (NARC), and Bioversity International. The CBR serves as a powerful tool for documenting and monitoring biodiversity and traditional knowledge across various districts. By fostering the conservation and utilization of PGRFA, the CBR paves the way for rare genetic resources to be multiplied and distributed, making biodiversity accessible to all. Importantly, the insights gained from this project reveal that while recording information at the household level is resource-intensive, adopting a single CBR per village is an effective and practical solution. Integrating the CBR with community diversity fairs can further enhance its impact, while ensuring its legal status is crucial for facilitating access to PGR for research and development efforts.

In the Philippines, the Campagao Farmers' Production and Research Association (CFPRA), in collaboration with the Southeast Asia Regional Initiatives for Community Empowerment (SEARICE), has established a pioneering community seed registry that has gained official recognition through municipal resolution. This registry champions the principle that knowledge should reside in the public domain, empowering farmers as the rightful developers of their varieties. By upholding the belief that seeds should be freely accessed and exchanged, the community seed registry plays a vital role in fostering farmer rights and resilience, especially in light of the introduction of the Plant Variety Protection (PVP) Act.

Collectively, these initiatives of documenting and making a registry of farmers' varieties illustrate a movement towards empowering farmers and local communities in preserving agrobiodiversity and associated traditional knowledge.

Sources: The Inventory ([Benin](#), [Japan](#), [Nepal](#), [Philippines](#))

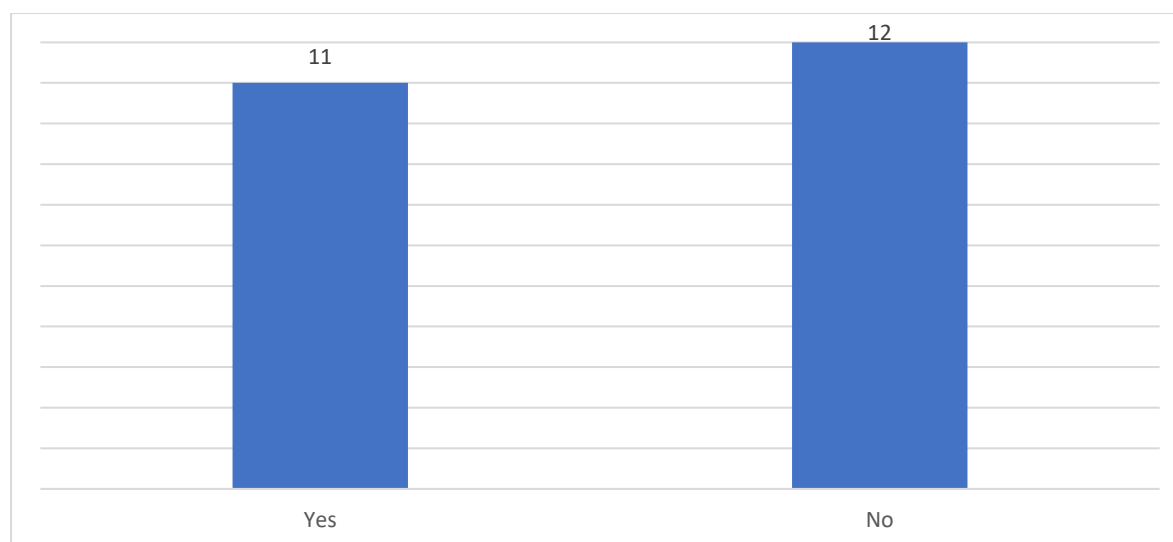
Multistakeholder responses describing cases of misappropriation of traditional knowledge and actions undertaken

- A seed company tried to apply for a Plant Breeders' Rights Certificate for a traditional variety of onion called “Galmi violet”. The certificate was initially refused due to misappropriation, but the breeder resubmitted the variety under a different name, “Damari Violet”, and it was accepted.
- Biopiracy and unfair benefit-sharing involving indigenous seeds and plant varieties. It was said that these cases undermine the rights of farmers and Indigenous communities, erode trust, and discourage the sharing of traditional knowledge. Additionally, a case regarding Kikuyu and Maasai grasses was taken to court by the government and the farmers' organization, and the farmers won.
- Some research programs collect knowledge and seeds from peasant communities without any protocol or agreement to commit to never deposit property rights on the seed or its genetic components.
- One response cited the possible risk of contamination of local cowpea varieties by BT GMO cowpea.
- Farmers’ traditional knowledge is used for variety development without acknowledgment.
- In Burkina Faso, farmers' knowledge is used for varietal creation without citing them. There is no mechanism for fair and equitable sharing of benefits derived from the use of farmers' varieties and traditional knowledge.

5.1.3 Farmers’ right to participate in benefit-sharing (Article 9.2b)

A total of 11 reporting countries, or 48% of reporting countries from Africa, have taken measures in relation to the right of farmers to equitably participate in sharing benefits arising from the utilization of PGR.

Figure 1.4
Number of reporting countries from Africa (n = 23) who have taken measures to protect farmers’ right to participate in benefit-sharing



5.1.3.1 Legal and policy frameworks on access and benefit-sharing

Several countries across the continent have adopted legal and policy frameworks explicitly related to ABS, either as a dedicated legislation, regulation or proclamation, and/or as part of a broader environmental or seed legislation or policy. ABS measures adopted by African countries typically reference both genetic resources and associated traditional knowledge and detail procedural

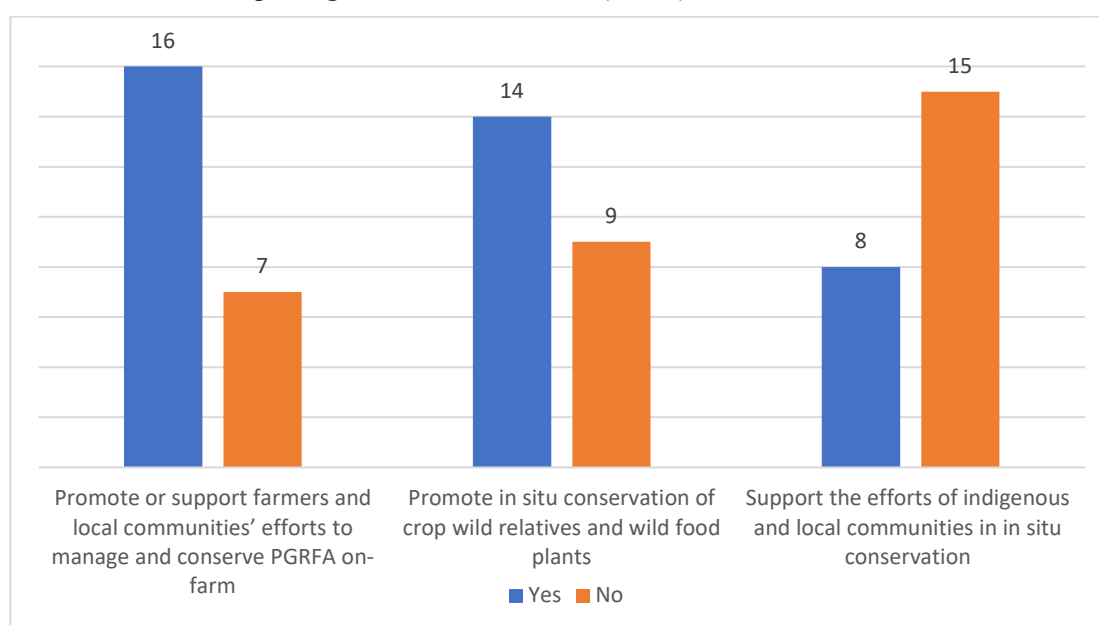
frameworks and requirements for obtaining prior informed consent from local communities and outline fair and equitable benefit-sharing mechanisms. Such frameworks may include, for instance, standard contracts and biocultural protocols. In other contexts, ABS guidelines have been developed, enabling local communities to outline their conditions regarding access to their genetic resources and associated traditional knowledge. However, several countries also indicate the need for revising existing seed and biodiversity laws to better incorporate the provisions of the Nagoya Protocol and the International Treaty, or for adopting ABS measures where such measures are not in place yet.

5.1.3.2 Non-monetary benefits

A. Supporting farmers and local communities' efforts to manage and conserve PGRFA on-farm and *in situ*

A total of 16 reporting countries from this region (about 70% of reporting countries from Africa) have promoted or supported farmers and local communities' efforts to manage and conserve PGRFA on-farm through a variety of measures and processes. Additionally, whereas 14 countries from Africa having promoted *in situ* conservation of crop wild relatives (CWR) and wild food plants (WFP) (about 61% of reporting countries), only eight countries have specifically supported the efforts of indigenous and local communities in *in situ* conservation (about 35% of reporting countries).

Figure 1.5
Number of reporting countries from Africa (n = 23) who have taken measures to:



African countries have adopted a range of legal, policy, and administrative measures to promote the conservation of PGRFA, recognizing their importance for food security, biodiversity conservation, and climate adaptation. National agricultural and environmental legislations and policies usually emphasize conservation approaches. Additionally, national strategies and action plans specifically focused on PGRFA or more generally related to agriculture or biodiversity also encompass conservation efforts. In one country, conservation activities are integrated within the national poverty reduction strategy and action plan. Elsewhere, the integration of conservation objectives into agricultural and environmental policies, or the development of a stand-alone legislation specifically focused on conservation and use of PGRFA, remain a work-in-progress.

Respondents from the multistakeholder survey provided information on the support given to farmers and local communities in managing and conserving PGRFA on-farm through training and capacity building, access to PGR, financial assistance, and other technical support, including the following activities:

- Organizing training and capacity-building for farmers in seed selection, maintenance, and conservation techniques, as well as providing access to materials in the gene banks. Capacity-building activities are provided through extension approaches such as Farmers Field Schools (FFS), PVS, plant variety enhancement (PVE), and other participatory mechanisms engaging farmers in research and development.
- Collaborative efforts with national and international research institutions, promoting access to germplasm materials, PVS, seed multiplication, and market linkages to enhance agricultural production.
- Community-based initiatives/farmer-led seed systems, such as the establishment of CSBs, seed lots, seed huts, and seed fairs, as platforms for farmers to market their seeds and interact with each other. The establishment of CSBs allows farmers to produce seeds individually or collectively, market their seeds, and continue the sustainable use of local crops.
- Awareness-raising initiatives designed to inform and educate rural farmers, enhancing their capabilities, facilitating the introduction of wild relatives of crop plants into farming systems through strengthened agroforestry practices, and promoting local crop diversification.
- Financial assistance and technical support from governments, CSOs and international organizations. Many initiatives are backed by CSOs and international organizations, often with limited government support. These efforts include training and capacity building, helping farmers to access genebank materials, market support, technical know-how, recognition and support to local knowledge exchanges, and promotion of agroecological approaches.
- Integration of *in situ*, on-farm conservation strategies within the framework of national agricultural programs and projects, alongside the conservation of protected areas.

- *Facilitation of farmers' access to a diversity of PGRFA*

Efforts to enhance farmers' access to a diverse range of PGRFA have been pursued actively across several African countries. CSBs have emerged as a critical measure, established in multiple countries to facilitate farmers' access to and exchange of germplasm, including traditional varieties and neglected and underutilized species. For instance, in one country, a total of 43 CSBs and seed stores have been established across the national territory with the support from non-governmental organizations (NGOs), government and development partners. In another country, over 20 CSBs located in different areas of the country support the saving, exchange and use of local indigenous germplasm. Elsewhere, a program of landrace conservation support farming communities in their efforts to maintain plant diversity and produce food for their families. Around 30 CSBs and 24 crop conservation associations have been established in different regional states of the country, resulting in the restoration of more than 34 field and horticultural crop species from over 61 varieties. These initiatives are often supplemented by seed fairs, diversity fairs or community-based seed production schemes to promote the dissemination and adoption of diverse varieties, although such fairs sometimes face sustainability challenges due to financial and logistical constraints.

- *Institutional and research support*

In addition to playing a key role in sourcing funding and distributing germplasm, sometimes from other countries, government institutions, notably national genebanks, agricultural extension services, and research directorates, actively support farmers through targeted research and conservation programs. Some countries have integrated on-farm conservation into broader agricultural programs, including the establishment of demonstration plots, diversity blocks, and conservation agriculture projects to demonstrate and promote sustainable agricultural practices. Additionally, specialized research programs focus on the conservation and sustainable use of underutilized and neglected crop species. In one country, the implementation of a project funded by the Global Environmental Facility (GEF) aims to promote the diversification of livelihoods in traditional oases, which are important centres of agricultural production and home to approximately 10% of the total population, through the distribution of new date palm and fruit varieties.

Box 1.2

Strengthening agricultural resilience and empowering farmers and local communities through CSBs

CSBs, seed houses, seed clubs, seed-saver networks, and similar community-based initiatives are considered by farmers to be one of the most impactful measures for realizing Farmers' Rights. These banks serve as repositories for local seed varieties, ensuring their conservation and availability to farmers. They provide good-quality seeds of a range of locally adapted crops and varieties, catering to the preferences of farmers that may not otherwise be easily accessible. It is important to note that women and men farmers often have differing preferences and needs regarding the crops and varieties they wish to grow. In this context, the role of CSBs, seed houses, or seed lots is vital for the well-being of farming communities.

The CSB in Ejere attracts many visitors each year, both from Ethiopia and abroad, who want to learn about its achievements and successes. Through the conservation and participatory improvement of local crop diversity, the CSB has significantly enhanced seed and food security, nutrition, and livelihoods in the area. Initiated in 1990 by USC Canada in collaboration with the then Plant Genetic Resources Centre in Ethiopia, the project was later taken over by the NGO Ethio-organic Seed Action, with support from Norway's Development Fund. Its objective is to promote sustainable climate change adaptation among farming communities by enhancing their capacity to sustainably manage, develop, and utilize local agrobiodiversity as an adaptive mechanism to climate change. Key components of the program include the reintroduction of traditional crops, conservation efforts, PVS to adapt promising crops to changing environmental conditions, quality seed production and distribution, seed fairs, training in advanced organic production methods, and income-generating activities. The success of the CSB can be attributed to effective awareness-raising, competent supervision, thorough research prior to project planning, sufficient financial support over an extended period, and a democratic and transparent organization with strong governance.

Smallholder farmers in Ethiopia face numerous challenges, with rapid climate change being one of the most serious. This has resulted in unpredictable seasonal fluctuations, droughts, and previously unknown pests and diseases. Over the past decades, the government promoted high-yielding commercial varieties to boost food production for an ever-increasing population. However, these seeds and their associated external inputs, such as fertilizers and chemicals, have become increasingly expensive, with rising prices over time. Moreover, the production risks are high, as these improved varieties are often more susceptible to climate change, pests, and diseases. The risk of losing crop harvests is significant, and even when farmers succeed, the economic benefits are diminishing due to escalating production costs. While authorities and extension services once promoted improved varieties heavily about 10-15 years ago, they have since recognized the real challenges farmers face, leading to high recognition of the Ejere CSB among local authorities. The CSB provides seeds of crops that are locally adapted to climate change and environmental challenges, offering high nutritional value and producing palatable straw for cattle. The yields for some varieties are relatively high, often making them more economical to grow due to lower input costs.

The CSB also serves as a platform for capacity building and joint action toward poverty alleviation, through improved seed and food security and enhanced livelihoods. The Ejere CSB is conserving 142 varieties of 15 local crops and has developed 9 new enhanced durum wheat varieties through PVS based on local varieties. It produces seeds of these varieties for its members, who in turn share seeds with their neighbors and relatives, ensuring that most people in the area can access them. Ejere is a region that is the origin of various crops, including wheat, barley, and tef, and it historically had immense crop diversity. Unfortunately, due to the challenges previously mentioned, much of this diversity was lost. Through the ongoing project, this diversity has been reintroduced and/or restored in Ejere, and continues to be maintained, adapted, and developed to meet the needs of farmers and for nutritional purposes. This initiative has been remarkably successful in restoring diversity for the benefit of the community. It has not only brought back crop diversity but has also significantly contributed to seed and food security and improved livelihoods among target farmers. As a result, farmers can now diversify their dietary sources, achieve better nutrition, meet household needs, and enable their children to attend school for longer periods. The CSB functions as a platform for the conservation and sustainable use of crop genetic resources, as well as for securing food, improving livelihoods, and empowering the community.

To scale out these vital experiences, Ethiopia was granted a project during the fourth cycle of the BSF to create a national platform for CSBs. The project aimed to support existing CSBs and networks of nearly 30 CSBs in various agroecological zones and to strengthen the informal seed system, which meets more than 90 percent of the country's national seed demand.

This initiative involved the participation of farmers, CSB leaders, and both governmental and non-governmental organizations working on CSBs, including Ethio-organic Seed Action (EOSA), MELCA-Ethiopia, ETHIOWET LAND (EWNRA), and the then Bioversity International (now the Alliance of Bioversity International and CIAT).

As part of the project, training and experience-sharing workshops were organized in different regions of the country and at various CSBs. A total of 254 participants from different CSBs, along with 31 experts from cooperating stakeholders, local administrations, and other organizations, were trained.

Farmers' varieties of 11 crop species were provided as seed capital for five newly established CSBs. These landraces are at risk of being lost at the local level in farmers' fields. The project purchased 2,007 kg of these seeds and distributed them through the CSBs to crop-conserving farmers.

Additionally, training was given to the staff at the Crop and Horticulture Directorate of the Ethiopian Biodiversity Institute by the Information and Communication Technology Directorate of the Institute on digital data collection for characterization activities. A participatory on-farm farmer evaluation of essential traits for adaptation and resilience to climate change was conducted. From this evaluation, 101 landraces of different crop species, such as barley, durum wheat, and oats—collected from the same locality over the past three decades and conserved in the gene bank at Addis Ababa—were selected and planted at the Awzet CSB.

In Kenya, the Seed Savers Association is a grassroots, not-for-profit organization focused on empowering Indigenous farming communities—comprising women, youth, and men. Their structured approach aims to enable these communities to take effective leadership in agricultural biodiversity conservation, promote food sovereignty, protect Farmers' Rights, and support sustainable agriculture. In its 12 years of existence, more than 60 000 small-scale farmers have been trained and empowered in crop diversification using locally available seeds and soil fertility amendments, developing biodiversity registries, documenting traditional knowledge, and raising awareness about farmer-managed seed systems established 100 community seed banks in different villages of Kenya, where each seed bank covers at least 600 people in a village. Through their various capacity-building activities for the farmers, they saved more than 300 varieties of seeds that may have been lost. More importantly, they improved the food supply to more than 20 000 households and thus lower food insecurity cases while improving health through consumption of more nutritious diets from their farms. Through these constructive efforts, the association has reached over 59,000 small-scale farmers, empowering them with training, organizing local seed and food fairs, and encouraging the revival of local crop cultivation. They have also established important connections with national genebanks, ensuring the preservation and backup of vital seeds.

The outcomes of this work are significant: numerous farming villages have set up their own CSB, totaling 100 across Kenya. They have documented over 80 varieties and cultivars, including the nutritional analysis of 10 underutilized and high-value local varieties, all compiled into a comprehensive booklet. More than 100 varieties have been preserved in CSBs, enhancing diversity on farms and improving nutrition for the communities involved.

CSBs represent a fundamental measure to realize Farmers' Rights. With different approaches across the regions, each CSBs reflects unique experiences and insights, showcasing a simple CSBs can truly empower local communities and enable them to have the seeds they prefer for cultivation and at the same time conserve their local crop diversity. Numerous examples of CSBs can be found in many countries in Africa, Asia, Latin America and the Caribbean, Near East, including in Europe.

Sources: The [Inventory \(Ethiopia\)](#), [BSF Portfolio \(BSF-Fourth Cycle, Ethiopia\)](#), [Kenya](#)

- Farmers' participation in agricultural innovation and research

Farmers' active participation in agricultural research and innovation processes is explicitly encouraged across several countries for crop improvement, diversification and soil management, often supported by government and civil society partnerships. For instance, in one country, the annual research program includes the conservation of starchy crops and on-farm trials involving farmers and the Ministry of Agriculture. Participatory variety selection and farmer-managed seed development are prevalent strategies that not only engage farmers directly in crop improvement but also enhance the relevance of agricultural innovation to local conditions. As an example, in one country, on-farm participatory characterization and selection of 25 accessions of maize, sorghum, beans and cowpea each have been conducted in collaboration with a local NGO. In some contexts, farmers' traditional knowledge and varieties have been integrated into scientific research, which in turn creates economic opportunities for farmers through purchase agreements for their varieties. Such participatory approaches contribute significantly to the empowerment of farming communities and the conservation of genetic diversity on-farm.

- *Participatory in situ management*

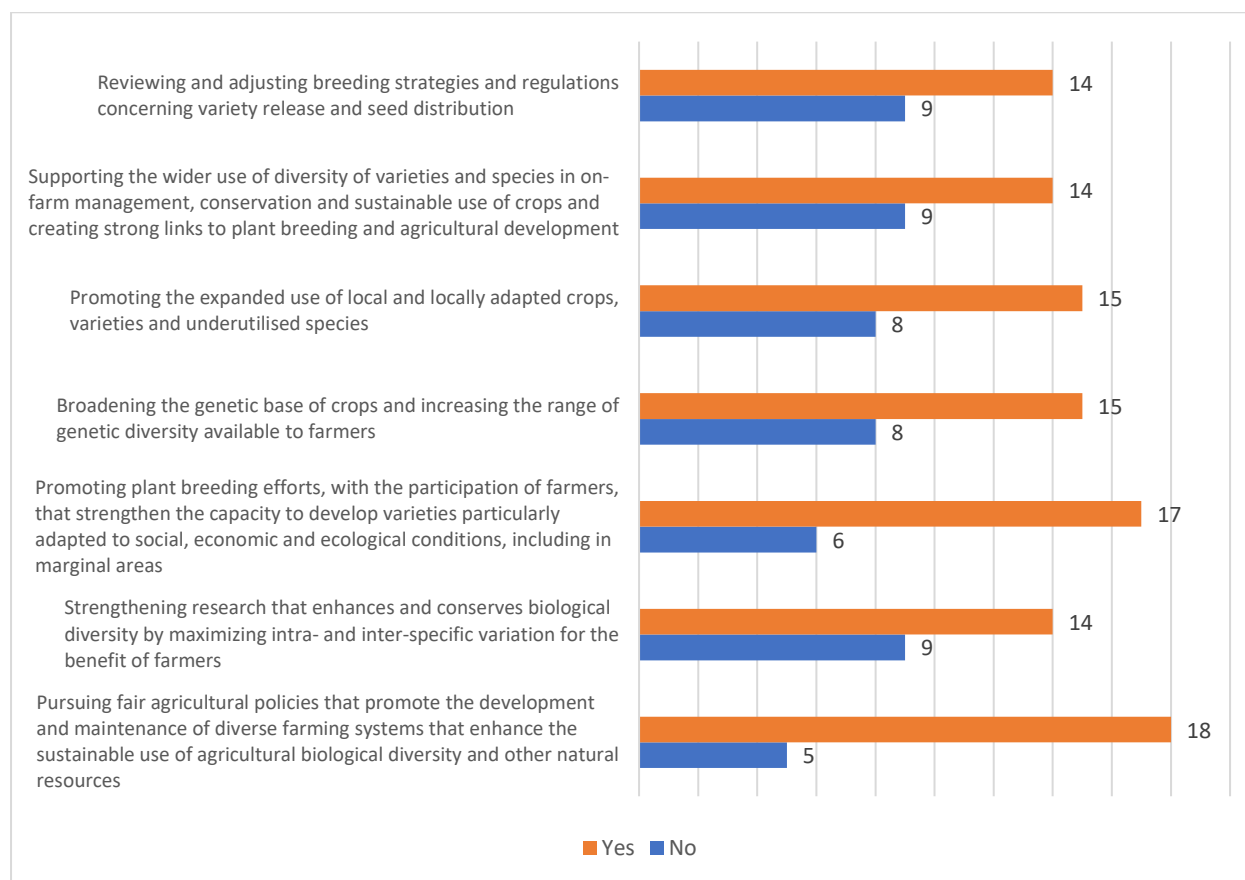
In some contexts, *in situ* conservation of CWR and WFP is promoted and supported through community-based natural resources management, or through partnership agreements between the national genebank, NGOs, research institutions and farmers' cooperatives. These participatory initiatives seek to directly involve local communities and households in *in situ* conservation efforts.

B. Supporting the participation of farmers in sustainable use of PGRFA

Twenty reporting countries from Africa have taken policy and legal measures that promote the sustainable use of PGRFA (about 87% of African reporting countries), including measures in relation to (see Figure 1.6):

Figure 1.6

Number of reporting countries from Africa (n = 23) with policy and legal measures in place for:



Various legal and policy frameworks have been developed to guide and support the sustainable use of PGRFA. Key measures include seed and PVP laws, policies and proclamations adopted by several countries to support participatory research, variety selection, and farmer-driven breeding initiatives. Furthermore, regional harmonization measures have been introduced, particularly within the Economic Community of West African States (ECOWAS) region, to standardize seed quality control, certification and marketing practices and enhance coherent application of international standards across countries.

Additionally, some countries have adopted or drafted national strategies and action plans specifically focused on PGRFA and/or broader biodiversity or environmental strategies and action plans, seed sector strategies, food security policies and agricultural development policies and programs that promote ecosystem-based farming, agroecology, organic agriculture, and mixed cropping systems. These various policies, strategies and action plans typically emphasize the sustainable utilization of local and traditional crop varieties and the diversification of farming systems while supporting farmers' active involvement in the selection and multiplication of varieties adapted to local conditions for enhancing climate resilience, food security and sustainability in agricultural systems. Some countries link these

efforts to forest and wildlife conservation, climate change, or poverty reduction strategies and action plans, thereby acknowledging the multi-functional role of PGRFA. However, implementation of these various instruments remains uneven due to limited financial resources, institutional capacity, and political will.

- *Participatory research/plant breeding*

Participatory research and plant breeding are actively promoted in several countries. These efforts involve collaboration between farmers and researchers in varietal selection and crop improvement processes that target important crops including maize, rice, beans, wheat, sorghum, cassava, sweet potato, sesame groundnut, coffee and cashew, among others. In many instances, PPB is linked to climate adaptation goals and food security initiatives. Examples include multistakeholder research initiatives that prioritize farmer-preferred traits and integrate traditional knowledge into research and breeding programs. In some countries, the client-oriented research development and extension management approach and the farmer field school approach have emerged as innovative approaches to strengthening farmers' participation in agricultural research.

While usually planned in national strategies, programs and action plans, international partnerships and projects implemented under the BSF of the International Treaty have further enabled such activities by providing financial and technical support. In other contexts, strategic plans have called for enhancing the involvement of local communities, particularly women and youth, in research processes, although implementation challenges persist due to limited funding and institutional coordination.

- *Promoting the expanded use of local and locally adapted crops, varieties and underutilized species*

Numerous countries have adopted measures aimed at promoting the use of traditional and locally adapted varieties and underutilized species. National catalogues, CSBs, farmer-led seed multiplication schemes, awareness campaigns, and the development of value chains focused on such crops are among the tools employed to encourage the use of traditional crops and underutilized species. These efforts are often supported by policies emphasizing the need to map, register, and make accessible such varieties, though the scope of recognition for farmer varieties remains limited in some legal systems.

In some countries, government programs have actively promoted traditional grains and legumes, often as part of broader strategies to diversify food systems and enhance nutrition. Examples include the development of nutritional studies and recipes incorporating PGRFA, and national strategies that seek to increase the production and commercialization of neglected or underutilized crops, such as millets, sorghum, and indigenous legumes. The promotion of indigenous crops is also supported through registration of local varieties and the development of protected appellations. Despite these initiatives, the integration of these species into formal seed systems and markets is sometimes hampered by restrictive certification rules or lack of funding for registration and distinctness, uniformity and stability (DUS) testing.

- *Market access and value-addition initiatives*

Efforts to improve market access for PGRFA products and support value addition have been observed in the region through various national strategies. Some countries have launched crop-specific commercialization strategies aimed at developing value chains for underutilized and indigenous crops, thereby incentivizing farmers to maintain diverse agricultural systems. For example, in one country, the government has developed a Traditional Grains Strategy and a Legume Commercialization Strategy to promote the production and commercialization of neglected crops such as traditional grains (sorghum and millet) and legume crops (cowpea, groundnut, beans and sunflower). In another country, the project "Market Access for Agri-Food and Local Products (PAMPAT)", funded by the State Secretariat for Economic Affairs of the Swiss Confederation (SECO) and implemented in 2013 by the United Nations Industrial Development Organization (UNIDO), aimed to improve the performance, market access and socio-economic conditions within three value chains, including harissa (a chili product), figs and prickly pears.

In some contexts, certification schemes such as appellations of origin have been introduced to enhance market differentiation and value. Other countries have supported the formation of farmer groups and cooperatives to enhance bargaining power and visibility in markets. Elsewhere, the creation of an Economic Botany section under the National Botanical Research Institute also aims to promote value addition and sustainable use of the country's indigenous plant resources.

One initiative is focused on enhancing farmers' access to quality seeds by developing market-oriented, pluralistic, and dynamic seed sectors in Africa. This approach aimed at creating demand-driven and inclusive interventions tailored to specific crops, value chains, and seed systems. It involved promoting seed entrepreneurship, increasing access to public domain varieties, aligning global commitments with national realities, and supporting seed sector development under CAADP and the African Union Agriculture, Seed, and Biotechnology Program. The community of practice provided a structure for experimenting, sharing and learning, enhancing collaboration and promoting synergy. There are various initiatives that focus on promoting access to seed indexes and forming partnerships aimed at increasing access to and use of quality seeds, which serve as a foundation for improving agricultural productivity piloted or supported countries in West and Central Africa.

C. Training, capacity-building and awareness raising

Across Africa, various structured training, capacity building, and awareness-raising initiatives have been implemented by a range of stakeholders including governments, genebanks, agricultural research institutions, regulatory authorities, NGOs and international partners. Notable initiatives have involved extensive farmer training in areas such as on-farm management, seed production techniques, integrated pest and disease management, the establishment and management of CSBs and FFS, post-harvest handling, genetic enhancement, and marketing. For example, educational programs and workshops, demonstration plots, field days, cross-site and cross-country visits, and participation in agricultural shows have supported the development of capacities, promoted best practices and raised awareness about the importance of on-farm conservation and the value of local varieties and associated traditional knowledge among farmers, local communities and civil society. Furthermore, specific training on best practices in conservation agriculture has been provided to ensure the effective management of PGRFA on-farm. In one country, over 10,000 farmers have received training in various aspects of on-farm management.

These educational initiatives, combined with farmer-to-farmer germplasm exchanges and participatory approaches in conservation practices and plant breeding, have contributed to enhancing farmers' capacities. Moreover, capacity-building efforts have often included international exposure through participation in seed fairs, diversity shows, agricultural exhibitions, and cross-country exchanges, facilitating the sharing of experiences and best practices among farmers and stakeholders from diverse regions.

Community-based organizations and farmers' groups have also benefited from specialized training and institutional strengthening. Activities have included registering farmer groups as official community-based organizations, enhancing their visibility and credibility, which subsequently attracts additional support from governmental and non-governmental partners.

Additionally, awareness-raising efforts have included the organization of and participation in public education campaigns, local, regional, and national agricultural shows, seed diversity fairs, and field days.

5.1.3.3 Monetary benefits

Some legal and policy frameworks incorporate provisions that aim to provide direct financial support or enable benefit sharing from the use of PGRFA through the establishment of dedicated funds to sustain varietal development, conservation, and quality control activities. For instance, one country has set up a fund that supports the seed sector by allocating financial resources to ensure quality control and certification, providing monetary support that ultimately benefits farmers. In another country, the PVP act provides for the establishment of a community gene fund to support the conservation and sustainable use of PGRFA, although this fund is yet to be fully operationalized. Financial mechanisms that channel

benefit sharing funds into projects aimed at supporting PPB and local seed conservation have been introduced.

Experiences and lessons learned

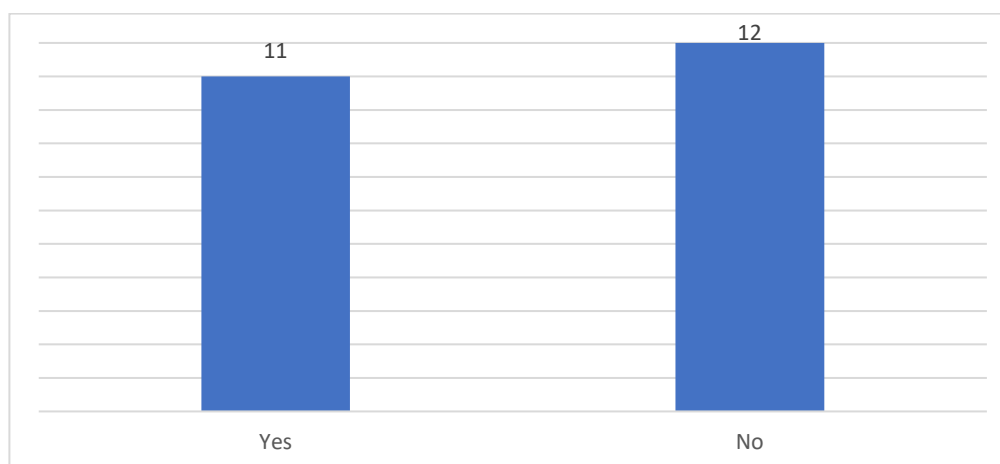
Multistakeholder survey responses about experiences and lessons learned in promoting the rights of farmers to participate in equitable sharing of benefits arising from the use of PGRFA, as follows:

- Farmers can participate in non-monetary benefits as recipients of projects, capacity building and training on on-farm and *in situ* management and conservation of PGRFA.
- Creating awareness with key government officials and administrators about the significance of PGRFA is essential for shaping policies that incorporate ABS laws into national legislation.
- Establishing ownership and origin helps prevent disputes or counterclaims.
- On-farm conservation with farmers has been pivotal in restoring lost diversity and increasing diversity in smallholder farms through PVS, although scaling out conservation work is limited by resources.
- Farmers and local NGOs contribute to supporting Farmers' Rights through their activities, despite the obstacles presented by restrictive seed certification standards and privatization mechanisms.
- A respondent discussed the challenges associated with ABS agreements related to indigenous teas such as Rooibos and Honeybush. These difficulties include determining how benefits should be shared and identifying which institutions can fairly represent the holders of traditional knowledge.
- Farmers possess valuable knowledge regarding PGRFA, which is essential for developing and enhancing crop varieties capable of adapting to climate change.
- Farmers' participation in PGRFA conservation, capacity building, and research increases the relevance of the results and contributes to their empowerment.

5.1.4 Farmers' right to participate in making decisions, at national level, on matters related to the conservation and sustainable use of PGRFA (Article 9.2c)

A total of 11 African countries (or about 48% of reporting countries from Africa) have taken measures to protect and promote farmers' right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of PGRFA.

Figure 1.7
Number of reporting countries from Africa (n = 23) who have taken measures to protect and promote farmers' right to participate in making decisions



Institutional mechanisms for farmers' participation

In the region, various institutional mechanisms have been established or are underway to facilitate the involvement of farmers in decision-making processes related to PGRFA conservation and development. National seed policies and biodiversity strategies in some cases have created dedicated structures or institutional bodies aimed at enhancing farmers' and local and indigenous communities' role in the governance and management of genetic resources, including through community gene funds and committees for benefit-sharing. Elsewhere, inter-professional federations of farmer representatives have been created for all the country's strategic agricultural sectors. These federations participate in the Steering Committees who define the contract-programs for the agricultural production sectors at the national level.

- Participatory governance structures

Participatory governance structures such as CSBs and local conservation associations have emerged as critical platforms enabling farmers and communities to engage meaningfully in resource governance while contributing to policy dialogues and strategic planning at local and national levels. Efforts to enhance farmer participation in governance through structured registration and recognition of community-based organizations have been beneficial in securing more robust and sustained community engagement, resulting in farmers' greater empowerment and ability to participate in decision-making processes.

- Community-based decision-making

In one country, mechanisms such as community biodiversity registers and biocultural protocols have been developed with farmer groups and beneficiary communities, empowering communities to define and assert their terms of engagement when interacting with external actors such as researchers, companies, or government authorities. Such mechanisms have been formally integrated into the regional and national administrative framework, thereby enhancing their legitimacy and enforceability while ensuring that local governance of genetic resources is reflective of community priorities and knowledge systems. However, the formal legal recognition of community-based decision-making instruments remains limited, which inhibits their broader adoption and long-term sustainability.

Experiences and lessons learned

Below is the summary of the experiences and lessons learned as provided by the multistakeholder survey responses:

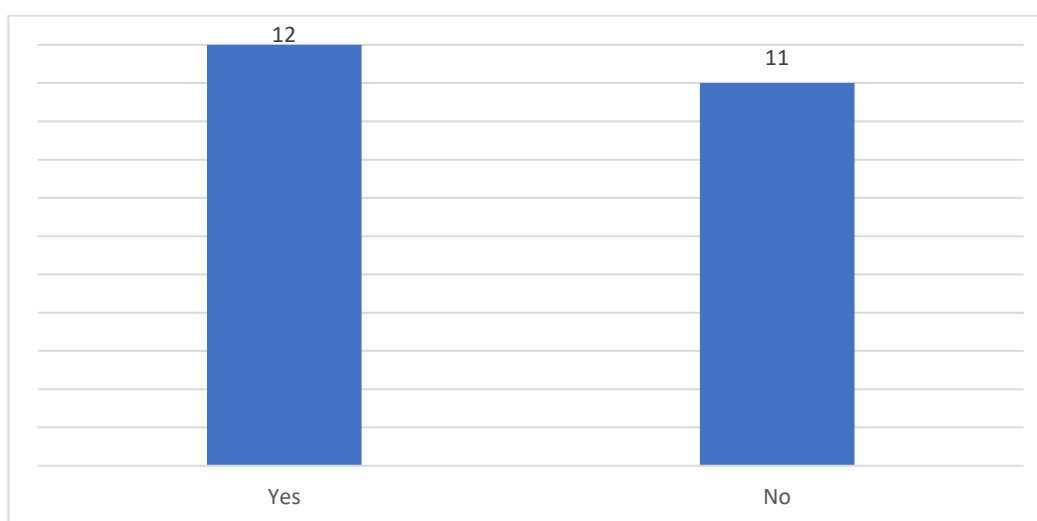
- Contracting Parties and stakeholders discussed the importance of empowering farmers through their participation in various forums, keeping farmers informed about developments and decisions made, and enabling them to advocate for their rights related to PGRFA, share their knowledge, and address issues with a broader audience. This participation allows farmers to influence decisions based on their perspectives and learn about global, regional, and national outlooks. Additionally, farmers can exchange experiences with peers from different regions, which they subsequently share with their local communities.
- Civil society organizations have played a crucial role in facilitating farmers' participation by preparing technical documents that are more accessible and lobbying for public consultations.
- Despite ongoing policy discussions, current laws often favor powerful seed industry players, thereby hindering the realization of Farmers' Rights.
- Some legislative barriers remain. In some instances, the law allows only limited exemptions to Plant Breeders' Rights and plant improvement requirements that provide some scope for farmers to sell, exchange, and save seed. The government has indicated interest in supporting farmer-led seed systems and Farmers' Rights, but this is yet to be initiated.

- One Contracting Party underscored the need to provide continuous feedback and support to encourage the participation of underrepresented groups, such as women and individuals with disabilities, in discussions related to PGRFA.
- Some Contracting Parties and stakeholders mentioned that there are no measures in place, or if there are, the measures are not adequate. A Contracting Party described the measures currently in place as temporary and contingent upon the specific project procedures.

5.1.5 Farmers' right to save, use, exchange and sell farm-saved seed, subject to national law and as appropriate (Article 9.3)

A total of 12 countries from the region (or 52% of reporting countries) have taken measures to protect the rights for farmers to save, use, exchange and sell farm-saved seed.

Figure 1.8
Number of reporting countries from Africa (n = 23) who have taken measures to protect the rights for farmers to save, use, exchange and sell farm-saved seed



- *Legal frameworks governing farm-saved seeds*

Several African countries have adopted seed and PVP laws, regulations, proclamations that recognize and protect farmers' rights to save, use, exchange, and sell farm-saved seeds. In some countries, farmer-managed seed systems are supported through the creation of a regulatory space for Quality Declared Seed or other flexible certification pathways. For instance, in one country, the seeds and plants regulations provide for a seed class that allows participation of farmer groups in seed production to improve accessibility of quality seed by communities which may be too far to reach by the production seed sector. However, the implementation of these provisions varies significantly across countries due to capacity limitations and competing regulatory interests. Besides, many countries still prioritize the formal sector and lack legislative frameworks protecting and promoting these rights.

Several countries are revising or recognize the need to revise national laws and policies to explicitly support the exchange and use of farm-saved seeds among farmers, aligning their domestic frameworks with the International Treaty. Yet, ongoing legislative revisions sometimes present risks to smallholder farmers by imposing stringent controls favoring formal seed systems, potentially undermining traditional seed exchange practices.

- *Institutional support and participatory initiatives*

Complementing legal measures, national strategies and action plans have been developed in a few cases to support the production of community or traditional seeds.

- *Traditional farmer seed exchange platforms*

Additionally, in some contexts, community-based initiatives such as seed fairs, diversity fairs and other seed production schemes provide the main avenue for farmers to save, use, exchange, and sell farm-saved seeds while contributing to the dissemination and adoption of diverse varieties. These mechanisms provide a localized and accessible alternative to formal seed systems although there is legal uncertainty surrounding such practices. For instance, in one country, 95% of seed management is carried out by farmers, the rest being supplied by certified seeds sold on the market which are generally more expensive and not easily available to many farmers in remote areas.

Box 1.3

Seed Fairs

The basis of seed fairs is solidarity, friendship, and trust. You must believe in the other person and in the seed that he or she is going to give, in his or her identity, in his or her ability to germinate and give a flowering plant that bears fruit. The conservation and exchange of seeds is part of the culture, of a way of being, of celebrating, of relating to families in the countryside, and celebrating life. In seed fairs, certain elements that make the Gift, giving, without expecting to receive, are also recovered. The exchange is very simple, it is the exchange of one thing for another, of the seeds, plus the knowledge, the knowledge associated with it.

Source: Extracted from the comment of a respondent, Multistakeholder survey on the state of implementation of Article 9

Experiences and lessons learned

The responses in the region described their experiences and lessons learned that are summarized as follows:

- Policies are in place to assist farmers in the conservation and sustainable use of PGRFA.
- Farmers are happy that their materials can compete with improved varieties in local and national markets.
- Technical support, collaboration with research institutions and capacity building of farmers and stakeholders at all levels on various PGRFA conservation and management practices is essential.
- The FFS approach is a vehicle for farmers' capacity building, economic empowerment, knowledge sharing, and technology transfer. PVS and PVE in FFS are critical elements in creating sustainable community-based and farmer-managed seed systems.
- Collaboration with research institutions is critical for increased and improved access to PGRFA.
- Linking farmers to markets creates an opportunity for improving the production of PGRFA.
- Engagement of policymakers are critical for creating a conducive policy environment for promoting climate-resilient interventions.
- Seed fairs serve as platforms for farmers to exchange and sell farm-saved seeds.
- Stakeholder consultations at different levels are essential for promoting and managing the expression of Farmers' Rights.
- Recognition of the importance of farmers' roles in the ongoing development and conservation of crop diversity and resilience is crucial.
- Farmer seed systems to be maintained/managed by farmers are to be encouraged.
- State support to farmer-led seed systems is limited, and the implementation and technical support is mostly through projects.

- In some countries, there are no policy and legal measures in place, selling and exchanges are taking place at seed fairs, agricultural fairs, and through other informal ways.

Cases where farmers have been taken to court, fined or otherwise sanctioned for saving, exchanging and/or selling seed/propagating material of varieties protected with plant breeder's rights or patents

- The very few responses gathered from the region cited no specific cases or details, but they described the legal challenges faced by farmers concerning seed sales, including when the current regulations prohibit the sale of uncertified seeds.
- One response indicated that Niger's seed law adopted in 2014 provides for penalties, including imprisonment ranging from two months to two years and fines between 20,000 and 1,000,000 CFA francs for those involved in the production, introduction, or marketing of traditional seed varieties.
- Another response indicated that, despite uncertainty about the details, farmers have reported being threatened with fines, and a proposed law would increase jail sentences to up to 10 years.

5.1.6 Gaps and needs with regard to the realization of Farmers' Rights

- Legal and policy frameworks

- Across the region, frameworks governing Farmers' Rights, seed laws and ABS are frequently incomplete, outdated or stalled in the legislative process due to delays in drafting regulations or limited political will, creating uncertainty for farmers and other stakeholders about their rights and obligations.
- In several cases, seed laws restrict the sale or formal registration of traditional varieties, effectively constraining farmer-managed seed systems and slowing implementation of Article 6 of the International Treaty.
- Even where broad biodiversity or agricultural policies provide for the recognition of traditional varieties or ABS measures, subsidiary regulations needed to operationalise benefit sharing, variety catalogues or community gene funds remain pending or un-enforced.

- Institutional coordination

- Weak horizontal and vertical links among ministries, research institutes and conservation agencies hamper coherent action, while specialised facilities such as national genebanks and characterisation laboratories are missing or under-resourced in several countries.
- Where institutional mandates do exist, overlapping responsibilities for access and benefit-sharing, seed certification and environmental management create duplication and delays in decision-making.

- Obstacles to support farmers' efforts in in situ and on-farm conservation and sustainable use

- Despite significant efforts to conserve genetic resources through CSBs and on-farm diversity plots, African countries experience several barriers hindering effective conservation.
- Notably, many conservation initiatives suffer from inadequate infrastructure, insufficient technical expertise, limited long-term funding, and the lack of a framework to guide the operation of CSBs, reducing their viability and sustainability.
- In addition, challenges in the systematic inventory, characterization, and documentation of plant genetic resources persist, often linked to technical resource limitations.

- Many farmers rely predominantly on informal seed systems, yet policy frameworks tend to privilege formal seed systems, restricting farmers' access to traditional, locally adapted varieties.
- Regulatory emphasis on certified seed and distinct-uniform-stable testing raises barriers for farmer-preferred varieties, especially where testing fees or laboratory capacity are insufficient, delaying variety release and discouraging local innovation.
- Draft or revised seed acts increasingly acknowledge quality-declared seed and PVS, but sometimes still exclude traditional varieties or restrict farmer exchange and sale to limited classes or registered varieties, leaving informal networks legally insecure and reducing the incentives for farmers to maintain local genetic diversity.
- Market incentives for under-utilised crops remain weak, constraining diversification efforts even when agronomic promotion programs exist.

- ***Financial and human resources to support activities that protect and promote Farmers' Rights***

- Financial and human resource constraints pose substantial limitations across virtually all aspects of PGRFA management in almost all countries in Africa. Funding shortages impact conservation and use programs, capacity-building efforts, and the operationalization of CSBs and biodiversity conservation initiatives.
- Reliance on externally financed projects introduces discontinuity when grants end, undermining the sustainability of CSBs and on-farm conservation groups.
- Human resource constraints, including limited technical expertise, inadequate training opportunities, and staff shortages, exacerbate these challenges.

- ***Awareness raising***

- Limited understanding of the International Treaty, benefit-sharing principles and Farmers' Rights persists among officials, researchers and rural communities, slowing the uptake of supportive measures.
- Insufficient dissemination of information on Farmers' Rights, ABS, conservation methods, and sustainable agricultural practices often leads to limited community engagement and inadequate adoption of beneficial measures.
- Public outreach tools — such as diversity fairs, agricultural exhibits and school curricula — are employed intermittently and often curtailed by transport or budget constraints.
- Moreover, the absence of effective communication strategies reduces the impact of awareness-raising campaigns, limiting their reach and potential to facilitate behavioural change at the grassroots level.

- ***Gender-related factors that may limit the realization of Farmers' Rights***

There is a general recognition of the crucial role that women play in the management of seeds on farms and in agriculture, often making decisions on farms that prioritize food security over commercial sales. Women are described as custodians of agrobiodiversity, with the work of selecting, saving, and keeping good seeds being predominantly the role of women. However, responses gathered about the existence of gender-related factors that may limit the realization of Farmers' Rights point to a broader description of gender inequality in agriculture, driven by traditional norms, biased policies, limited access to resources, lack of participation in decision-making, and lack of the ability of women to own and manage land, which hinders the crucial role of women in managing the seeds they produce.

Box 1.4

CGIAR Centres activities in facilitating and promoting the realization of Farmers' Rights

Plant genetic resources are the raw material for crop genetic improvement, food and nutrition security. Their conservation and management are essential and depend on the rights of farmers, especially those in the centers of origin and diversity, to save, use, exchange and sell farm-saved seeds and propagating material. Farmers must be enabled to safeguard their traditional knowledge, innovations and practices and participate in decision-making in order to benefit from the use of seeds and knowledge. Rural development policies and practices do not always reflect the interests, aspirations and rights of smallholder farmers, despite the fact that they are the main beneficiaries of agricultural and rural development and are themselves the source of innovation in sustaining rural environments and agricultural resources.

CGIAR is a global partnership that unites international organizations engaged in research about food security, comprising 15 international research centres. More than 3,000 research and development partners, including national governments, academic institutions, global policy bodies, private companies and CSOs. The CGIAR Centre's Implementation Guidelines of the Intellectual Assets Principles, calls for the recognition of the indispensable role of farmers, indigenous communities, agricultural professionals and scientists in conserving and improving genetic resources; and it seeks to be respectful of national and international efforts to protect and promote farmers' rights as envisaged by the International Treaty and support the development of appropriate policies and procedures for their recognition and promotion.

The CGIAR has been actively engaged in advocating for Farmers' Rights through a range of initiatives and partnerships. A primary focus is on responsible governance and collaboration with farmers to tackle the challenges associated with agricultural biodiversity conservation and management. The CGIAR's approach promotes:

- Ensuring prior informed consent of farmers providing Genetic Resources and Traditional Knowledge has been given
- Involving farmers as partners in research and development projects
- Building on and promoting farmers' local institutions and practices in research and development activities
- Raising awareness about the availability of the PGRFA in genebanks
- Involving farmer representatives in processes to determine research priorities and in the presentation of research outcomes
- Getting back to farmers with research results
- Recognition of holders/providers of traditional knowledge in publications

Another significant aspect of CGIAR's work is community-based agricultural biodiversity management. This approach aims to empower smallholder farmers by conserving and sustainably using agricultural biodiversity, which is crucial for dealing with climate change, pests, diseases, and market irregularities. CGIAR's research portfolio provides evidence of the positive impacts of such programs on food security, sustainable livelihoods, and resilience. The organization also engages in initiatives to gather information and exchange best practices on the implementation of Farmers' Rights at national, regional, and global levels.

Some examples of CGIAR programme and projects:

- *The "Biodiversity for Food and Agriculture" Programme*

The Alliance of Bioversity and CIAT (Alliance) manages a portfolio of 58 projects worth over US\$55 million. All these projects are implemented with partner organizations that are active at local, provincial, national or regional levels in the target countries and geographies. These partners are governmental agencies, public research organizations, non-governmental organizations, CSO/farmers' organizations and private companies. All the projects involve activities supporting farmers and farming communities to develop, manage, conserve and sustainably use PGRFA. The programme promotes:

- training events, farmer-consultations,
- plant variety characterization, evaluation, selection and breeding,
- CSBs,
- communal seed multiplication and distribution,
- farmers' participation in the development of country policies and laws, and
- farmers' participation in multistakeholder platforms for market development.

Often, these activities target farming communities at the village, district and provincial levels, but country-wide events such as (traditional) food and seed fairs are also organized.

All partners the Alliance works with contribute to these activities with all kinds of resources: funds (either own funds or project's funds); knowledge, expertise, and know-how; hard technologies, tools, facilities; and time. While country-level partners' contributions are usually more apparent and visible, the contribution of local-level organizations is key. For example, local authorities and institutions have approved the establishment of community seedbanks and provided land, construction materials, and human power to construct these seedbanks in several countries, e.g., Colombia, Ghana, India, Kenya, South Africa, Uganda.

- *The Heirloom Rice Project*

The Heirloom Rice Project, which started in 2014, is supported by the Department of Agriculture of the Philippines and the International Rice Research Institute (IRRI). It aims to enhance the productivity and enrich the legacy of heirloom and traditional rice varieties through empowering communities in rice-based ecosystems in the Philippines. Heirloom rice varieties, handed down for generations and grown by small landholders, have exceptional cooking quality, flavour, aroma, texture, colour, and nutritional value. There is high demand for these varieties, and they command higher prices in both domestic and international markets. However, there are also challenges hindering farmers to seize these opportunities, while some of the varieties are at risk of extinction. The Heirloom Rice Project thus takes a market and product development approach. Core activities include (1) characterizing existing heirloom or traditional varieties alongside modern climate-resilient varieties; (2) capacity development and enterprise building in farming communities; (3) identifying opportunities for value addition and market linkages; (4) documenting and disseminating good management practices through various communication channels; and (5) improving resistance and/or tolerance of selected heirloom varieties to diseases and environmental stresses. Key results include an increase in production of heirloom rice varieties by almost 80% in six years.

- *Germplasm collection in 'gap areas' of the West and Central African region*

In 2013, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), together with national agricultural research organizations of the respective countries, initiated a project aiming to fill gaps in the ICRISAT genebank collections and enhancing utilization of germplasm for food and agriculture. Core components were collection missions targeting pearl millet, sorghum and groundnut. In addition to these crops, national partners collected also other crops that are not part of ICRISAT's mandate crops, such as cowpea, okra, sesame, Bambara groundnut, maize, etc. Trainings were offered to participating staff on collection and conservation techniques; these trainings also addressed Farmers Rights and traditional knowledge. Key outcomes include the collection of 5,057 germplasm accessions; seed samples were distributed across African, USA and European countries, including to researchers, breeders, farmers organizations, agro-dealers, processors and students. Key lessons learned include the awareness of the need for communication with and consent from local communities; building trust with local partners: and getting the necessary agreement from local authorities.

- *Participatory tree domestication of indigenous tree species*

Since 1990, the World Agroforestry Centre (ICRAF), together with national research, education and training institutions as well as farmers and farmers' organizations, has developed a decentralized approach for participatory tree domestication to improve indigenous tree species in the African Sahel region and to encourage their cultivation. Core components include priority setting exercises carried out since the early 1990's, through which farmers identified preferred tree species, based on criteria such as nutritional, medicinal and income-generating values. Furthermore, potential 'plus mother trees' with the preferred characteristics were identified. Tree improvement based on these accessions is being carried out through Rural Resource Centres (RRCs), where farmers are trained on how to propagate and manage the seedlings in the nurseries; seedlings are established on community/farmers' land, and farmers are actively involved in the evaluation. Improved material is owned by the communities and farmers can freely distribute the improved material among themselves. A value chain training component on fruit processing and related business skills is also incorporated to enhance the economic benefits from indigenous tree cultivation. Key outcomes include improved skills of farmers in tree propagation and management, conservation and sustainable use of tree genetic resources and enhanced recognition and use of traditional knowledge.

- *Access to seed through a network of CSBs*

This good practice started in 1999 in Sierra de los Cuchumatanes, Huehuetenango, Guatemala, with active participation of the Asociación de Organizaciones de los Cuchumatanes (ASOCUCH), technical support by Fundación para la Innovación Tecnológica (FUNDIT) and Instituto de Ciencia y Tecnología Agrícola (ICTA) and

financial support by the Norwegian Development Fund (Utviklingsfondet). The main objective was to improve the livelihoods of small-scale farmer families and indigenous communities through the sustainable use of native agrobiodiversity, including for adaptation to climate change. The core components of this project include: (1) CSBs under local governance; (2) seed and agrobiodiversity fairs; (3) participatory evaluation of maize accessions from the CIMMYT genebank; and (4) production of good quality seeds of local varieties. Key results include the successful establishment of a network of CSBs; the identification of local and rare varieties of maize and beans with traits relevant to climate-change adaptation; the production of high-quality seeds of preferred varieties; as well as ongoing training of local actors on issues related to seed and agrobiodiversity.

- *Resilient Seed Systems for Climate Change Adaptation and Sustainable Livelihoods in East Africa*

Since 2018, an initiative by the CGIAR has been addressing the unprecedented challenges farmers face due to changing and variable climates, as well as related crop management issues caused by both biotic and abiotic stresses. This initiative builds upon prior work by Bioversity International and its partners across various countries in Africa, Asia, and Latin America. The goal is to combine and scale successful strategies, methods, and tools that improve farmers' and their communities' timely access to quality seeds for a diverse range of crops and crop varieties—including novel ones that are better adapted to climate change—on both local and global levels. Structured seed legislation is essential to ensure the necessary seed quality for farmers. A central aspect of the scaling strategy involves engaging with the private seed sector and working alongside local and national governmental and non-governmental organizations that can adopt and further develop these tested strategies and tools.

Farmers in developing countries face unprecedented challenges from changing and extreme climatic conditions and associated crop management issues caused by various biotic and abiotic stresses. Current seed systems are inadequate for their needs because they do not ensure seed diversity and quality; they lack decentralized (local) seed production and marketing organizations that cater to the specific demands of smallholder farmers; they are not revitalized by crop breeding efforts; they are limited by uncoordinated ex situ conservation of plant genetic resources; they lack effective implementation of international agreements regarding plant genetic resources; and national seed laws hinder them. Successful efforts to address these challenges globally have been fragmented. There is an urgent need to scale these solutions. This project aims to combine and enhance successful strategies, methods, and tools to improve women and men farmers' access to quality seeds for a diverse portfolio of crops and crop varieties, including those better suited to current and future climate conditions. Structured seed legislation is vital for ensuring the quality of seeds provided to farmers.

This initiative directly builds on the results and lessons learned from various research and development initiatives conducted by Bioversity International, the Community Technology Development Trust (CTDT) of Zimbabwe, the Wageningen Centre for Development Innovation at Wageningen University and Research (WCDI) in the Netherlands, and the Royal Tropical Institute (KIT), also in the Netherlands, in several countries across Africa, Asia, and Latin America.

The project focuses on three interrelated themes and activities:

1. **Resilient Seed Systems:** Key activities include characterizing seed systems, introducing promising crop diversity for climate change adaptation, strengthening CSBs, and enterprise development.
2. **Supportive Policies and Laws:** This involves developing national policies, fostering local-level policy development, and implementing farmers' rights.
3. **Networking:** Key activities include peer learning and exchange, curriculum development, technology transfer, developing information management systems, and establishing sub-regional support units.

A central element of the scaling strategy is engaging with the private seed sector and working with local and national governmental and non-governmental organizations well-positioned to adopt and further develop the tested strategies and methods in their daily operations. While focusing on specific countries, the project's sub-regional dimension is strategically integrated to facilitate knowledge exchange, capacity building, and policy analysis and advocacy.

These examples are not exhaustive but serve to illustrate the initiatives undertaken by the CGIAR Centres, in their effort to promote the implementation of Farmers' Rights. They concentrate on fostering partnerships, conducting comprehensive research, and implementing community-based strategies to promote sustainable and resilient agricultural practices.

Sources: Extracted from the CGIAR website, submissions in the Inventory and responses to the [Multistakeholder Survey on the implementation of Article 9](#).

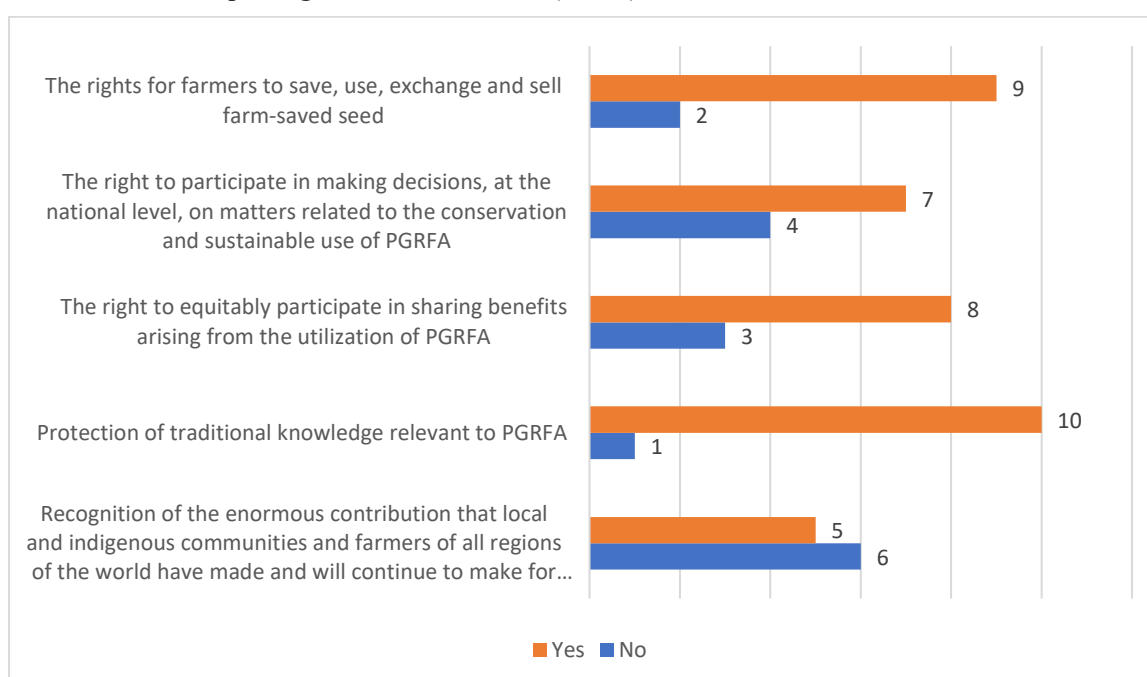
5.2 ASIA

There are 25 countries in Asia, including 17 countries who are contracting parties to the International Treaty and one country who has signed it but not yet ratified. By April 2025, a total of 11 countries from this region have submitted a national compliance report to the Secretariat of the International Treaty.

The information below summarizes the information found in the 11 national reports submitted to the Secretariat of the International Treaty, supplemented with information gathered from the multistakeholder survey (44 responses from 13 countries including from a non-Contracting Party) conducted by the Secretariat, and the submissions from the Inventory.

All 11 countries from Asia who submitted a national compliance report have taken measures to protect and promote Farmers' Rights, including measures in relation to (see Figure 2.1):

Figure 2.1
Number of reporting countries from Asia (n = 11) who have taken measures in relation to:



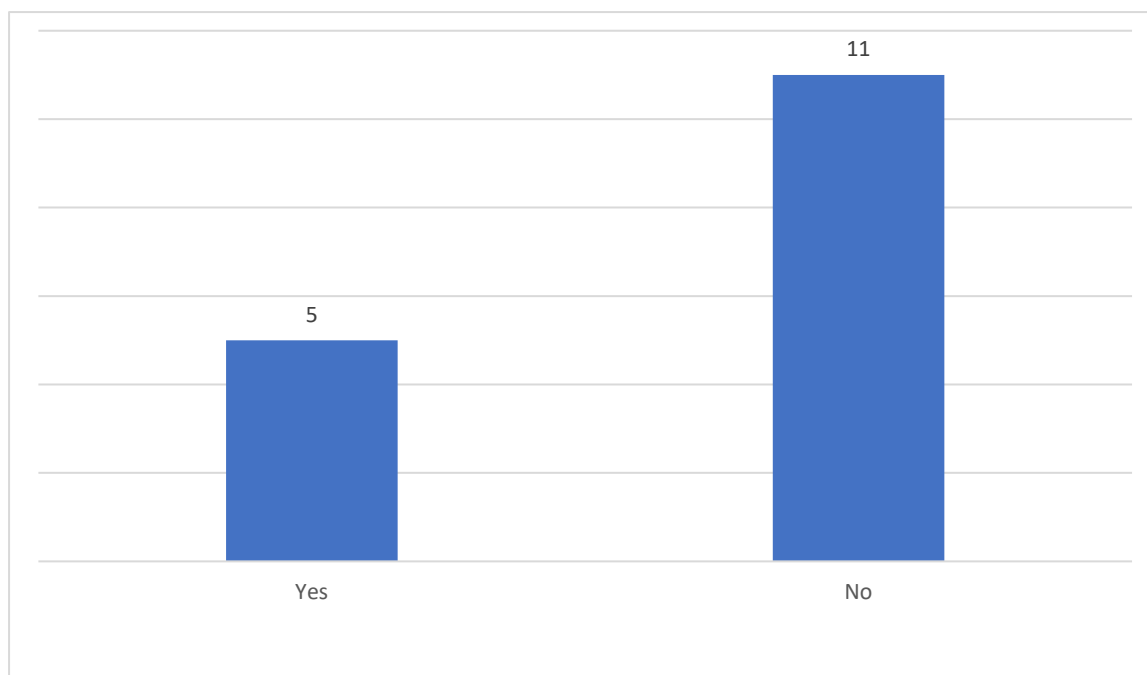
One country has adopted a comprehensive, stand-alone law on Farmers' Rights, the Protection of Plant Varieties and Farmers' Rights Act, one of the first in the world. The law addresses the recognition of farmers' contribution to the conservation and use of PGRFA, their right to save, use, exchange, and sell farm-saved seed, the protection of agricultural traditional knowledge, and the establishment of benefit-sharing mechanisms and of a National Gene Fund, this legislation is considered as one of the most explicit and detailed legislation on Farmers' Rights in the world.

PROVISIONS OF ARTICLE 9

5.2.1 Recognition of the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development (Article 9.1)

Five countries (or 45% of reporting countries from Asia) have taken measures to recognize the contribution of farmers and local and indigenous communities to PGRFA conservation and development.

Figure 2.2
Number of reporting countries from Asia (n = 11) who have taken measures to recognize the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development



Several countries in Asia have adopted biodiversity and agricultural policies that acknowledge and support the role of local and indigenous communities in conserving and developing PGRFA. Other countries in Asia have established recognition systems for farmers, farming communities, or farmers' organizations. In one country, genetic resources congresses are organized at the national level every two years, during which farmers' awards are given to recognize their contributions to PGRFA conservation. Some other countries are organizing the recognition and awarding on an annual basis.

These recognition systems are implemented through national initiatives, programs, and project activities that support farmers and farming communities in developing, managing, conserving, and sustainably using PGRFA, primarily at national and local levels. Majority of the recognition for farmers and farming communities are established through legal or administrative measures, such as ministerial or interministerial administrative memoranda accompanied by implementing guidelines. The recognition system provides awards, plaques, and sometimes incentives to recipients. The aim is to raise public awareness of the importance of conserving and sustainably using PGRFA and to encourage awardees and farmers to continue their efforts.

Box 2.1

Realizing Farmers' Rights by acknowledging the enormous contributions of farmers, Indigenous Peoples and local communities in conserving and managing crop genetic diversity in the field

Across the globe, measures have been developed by many countries to recognize and reward the invaluable contributions of farmers, Indigenous Peoples, and local communities in conserving and managing crop diversity. This recognition takes many forms, including prizes, awards, and the designation of agricultural and cultural heritage sites and biodiversity conservation areas. These awards are built upon clearly defined objectives and criteria that highlight specific achievements in conserving, developing, and managing crop genetic resources. They manifest the expertise of farmers in conserving, developing, and managing crop genetic resources. Accompanied by plaques, prizes, and in-kind incentives. These recognitions are a way to promote, protect, and realize Farmers' Rights.

A noteworthy example is India's Protection of Plant Varieties and Farmers' Rights Act (PPVFR) of 2001, which serves as a pioneering measure to recognize and award individual farmers and farming communities. This act encompasses three awards: (1) the Plant Genome Saviour Community Award, (2) the Plant Genome Saviour Farmer Reward, and (3) the Plant Genome Saviour Farmer Recognition. From 2019 to 2022, the Government of India awarded a total of 163 recognitions. The measure not only recognizes and honours farmers and communities

but also supports the preservation of agricultural biodiversity, traditional knowledge, and the cultural heritage tied to farming, thereby empowering farmers to continue cultivating locally adapted varieties.

The Biodiversity Act of Bhutan (2003) acknowledges and honours farmers by awarding them during biodiversity fairs on important national days. The awards underscore and promote vital role of farmers in conserving local varieties and/or landraces. The awards or recognition aim to instill the fundamental value of genetic resources not only for economic and environmental reasons but also for preserving culture and traditions.

In Indonesia, since 2014, the National Commission on Genetic Resources (NCGR-Komnas SDG) has been giving awards to farmers for their work in conserving local biodiversity. This stimulates farmers' enthusiasm for conservation activities, particularly for cultivating endangered and underutilized crops. Another initiative started in 2017, in East Java, to encourage and acknowledge farmers' participation in the conservation and use of local germplasm, including breeding activities. The award is for a farmer-breeder who has a high number of local varieties registered or developed. As a result, farmers' participation in collecting, conserving, and using germplasm for breeding activities has become more attractive for farmers.

The national government of Nepal, along with CSOs, has increasingly recognized the significant contributions of farmers and local and indigenous communities in the management of agricultural biodiversity. More and more farmers have been recipients of awards such as the "Innovative Farmer," "Farmer Breeder Excellence Award," and "Agrobiodiversity Champion Award." Similarly, Indonesia also recognizes farmer-breeders and those who conserve genetic resources. Furthermore, in 2018, the Seed Quality Control Centre (SQCC) and the National Seed Board adopted a simplified format to accommodate the registration of farmers' varieties, following collaboration with NARC, LI-BIRD, Bioversity International, farmers' organizations, and donors who helped simplify the application process.

In Europe, the Plant Heritage Award in Norway and the Golden Pea Award in Sweden acknowledge the vital contributions of institutions, including farmers, in the conservation of PGRFA.

Sources: Extracted from the [Inventory](#) ([India](#), [Bhutan](#), [Indonesia](#), [Nepal](#), [Norway](#), [Sweden](#)).

Experiences and lessons learned

Based on the available information, below is the summary of the experiences and lessons learned regarding measures introduced to recognize the contribution made by local and indigenous communities and farmers in the conservation and development of PGRFA:

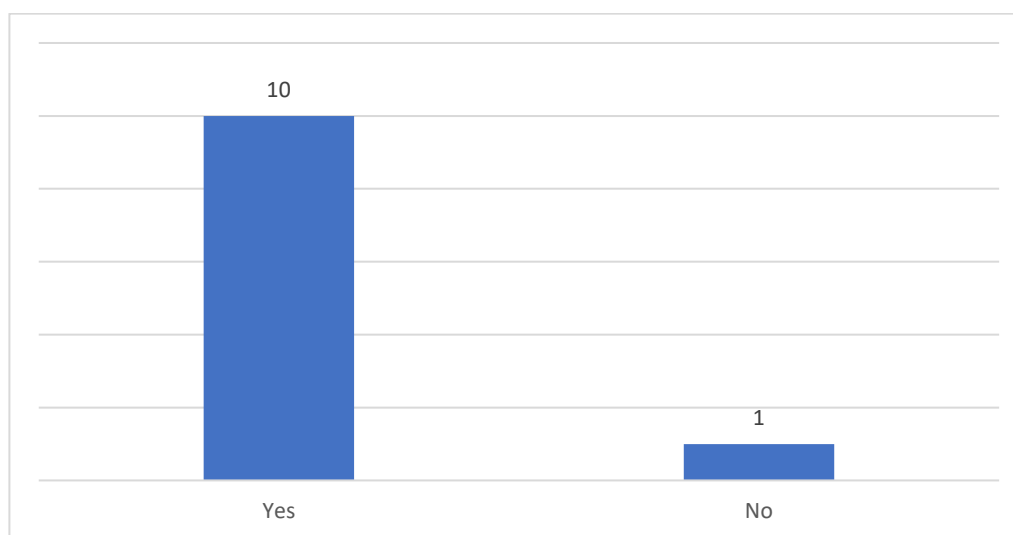
- Several measures were introduced/applied to recognize the contributions of local and indigenous communities and farmers in the conservation and development of PGR. These initiatives included awarding individuals or farming communities, implementing Geographical Indications (GIs) for specific crop products, and providing technical support and capacity building.
- Simply labelling farmers as "best farmers" or custodians of agrobiodiversity and traditional knowledge is deemed insufficient. Farmers require genuine recognition and support for their crucial role in conserving and managing PGR.
- There is a notable gap in implementing measures that truly acknowledge farmers' contributions to conservation, development, and sustainable use of PGR. Existing initiatives are often ad hoc and primarily driven by CSOs, which typically operate with limited resources and capacity.
- Key initiatives supporting farmers include CSBs, seed fairs, PPB, FFS, and access to PGR through national gene banks. Involving farmers in policy discussions related to PGR at both local and national levels is fundamental.
- To effectively support farmers' efforts in the conservation and development of PGR, sustained financial assistance is essential, along with an enabling environment characterized by farmer-supportive seed policies and regulations. Continuous engagement with farmers, targeted capacity building, and raising awareness about the importance of local crop diversity and farmers' roles in conservation are also necessary components.
- CSOs implement various practices for conservation and sustainable use of PGRFA in the field, such as CSBs, FFS, PPB, PVS, community biodiversity registers, diversity fairs, and community biodiversity management funds supporting farmers' organizations that manage

community resources. These activities contribute to realization of Farmers' Rights and need to be included in public policies and plans for broader impact and sustainability.

5.2.2 The protection of traditional knowledge relevant to PGRFA (Article 9.2a)

A total of ten countries, or 91% of reporting countries from Asia, have taken measures to protect traditional knowledge relevant to PGRFA.

Figure 2.3
Number of reporting countries from Asia (n = 11) who have taken measures to protect traditional knowledge relevant to PGRFA



Legal instruments in several countries contain provisions that aim to protect traditional knowledge associated with PGRFA. Biodiversity acts and associated regulations can provide frameworks for documenting and safeguarding community-held knowledge, particularly when these are aligned with the Nagoya Protocol and recognize community rights. For instance, instruments such as the Indigenous People's Rights Act reinforce the cultural and legal standing of traditional knowledge systems.²⁸

Complementing the legal measures, public institutions and civil society organizations have initiated important initiatives for the protection of traditional knowledge include the establishment of national database to inventory traditional knowledge associated with plant genetic resources, or record traits, uses, and origins of farmers' landraces and traditional varieties, aiming to support conservation and breeding programs. other community-based initiatives that help farmers in promoting traditional knowledge include producing catalogue of local varieties conserved in the CSBs, knowledge sharing at biodiversity/seed fairs, and various agricultural biodiversity events organized for and by farmers.

Experiences and lessons learned

The responses within the region provided valuable experience and lessons on safeguarding traditional knowledge associated with PGRFA. These experiences are summarized below, in no particular order:

- Respondents from five countries in Asia region highlighted the significance of safeguarding traditional knowledge related to PGRFA. they pointed out the need for strong legal frameworks, extensive awareness programs, and capacity-building efforts among farmers to protect traditional knowledge.
- One country cited the existence of the law to protect traditional knowledge, but not implemented at all, though some local governments are enacting legislation to support the protection of traditional knowledge. moreover, some other responses pointed out several

²⁸ Additionally, legislation that protects geographical indications also contributes to the protection of traditional knowledge.

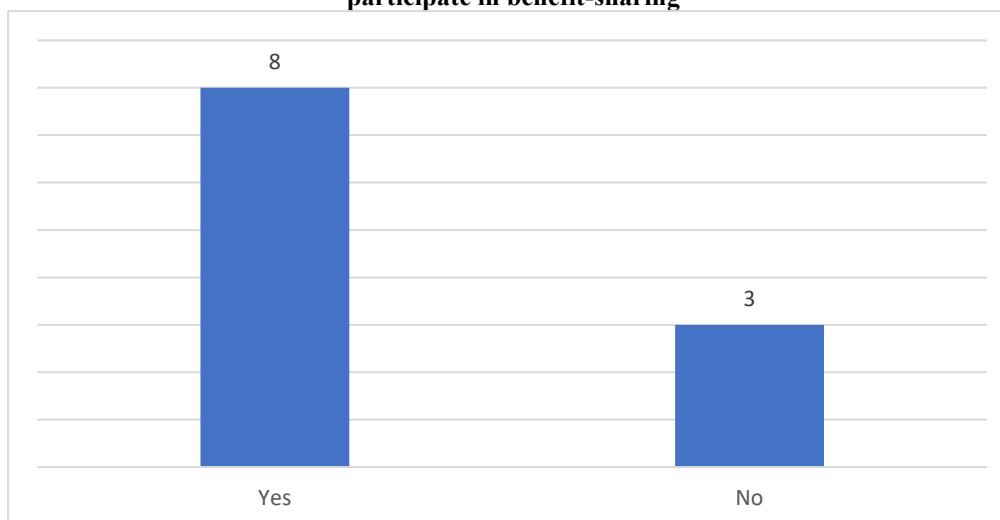
initiatives by CSOs to systematically document traditional knowledge, such as the creation of community biodiversity registers.

- The responses from several countries described the erosion of traditional practices, hence advocating for the promotion of local knowledge over modern technologies where sustainable is not proven yet. In addition, the responses highlighted the existence of several capacity-building initiatives that promote the protection of traditional knowledge related to PGRFA, while also addressing the skills and knowledge of farmers and their organizations. The capacity-building initiatives are crucial for empowering farmers, promoting sustainable agricultural practices, and preserving traditional knowledge. These initiatives include:
 - Research and innovation emphasizing the use of local germplasm for crop development, improvement and research. This involves dedicated research efforts to innovate and improve crop varieties that are well-suited to local conditions.
 - Investing in capacity building, training programs and awareness raising. Various training programs on use and maintenance of local crop varieties and traditional knowledge, and agricultural adaptation to climate change. These programs can facilitate knowledge sharing among farmers from different provinces, helping them adapt to changing environmental conditions and improve their agricultural practices while protecting traditional knowledge systems.
 - Organizing seed fairs where farmers can share their traditional knowledge on safe seed practices and variety selection. These fairs provide an important platform for farmers to exchange valuable information and learn from each other's experiences.
 - Documentation of traditional knowledge, farmers' varieties, and raising awareness of the importance of traditional knowledge and local crop cultivars.

5.2.3 Farmers' right to participate in benefit-sharing (Article 9.2b)

A total of eight countries, or 73% of reporting countries from Asia, have taken measures to protect and promote farmers' rights to equitably participate in sharing benefits arising from the utilization of PGRFA.

Figure 2.4
Number of reporting countries from Asia (n = 11) who have taken measures to protect farmers' right to participate in benefit-sharing



5.2.3.1 Legal and policy frameworks on access and benefit-sharing

Legal measures across countries aim to operationalize access and benefit-sharing (ABS) in accordance with the Nagoya Protocol and the International Treaty. Dedicated ABS legislation or policies provide the legal basis for equitable benefit-sharing from the use of genetic resources and associated knowledge. National strategies include procedural guidance for Material Transfer Agreements (MTAs) and community benefit-sharing mechanisms. Efforts are underway in several countries to harmonize ABS mechanisms with existing biodiversity and seed legislation.²⁹

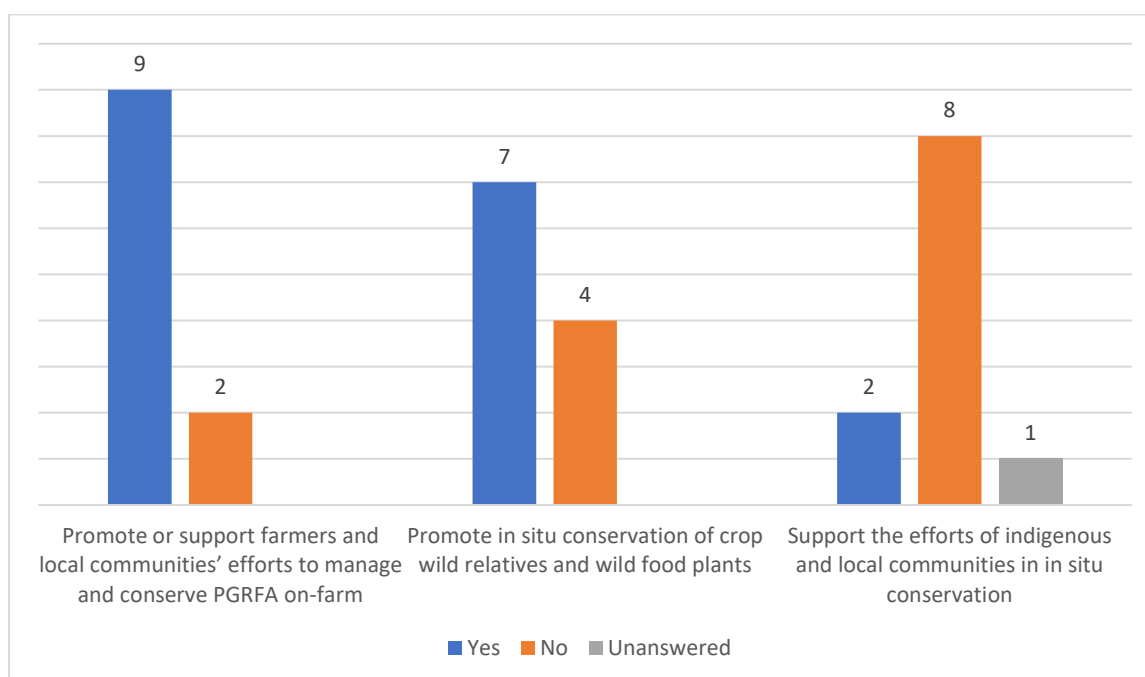
5.2.3.2 Non-monetary benefits

A. Supporting farmers and local communities' efforts to manage and conserve PGRFA on-farm and *in situ*

A total of nine reporting countries from this region (about 82% of reporting countries from Asia) have promoted or supported farmers and local communities' efforts to manage and conserve PGRFA on-farm. Besides, seven countries from Asia report having promoted *in situ* conservation of CWR and WFP (about 64% of reporting countries). However, while all seven countries have promoted *in situ* conservation in protected areas, only two countries have also supported the efforts of indigenous and local communities in *in situ* conservation.

²⁹ It should also be noted that, at the regional level, the Association of Southeast Asian Nations (ASEAN) developed a draft regional framework on ABS in 2005, prior to the Nagoya Protocol. However, this draft has not been finalized or formally adopted since then.

Figure 2.5
Number of reporting countries from Asia (n = 11) who have taken measures to:



At the policy level, strategic national action plans and biodiversity policies have established legal and institutional frameworks that enable community participation in conservation initiatives. Ministerial orders and strategic inclusion of local germplasm into the International Treaty's Multilateral System of Access and Benefit-sharing (MLS) further reflect national-level efforts to integrate traditional farming communities into formal conservation efforts.

Some other initiatives that directly support farmers include community-based capacity development activities, linking farmers to national genebanks, technical committees with farmer representation, PPB, grassroots breeding, CSB, GIAHS designations which offer international and national recognition of traditional farming communities, local variety registration, value addition, and marketing support for the conservation and sustainable use of PGRFA.

- *Facilitation of farmers' access to a diversity of PGRFA*

Seed saving and exchanging, home gardening, CSBs and biodiversity/seed or crop fairs have been promoted as effective strategies for preserving traditional varieties and enhancing farmers' access to a diversity of PGRFA in several countries. These approaches promote decentralized conservation, enhance seed sovereignty, and serve as platforms for community-level education and seed exchange. Similarly, some countries have created designated on-farm conservation sites and local gene banks managed by farming communities to ensure continued access to diverse crop varieties.

- *Institutional and research support*

Some countries from Asia have taken a proactive role in building institutional mechanisms for the conservation and promotion of farmers' varieties. A notable example is the creation of a national database initiated in 2018 to catalog landraces and farmers' varieties, documenting traits, traditional uses, and their status for conservation and breeding purposes. This approach not only contributes to conservation efforts but also enhances the potential for benefit-sharing by increasing the accessibility and utility of genetic materials. In one country, on-farm conservation was first initiated through collaboration with the South-East Asia Regional Initiatives for Community Empowerment (SEARICE) in 2001 and later institutionalized as a sub-programme under the national biodiversity authority under the ministry of agriculture, ensuring continuity and national ownership. In another case, custodian farmers in multiple states were identified and supported under a UNEP-GEF-funded initiative to

mainstream agricultural biodiversity into farming systems, ensuring that traditional crop varieties continue to be cultivated and conserved on-farm.

- *Community knowledge and participation in inventories, documentation and management*

In some cases, conservation efforts have incorporated community knowledge and participation in inventories, registries, and documentation of farmers' varieties/landraces, wild crop relatives and wild plants, for instance on citrus species, wild rice species, and *Cajanus cajanifolius* species, a close relative of pigeon pea. Initiatives involving the identification and documentation of wild and semi-wild species, along with associated traditional uses and socioeconomic value, integrates community-held knowledge into formal conservation systems, laying the groundwork for more participatory and inclusive management. In other cases, community-based conservation models have been developed where community groups are explicitly formed to manage and sustainably harvest wild plants under localized by-laws, reinforcing both ecological stewardship and the socioeconomic role of communities in biodiversity management.

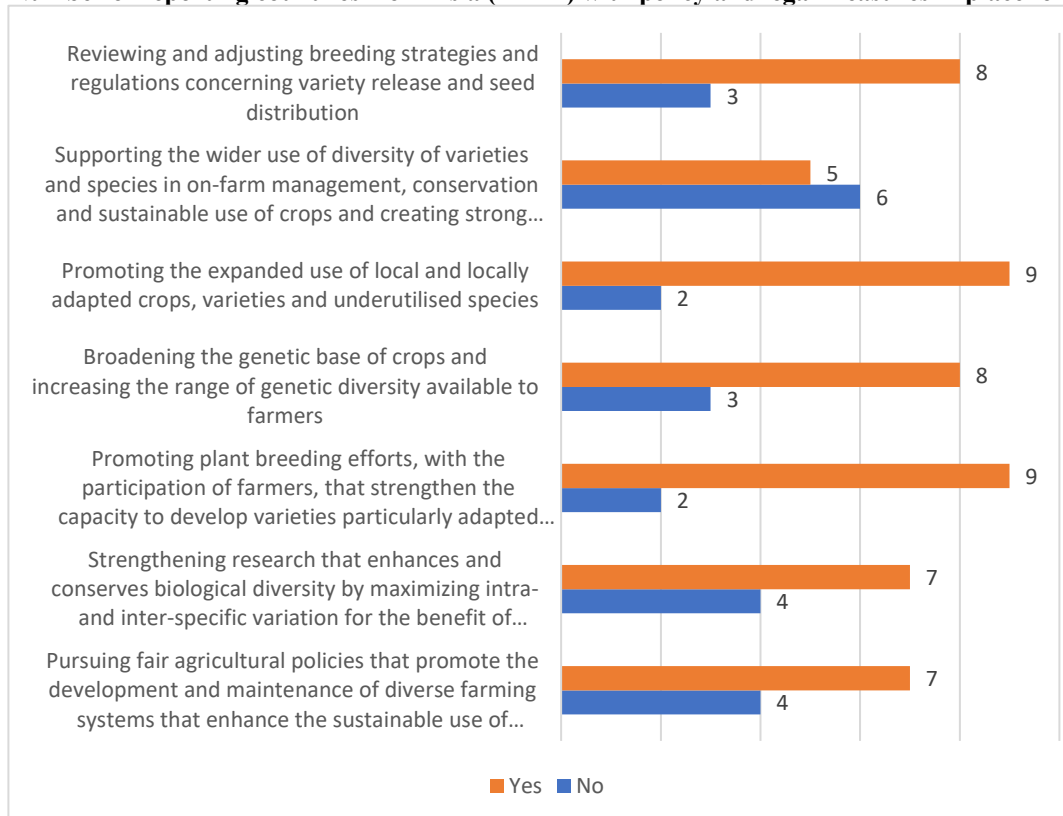
However, in some countries, funding is lacking and no action plan or strategy to survey and inventory PGRFA has been developed yet; or efforts to identify and conserve CWR are still at a nascent stage. Even in those countries where inventory and documentation of PGRFA have been carried out, the decreasing number of farmers due to the rapidly ageing of local farming communities has made collection of local PGRFA a matter of urgency.

B. Supporting the participation of farmers in sustainable use of PGRFA

A very large majority of reporting countries from Asia (10 out of 11) have taken policy and legal measures that promote the sustainable use of PGRFA (about 91% of reporting countries from Asia), including measures in relation to (see Figure 2.6):

Figure 2.6

Number of reporting countries from Asia (n = 11) with policy and legal measures in place for:



Such measures include laws and regulations that govern variety release, seed certification, and the circulation of improved plant materials. Legal instruments explicitly regulate access to genetic resources and ensure the involvement of farmers in plant breeding and seed systems. Some frameworks also provide guidelines for farmers to access genetic resources, and guidelines for variety registration and essential derivative varieties, supporting broader recognition of farmer innovations. In certain cases, national agricultural laws promote wider use of local crops, including underutilized species, to strengthen food security and agricultural resilience. However, even with legal and policy measures in place, their implementation often faces challenges due to the lack of adequate human, technical and financial resources.

- *Participatory research/plant breeding*

Programs have been implemented in Asia to strengthen farmers' participation in research and plant breeding, especially for the development of traditional varieties of fruit and other local crops. For instance, in one country, a project implemented under the BSF of the International Treaty has promoted PVS in ecologically sensitive areas such as swamplands, where local and improved varieties are tested and shared across borders.

Box 2.2

Empowering farmers through PPB

In 2000, the Southeast Asia Regional Initiatives for Community Empowerment (SEARICE), a non-governmental organization operating at the regional level, collaborated with the Agriculture Research Center (ARC) of the National Agriculture and Forestry Research Institute (NAFRI) and the Department of Agriculture in Lao PDR to launch the Biodiversity Use and Conservation in Asia Program (BUCAP). This program later merged with another initiative called the Community Biodiversity Development and Conservation (CBDC), which was implemented from 2006 to 2010. The activities focused on FFS specializing in rice breeding, where farmers and scientists from the ARC collaboratively defined breeding objectives and identified suitable parent materials. Researchers and extension agents received training as FFS facilitators, while policymakers from both local and national levels were actively involved in key activities to promote awareness and support for the farmers' work. As a result of this initiative, 55 high-performing rice varieties were developed, some of which demonstrated adaptation to specific conditions such as drought tolerance or acid soil resistance. One variety received official release in 2018, while others are still undergoing the approval process.

Prior to this, rice farming in the program site was previously limited to household consumption, with some communities experiencing hunger periods of around three to four months. Through PPB, farmers developed 55 rice varieties with good performance, including drought-tolerant and acid sulfate soil-tolerant types. Some indigenous communities in Luangprabang reported closing the three-month hunger gaps they used to encounter due to the benefits from these developed rice varieties. In addition, SEARICE farmer-partners started providing seeds, especially when government and commercial seed producers could not meet the seed demand during the planting season. The reliability of the developed rice varieties and seeds produced by farmers was evidenced during a disaster in Laos in 2008, where SEARICE farmer-partners supplied the needed seeds after crops were damaged by floods and typhoons. Since then, farmers gained government support through acquiring diverse segregating materials from ARC, receiving technical backstopping from researchers funded by the government, and integrating PGR conservation and development into the extension system of four provinces, later expanded to seven. The varietal diversity of rice grown per community increased from four to five at the start of the project to 10-15 by the end-line assessment. Farmers involved in PPB interventions continue to develop varieties adapted to specific ecological conditions and extreme environmental conditions caused by climate change, making the communities resilient.

Through this PPB, eight drought-tolerant and another eight flood-resistant varieties were developed. Some farmers started producing and selling high-quality seeds, leading to food sufficiency and higher incomes. Over 4,000 farmers have been trained in crop selection and breeding, with many continuing varietal selection from promising lines provided by ARC and farmer-breeders. More than 400 farmers are breeding crops in over 100 villages across seven provinces, driven by increased interest in farming. Farmers also express pride and confidence after moving away from dependence on external seed sources.

Similar to other nations in Asia where SEARICE implements PPB, the efforts in Laos aim not only at conserving and developing PGR but also at empowering farming communities, promoting and protecting their rights to their seeds. This empowerment enables farmers to recognize their inherent abilities and understand that they can secure their local seed systems independently, without relying on the government or private seed companies. This is

particularly important in Laos, where formal seed systems provide only about 10% of the country's seed demand. This initiative has received strong support from both local and national government authorities in Laos due to their appreciation of farmers' contributions to the conservation and sustainable use of PGR.

Source: The Inventory([Lao PDR](#))

- *Enhancement of local crops adapted to meet farmers' needs and local conditions*

Activities such as farmer field forums/FFS, diversity fairs, PPB, farmer-breeder programs, landrace enhancement (or grassroot breeding) and community-based varietal improvement are commonly promoted as means of empowering smallholders and ensuring that PGRFA use responds to local needs and conditions. Additionally, a number of countries emphasize the role of national research organizations and CSOs in the sustainable use of PGRFA for adaptation, particularly through medium- and long-term breeding strategies. One research programme has adopted breeding targets aimed at developing crop varieties that are tolerant to biotic and abiotic stresses, drawing on the diversity conserved in genebanks and community fields. However, financial and technical support remains limited in some contexts.

- *Strengthening local food systems through traditional crop promotion*

Efforts to strengthen local food systems in Asia have emphasized the cultivation and use of traditional crop varieties as a means to support smallholder farmers and enhance food security, and self-reliance in food. In one country, subsistence farming is promoted as a strategy to maintain agro-biodiversity and ensure the resilience of rural livelihoods. Similarly, in other contexts, local governments have encouraged the production of traditional vegetables, supporting local agricultural communities while contributing to preserving dietary diversity and cultural heritage.

C. Training, capacity-building and awareness raising

Across the region, farmers have benefited from agrobiodiversity management training, capacity building and awareness raising programs, such as *in situ* conservation, and biodiverse crop production, primarily funded by international institutions. Some CSOs have enabled farmers to develop essential skills for collecting, *in situ* and on-farm conserving, and rehabilitating traditional varieties, and developing new ones through PPB and PVS. These activities are conducted in farmer field schools. However, limited financial support, including from the government, remains a significant challenge for building farmers' capacities in some countries.

5.2.3.3 Monetary benefits

Some countries have ABS laws that provide for the sharing of monetary benefits derived from the commercial use of plant genetic resources and associated traditional knowledge. Though implementation varies, these laws establish legal mechanisms through which farmers may receive payments or royalties when their resources or knowledge are used.

Additionally, one country has established a National Gene Fund to support benefit-sharing with farming communities and individuals who contribute to the conservation and sustainable use of genetic resources.

Experiences and lessons learned

Multistakeholder survey responses about experiences and lessons learned in promoting the rights of farmers to participate in equitable sharing of benefits arising from the use of PGRFA, as follows:

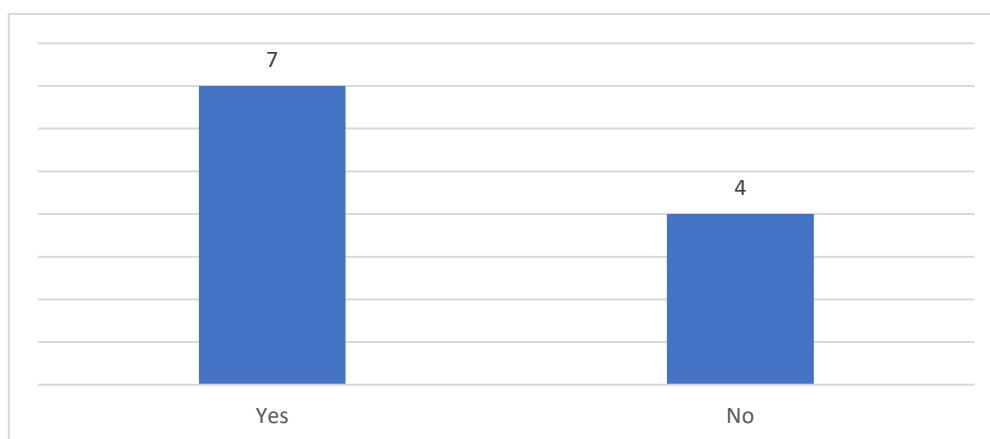
- CSBs managed by farmers, along with participatory approaches and equitable participation, require continuous engagement with stakeholders, and sharing knowledge and crop genetic resources enables other farmers to increase their self-sufficiency level in rice.

- Quantifying and monitoring the sharing of benefits is challenging. Therefore, it is essential to establish clear indicators and effective monitoring tools.
- Seed and food fairs represent effective and practical methods that enhance farmers' access to plant genetic resources from breeding institutes and gene banks. These initiatives merit recognition and should be supported through measures such as funding provisions, policy backing, and technology transfer.
- There are legal provisions for the sustainable use of PGRFA with the involvement of farmers, but government policies favour modernization and commercialization of agriculture, leading to a loss of over 50% of crop diversity and often neglecting the traditional knowledge of farming communities.

5.2.4 Farmers' right to participate in making decisions, at national level, on matters related to the conservation and sustainable use of PGRFA (Article 9.2c)

Seven countries (or 73% of reporting countries from Asia) have adopted measures to protect farmers' right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of PGRFA.

Figure 2.7
Number of reporting countries from Asia (n = 11) who have taken measures to protect and promote farmers' right to participate in making decisions



Three reporting countries mention the establishment of mechanisms to ensure farmers' representation in institutional processes and decision-making processes. In these contexts, farmers participate actively in national-level agricultural councils and policy discussions, contributing to decisions regarding food, rural development, and agricultural inputs. This institutionalized involvement reinforces their agency in agricultural governance and ensures their voices are reflected in national planning. However, implementation is often hindered by limited funding and weak institutional outreach. In one country, for example, efforts to engage and empower farmers in biodiversity governance continue through consultations and training but are constrained by financial and human resource limitations.

Additionally, many countries in the region have developed or are in the process of updating their National Biodiversity Strategy and Action Plans (NBSAPs), which, in line with the Convention on Biological Diversity (CBD), are expected to incorporate stakeholder consultation and coordination across national and subnational levels. In several cases, such as in the revision of NBSAPs or the alignment of biodiversity policy with sectoral strategies, there are indications of multi-level governance mechanisms being either developed or implemented. This is the case, for instance, when coordination committees are being merged or harmonized at provincial and local levels to enhance participatory governance. However, the extent and effectiveness of these participatory and governance arrangements require further information and study.

Experiences and lessons learned

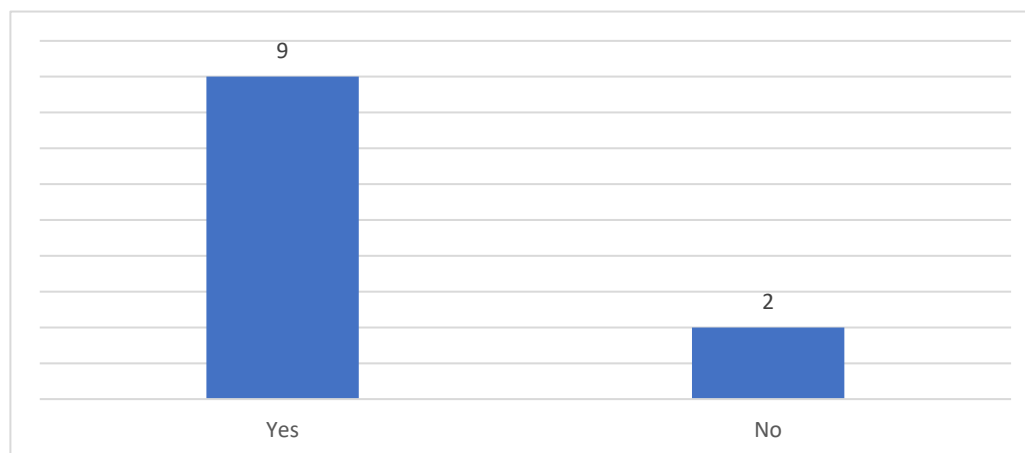
Below is the summary of the experiences and lessons learned as provided by the multistakeholder survey responses:

- A respondent described the role of the Farmers' Seed Network, inviting farmers to express their views on their rights related to saving and exchanging their own seeds. This event brought together farmers and scientists to collaborate on a policy proposal submitted to the legislative department. This multistakeholder dialogue and platform are crucial for farmers to stay informed about policy developments and ensure their voices are heard.
- Another respondent highlighted the importance of participation in decision-making bodies, which is crucial for implementing rules and regulations. A respondent described their experiences using events, such as seed fairs and consultation meetings, which were organized to discuss and formulate seed policies and decrees, and farmers actively participated in these meetings, sharing their valuable experiences on accessing, conserving, and utilizing PGRFA. Farmers and other stakeholders are enriched with knowledge on PGRFA through training, meetings, exchange visits, festivals, and farmers' gatherings. Knowledge on seed management, multiple cropping, mixed cropping, and relay cropping has been shared and replicated.
- A respondent noted that farmers should receive support and empowerment before representing themselves on national committees.

5.2.5 Farmers' right to save, use, exchange and sell farm-saved seed, subject to national law and as appropriate (Article 9.3)

Nine countries (or 82% of reporting countries from Asia) have taken measures to protect the rights for farmers to save, use, exchange and sell farm-saved seed.

Figure 2.8
Number of reporting countries from Asia (n = 11) who have taken measures to protect the rights for farmers to save, use, exchange and sell farm-saved seed



- *Legal frameworks governing farm-saved seeds*

Seed laws and PVP legislation across Asia reflect varying degrees of recognition of the right of farmers to save, use, exchange, and sell farm-saved seed. Some countries have enacted or proposed seed laws and PVP legislation that recognize the rights of farmers to continue cultivation of traditional crops. Others are in the process of updating or harmonizing their laws to ensure conformity with the International Treaty.

- *Traditional farmer seed exchange platforms*

Alike in other regions, farmers maintain the tradition of exchanging and sharing seeds through community-based initiatives, such as seeds and farmers' markets, CSBs, and direct farmer-to-farmer seed exchanges.

Experiences and lessons learned

The experiences and lessons learned in Asia highlight the significance of community initiatives, education, policy support, and financial backing in advancing farmer-managed seed systems. The responses also identified legal obstacles and emphasized the necessity for a supportive policy framework. Among the experiences and lessons learned include:

- The importance of building the capacities of farmers, the role of community-based initiatives, such as seed fairs, farmers' field days, and CSBs as vital support for promoting seed conservation and exchanges between and among farmers. However, these initiatives are often lacking support from the government and are mostly facilitated by CSOs.
- Many of the stakeholders in the region stressed the need for awareness raising and enhancing understanding of the importance of local PGR and the need for sustainable financing for the sustainable use of PGR and the implementation of Farmers' Rights.
- Most initiatives that promote the implementation of Farmers' Rights are project-based. Many respondents highlighted the need for sustainable financing and support to community-based and farmer-led/managed seed systems (e.g., CSBs, seed fairs, and other platforms that facilitate traditional farmer-to-farmer seed exchange practices).
- Grassroots actions and measures, such as CSBs and seed fairs, should be recognized and incorporated into local policy-making to benefit farmers directly.
- Farmers' varieties should be considered private goods, and marketing of any items that farmers produce should be allowed.

- The importance of local varieties and adaptation to extreme climatic conditions.
- Legal barriers, for instance, farmers face obstacles due to the implementation of laws like the PVP Act, the Plant Cultivation System (PCS), and Sustainable Agricultural Farming System (SAFS). Some farmers have been sued and jailed due to these laws, which are seen as setbacks.
- Regarding the protection of farmers' varieties, clear guidelines need to be developed for verifying the ownership as most of the farmers' varieties belong to communities and not to individual farmers. For testing of the farmers' varieties, certain relaxations in uniformity need to be incorporated as these varieties have some mixtures. Farmers should be provided protection without any kind of fee before the registration or after the registration (annual/renewal fee).
- In one country, nearly 90% of major crop varieties, including vegetables, rice, potatoes, and fruits, are from the public domain. This allows farmers to save, use, and sell these varieties without restrictions. The PVP system in this country has produced over 30,000 varieties as of 2024, with 23,000 entering the public domain. This system has significantly contributed to its high-quality agricultural outputs. Additionally, efforts are being made to conserve native and heirloom varieties, ensuring the preservation of traditional vegetables through regional seed production and superior variety selection.

Case where farmers have been taken to court, fined or otherwise sanctioned for saving, exchanging and/or selling seed/propagating material of varieties protected with plant breeder's rights or patents

- The case of farmers in India and the PEPSICO company. The company filed a case against farmers in Gujarat for illegally growing its potato variety which is registered for "lays" chips. After discussions with the government the company withdrew the case against farmers.
- Between 2004 and 2010, farmers in Indonesia are accused and jailed because of maize seed production.³⁰

5.2.6 Gaps and needs with regard to the realization of Farmers' Rights

- Legal and policy frameworks

- Several existing laws require harmonization or updating to ensure coherence with Article 9, particularly in the areas of the rights for farmers to save, use, exchange and sell farm-saved seed and the protection of traditional knowledge.
- While several countries have adopted legal frameworks, enforcement remains a challenge.

- Institutional coordination

- There is a lack of coordination between and among sectors (agriculture, environment, forestry, commerce/industry) for the implementation of programs at national level.
- National programs on conservation and sustainable use of PGRFA frequently operate in isolation, with limited integration into broader agricultural or rural development agendas.

³⁰ References provided by the respondent: <https://research.wur.nl/en/publications/clashes-between-formal-and-informal-seed-systems-a-case-study-of->

- Obstacles to support farmers' efforts in *in situ* and on-farm conservation and sustainable use

- Low priority is given to the threat assessment of CWR.
- Taxonomic expertise, particularly for CWR and landraces, is limited, affecting germplasm collection and monitoring.
- Declining farming populations, driven by ageing rural communities and rural-urban migration, reduce local capacity to maintain agrobiodiversity, while making collection of local PGRFA a matter of urgency.
- Habitat fragmentation due to urbanization, tourism and infrastructure projects is undermining natural regeneration of species.
- Logistical challenges and poor infrastructure constrain seed access, especially in remote and mountainous regions.

- Financial and human resources to support activities that protect and promote Farmers' Rights

- Many efforts for empowering farmers through conservation activities and training efforts, especially those focused on underutilized crops and traditional varieties, depend on external funding and are vulnerable to discontinuity.
- National programmes often lack sufficient budget allocations for long-term *in situ* and on-farm conservation.
- There is limited technical capacity with shortages in qualified personnel to support conservation, seed systems, and PPB.

- Awareness raising

- Awareness of Farmers' Rights remains limited among farming communities, especially regarding the registration of farmers' varieties and the potential benefits of doing so.
- The process for verifying and protecting farmers' varieties are often unclear or administratively complex.
- Without targeted outreach, many farmers remain unaware of their rights.

- Gender-related factors that may limit the realization of Farmers' Rights

According to some responses in the multistakeholder survey, gender-related factors may affect the realization of Farmers' Rights. These factors include low participation of women in decision-making processes, government policies that do not fully recognize farmers' roles in PGRFA conservation, and a lack of strategies to support farmers, particularly women farmers. Additionally, other factors mentioned by a few respondents are related to education, land rights, and farmer awareness regarding PGRFA and their rights.

5.3 EUROPE

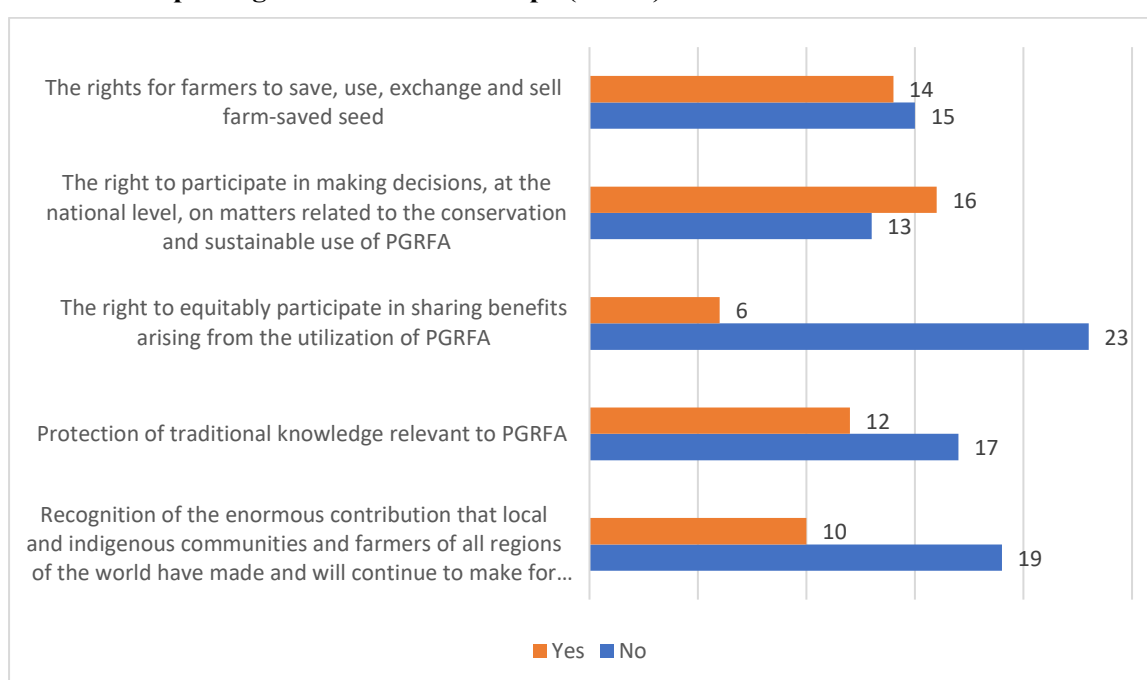
There are 48 countries in Europe, including 38 countries who are contracting parties to the International Treaty, excluding the European Union. By April 2025, a total of 29 countries from this region have submitted a national compliance report to the Secretariat of the International Treaty.

The information below summarizes the information found in the 29 national reports submitted to the Secretariat of the International Treaty, supplemented with information gathered from the multistakeholder survey (49 responses from 26 countries) conducted by the Secretariat, and the submissions from the Inventory.

Most reporting countries from Europe have taken measures that contribute to protecting and promoting Farmers' Rights (20 countries out of 29, or 69% of reporting countries), including measures in relation to (see Figure 3.1):

Figure 3.1

Number of reporting countries from Europe (n = 29) who have taken measures in relation to:

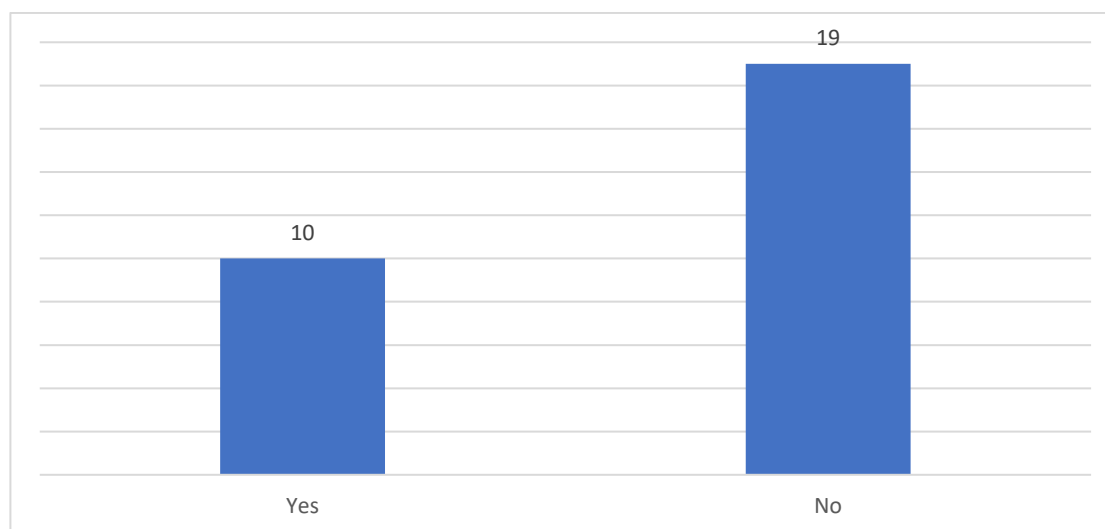


PROVISIONS OF ARTICLE 9

5.3.1 Recognition of the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development (Article 9.1)

Ten countries (or about 34% of reporting countries from Europe) have taken measures to recognize the contribution of farmers and local and indigenous communities to PGRFA conservation and development.

Figure 3.2
Number of reporting countries from Europe (n = 29) who have taken measures to recognize the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development



In this region, farmers' contribution to PGRFA conservation and development is recognized through legal measures and recognition systems. For instance, in one country, the law on agrobiodiversity for food and agriculture explicitly recognizes the role of farmers and farmers' associations in preserving biodiversity. Although not recognizing formally the contribution of farmers and local and indigenous communities to PGRFA conservation and development, other policies and legislation across Europe reflect an understanding of the role that farmers play in maintaining biodiversity through traditional farming practices and conservation efforts. For instance, in several countries, legal recognition has been given to the importance of locally adapted varieties and farmers' role in maintaining these varieties, often in response to pressures from genetic erosion and the loss of traditional agricultural systems. Policies across Europe, often supported by EU regulations, also aim to strengthen farmers' involvement in PGRFA conservation by supporting projects that include traditional farming systems.

Beside legal and policy measures, some countries have established recognition systems such as awards and plaques for individuals, institutions, and organizations for their work in conserving PGRFA. Although these awards are not exclusively intended for farmers, several farmers have been recipients since the awards' inception. These awards aim to raise awareness, foster support awareness, engagement and action to preserve and use plant genetic resources. Similarly, one country promotes awards of excellence in innovation to encourage participation of rural women in agricultural biodiversity efforts. Additionally, another country recognizes seed networks and farmers' organizations for their role in sustainable use and conservation of PGRFA.

Experiences and lessons learned

Based on the available information, below is the summary of the experiences and lessons learned regarding measures introduced to recognize the contribution made by local and indigenous communities and farmers in the conservation and development of PGRFA:

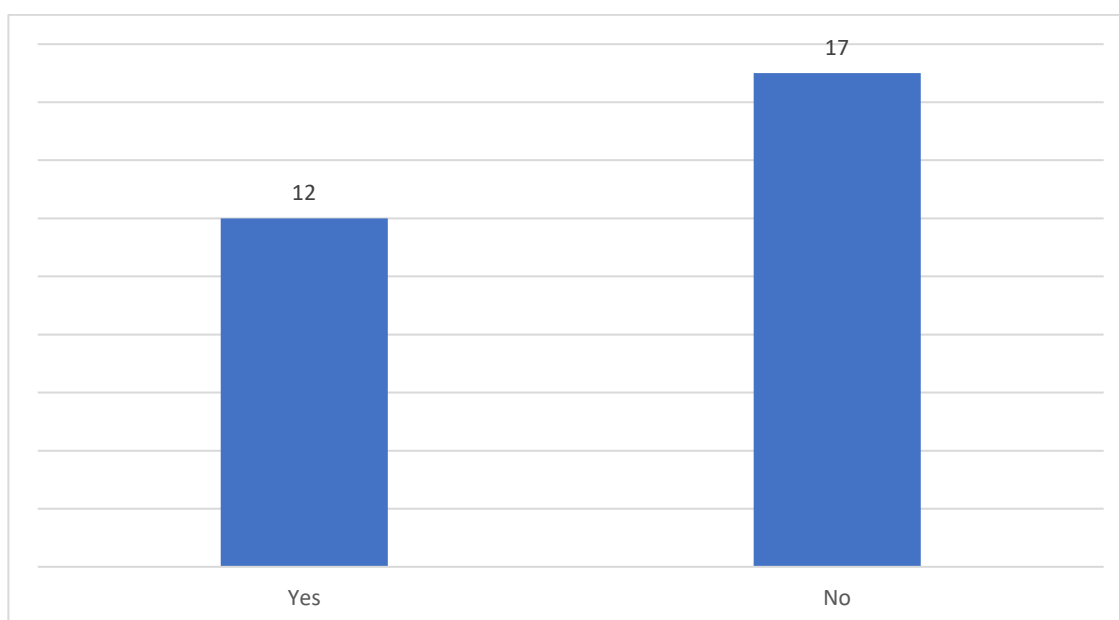
- Supporting the maintenance of PGRFA is crucial. This includes collecting PGR for gene banks, documenting traditional knowledge, enhancing crop diversity, providing financial support to institutions, promoting the cultivation of traditional plant varieties, and raising awareness about PGRFA.
- Farmers' Rights should extend beyond the sustainable use of genetic resources to include protection against fraudulent seeds and the ability to choose the best available seeds.
- Plant Breeder's Rights (PBR), the International Treaty, and the UPOV 1991 Convention are mutually supportive.

- From a global perspective, maintaining diversity is essential to respond to changing conditions with a wide range of options.
- Giving an award/prize to farmers provides them and the public with information on genetic resources and biodiversity, while offering information on how to utilize such resources. It boosts conservation efforts, promotes sustainable use of older plant varieties, and increases demand for their propagating material, safeguarding against genetic erosion.
- It is essential to offer storage for duplicates of seed accessions conserved by national, regional and international genebanks, research institutes, and NGOs, as a “backup” of the ex-situ collections of the world.

5.3.2 The protection of traditional knowledge relevant to PGRFA (Article 9.2a)

A total of 12 countries, or 41% of reporting countries from Europe, have taken measures to protect traditional knowledge relevant to PGRFA, including legal, technical and other measures.

Figure 3.3
Number of reporting countries from Europe (n = 29) who have taken measures to protect traditional knowledge relevant to PGRFA



The legal protection of traditional knowledge in Europe is often integrated within broader biodiversity and intellectual property rights laws as well as in national biodiversity strategies. In some countries, where biodiversity legislation regulates access to genetic material and traditional knowledge, specific measures are in place to ensure that the rights of farmers are protected regarding the use of their traditional knowledge. These laws require the disclosure of the origin of plant material used in breeding programs and ensure that farmers’ traditional knowledge is recognized in the context of bioprospecting and commercial use.³¹

In addition to legal and policy measures, three countries report initiatives aimed at documenting and protecting traditional knowledge related to agricultural biodiversity. These efforts include conducting surveys, creating national inventories, and establishing national databases or registers of traditional knowledge. Moreover, traditional knowledge related to PGRFA is promoted through events that

³¹ The protection of geographical indications at both the national and European level also contributes to the protection of farmers’ traditional knowledge relevant to PGRFA. Besides, the legal protection of traditional knowledge relevant to PGRFA is also partially implemented through the system of traditional specialities guaranteed protected under the Council Regulation (EC) No 509/2006 of 20 March 2006 on agricultural products and foodstuffs as traditional specialities guaranteed.

highlight the intersection of crop and cultivar diversity with the cultural and geographical history of plants and food. By both sharing and learning food traditions, these practices contribute to the conservation and sustainable use of PGRFA.

Since 2004, one country has been implementing a specific FAO Programme on the implementation of the International Treaty which supports and recognizes the role of seed networks and farmers' organizations, while at the same time contributing to the protection and re-creation of traditional knowledge. In another country, specific institutions and research centres focus on linking genetic resources with traditional knowledge.

Experiences and lessons learned

The responses within the region provided valuable experience and lessons on safeguarding traditional knowledge associated with PGRFA. These experiences are summarized below, in no particular order:

- All the measures adopted promote conservation of PGRFA and the associated traditional knowledge, cultural, and ecosystem value. It is important to preserve these achievements for future generations through educational activities in schools.
- One respondent said that their country has adopted three European Union schemes known as protected designation of origin (PDO), protected geographical indication (PGI), and traditional specialties guaranteed (TSG). These schemes promote and protect the names of quality agricultural products and foodstuffs, including traditional knowledge relevant to plant genetic resources.
- National seed savers associations conserve and use traditional and local varieties, organize seed fairs, participate in local markets, and share knowledge. Projects have been implemented to reintroduce traditional crops and develop value chains with farmers. Documentation of traditional knowledge may exist locally, and one national database provides information on historical vegetable varieties.
- Despite the current focus on promoting registered varieties, some NGOs are advocating for traditional knowledge. However, integrating traditional knowledge into mainstream policies is challenging as it is often seen as less compatible with modern development goals.
- One respondent cited its regulations to protect traditional knowledge related to genetic resources, although its impact is limited. A national program on "Selected cultural landscape" includes agricultural sites where traditional management of the landscape is important. There is quite a lot of action on the sharing of traditional knowledge by voluntary organizations (seed savers and others), indicating that their work should be further supported.
- National efforts include knowledge inventories with limited influence on the food system, and collecting traditional knowledge is challenging and requires extensive research.
- Various local initiatives aim to protect and promote traditional knowledge relevant to PGRFA. These initiatives often remain at the fringes but have innovative potential when food security, resilience, sustainability, and local economic concerns are recognized.
- Institutional and financial capacities for biodiversity conservation are insufficient, and traditional knowledge is often excluded from decision-making.
- There is a need for continued support and promotion of traditional knowledge to ensure its preservation and integration into modern agricultural practices.
- To promote on-farm conservation, it is crucial to collaborate with civil society organizations working on conservation. This will facilitate connections with farmers and institutions engaged in on-farm management practices.
- The importance of linking *ex situ*, *in situ* and on-farm conservation management is highlighted by many respondents.

- Modern agricultural practices have made traditional and local knowledge less relevant, prioritizing scientifically-based methods. However, these methods have not prevented issues like biodiversity loss. Farm concentration continues despite these challenges, with security and insurance systems in place to manage disaster risks.

Multistakeholder responses describing cases of misappropriation of traditional knowledge and actions undertaken

- A respondent mentioned some fraudulent practices related to geographical indications and denominations of origin. Other responses highlighted the misappropriation of materials and names linked to trademarks, geographical indications, and variety registration. A respondent mentioned cases, including the ramallet tomato, canoneta orange, bubango, and mongeta del gantxet.³²
- Another respondent mentioned that seed companies are registering heritage varieties as their own through the Community Plant Variety Office, and there are instances of misappropriation of landraces denominations by these companies.
- The responses also mentioned cases of biopiracy related to traditional knowledge and patenting, such as the attempt to trademark an old wheat landrace, but finally the trademark was not issued.
- One respondent described the European Patent Office, which regularly issues patents that monopolize PGRFA, and organizations like SWISSAID have appealed against several such patents, including one by Syngenta on peppers with natural resistance against white flies.³³

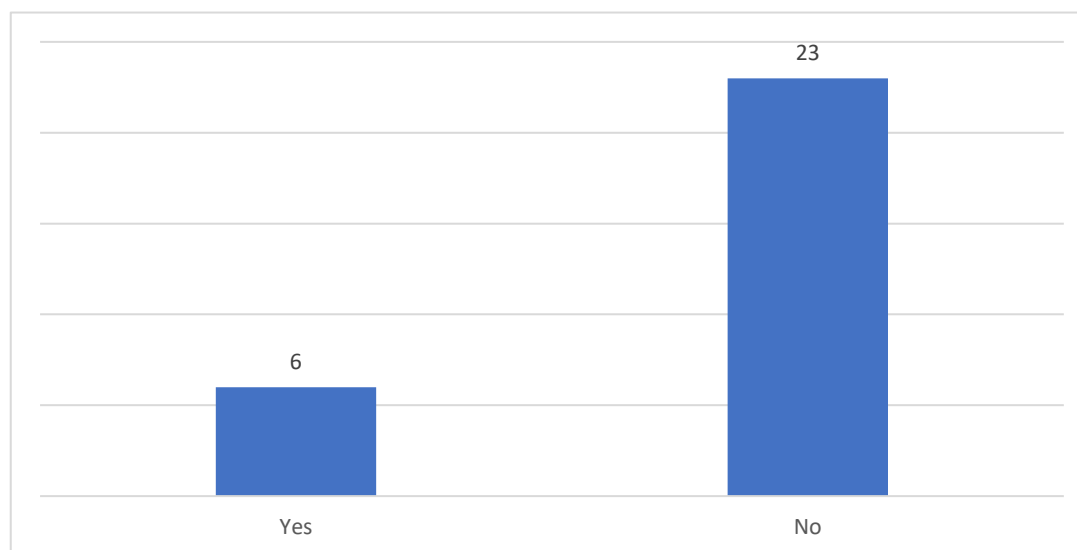
5.3.3 Farmers' right to participate in benefit-sharing (Article 9.2b)

A total of six reporting countries, or 21% of reporting countries from Europe, have taken measures in relation to farmers' rights to equitably participate in sharing benefits arising from the utilization of PGRFA.

32 References provided: Case of the ramallet tomato: <https://www.redsemillas.info/la-tomatiga-de-ramellet-queda-registrada-como-variedad-de-conservacion-para-evitar-su-apropiacion/> case of canoneta orange: <https://www.varietatslocals.org/oposicio-a-la-creacio-de-la-marca-canoneta/> case of bubango: <https://www.eldigitaldecanarias.net/fisgon-indiscreto/29136-las-redes-de-semillas-canarias-ponen-en-marcha-la-operacion-bubango-apoyo-icca> Case mongeta del gantxet: <https://www.redsemillas.info/dop-ganxet-provoca-erosion-genetica-limita-derechos-agricultores/> case of different tomatoes: <https://www.redsemillas.info/apropiacion-de-variedades-tradicionales-catalanas-o-mala-gestion-de-la-administracion/>

33 Reference provided: www.swissaid.ch/en/media/will-syngentas-controversial-pepper-patent-finally-be-revoked/

Figure 3.4
Number of reporting countries from Europe (n = 29) who have taken measures to protect farmers' right to participate in benefit-sharing



5.3.3.1 Legal and policy frameworks on access and benefit-sharing

At the European level, the Regulation (EU) No 511/2014 on compliance measures for users from the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization in the Union establishes rules governing compliance with access and benefit-sharing for genetic resources and traditional knowledge associated with genetic resources in compliance with the Nagoya Protocol.

At the national level, many countries have incorporated specific benefit-sharing provisions into their national legal frameworks. In some jurisdictions, specific national legislation directly implements the Nagoya Protocol and defines procedures for both users and providers of genetic material. Some countries also integrate ABS within broader biodiversity, environmental protection, or agricultural frameworks. However, in many contexts, the extent to which the regulatory scope provides clearly defined ABS rules or enforcement structures at the operational level can be explored further. For instance, several countries that have ratified the Nagoya Protocol or are bound by the EU Regulation 511/2014 lack functional implementation measures such as designated competent authorities, monitoring tools, user notifications, or access permits.

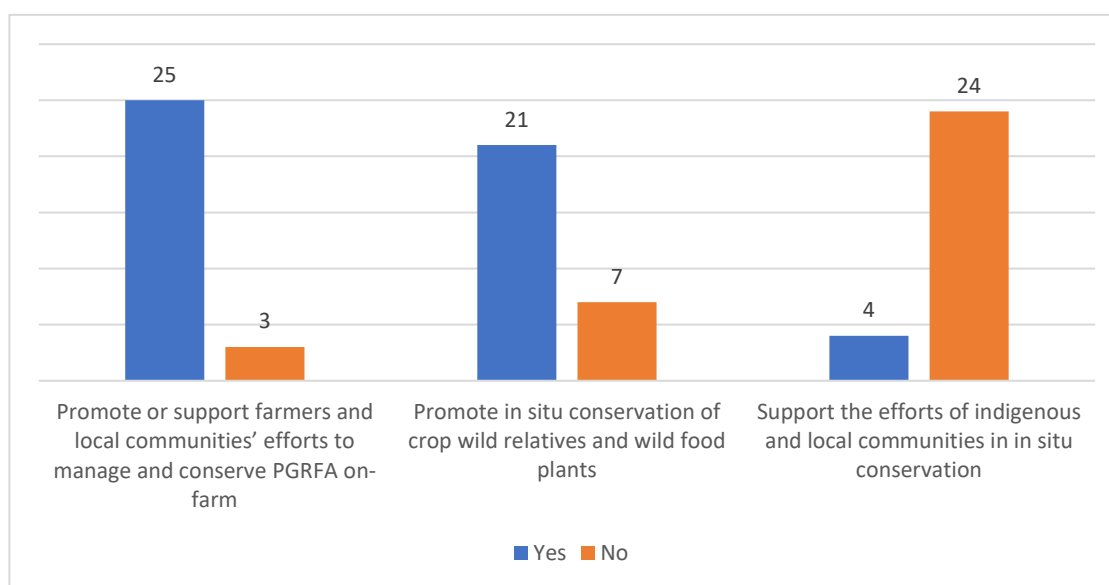
Although not specifically dedicated to governing ABS issues, other legal and policy measures on conservation and sustainable use of PGRFA adopted at both the European and national level also contribute to promoting farmers' participation in benefit-sharing. For instance, several European directives and regulations have been adopted to regulate seed mixtures, acceptance of vegetable landraces and varieties, and marketing of fruit plant propagating material and fruit plants, among others. At the national level, many countries have adopted legislation as well as national programs, strategies and action plans dedicated to PGRFA conservation and sustainable utilization, while others have incorporated the conservation and sustainable use of PGRFA within broader agricultural, rural development and biodiversity legal and policy frameworks, plans and strategies. These policies often include financial incentives, regulatory measures, strategic conservation programs and rural development plans, for instance for the protection of traditional or conservation crop varieties, or for local varieties threatened by genetic erosion.

5.3.3.2 Non-monetary benefits

A. Supporting farmers and local communities' efforts to manage and conserve PGRFA on-farm and *in situ*

A total of 25 (or 86%) reporting countries from Europe (about 86% of reporting countries) have promoted or supported farmers and local communities' efforts to manage and conserve PGRFA on-farm. By contrast, while 22 countries from this region also report promoting *in situ* conservation of CWR and WFP, only four countries have supported the efforts of indigenous and local communities in *in situ* conservation (about 14% of reporting countries from Europe).

Figure 3.5
Number of reporting countries from Europe (n = 29) who have taken measures to:



Both national and regional legislation promote the involvement of farmers in the conservation of PGRFA. In several countries, legal recognition has been given to the importance of locally adapted varieties and farmers' role in maintaining these varieties, often in response to pressures from genetic erosion and the loss of traditional agricultural knowledge. Legal provisions typically emphasize the protection of farmers' varieties and landraces. For instance, one country has integrated the recognition of local populations and varieties of agricultural plants that are threatened by genetic erosion into their national legislation. Similarly, other countries have provisions allowing for the cultivation and marketing of conservation varieties, which are particularly important for maintaining PGRFA diversity. In one country, regional laws support the participation of "guardian farmers" in on farm conservation of local varieties and in rural development. Complementing legal instruments, several European countries have adopted national policy frameworks to support on-farm conservation specifically. One country's National Plan on Biodiversity for Food and Agriculture provides a conceptual framework and financial support to "Caring Cultivators". Similarly, another country's conservation programme provide incentives to farmers or conservation groups for maintaining local varieties.

At the European level, the European Cooperative Programme for Plant Genetic Resources (ECPGR), a collaborative programme among most European countries which aims at ensuring the long-term conservation and facilitating the utilization of plant genetic resources in Europe, has established a working group on on-farm conservation, and several EU-funded projects promote the efforts of local farmers and farmers' communities in on-farm conservation.

- *Facilitation of farmers' access to a diversity of PGRFA*

Several European countries support and facilitate the distribution of locally-adapted crops for direct use by farmers through national genebanks, CSBs, and/or seed networks, sometimes with a focus on preserving particular crops, for instance traditional fruit orchards and endangered crops, or forage and fodder species in semi-intensive grasslands.

Many countries have established networks to deal specifically with on-farm and *in situ* conservation and support wider use of local crop varieties and landraces. For instance, one country created an on-farm network under its National Centre for Biodiversity and Gene Conservation where farmers are encouraged to grow local landraces and document their cultivation practices. Seed-sharing initiatives, like CSBs, seed networks or Economic and Environmental Interest Groups as established in a reporting country, encourage farmers to exchange seeds of traditional varieties and integrate local varieties into economic activities.

Community-driven projects also play a key role in promoting farmers' access to PGRFA and supporting conservation activities. In one country, the NGO "Frame of Life" gathers farmers to grow and conserve old varieties.

Providing access to germplasm under the MLS is a form of benefit sharing. NordGen, the Nordic Genetic Resource Centre, maintains Nordic-origin and region-relevant germplasm. This seed material is available upon request for plant breeders, researchers, museums, and other bona fide users in small quantities for research, breeding, or conservation. While mainly serving the scientific community, NordGen also accommodates requests from individuals like farmers and gardeners with a genuine interest in preserving old or rare varieties. To simplify access, NordGen offers a 'Hobby Material Transfer Agreement' with a small fee to handle increasing requests.

- *Institutional and research support*

Many countries collaborate with national and/or regional research institutes for technical support and knowledge sharing in PGRFA conservation, for instance to identify threatened species, or for regeneration, multiplication and re-introduction of old varieties. For instance, in one country, the Union for Nature Conservation works with pomologists and gardeners to document historical fruit landraces and link them to the national germplasm system. In another country, the programme titled "From genebanks' collections back to farmers' fields/gardens" has supported the reintroduction of traditional varieties conserved at the national genebank since 2009.

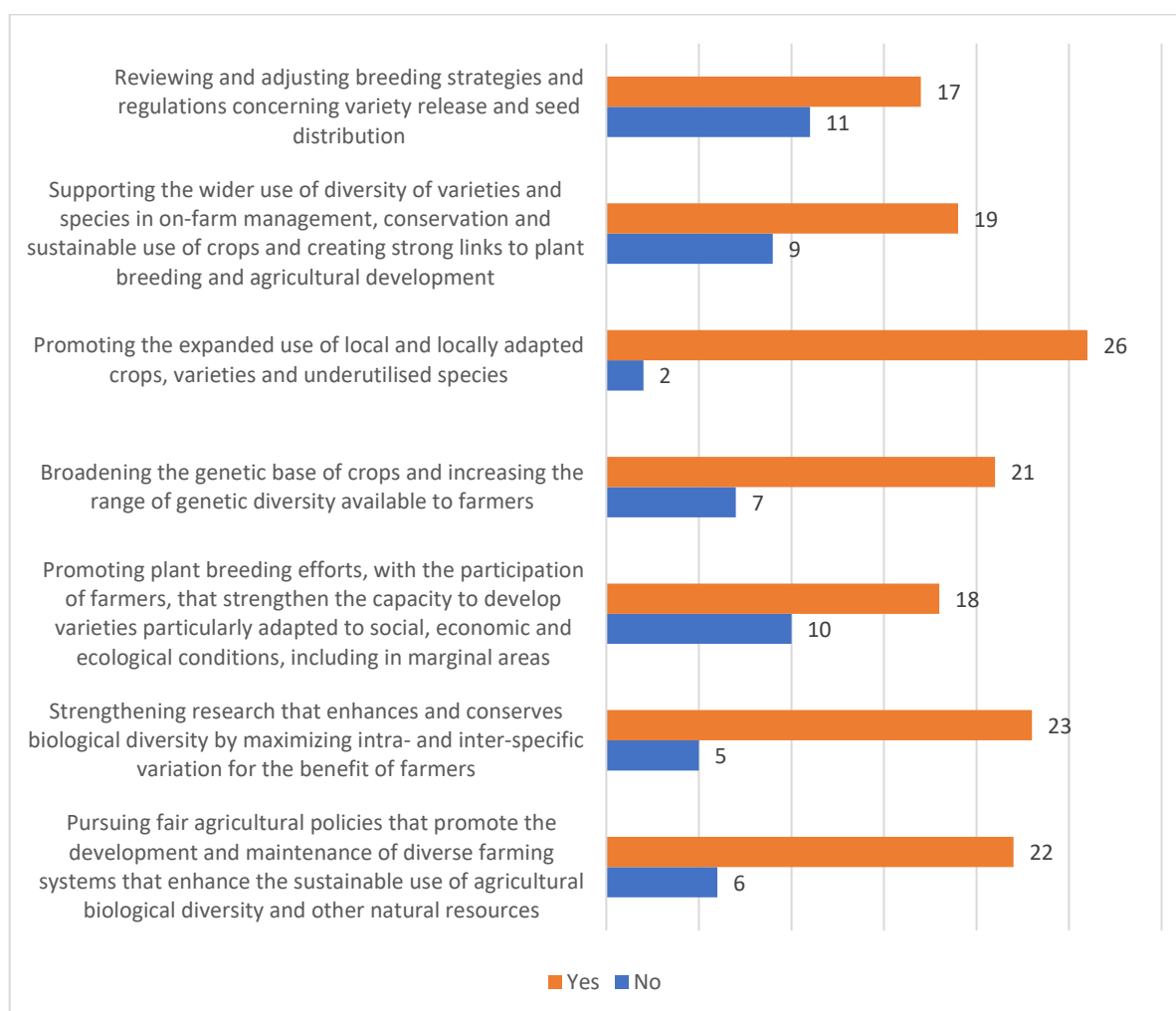
Collaborative projects between countries have also supported farmers' efforts in on farm and *in situ* conservation. For instance, one country participated in a global project to strengthen *in situ* conservation of agricultural biodiversity in cooperation with local research institutions, universities and farmers' associations, involving farmers and farming communities. In another country, around 5,000 farmers, technicians and consumers participate in on-farm trials and activities each year in the context of an FAO project implemented in collaboration with the national seed network, leading to the reintroduction into cultivation of local varieties through recovery and genetic cleaning of local varieties, mainly vegetables.

However, in some countries, there is a lack of institutional and research support, and on-farm conservation activities are farmer-driven only, highlighting the need for dedicated funding and infrastructure.

B. Supporting the participation of farmers in sustainable use of PGRFA

All except one reporting country from Europe have taken policy and legal measures that promote the sustainable use of PGRFA (or 97% of reporting countries from Europe), including measures in relation to (see Figure 3.6):

Figure 3.6
Number of reporting countries from Europe (n = 29) with policy and legal measures in place for:



European countries have adopted a range of legal and policy measures to promote the sustainable use of PGRFA, with varying levels of attention to farmers' roles in innovation and value chains, though their direct linkage to Farmers' Rights is not always explicit. Such measures include, among others, seed laws and PVP legislation that facilitate the conservation and marketing of landraces and traditional varieties, regulate marketing of seeds, and/or ensure a balance between breeders' and farmers' rights; legislation regulating access to PGRFA for use purposes; legislation on the production, certification and marketing of seeds and propagating material; national programs, strategies and action plans dedicated to PGRFA conservation and sustainable utilization, or to use of PGRFA alone; or broader agricultural or agrobiodiversity strategies promoting farmer-led innovation. Additionally, national efforts to enhance the use of underutilized species and landraces are often framed within strategies for rural development, food security, or climate change adaptation.

- *Participatory research/plant breeding*

In several European countries, greater participatory research and plant breeding activities have taken place within collaboration projects and/or seed networks, sometimes in pre-breeding programs, where farmers can set objectives and priorities in on-farm trials, variety selection, and seed initiatives. For instance, in one country, PPB was initiated on cereals in collaboration with local farmers. In another country, farmers grouped within Economic and Environmental Interest Groups have promoted local varieties through participatory breeding mainly in cereals (corn, soft wheat), protein crops (crop diversification, mixed crop/livestock), arboriculture, and vegetable crops.

- *Enhancement of local crops adapted to meet farmers' needs and local conditions*

Several countries promote the use of local crops and farmers' varieties for improvement and adaptation to farmers' needs and local conditions as part of rural development policies or research and cooperation projects. In one reporting country, the identification, genetic improvement and adaptation of local cultivars of maize and beans to changing climatic conditions was the focus of a project implemented by the National Agricultural University funded under the BSF of the International Treaty. Through this project, about 1,500 farmers located in remote mountainous areas were distributed quality seeds of local cultivars. In another country, research projects on beet, wheat, rapeseed, peas, corn, and sunflower were also promoted as part of sustainable agriculture programs for providing farmers with material adapted to local conditions.

- *Market access and value-addition initiatives*

In terms of market access and value addition, an important legal innovation has been the recognition of "conservation varieties" and other categories of heterogeneous or traditional varieties. These special regimes, established under EU directives and adapted into national legislation, allow for simplified registration and marketing of varieties that are adapted to local conditions and are threatened by genetic erosion. By easing regulatory burdens and enabling commercialization in niche or local markets, these measures support the enhancement and continued use of local crops.

Additionally, several European countries have provided support to farmers to increase market access, adapt to changing market conditions, and promote the consumption of products derived from local crops and varieties. For instance, one country supports producer groups, producer organizations, farmers and growers to find new niche markets and alternative competitive value chains for their traditional crops, and to conserve and commercialize local fruit trees and crop varieties. Another country promotes local products derived from traditional varieties at both national and European levels through collaborative partnerships among ecotourism associations, guesthouses, restaurants, and farmers active in the on-farm conservation network. In another country, the Department of Agriculture and the Agricultural Research Institute participate in a programme for the reentry to the market of landraces and varieties which are naturally adapted to the local and regional conditions and threatened by genetic erosion.

C. Training, capacity-building and awareness raising

Training and capacity building activities targeting farmers and local communities take place in many European countries in all aspects of conservation and use of PGRFA including technical, legal, policy, and marketing aspects. For instance, a country's agricultural extension service provides technical advice to farmers on how to increase productivity and competitiveness while addressing climate change. Through a project implemented under the BSF of the International Treaty in another country, about 1,000 farmers, agricultural specialists, students, staff from genebanks and ministries were trained in selection, genetic enhancement and multiplication of PGRFA. In another country, the national center for plant genetic resources and other genebanks participate annually in training activities for farmers, transfer of results and dissemination aimed at the general public.

Awareness campaigns, public events, and publications have been conducted in several countries to inform farmers, scientists and the public about the importance of plant genetic resources. For instance, in one country, the "Sharing Seeds, Sharing Life" project aimed to safeguard local heirloom and landrace seeds raises awareness about traditional farming practices and cultures and provides information on locations of ethnobotanical interest.

5.3.3.3 Monetary benefits

- *Agri-environmental schemes*

One of the primary channels for financial support to European farmers is the integration of conservation measures into broader agri-environmental schemes under the EU's Common Agricultural Policy which implements a system of agricultural subsidies and other programs to support farmers. One country, for example, utilizes Agro-Environmental and Climate Measures (MAEC) to incentivize farmers to cultivate endangered plant varieties. The Economic and Environmental Interest Groups established in this country also facilitate increased funding allocations for conservation initiatives by leveraging European, national, and local funding sources, depending on the options provided by the regional rural development programme. Other countries provide financial assistance through their rural development programme, for instance to encourage the preservation and use of traditional orchards, underutilized species and endangered genetic resources. These schemes ensure that conservation efforts are economically viable for farmers, preventing the loss of biodiversity due to market-driven agricultural practices.

- *National and regional funding mechanisms for conservation of PGRFA*

Several European countries have developed programs to provide targeted financial incentives for PGRFA conservation. For instance, in one country, simplified registration and conservation programs offer incentives for maintaining local varieties. A few countries integrate both national and regional support mechanisms. For instance, a country's National Plan on Biodiversity for Food and Agriculture provides both a conceptual and financial framework for on-farm conservation, including the "Caring Cultivators" initiative. Additionally, regional authorities offer direct financial incentives to farmers preserving genetic resources for instance fruit crops, horticultural crops and corn. In another country, the Ministry of Food and Agriculture has also allocated an annual budget for model and demonstration projects that focus on conservation, sustainable use, and innovative applications of agrobiodiversity. Farmers from a specific area can also receive regional funding through a cultivated landscape programme for the planting of old cultivated varieties and regional crops threatened by genetic erosion. Similarly, another country has incorporated financial support for conservation varieties within the rural development programs of various regions.

- *Incentives for participatory breeding and sustainable seed systems*

Financial support also extends to participatory breeding programs, crop diversification and sustainable seed systems. One country's public subsidies at multiple governmental levels (state, region, department, and urban areas) fund research projects that integrate farmers into breeding initiatives. These projects aim to design technical cultivation itineraries, formalize systems that promote agrobiodiversity, develop alternative seed supply chains, and promote cross-breeding and selection on farm.

Another reporting country presents a unique approach by integrating financial mechanisms within its Farmers' Union, which actively collects royalties from farm-saved seed production. As this country is a party to the UPOV 1991 Convention, financial mechanisms ensure that PVP rights are maintained while allowing farmers to engage in farm-saved seed practices under regulated conditions.

- *Agreements on financial support*

In some countries, financial incentives for PGRFA conservation are determined through annual agricultural negotiations between farmers' unions and national governments, for instance to define support schemes for farmers engaged in genetic resource conservation. This negotiated process allows for continuous adaptation of financial support to align with farmers' needs and conservation goals.

Box 3.1

Financial contributions to support farmers' conservation and sustainable use of PGRFA

- Annual support to the BSF

Norway initiated its annual contribution to the BSF during the official opening ceremony of the Svalbard Global Seed Vault in 2008. This initiative underscores the importance of on-farm conservation of PGRFA, complementing *ex situ* conservation efforts, and ensures financial support based on a predictable contribution from a user country to the BSF. Moreover, this annual contribution recognizes the benefits that Norwegian agriculture derives from PGR originating from other regions worldwide. To illustrate this point, the voluntary contribution is linked to the seed trade, amounting to 0.1% of annual seed sales in Norway, and is referenced in the State Budget, endorsed by the parliament. Norway considers this contribution as a use-based, voluntary monetary benefit-sharing.

Additionally, these annual contributions provide an opportunity to regularly highlight the issue to the political leadership of the ministry. The BSF invests directly in high-impact projects aimed at supporting farmers in developing countries to conserve crop diversity in their fields and assisting farmers and breeders globally in adapting crops to evolving needs and demands. The BSF aims to accelerate the conservation and utilization of plant genetic resources on a global scale through technology transfer, capacity building, high-impact projects, and innovative partnerships involving farmers, plant breeders, civil society, and other stakeholders. The BSF prioritizes on-farm management and conservation, thereby enhancing food security and facilitating innovative partnerships.

- External funding – public and private sources

Both public and private entities in France provide funding for farmers, farmers' organizations, and other stakeholders involved in the conservation of PGRFA. Additionally, Article 28 of Regulation (EU) No 1305/2013 of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) mandates Member States to establish measures that provide support for farmers and other stakeholders in the conservation, sustainable use, and development of genetic resources in agriculture. Genetic resources and breeding are also recognized within the EU research program Horizon 2020 as a societal challenge.

For instance, the French Ministry of Agriculture provides financial support of approximately €200,000 annually for the national PGRFA conservation structure through the French Variety and Seed Study and Control Group (GEVES), alongside other contributions aimed at supporting stakeholders and networks involved in the conservation and characterization of PGRFA, particularly those under threat. Furthermore, the Groupement National Interprofessionnel des Semences et plants (GNIS), the French interbranch organization for seeds, voluntarily decided to contribute €175,000 annually to the BSF of the International Treaty and the same amount to support French national PGR collections.

- AGUAPAN

The Asociación de Guardianes de Papa Nativa del Centro del Perú (AGUAPAN) is a benefit-sharing initiative sponsored by a Dutch potato breeding company and supported by several organizations in Peru, including Grupo Yanapai, Instituto Nacional de Innovación Agraria, International Potato Center (CIP), and Sociedad Peruana de Derecho Ambiental. Launched in 2015, the primary aim of this initiative is to assist and empower farmers and their families in conserving and maintaining the genetic diversity of potato varieties at their origins. Additional objectives include facilitating farmers' organization efforts and ensuring their representation in decision-making processes relevant to their work with potato genetic resources. The Dutch potato breeding company HZPC provided initial funding for custodial farmers in the Andes. Outcomes of this initiative include the establishment of AGUAPAN as a practical benefit-sharing organization backed by the mentioned partner organizations. Presently, it involves 43 families from five different areas in Central Peru who collectively cultivate approximately 1000 unique potato varieties.

Sources: The Inventory ([Norway](#), [France](#), [ISF](#))

Experiences and lessons learned

Additional insights gathered from the multistakeholder survey responses have elucidated the following experiences and lessons learned from the implementation of Farmers' Rights, including:

- The responses discussed some experiences related to sharing benefits arising from the utilization of PGRFA, through practices such as: (i) PPB and organic agriculture in enhancing

crop diversity and seed autonomy; (ii) community seed exchange including the sharing of traditional knowledge among farmers; and (iii) benefits of new varieties provided by the seed industry to farmers. These new varieties allow farmers to benefit directly from the use of genetic resources by breeders. The characteristics of various genetic resources are combined into innovative combinations in each new variety. This innovation and technology are made available to farmers through these new varieties. In countries with a catalogue of varieties, information about the qualities of the varieties is provided. In countries without a variety registration system, breeders provide all relevant information to farmers. In addition, farmers are often provided with information on uses and best agricultural practices.

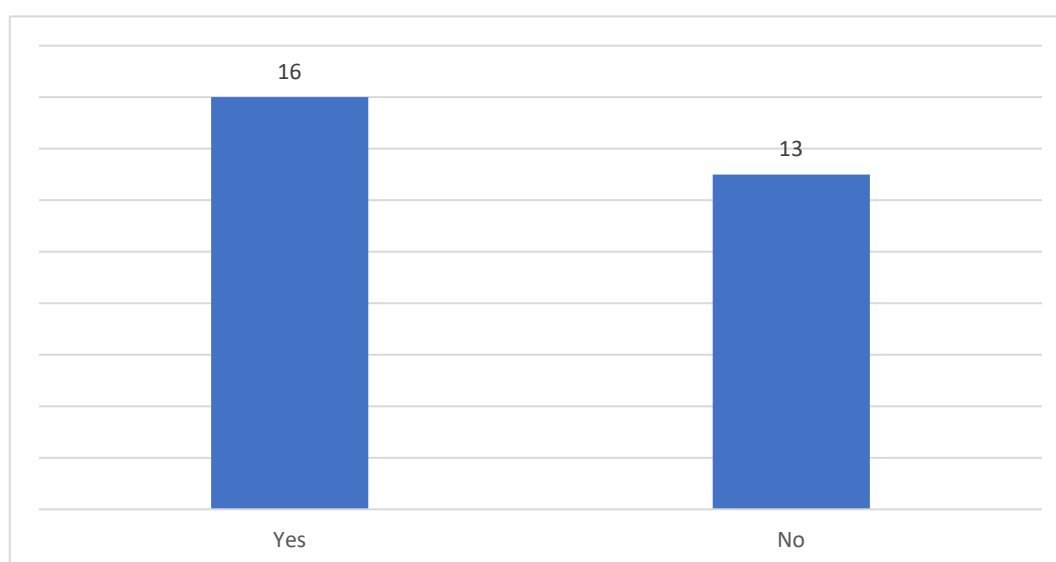
- One respondent described the availability of a red list publication that helps farmers apply for financial support for managing landraces. Existing capacity-building options are effective, but the national programme for PGR, it highlighted the need to enhance capacity building in PGRFA conservation and utilization.
- One respondent indicated that, in the absence of specific measures related to Farmers' Rights, the approach adopted is to promote benefit sharing across society rather than restrict access to PGRFA. Access to genetic resources is generally free unless property rights are involved. The legal system allows the use of protected plant varieties for research and breeding without the consent of the owner of the protected variety, and farmers can use farm-saved seeds from protected varieties with lower remuneration fees to the small-scale farmers as defined in their context.

5.3.4 Farmers' right to participate in making decisions, at national level, on matters related to the conservation and sustainable use of PGRFA (Article 9.2c)

A total of 16 countries (or 55% of reporting countries from Europe) have taken measures to protect farmers' right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of PGRFA.

Figure 3.7

Number of reporting countries from Europe (n = 29) who have taken measures to protect and promote farmers' right to participate in making decisions



- *Institutional mechanisms for farmers' participation*

Many countries have formal institutions designed to ensure farmers have a voice in decision-making regarding PGRFA. These institutions, usually embedded in national policies, typically take the form of advisory bodies connected to national programs on genetic resource conservation and utilization. Such

mechanisms provide structured platforms where farmers, alongside other stakeholders, contribute to policy discussions and strategic planning.

In several cases, national councils, commissions or committees serve as advisory bodies, ensuring that farmers' perspectives are considered in the formulation of policies on PGRFA. These entities often function under ministries of agriculture and provide formal avenues for consultation and participation. Some governance frameworks also include gender-inclusive measures that promote the recognition of diverse contributions within agricultural biodiversity efforts.

In one country, negotiation processes are incorporated into the national agricultural governance structures to ensure that farmers' interests are represented. These negotiations often result in frameworks that define financial support schemes for the agricultural sector and broader agricultural policies. In the same country, the national genetic resource center collaborates with cooperatives and smaller farming networks to facilitate their participation in decision-making processes. Increasing organization of farmers into networks and associations has improved visibility and access to policy discussions, reinforcing their ability to influence agricultural biodiversity management strategies.

- *Participatory governance structures*

In addition to institutional mechanisms, some countries have developed participatory governance structures to integrate farmers into policy-making processes. For instance, technical committees on plant breeding have been established in several countries, where farmers' representatives contribute to discussions on plant breeding, variety registration, and seed regulations. These structures encourage collaboration between farmers, researchers, and policymakers, ensuring that knowledge from the field informs regulatory decisions and national strategies on the sustainable use of PGRFA.

- *Public consultations and legislative processes*

Public consultations provide another mechanism for farmers to influence policy development. In many countries, formal consultations are held where farmer organizations and other stakeholders can provide input on legislative proposals related to PGRFA. These processes ensure that policies are more reflective of the practical realities faced by farmers.

In certain contexts, participatory governance includes opportunities for farmers and stakeholders to submit recommendations during legislative drafting. Legislative drafts are frequently referred to relevant agricultural organizations and NGOs to gather broader feedback, fostering transparency and inclusivity in policy-making.

Experiences and lessons learned

The responses in the region described their experiences and lessons learned that are summarized as follows:

- The responses described the participation of farmers in the decision-making process concerning PGRFA as well-developed and aligned with established participation principles. Legislative acts concerning the agricultural sector are communicated to farmers' organizations for public consultations, seeking their feedback or comments. Regulations are established through dialogue with farmers and their organizations.
- The farmer lobby in parliament is very strong, and farmers are more aware of the processes related to seed regulation, sharing their needs and requirements to be considered by the regulatory framework.
- Farmers maintain a great diversity of genotypes. It has been crucial to understand farmers' perspectives, and they have been informed about PGR laws, regulations, and opportunities for utilizing PGR, support measures, and other concerns of interest to them.

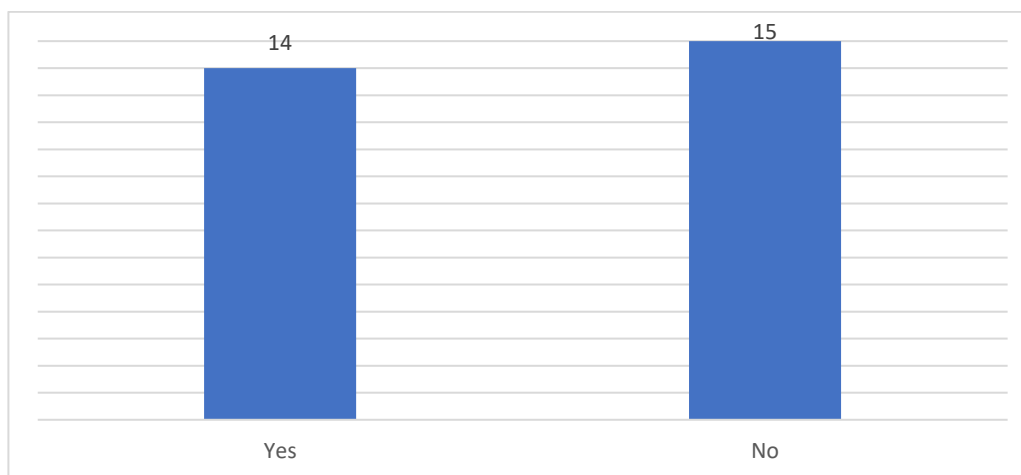
- According to the joint rules of procedure of the Federal Government, federations, general associations, and expert groups at the federal level must be involved timely in the drawing up of bills, including relevant agricultural associations.
- Farmer organizations participate in discussions and processes led by the Ministry of Agriculture, and representatives of agricultural organizations can participate in Genetic Resource Council meetings and decision-making processes.
- The national commission should expand its mandate to have space for participation.

5.3.5 Farmers' right to save, use, exchange and sell farm-saved seed, subject to national law and as appropriate (Article 9.3)

A total of 14 European countries (or about 48% of reporting countries from Europe) have taken measures to protect the rights for farmers to save, use, exchange and sell farm-saved seed.

Figure 3.8

Number of reporting countries from Europe (n = 29) who have taken measures to protect the rights for farmers to save, use, exchange and sell farm-saved seed



In this region, different regulatory mechanisms shape the extent to which the right of farmers to save, use, exchange, and sell farm-saved seed is recognized and implemented. While some legal frameworks facilitate seed saving and exchange under specific conditions, others impose restrictions, particularly concerning PVP and commercial seed distribution. Beyond legal measures, other institutional support and participatory initiatives contribute to the realization of farmers' right to save, use, exchange and sell farm-saved seed.

- *Legal frameworks governing farm-saved seeds*

European legal systems provide varying degrees of recognition for farmers' seed-saving practices. In some instances, farmers have the legal right to reuse farm-saved seeds under certain conditions, particularly for protected plant varieties. Regulations may require compensation payments to breeders for the use of such seeds, ensuring that PVP rights are upheld while allowing for limited on-farm seed saving. Some frameworks include exemptions for small-scale farmers, reducing their financial burden while maintaining compliance with intellectual property laws.

Other legislative measures explicitly allow farmers to exchange seeds, provided they are not protected by intellectual property laws or commercial multiplication contracts. Various countries have established simplified procedures for the registration of conservation varieties, promoting the cultivation of traditional and locally adapted crops.

- *Institutional support and participatory initiatives*

In addition to legal provisions, various institutional mechanisms support the preservation and use of farm-saved seeds. National action plans and rural development programs often include measures aimed at promoting seed conservation and genetic resource management. Some policy frameworks encourage collaboration between farmers, research institutions, and governmental agencies, ensuring that farm-saved seed practices align with broader agricultural and environmental sustainability goals.

Participatory breeding initiatives and farmer-led seed networks play a crucial role in maintaining agricultural biodiversity. These networks facilitate knowledge exchange, improve access to diverse plant materials, and contribute to the adaptation of crops to changing climatic conditions. By integrating traditional seed-saving practices into formal agricultural policies, these initiatives reinforce the role of farmers as key custodians of plant genetic resources.

Experiences and lessons learned

The responses in the region described their experiences and lessons learned that are summarized as follows:

- Respondents referred to the EU regulations (national and regional scopes) on the marketing of seed and conservation varieties and policy and legislation on plant breeders' rights and how these are balanced towards Farmers' Rights, and the rights of farmers to seeds as recognized in the national strategy on genetic resources for food and agriculture, and in the action plan to implement this strategy.
- Several respondents highlighted the importance of regulatory frameworks, farmer participation in decision-making, the benefits of using locally adapted seeds, and farmers can use their own seeds for crop production.
- Farmers and their organizations actively participate in relevant decision-making processes at local, national and international levels, which is essential.
- Farmers participated in the approval of a government decision in 2022 regarding the admission and marketing of seeds adapted to local conditions.
- In one country, the Seed Trade Act regulates the marketing of seed and planting stock for certain species. Based on the EU Directives, the Seed Trade Act, together with the regulations issued in that regard, regulates the marketing of seed and planting stock and the authorization of plant varieties. For all species not listed in the directory of species associated with the Seed Trade Act, no authorization of the varieties is necessary for the seed to be traded. The seed trade regulations are important to farmers and gardeners, as they serve to guarantee the availability of efficient, site-adapted varieties with a high yield potential and improved quality and resistance properties, which offer good income opportunities.
- The implementation in 2009 and 2011 of the EU directives on conservation varieties and seed mixtures facilitates the production and marketing of seed and planting material of farmers' varieties, old varieties and landraces, which are of interest for the conservation of PGRFA. So-called "conservation varieties" can be registered in a simplified procedure if they are significant for conservation as a genetic resource. An official recognition of the seed is not necessary as a prerequisite for marketing it; however, the seed must fulfil the same quality requirements as other certified seed (or respectively standard seed in the case of vegetable species). The same applies to so-called "amateur varieties", which are vegetable varieties without value for large-scale horticulture, but due to particular characteristics are interesting for cultivation at regional scale and home gardens. The regulation on "seed mixtures" facilitates the commercialization of mixtures used in the ambit of nature protection for pastures, grassland etc.
- No payment is required for farm-saved seed of protected varieties, and contracts limiting farmers' privileges are null and void.

- On respondent mentioned that the national law created limitations for farmers producing endemic seeds.
- Farmers can choose any variety to grow but must adhere to regulations concerning landraces, commercial varieties, and intellectual property rights. Exceptions exist for private and non-commercial use, particularly for subsistence farmers. The implementation of EU directives has facilitated the production and marketing of conservation varieties and amateur varieties, allowing for simplified registration processes and quality requirements for seeds. It emphasizes careful implementation of UPOV and the International Treaty, advocating for the introduction of Article 9 into national law only when necessary to support the conservation and sustainable use of plant genetic resources.
- A respondent explained that under PVP laws, farmers may or may not save and use seeds and in most cases, farmers are not allowed to exchange and sell farm-saved seeds of protected varieties. This, however, exclusively applies to protected varieties, which normally can only be new varieties. PVP has no bearing on seeds of traditional or farmer varieties and would not have any negative effect on their possibilities to continue their practices of seed saving. This is very often misinterpreted, and there is a need to clarify that PVP does not apply to all varieties but only to those that fulfill the condition of PVP protection and that are applied for and granted such protection.

Cases where farmers have been taken to court, fined or otherwise sanctioned for saving, exchanging and/or selling seed/propagating material of varieties protected with plant breeder's rights or patents

- In Norway, there have been instances where farmers were taken to court for having stored Linda in their barns with a view to further using this variety on their own fields. Linda was by then, withdrawn from the market, and a combination of PVP and variety release legislation resulted in this situation. Norway balances farmers' rights and plant breeders' rights by adhering to the 1978 Act of UPOV, rather than the 1991 Act.
- In Finland, it was mentioned that once in a while there are cases where uncertified seeds were sold as certified. In Italy, it was said that there is a private company suing farmers in court, paid by seed companies.
- In Spain, a case was cited against a farmer.³⁴

5.3.6 Gaps and needs with regard to the realization of Farmers' Rights

- Legal and policy frameworks

- Some countries point out legal challenges, including the lack of specific legislation implementing Farmers' Rights or the International Treaty on PGRFA; the lack of legal clarity for small-scale seed exchange; and the lack of harmonization among different legal instruments for biodiversity and agriculture.
- Despite farmers' interest, the cultivation and sale of heritage cultivars face legal restrictions in some contexts where national law imposes limitations on seed exchange and on-farm seed saving.
- In some contexts, the implementation of the access and benefit-sharing measures under the Nagoya Protocol is very limited.

³⁴ The information is provided in the following links:

<https://blogip.garrigues.com/variedades-vegetales/no-comeras-la-fruta-prohibida-primeras-sentencias-sobre-los-derechos-de-las-variedades-vegetales-en-relacion-con-el-material-cosechado>

<https://www.20minutos.es/noticia/1500540/0/>

- Many farmers are unaware of their rights under international agreements, and there is inadequate institutional support to promote these rights effectively.
- Even when policies for PGRFA conservation and use are in place, they are not always implemented and translated into operational projects and activities.
- Conflicts exist between national/sub-national and international policies.

- Institutional coordination

- In some countries, there is a weak or lack of sectorial coordination and interaction between government agencies dealing with agricultural and environmental matters, which undermines the effective implementation of Farmers' Rights by creating policy gaps and conflicting mandates.

- Obstacles to support farmers' efforts in *in situ* and on-farm conservation and sustainable use

- Some old varieties and landraces are not widely cultivated in some countries due to the lack of farmers' interest, which threatens their preservation.
- For some countries, more activities in the field of on-farm management and *in situ* conservation should be prioritized.
- Insufficient quantity of old, traditional varieties and rare species in genebanks, coupled with the lack of intermediary entity ("user genebanks") between genebanks and farmers engaged in seed multiplication, limits their availability to farmers in adequate quantity.
- In some countries, the organization of farmers into groups, cooperatives or networks is challenging.
- Too few food processors, such as millers, specialize in the handling and processing of heirloom or traditional old varieties, which threatens the integrity of the food chain, from seed to table, by limiting the availability and viability of these heritage crops.

- Financial and human resources to support activities that protect and promote Farmers' Rights

- In some countries, on-farm conservation activities are farmer-driven without institutional and long-term financial support or incentives, highlighting the need for dedicated funding and infrastructure.
- Sustainable funding dedicated to the cooperation between genebanks and farmers is also lacking in some contexts.
- The lack of skilled human resources in conservation and use of PGRFA and sustainable funding are identified as important bottlenecks in some countries.

- Awareness raising

- There is a need for awareness raising activities on Farmers' Rights and the International Treaty in general.
- Some countries point out a lack of widespread appreciation for traditional knowledge

5.4 LATIN AMERICA AND THE CARIBBEAN

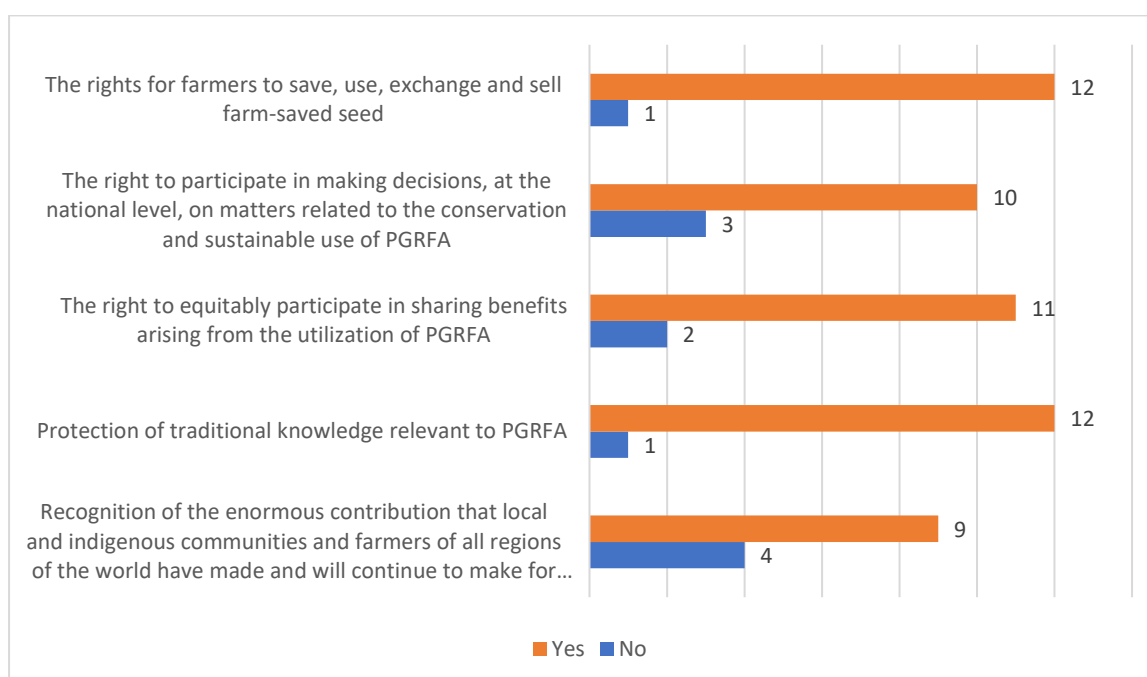
There are 33 countries in Latin America and the Caribbean, including 23 countries who are contracting parties to the International Treaty. By April 2025, a total of 16 countries from this region have submitted a national compliance report to the Secretariat of the International Treaty.

The information below summarizes the information found in the 16 national reports submitted to the Secretariat of the International Treaty, supplemented with information gathered from the multistakeholder survey (30 responses from 12 countries) conducted by the Secretariat, and the submissions from the Inventory (51 submissions).

An overwhelming majority of reporting countries from Latin America and the Caribbean have taken measures to protect and promote Farmers' Rights (14 countries out of 16, or 87.5% of reporting countries), including measures in relation to (see Figure 4.1):

Figure 4.1

Number of reporting countries from Latin America and the Caribbean (n = 16) who have taken measures in relation to:



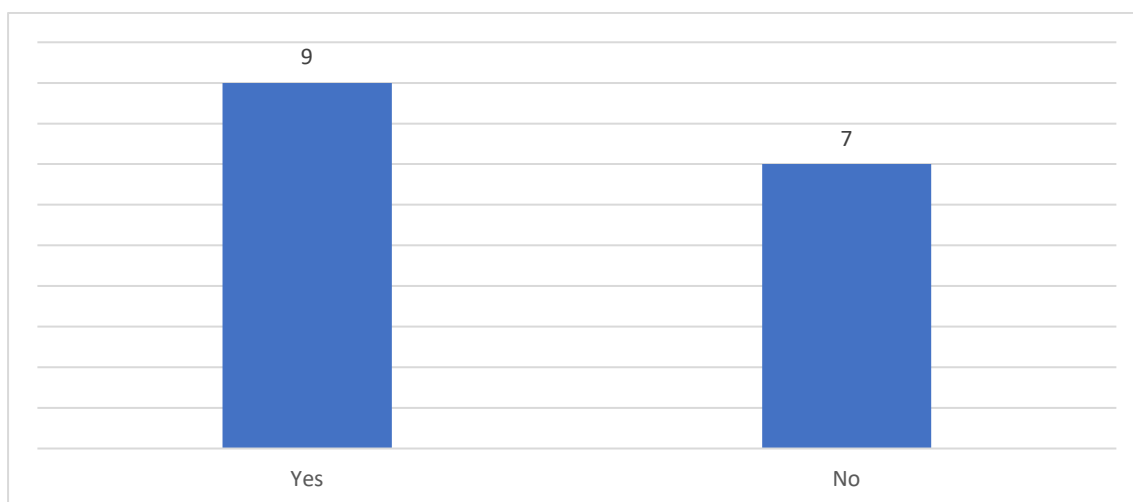
As will be shown below, laws and policies adopted by countries in the region often focus on granting farmers the right to conserve, use, exchange, and manage plant genetic resources while ensuring equitable benefit-sharing from their utilization and preserving traditional knowledge associated with PGRFA. They may also promote farmers' right to participate in decision-making processes regarding conservation and use of PGRFA.

PROVISIONS OF ARTICLE 9

5.4.1 Recognition of the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development (Article 9.1)

Nine countries from Latin America and the Caribbean (or 56% of reporting countries from this region) have taken measures to recognize the contribution of farmers and local and indigenous communities to PGRFA conservation and development. Through explicit constitutional recognition, comprehensive national legislation, and policies that integrate traditional practices with modern agricultural innovation, the constitutional, legal and policy landscape across the region reflects a deep and growing appreciation for the role of local and indigenous communities in conserving and developing plant genetic resources.

Figure 4.2
Number of reporting countries from Latin America and the Caribbean (n = 16) who have taken measures to recognize the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development



In several countries from Latin America and the Caribbean, constitutional provisions explicitly acknowledge the importance of indigenous and local communities in the stewardship of natural resources. Such constitutional recognition establishes a foundational principle that the sovereignty of genetic resources rests not solely in the hands of the state but is also linked to the collective rights and responsibilities of local communities.

Additionally, several national laws, decrees, and administrative regulations across the region recognize that traditional practices and locally adapted techniques developed by peasants, indigenous and local communities are critical for conservation and sustainable use of PGRFA, underscoring the role of these communities in sustaining biodiversity. These laws typically address critical aspects of seed conservation, promotion of local varieties, and mechanisms for benefit sharing. In some instances, legislation on PGRFA is interwoven with policies on food sovereignty and sustainable development, ensuring that the rights and contributions of local producers are formally acknowledged and protected.

Complementing the constitutional and legal recognition, several common initiatives aimed at supporting farmers and indigenous communities in the region include farmer-centered approaches and community-based biodiversity management. These initiatives encompass promoting agrobiodiversity fairs, PPB, CSBs, registering farmers' varieties, seed exchange platforms or networks for farmers and communities, as well as capacity-building activities designed to enhance farmers' resilience to climate change.

Furthermore, annual commemorations such as the 'Day of Villages' honor the historical contributions of rural communities to agricultural heritage. Other approaches include designating agricultural and cultural sites of global and national significance, such as biodiversity conservation zones, biosphere reserves, GIAHS and Nationally Important Agricultural Heritage Systems (NIAHS). These initiatives provide institutional frameworks that formally acknowledge the important contribution of family farmers, indigenous and local communities in preserving genetic diversity for food security and nutrition, ancient knowledge and cultural diversity.

Experiences and lessons learned

Based on the available information, below is the summary of the experiences and lessons learned regarding measures introduced to recognize the contribution made by local and indigenous communities and farmers in the conservation and development of PGRFA.

- Supplementary information from the multistakeholder survey and the Inventory highlighted governmental initiatives to implement Farmers' Rights through various measures, such as policy and legal frameworks and technical support for the conservation and sustainable use of

PGRFA, and acknowledging the role of farmers and indigenous communities, thereby promoting the realization of Farmers' Rights.

- One example of implemented measures recognizes the role of farmers and local and Indigenous communities within the regulations governing access to genetic resources and their derivatives. These regulations ensure that both monetary and non-monetary benefits are provided to farmers or communities as suppliers of biological resources containing genetic materials. In this context, these regulations aim to improve the living conditions of farmers and Indigenous Peoples while enhancing and integrating the conservation, sustainable use, and local management of native agrobiodiversity.
- Positive outcomes have been achieved through interministerial collaboration on promoting community-based agrobiodiversity management, revitalization of biodiverse traditional agricultural systems, promotion of agroecology, and capacity-building support to empower farmers as well as local and indigenous communities.
- However, several countries have raised concerns that these efforts may be insufficient to fully realize Farmers' Rights. Additionally, they noted that the initiatives have been sporadic, often with limited financial support, and may not adequately address the specific challenges faced by farmers.

Box 4.1

Promoting recognition of farmers, Indigenous Peoples and local communities through the designation of traditional agricultural systems

Imagine a food basket filled with cereals from a Saharan oasis, potatoes from 4,000 metres up the Peruvian Andes or from a remote Chilean archipelago, and rice from steep terraced hillsides in China or the Philippines. All these foods come from GIAHS. These food systems have developed over millennia in challenging and remote landscapes – and in extreme climates – thanks to the knowledge of farmers and Indigenous Peoples.

- Recognition of farmers, Indigenous Peoples, and local communities

The FAO's GIAHS programme promotes the international designation of traditional agricultural systems of global importance. The designation of GIAHS promotes the recognition of family farmers, Indigenous Peoples, and local communities who have contributed to safeguarding agricultural biodiversity over generations. This designation supports Farmers' Rights by advocating for the protection of traditional knowledge, involving farmers in decision-making processes at various levels, promoting community seed/farmer-managed seed systems, and encouraging sustainable agricultural practices that benefit both communities and the environment.

- Historical importance of traditional agricultural systems

It has been more than 12,000 years since humans transitioned from hunter-gatherer lifestyles. They realized the advantage of saving and planting seeds seasonally, allowing them to settle in one place rather than constantly foraging. This enabled them to focus on building communities and developing agricultural systems adapted to local climates, which allowed them to survive and thrive in their environments. With each generation improving upon previous methods, these systems have preserved indigenous knowledge over centuries, developed new crop varieties and promoted biodiverse crop production. For example, the Indigenous Peoples from the Philippines developed mountain rice terraces and hillside irrigation systems for water-sharing between fields, to grow different rice varieties. Peruvian Andean communities created trenches around fields that absorb daytime heat and release it as steam to protect crops from nighttime frost. The Andean and the Amazonian Chakra, an ancestral biodiverse production system in Ecuador. The traditional agricultural system in Minas Gerais, Brazil, is one of the most important savannahs in the world. Farmers in desert oases in Algeria, Egypt, Iran, Morocco, and Tunisia developed intricate irrigation systems and multilayer gardens using date palms to provide shade for other crops. These systems, found both in developed and developing countries, are efficient and resourceful, sustaining generations with minimal tools. Despite this, they often go unrecognized in the face of rapid development, globalization, urbanization, natural disasters, and the effects of climate change. The maintenance and adaptive management of agrobiodiversity are facilitated through transgenerational transmission of genetic resources, which relies on continuous cultivation, selection, preservation, and exchanges among families and communities.

As of April 2025, FAO has designated 89 sites in 28 countries, highlighting reservoirs of biodiversity for food and agriculture and promoting the protection of traditional knowledge and unique agricultural practices developed by farmers and Indigenous communities. These systems are living heritage sites maintained by communities with agrobiodiversity of global importance, traditional knowledge, diverse cultures, and remarkable landscapes.

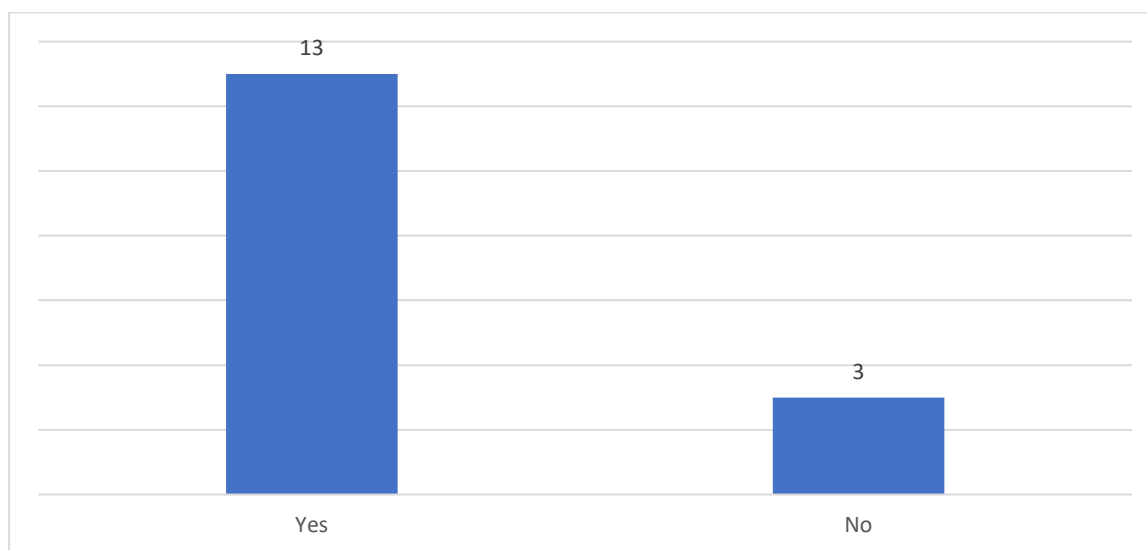
The GIAHS programme fosters greater awareness about promoting recognition of the work of farmers and indigenous communities while highlighting the importance of conserving and sustainably using PGRFA, which is vital for global and local food security, nutrition, and resilience against climate change. Article 9 of the International Treaty provides for the promotion and protection of Farmers' Rights related to PGRFA. Realizing these rights through various measures, such as the GIAHS designation and its adaptive management, allows farmers and farming communities to continue their role as developers and custodians of PGRFA, ensuring food security for future generations.

Sources: Extracted from the FAO GIAHS website, The Inventory (Chile, Peru, Philippines)

5.4.2 The protection of traditional knowledge relevant to PGRFA (Article 9.2a)

A total of 13 countries, or 81% of reporting countries from Latin America and the Caribbean, have taken measures to protect traditional knowledge relevant to PGRFA.

Figure 4.3
Number of reporting countries from Latin America and the Caribbean (n = 16) who have taken measures to protect traditional knowledge relevant to PGRFA



- *Constitutional recognition*

Several countries from this region have embedded traditional knowledge protection within their respective constitutions, establishing that the state has a duty to protect the collective intellectual property of Indigenous Peoples and local communities and that activities involving the use of genetic resources must respect and safeguard the traditional knowledge held by these communities.

- *Legal protection and promotion of traditional knowledge to tackle modern challenges*

Across the region, comprehensive legal and policy frameworks that specifically address the protection of traditional knowledge have been developed and are often linked to broader goals of biodiversity conservation, food sovereignty and sustainable development. For example, in one country, the regulatory framework established through a resolution on native seeds emphasizes that local and family farming practices are recognized as the foundation for food sovereignty by protecting not only the seeds themselves but also the traditional knowledge and practices associated with them. Similarly, the Organic Law on Agrobiodiversity, Seeds and the Promotion of Sustainable Agriculture and the Organic Law on Food Sovereignty in another country explicitly protect traditional and ancestral knowledge, ensuring that these cultural assets are preserved while being leveraged for innovation in sustainable agricultural practices. Similarly, at the policy level, traditional knowledge has also been incorporated into broader policies and strategies on biodiversity and sustainable development, providing a multi-layered framework that integrates cultural heritage preservation with sustainable resource management.

This shows how, in the region, traditional knowledge is increasingly recognized as a dynamic resource poised to contribute to tackle modern challenges. This acknowledgment marks a transformative shift from mere conservation to active protection and promotion of knowledge that is both culturally significant and critical for future agricultural resilience.

- *Collective protection regimes*

Another distinct facet of the region's legal approach is the establishment of collective protection regimes for traditional knowledge and associated products. In this regard, certain statutory instruments mandate that traditional knowledge linked to biological resources be protected as collective cultural and intellectual property, while legal instruments like the Community Protocols empower indigenous groups to regulate access to their traditional knowledge. Furthermore, some legal frameworks aim to protect traditional knowledge as a public good, expressly prohibiting the misappropriation and unauthorized patenting of genetic material and associated traditional knowledge and ensuring that any

use for research or commercial purposes is conditioned upon the respect for and prior informed consent of local communities so as not to undermine their collective rights.

- *Non-legal measures*

Beyond legal and policy measures, other measures have supported traditional communities by promoting knowledge exchange through organized meetings, for instance the “Meetings of Knowledge and Cultural Diversity”, facilitating discussions on cultural heritage preservation; the documentation of local varieties and associated traditional knowledge in local variety catalogues; and the establishment of mechanisms to develop studies on indigenous knowledge in biodiversity.

- *Documentation and cataloguing of traditional knowledge*

Some countries have started documentation of traditional knowledge associated to PGRFA, and they also encourage registration of farmers’ varieties.

Experiences and lessons learned

The responses within the region provided valuable experience and lessons on safeguarding traditional knowledge associated with PGRFA. These experiences are summarized below, in no particular order:

- Several countries highlighted national strategies on PGRFA, Access and Benefit-sharing policies, municipal ordinances, and projects funded by multilateral financing institutions as key in promoting community-based agrobiodiversity management. These projects support agrobiodiversity conservation zones, recognition of Globally Important and Nationally Important Agricultural Heritage Systems, and efforts to enable farming communities to manage their agrobiodiversity.
- One country described the recognition of Andean systems as a GIAHS, helping to promote the value of crop genetic resources diversity and ancient traditional practices.
- A number of countries have successfully implemented farmer-centred approaches and community initiatives, such as the exchange of knowledge, innovations, and traditional practices through cross-visits to farmers' farms by communities, researchers, and other stakeholders. Additionally, traditional seed and food fairs, as well as local markets (seed routes), have led to increased awareness and a better understanding of the value of native crops (nutritional value) and traditional knowledge for the conservation and sustainable use of local crop diversity. Efforts to raise awareness of the importance of PGRFA have also been promoted through educational centres in rural areas, including school gardens, workshops, and the incorporation of agrobiodiversity into educational curricula, among other initiatives.
- Several countries noted the impacts of these initiatives in fostering interaction and knowledge exchange among farmers, indigenous peoples, and traditional communities, training, and seed exchanges that facilitate the recovery and renewal of genetic material for on-farm conservation, alongside the development of local seed catalogues.
- Many countries emphasized key lessons from the implementation of these measures, stressing the importance of traditional knowledge, training, and adopting sustainable practices, while balancing conservation with commercialization.
- Many countries also described community-based training as particularly effective in promoting knowledge exchange, revealing the diverse range of seeds that these communities protect. Additionally, the documentation of traditional knowledge, agrobiodiversity, and establishing protected designations related to specific crop products have been emphasized.
- Some countries stressed the role of collaborations with CSOs, NGOs and indigenous communities in promoting knowledge exchange and fostering a deeper understanding of the importance of traditional knowledge in agrobiodiversity conservation.

Multistakeholder responses describing cases of misappropriation of traditional knowledge and actions undertaken

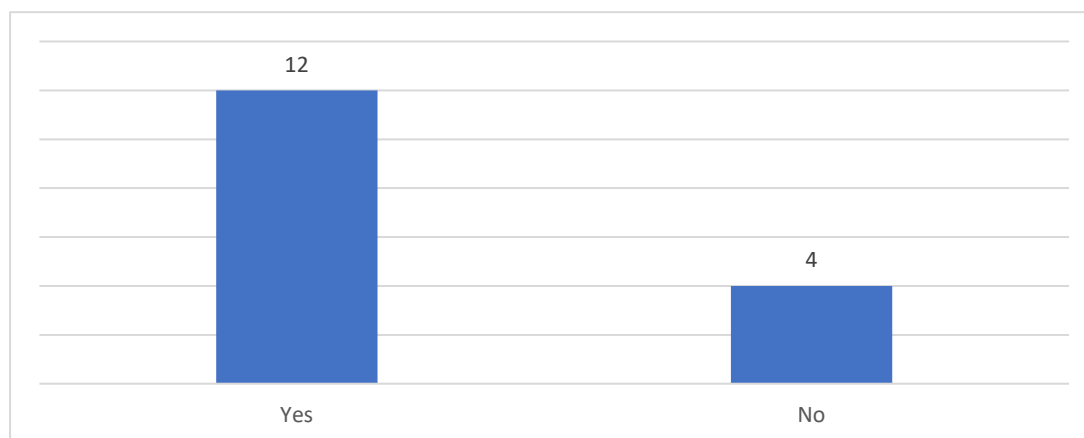
Based on the multistakeholder survey, some responses cited cases of misappropriation of traditional knowledge related to native species in their traditional and industrial use. These cases involve bioprospecting, technological development, and product formulation by academics, researchers, and industry professionals who do not recognize the rights of farmers or the legislation that is in the court. The responses also cited instances of biopiracy of local varieties, such as patents on plants like cupuaçu and andiroba. Unauthorized use of traditional knowledge, particularly related to medicinal and food plants, is exploited without prior informed consent or compensation to indigenous communities.

The responses also cited erosion of traditional knowledge due to the abandonment of traditional agricultural practices. The expansion of monocultures and the adoption of commercial seeds have led to the replacement of local varieties, thus resulting to agricultural biodiversity erosion. For example, traditional varieties of beans and corn in the Cerrado region are being replaced by hybrids. Migration of younger generations to urban areas has disrupted the transmission of traditional knowledge, especially regarding seed management and *in situ* conservation. Some examples of misappropriation include *Theobroma grandiflorum*, *Maytenus ilicifolia*, *Astrocaryum murumuru*, *Stevia rebudiana*, *Bixa orellana*, *Attalea speciosa*, *Paullinia cupana*, *Copaifera sp*, and various fruit and forest species.

5.4.3 Farmers' right to participate in benefit-sharing (Article 9.2b)

A total of 12 reporting countries, or 75% of reporting countries from Latin America and the Caribbean, have taken measures in relation to farmers' rights to equitably participate in sharing benefits arising from the utilization of PGRFA.

Figure 4.4
Number of reporting countries from Latin America and the Caribbean (n = 16) who have taken measures to protect farmers' right to participate in benefit-sharing



5.4.3.1 Legal and policy frameworks on access and benefit-sharing

At the regional level, the Andean Community Decision 391 on access to genetic resources was one of the first access and benefit-sharing laws, adopted in 1996. It recognizes indigenous and local communities' rights to decide about their know-how, innovations and the traditional practices associated with their genetic resources. However, it states that member countries exercise sovereignty over their genetic resources and consequently determine the conditions for access to them.

At the country level, many national frameworks incorporate legal and policy mechanisms to ensure equitable participation in the sharing of benefits arising from the use of PGRFA. Whereas one country from the region has embedded the principle of equitable benefit sharing within its Constitution, other countries have adopted legal and policy measures aligned with the Nagoya Protocol and the International Treaty, sometimes within biodiversity laws, policies and strategies. These measures typically include requirements for obtaining prior informed consent and establishing access and benefit-

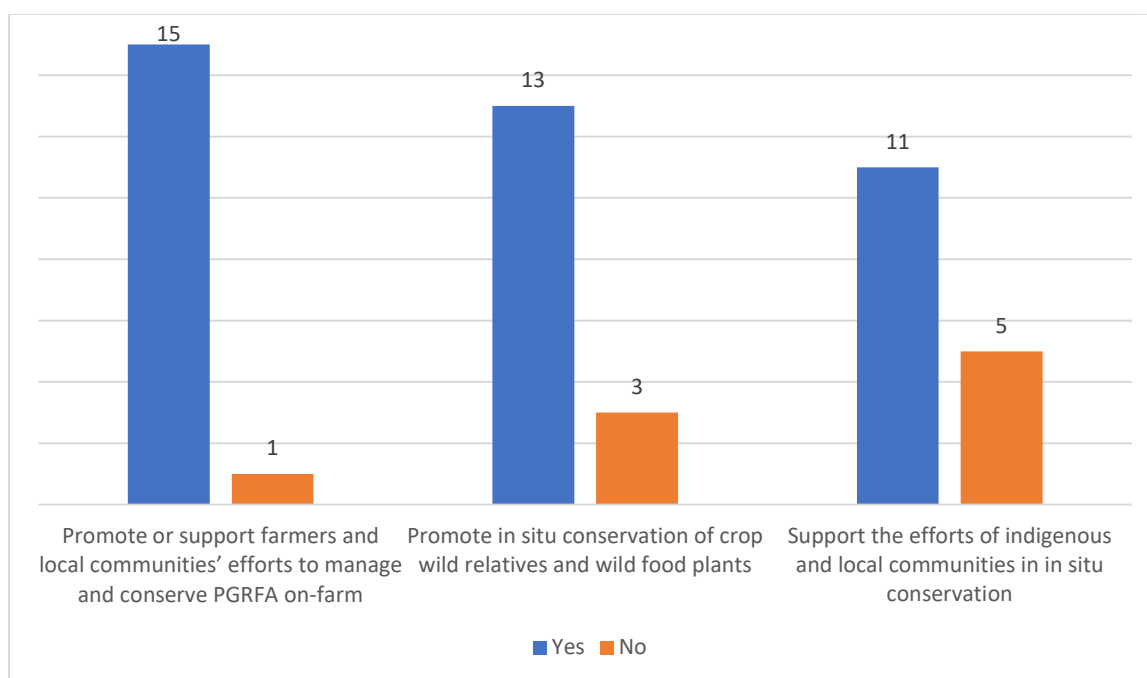
sharing contracts and agreements that outline mutually agreed terms, ensuring that benefits are fairly shared among stakeholders. However, despite legal recognition, implementation remains inconsistent due to limited institutional capacity and lack of awareness among farmers of their legally enshrined rights.

5.4.3.2 Non-monetary benefits

A. Supporting farmers and local communities' efforts to manage and conserve PGRFA on-farm and *in situ*

All but one reporting countries from this region (about 94% of reporting countries from Latin America and the Caribbean) have promoted or supported farmers and local communities' efforts to manage and conserve PGRFA on-farm. Besides, thirteen countries from this region also report promoting *in situ* conservation of CWR and WFP, including nine countries that have supported the efforts of indigenous and local communities in *in situ* conservation (about 56% of reporting countries from Latin America and the Caribbean).

Figure 4.5
Number of reporting countries from Latin America and the Caribbean (n = 16) who have taken measures to:



A large number of countries have adopted legal measures for on-farm and *in situ* conservation, often as an integral part of the broader legal and policy framework for protecting Farmers' Rights. For example, certain legal frameworks mandate that access to these resources be coupled with protocols that recognize the contributions of local custodians, thereby linking benefit sharing with the continued on-farm conservation of native varieties. In other cases, broader policy documents, including national strategies on biodiversity and sustainable agriculture, integrate on-farm conservation with measures aimed at promoting food sovereignty and rural development.

In some jurisdictions, specific laws have also been enacted to restore local seed varieties and enhance the recognition of traditional seed systems. These legal frameworks support participatory breeding programs and the certification of native seed varieties, ensuring that smallholder farmers have access to quality seeds while preserving genetic diversity. However, challenges persist in the regulatory landscape, particularly in defining quality standards for farmers' varieties and traditional seed production. Legal reforms in various countries are currently under review to bridge these gaps.

- *Facilitation of farmers' access to a diversity of PGRFA*

Seed exchange and conservation programs play a significant role in maintaining agricultural biodiversity and ensuring availability of locally adapted varieties in Latin America and the Caribbean. Efforts supported by government agencies, research institutions, and NGOs, have included strengthening agrobiodiversity microcenters, establishing CSBs, and promoting seed fairs and field days, alongside repatriation initiatives. For instance, in one country, 33 CSBs have been established within the framework of a UNEP-GEF initiative. In another country, a recently established associative seed bank for maize promotes seed saving and sharing among producers.

Some programs focus on small producers working in collaboration with research centers for the restoration of traditional seed varieties to enhance community-based conservation efforts. In some countries, regional and cultural events have promoted traditional knowledge exchange and facilitated encounters between farming communities, promoting the preservation of biodiversity.

Several initiatives have introduced decentralized conservation strategies, such as seed houses and community-based seed networks, ensuring access to diverse genetic materials. CSBs serve as mechanisms for conserving and exchanging seeds, with efforts to strengthen ties between producers and germplasm banks, particularly for the cultivation of different varieties of crops of cultural and economic importance such as potato, corn and beans. In some cases, these strategies have been complemented by training initiatives aimed at enhancing farmers' technical capacity in seed selection and conservation. However, although technical and financial support has been provided to assist in the conservation and management of local varieties, sustainability remains a key challenge, as many programs cease operations once external financial and technical support is withdrawn. In some areas, community-driven initiatives have attempted to bridge this gap by integrating local farmers into seed production and distribution networks.

National policies supporting farmers' access to PGRFA have been reinforced in some cases through the GIAHS and NIAHS to enhance the conservation of local varieties agricultural heritage systems as well as social programs that reinforce traditional seed-saving practices.

- *Farmers' participation in agricultural innovation and research*

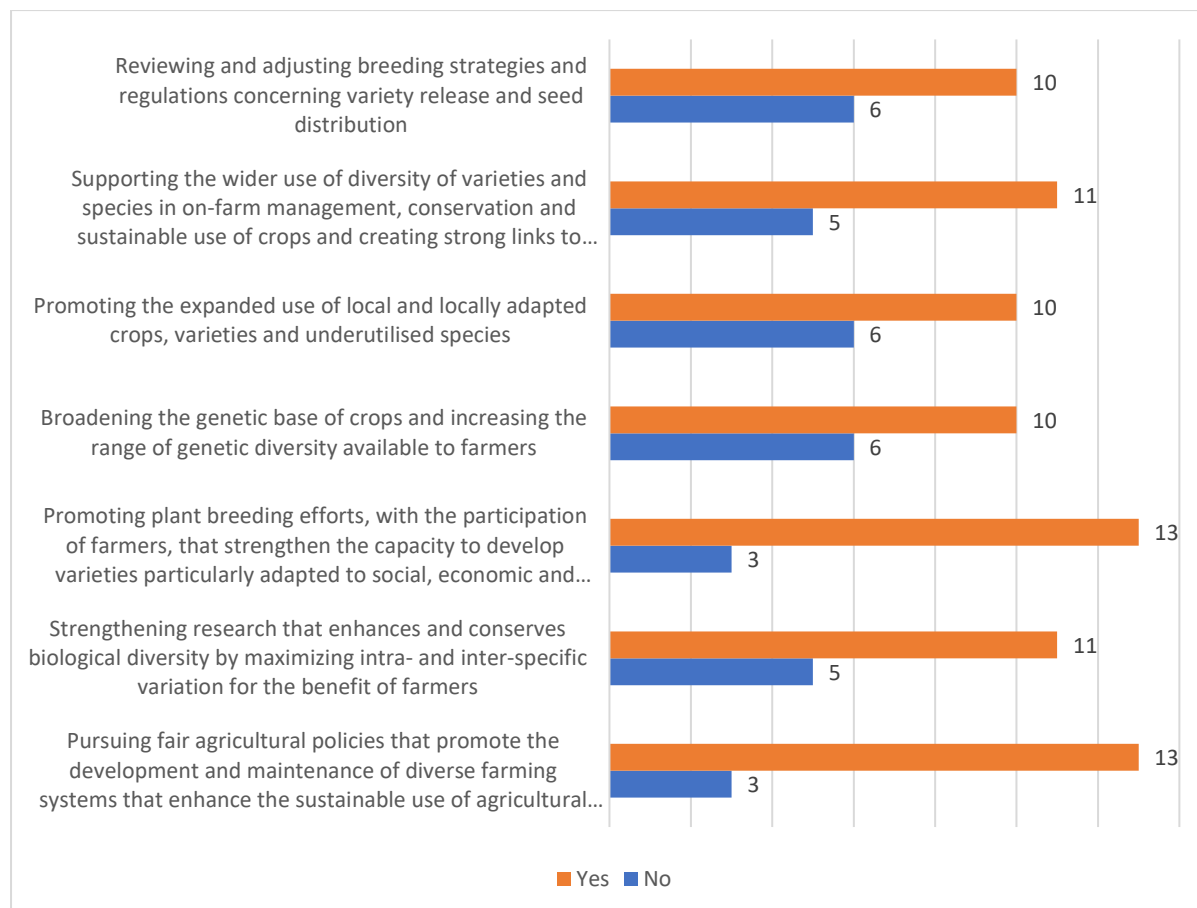
The integration of farmers into agricultural research programs and innovation processes of research centres has been a growing trend in the region. In several countries, participatory approaches to agricultural research have empowered farmers by integrating their knowledge into seed selection, evaluation, and breeding programs, contributing to the development of locally adapted seeds. For instance, in one country, the Local Agricultural Innovation Programme actively involves farmers in priority-setting, selection, evaluation, and dissemination of hundreds of improved varieties suited to local conditions. Collaborative efforts between farmers and scientists have not only strengthened agricultural innovation but also influenced policy reforms, particularly in seed sector development.

Participatory approaches have also been integrated into broader ecosystem restoration efforts to enhance climate resilience through agroecological practices. Agricultural research institutions and extension programs have played a key role in facilitating knowledge transfer between farmers and academic institutions through community workshops, demonstration farms, and joint research initiatives and community-based projects.

B. Supporting the participation of farmers in sustainable use of PGRFA

Thirteen reporting countries from Latin America and the Caribbean have taken policy and legal measures that promote the sustainable use of PGRFA (or about 81% of reporting countries from Europe), including measures in relation to (see Figure 4.6):

Figure 4.6
Number of reporting countries from Latin America and the Caribbean (n = 16) with policy and legal measures in place for:



Countries in the region have implemented a broad range of legal, policy, and strategic instruments for the sustainable use of PGRFA that combine seed laws, plant breeders' acts, environmental and biodiversity legislation, and national strategies and policies on seeds, biodiversity, food security, and sustainable agriculture. For instance, one country has adopted a dedicated Seed and Plant Genetic Resources Policy, complemented by a Law on Food Sovereignty, to set standards for seed conservation and sustainable use. Another country has adopted a National Seed Policy 2017–2030 and additional biodiversity strategies to safeguard native varieties. In other instances, resolutions on native seeds have been introduced to regulate access and formalize benefit sharing in ways that encourage sustainable agricultural innovation. Additional measures in other countries, including tailored decrees on seed research and PVP, further illustrate a multifaceted legal landscape designed to promote sustainable use and foster local innovation.

- *Participatory research/plant breeding*

Farmers in the region have been engaged in PPB programs aimed at selecting and conserving local varieties, and underutilized and locally adapted species. These initiatives merge traditional knowledge with scientific advancements, strengthening the adaptability of agricultural systems to changing climatic conditions.

Some national frameworks explicitly provide for the participation of farmers in research on seeds, ensuring their active participation in decision-making and benefit-sharing. In other cases, government-backed programs have successfully engaged farming communities in selecting and evaluating crop varieties, leading to improved adaptation to local conditions. Collaborative breeding initiatives have also been implemented to strengthen conservation strategies within local communities, often facilitated by national agricultural research institutions through technology transfer, workshops and publications.

Efforts to improve the participatory research framework have also involved farmer-led selection of key staple crops such as beans and maize, although challenges remain in achieving official recognition for these improved varieties.

Generally speaking, financial constraints often hinder the sustainability of these initiatives, particularly when it comes to establishing infrastructure such as germplasm banks. In some cases, national biodiversity strategies explicitly support the sustainable use of PGRFA, reinforcing the need for continued investments in plant breeding and conservation research.

- *Enhancing crop diversity and adaptation to meet farmers' needs and local conditions*

Research efforts to enhance local crops have increasingly relied on multi-sectoral partnerships that bring together public institutions, private entities, and community-based organizations. These collaborations have yielded positive results, particularly in genetic improvement programs that focus on adapting crops to local agro-ecological conditions.

Research initiatives have also been launched to improve, classify, and conserve agrobiodiversity, ensuring that newly developed cultivars align with both market demands and the specific requirements of smallholder farmers. The involvement of public and community organizations in these programs has strengthened the sustainable management of local varieties.

In addition, the promotion of agricultural diversity has been integrated into national food and nutrition policies, with efforts focused on incorporating native and wild crops into the food system. These strategies aim to preserve biodiversity, revitalize traditional culinary practices, and develop innovative approaches to food production that maintain cultural identity.

Household and community-level interventions have also played a crucial role in promoting the cultivation of traditional crops, particularly through family gardens that improve dietary diversity and food sovereignty. These initiatives have been essential in reinforcing the role of small-scale farmers in sustaining diverse cropping systems. In some cases, urban and peri-urban family agricultural programs have been implemented to increase the availability of diverse plant species, with a focus on improving diets, food security and resilience to environmental pressures. Such efforts have also prioritized the selection of cultivars that are more resistant to pests and diseases, contributing to long-term sustainability.

- *Market access and value-addition initiatives*

Several countries have implemented strategies to support the commercialization of farmers' varieties, native species, and underutilized crops. These initiatives aim to integrate biodiversity into market systems while ensuring that smallholder farmers benefit from improved economic opportunities.

National policies have also been designed to promote the sustainable use of biodiversity within local productive arrangements, focusing on strengthening priority agricultural value chains. These programs have facilitated market access for small-scale producers and established fairer trading relationships between farmers and other economic actors. Additionally, policies that guarantee minimum prices for products derived from socio-biodiversity have been introduced, benefiting traditional farming communities engaged in the production of locally important crops such as açai, nuts, and babassu. By formalizing trade through structured price mechanisms and organized production chains, these initiatives have contributed to increasing financial returns for small-scale producers.

At the community level, conservation practices have often been embedded in local markets and cultural exchanges. Seasonal fairs and community-based trading networks have further reinforced the preservation and use of traditional crop varieties.

Box 4.2

Supporting farmers' fairs and traditional seed exchange practices

Farmers' festivities, biodiversity fairs, or simply seed fairs are vibrant gatherings that empower farmers to socialize, share knowledge, and exchange valuable farming practices, including seeds and crop varieties. Often intertwined with food fairs and cooking demonstrations, these events celebrate the rich heritage of agriculture. Women, men, and youth come together to present their farm-saved seeds and propagating materials for exchange or sale, fostering a strong sense of community. These gatherings not only showcase a diverse range of PGRFA but also invite attendees to share their experiences and wisdom in farming. They open doors for farmers to access an array of PGRFA, inspiring them to expand their portfolios of farm crops and varieties, or to acquire the seeds they prefer. Some of these examples are:

In Brazil, the Articulação do Semi-árido (ASA) Brasileiro collaborated with the state government of Paraíba to recognize farmers' seeds, improve seed production, and facilitate distribution at the state level. These initiatives were later integrated into national programs focused on agroecology, family farming, and food security. The goals were to conserve biodiversity, promote the production and exchange of local seed varieties, and encourage sustainable farming practices. In 2002, Paraíba enacted a state law allowing direct transfers from the government to farmers. By 2005, the procurement of farmers' seed varieties for distribution through the national Food Acquisition Program (PAA) had begun and was eventually expanded to the national level. The PAA included a component dedicated to purchasing seeds, and various government agencies, including Embrapa, the public sector agricultural research agency, supported seed production, quality control, and seed fairs. Incorporating traditional food crops and farmers' varieties into public procurement programs has strengthened and diversified family farm production, leading to healthier diets. By 2011, the PAA was operational in approximately 40% of municipalities in Brazil, reaching 25,000 governmental and non-governmental organizations and benefiting 15 million people annually through food distribution.

In Cuba, the Instituto de Investigaciones Fundamentales en Agricultura Tropical 'Alejandro de Humboldt' (INIFAT), in alliance with the Instituto Nacional de Ciencias Agrícolas (INCA) and several key organizations, has successfully organized a series of biodiversity, seed, and culinary fairs as part of its important research initiatives. The first seed and biodiversity fairs were launched in the Biosphere Reserves of 'Sierra del Rosario' and 'Cuchilla del Toa' in 1999, followed by the inception of culinary fairs in 2003 in Sierra del Rosario and several other locations. These fairs serve a definitive purpose: to promote the exchange and sell seeds among farmers. They empower farmers from diverse regions to engage actively, fostering essential knowledge sharing and seed exchanges. Women take center stage at the culinary fairs, showcasing their expertise and skill in creating an impressive array of traditional dishes. These fairs have resulted in the revitalization of various traditional foods tied to specific regions, celebrations, and seasons, stimulating much-needed creativity and passion. They underscore the critical link between the conservation of crop diversity and family food culture sharing, making it imperative to extend this knowledge with broader populations.

In Ecuador, the seeds nurtured by farmers from the indigenous communities in Cotacachi symbolize generations of wisdom and resilience. Since 2003, the initiative to promote seed fairs has blossomed, driven by the Union of Indigenous Peasant Organizations of Cotacachi, the Community Organization of Andean Women of Cotacachi, and the National Institute of Agricultural Research. Their mission is to empower farmers by facilitating access to native seeds through a vibrant farmer-to-farmer exchange, fostering the sharing of traditional knowledge on conservation and the use of diverse native varieties. The Muyu Raymi (seed festival) stands as a celebration of innovation and tradition, held for more than 18 consecutive years. With over 80% of participants being women, this festival brings together farmers from rural communities and beyond, creating a powerful network committed to the conservation of agrobiodiversity and protection of traditional knowledge. It serves as a catalyst for shaping local public policies and recognizing the invaluable contributions of farmers to maintaining traditional agroecosystems.

In Peru, between 2001 and 2005, the National Institute of Agrarian Innovation (INIA) joined forces with various organizations to host a series of agrobiodiversity fairs. The goals were clear: to honor the diversity of native crops, celebrate the culinary treasures they inspire, and promote seed exchange among farmers. These agrobiodiversity fairs were seamlessly integrated with local Patron Saint Festivals, uniting communities in a joyful celebration of their cultural heritage and agricultural patrimony. Winners were rewarded with prizes such as organic fertilizers, farming tools, and kitchen utensils, while the most accomplished participants earned the opportunity to showcase

their talents at the national agrobiodiversity fair in Lima. This event ignited a spark of awareness in the urban population, unveiling the extraordinary diversity of native crops preserved by dedicated custodian farmers.

In Jordan has established a biodiversity festival as part of the mission of the National Agricultural Research Center (NARC). This initiative aims to promote sustainable development and comply with international agreements such as the International Treaty. The 21st National Olive Festival and Rural Products Exhibition serves as a marketing platform for small farmers and rural families. The festival has significantly evolved, with the 2021 edition marking a turning point by attracting over 500 participants, including farmers, women farmers, associations, olive mills, and field schools from all governorates. Held in a large exhibition space in Amman, the event attracted over 263,000 visitors and generated sales exceeding 3 million dinars, with 232 tons of olive oil sold. Innovations such as QR code labels for tracking, e-marketing, and electronic payment methods were introduced. By providing a commercial platform, the festival has enhanced conservation through utilization, securing markets for local products and supporting small farmers, particularly those preserving plant genetic resources.

In Bhutan, community-based on-farm conservation and sustainable use of PGRFA was initiated in 2001, mobilizing Agriculture Research and Development Centres (ARDC), the Dzongkhag (District) Agriculture Sector, and local farming communities. This collective effort is focused on conserving, developing, and sustainably utilizing the diverse PGRFA and the essential traditional knowledge that underpins resilient livelihoods and adaptation to climate change. Ninety-eight percent of seed requirements are met through farmers' seed systems. To strengthen this vital system, the government is actively engaged in seed selection, purification, and the rehabilitation of traditional crops, including buckwheat, rice, and maize. CSBs with essential storage facilities have been established, resulting in the rehabilitation and promotion of over 36 rice varieties, three buckwheat varieties, and four maize varieties in the past five years. More importantly, farmers are recognized and rewarded for their significant contributions to crop conservation during biodiversity fairs on key national days, receiving both financial and material incentives. With the support of the government and international partners, educational visits to relevant institutes, empowering thousands of farmers through exchange visits and experience-sharing activities, were organized. To drive production and enhance the sale of farm produce, the government established dynamic cooperatives and farmers' groups. This initiative has led to the opening of 155 functional farm shops and the registration of 61 cooperatives and 370 farmers' groups, establishing a robust framework for sustainable agriculture and community empowerment.

Sources: Extracted from the Inventory, Brazil, Cuba, Ecuador, Peru, Jordan, Bhutan and more examples can be found in the [Inventory](#).

C. Training, capacity-building and awareness raising

Capacity-building initiatives have been widely implemented in Latin America and the Caribbean to enhance farmers' ability to manage and conserve PGRFA. Several research institutions and governmental organizations have contributed to technical training for farmers through workshops, technology transfer programs, webinars and seminars, among others. The inclusion of indigenous networks in some training efforts has reinforced the conservation and production of quality seeds from local varieties.

Workshops on plant breeding and the establishment of CSBs have been conducted to encourage the conservation and development of local varieties. Similar efforts have been made to transfer agricultural technologies through practical demonstrations, visits to germplasm banks, and the distribution of educational materials on native crop utilization. Training initiatives have also been tailored to address the specific challenges faced by small-scale farmers. In some countries, prospective field visits have engaged indigenous collectors in identifying and preserving valuable genetic resources. In others, capacity-building programs have focused on agronomic management, agro-ecological practices, agrobiodiversity conservation, and seed production systems recovery after natural disasters. Meanwhile, legal training has also been conducted to inform farmers about legal frameworks governing genetic resources and benefit-sharing mechanisms.

A strong emphasis has been placed on integrating traditional agricultural practices with modern farming techniques. In one country, exchange visits and training sessions have encouraged farmers to revive traditional knowledge in native crop management while incorporating improved methods such as crop rotation, seed selection, storage techniques, and pest control strategies. In another country, the establishment of agrobiodiversity microcenters with the involvement of farmers has allowed to develop training activities in PGRFA conservation, the development of a communal registry of local varieties,

and the organization of seed fairs. However, the sustainability of these programs has proven challenging, as conservation activities have often ceased in the absence of long-term financial and technical support.

The role of mass communication has also been explored with the production of informative materials such as brochures, technical sheets, and scientific publications to broaden outreach and awareness. For instance, in one country, agroecological production guides and manuals on pollinator-friendly farming practices have been developed to support sustainable agricultural management. In another country, a programme dedicated to urban, suburban, and family agriculture includes specific guidelines for the conservation of local plant species and native varieties, recognizing these measures as contributing to Farmers' Rights.

Additional strategies, including the organization of seed fairs and culinary events, have further contributed to increasing awareness and promoting the use of diverse crop varieties. Public awareness campaigns have also been developed through national television, radio, and other media platforms to disseminate information on conservation efforts and farmers' rights.

Knowledge exchange events have fostered collaboration between farmers, researchers, and policymakers. Large-scale biodiversity congresses have been organized to promote knowledge-sharing on sustainable agricultural practices. Regional events have facilitated exchanges between traditional farmers and indigenous groups to exchange knowledge and experiences. These gatherings have included workshops on national policies related to biodiversity conservation and protection of traditional knowledge.

Despite these efforts, the continuity of training programs remains a concern, as many initiatives rely on external funding and institutional support. Strengthening local leadership and securing financial mechanisms for long-term capacity-building will be crucial for sustaining the progress achieved in PGRFA conservation across the region. Moving forward, integrating traditional knowledge with innovative conservation techniques and fostering stronger collaborations between farmers, researchers, and policymakers will be essential for ensuring the resilience of agricultural biodiversity.

5.4.3.3 Monetary benefits

Several countries have developed financial support systems to encourage the conservation and sustainable use of traditional crops. Direct subsidies and guaranteed minimum price policies, and/or public procurement have been put in place to ensure economic returns for small-scale producers cultivating native crops and non-timber forest products. Structured price lists and production chains have helped formalize trade, improving financial stability for farmers engaged in these activities.

Competitive funding initiatives have also played a role in preserving traditional agricultural heritage. Government-supported projects have encouraged the valorization of native crops by integrating them into local economies, with a particular focus on agroecology, agrotourism, and smallholder diversification strategies. In one country, a Research Fund for Agrobiodiversity, Seeds, and Sustainable Agriculture established as a financial instrument aims to promote research programs and projects, plant breeding, seed production, and technology transfer, financed with resources allocated from the general state budget. Additionally, financial and technical assistance has been provided to farmers involved in biodiversity conservation through the establishment of agrobiodiversity microcenters, although the sustainability of these initiatives has been challenged by inconsistent funding.

Experiences and lessons learned

Multistakeholder survey responses about experiences and lessons learned in promoting the rights of farmers to participate in equitable sharing of benefits arising from the use of PGRFA, as follows:

- Monetary benefits

- One respondent described the government's approach to benefit sharing by establishing a national fund that receives a fixed percentage from profits made from reproductive material. Decisions regarding the allocation of resources are made by a committee that includes peasants

as members. Similarly, another respondent described the establishment of a national fund for benefit sharing, which provides funding for projects from the state resources.

- Non-monetary benefits

- Some respondents described the benefit-sharing through engagement in technological advancements and capacity-building initiatives.

- Policy and legal framework

- One respondent described establishing a mechanism on “Regulation on Access to Genetic Resources and their Derivatives includes monetary and non-monetary benefits for providers of biological resources containing genetic resources of cultivated species of origin”. These providers can be farmers, communities, or others, as outlined in the Nagoya Protocol of the CBD.

- Administrative measures

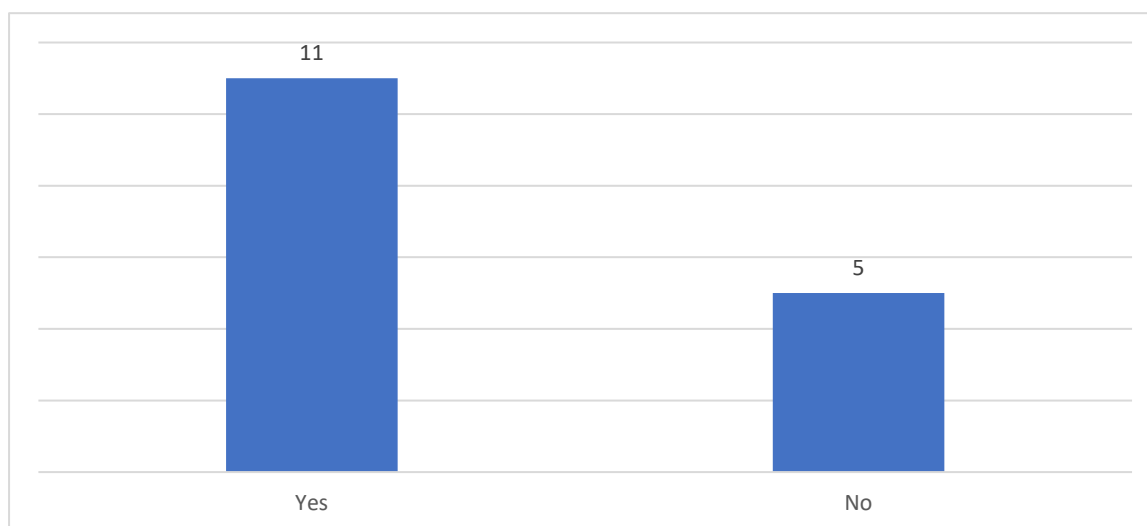
- Different countries have varying approaches, or have specific regulations, for instance, one country allows provinces to manage genetic resources, while in another country, a prior informed consent is the only regulatory mechanism for benefit-sharing distribution.
- Through social movements, ensuring their involvement in decision-making processes. However, some stakeholders believe that public policies do not adequately address Farmers' Rights.

5.4.4 Farmers’ right to participate in making decisions, at national level, on matters related to the conservation and sustainable use of PGRFA (Article 9.2c)

A total of 11 countries (or about 69% of reporting countries from Latin America and the Caribbean) have taken measures to protect farmers’ right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of PGRFA.

Figure 4.7

Number of reporting countries from Latin America and the Caribbean (n = 16) who have taken measures to protect and promote farmers’ right to participate in making decisions



- *Institutional mechanisms for farmers’ participation*

Several countries have developed institutional mechanisms to integrate farmers into policy-making processes. Producer organizations play a direct role in influencing national policies on PGRFA by participating in formal governmental committees, ensuring that their perspectives are considered in conservation and agricultural strategies. Some countries have gone further by legally recognizing the contributions of peasant farmers to PGRFA conservation and incorporating them into governmental

decision-making processes. Similarly, legislation has been enacted to establish a special regime to protect and promote traditional knowledge and guarantee the involvement of local communities' authorities in biodiversity-related governance.

- *Participatory governance structures*

In many cases, dedicated platforms have been established to facilitate farmers' and local communities' engagement with public institutions. Multistakeholder committees provide a space for farmers and indigenous groups to express concerns and priorities regarding the protection of plant genetic resources and traditional knowledge. Such initiatives have been supported through international agreements and funding mechanisms, ensuring the alignment of local governance structures with broader global frameworks. Additionally, forums specifically focused on indigenous and Afro-descendant communities serve as avenues for raising awareness about international treaties on genetic resources and benefit-sharing, further integrating marginalized groups into policy discussions.

Technical committees dedicated to PGRFA have also been formed to strengthen dialogue between agricultural associations, research institutions, and policymakers. These committees work toward developing action plans that align with national conservation priorities while addressing the needs of farmers.

- *Environmental governance and community-based decision-making*

Some countries have implemented comprehensive policies that integrate farmers into broader environmental governance structures. National policies on territorial and environmental management have been established to safeguard indigenous lands and natural resources while promoting sustainable agricultural practices. These policies emphasize indigenous governance and participation, biodiversity conservation, and the protection of genetic heritage, ensuring that local communities play an active role in shaping environmental strategies.

In other cases, decentralized governance models have been introduced, granting local communities the power to manage natural resources and contribute to agricultural policy formulation. Legal frameworks have been designed to strengthen grassroots participation by allowing farmers, indigenous groups, and local communities to take part in planning and decision-making processes. These laws not only regulate seed conservation efforts but also promote community-led seed banks, ensuring the preservation and availability of local crop varieties. Importantly, these legislative measures have been shaped through public consultations with farmers, peasants, Indigenous Peoples, and other social movements, highlighting the role of participatory governance in agricultural policy development.

Experiences and lessons learned

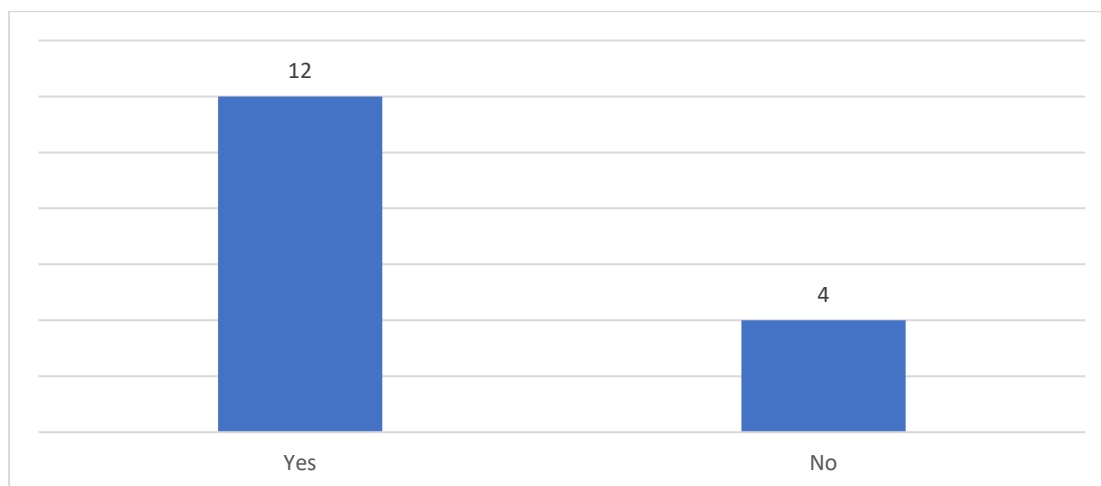
Below is the summary of the experiences and lessons learned as provided by the multistakeholder survey responses:

- Most of the countries in the region have measures for engaging farmers and local and indigenous communities, and that authorities enable or support their participation and representation in technical committees, dialogues, and discussions concerning PGRFA.
- However, one country emphasized the importance of continued discussions with farmers, indigenous communities, farming communities, and government entities for effective implementation of Farmers' Rights.
- Additionally, current actions promoting farmer participation in decision-making related to PGRFA are necessary, and face-to-face participation at national and international levels is needed.

5.4.5 Farmers' right to save, use, exchange and sell farm-saved seed, subject to national law and as appropriate (Article 9.3)

A total of 12 countries from Latin America and the Caribbean (or 75% of reporting countries) have taken measures to protect the rights for farmers to save, use, exchange and sell farm-saved seed.

Figure 4.8
Number of reporting countries from Latin America and the Caribbean (n = 16) who have taken measures to protect the rights for farmers to save, use, exchange and sell farm-saved seed



- *Legal frameworks governing farm-saved seeds*

Some countries have established legal frameworks that explicitly recognize farmers' rights to conserve, use, and exchange plant genetic resources. These laws often recognize traditional knowledge and address seed-saving practices as an essential component of agricultural sustainability. For instance, national legislation promoting agrobiodiversity conservation in certain countries guarantees fair and equitable benefit-sharing while ensuring farmer participation in seed management and protecting the informal exchange of seeds within traditional networks of seed distribution. Certain initiatives provide direct support for restoring, revitalizing, and promoting local seed varieties through dedicated national programs. In one country, the formal recognition of Creole seeds in seed trade policies has facilitated their broader adoption among smallholder farmers, enhancing both conservation and economic opportunities.

- *Policy reforms and institutional support*

Ongoing policy reforms in several countries aim to strengthen the legal recognition of farmers' seed systems. National seed policies and proposed amendments to existing seed laws seek to integrate traditional knowledge and promote the recovery of traditional crop varieties. In some cases, reforms have focused on incorporating native seeds into formal certification systems, allowing for improved recognition and regulation of locally adapted seed varieties. However, challenges persist in balancing scientific standards for seed quality with participatory research approaches that include small-scale farmers.

- *Traditional farmer seed exchange platforms*

Peasant farmers continue to exchange and share their seeds through agrobiodiversity fairs, seed fairs, CSBs, farmers' markets, and farmer-to-farmer seed exchanges. These activities are often facilitated by projects funded by the state or external sources, and sometimes with assistance from civil society organizations.

Experiences and lessons learned

The responses in the region described their experiences and lessons learned that are summarized as follows:

- Some countries addressed the conservation activities of PGRFA but emphasized the absence of public policy to ensure specific financial resources for sustainable use activities, noting that existing actions are insufficient and ineffective.
- Provincial and national legislation concerning access to and circulation of propagation material of native species are mentioned. The respondents cited initiatives and activities that facilitate the sharing, selling, and exchanging seeds, platforms such as seed fairs, CSBs, market fairs, and value-addition activities. The respondents highlighted the role of seed fairs, which are based on solidarity, friendship, and trust, and play a crucial role in climate change adaptation and food sovereignty. Additionally, the respondents discussed the threats posed by extractive mining projects to the production of native and creole seeds.
- Various initiatives at governmental and non-governmental levels are promoting the recognition of Farmers' Rights through capacity building, PPB, demonstration plots, CSBs, and FFS. However, some countries stressed that the implementation of Farmers' Rights is still lacking.

Cases where farmers have been taken to court, fined or otherwise sanctioned for saving, exchanging and/or selling seed/propagating material of varieties protected with plant breeder's rights or patents

- In Brazil, between the years 2000 and 2015, there was a significant industry campaign aimed at discrediting commodity crop producers (farmers) who saved seeds from their own crops when using industrial seeds. These seeds were labeled as "pirate seeds" in an effort to combat the non-payment of patent royalties. This campaign also criminalized and severely impacted family farmers, peasants, and traditional communities who use, save, and conserve genetic resources of interest to food and agriculture (traditional seeds and local varieties).
- In Costa Rica, the use of the Rosé pineapple has been documented in several regions of the country. Consequently, the State Phytosanitary Service conducted inspections and issued warnings to those in possession of this variety, as it is a GMO.
- In Argentina, regarding protected varieties, the issue has not been with native species but with commercial varieties. Commercial farmers, whose activities involve the production of cereals and oilseeds for the commercial chain, have used protected varieties without recognizing their ownership at the time of access, thereby acquiring illegal seeds. However, if the seeds were acquired legally, farmers are permitted to use them without seeking authorization from the breeder.
- In Colombia, there were instances of seed seizure between 2010 and 2012 under the application of Resolution 970 of 2010. The most notable case occurred in the department of Huila, where the ICA seized and destroyed rice seeds from small farmers. These seizures led to the peasant movement demanding the repeal of this resolution. Although the resolution was amended, full guarantees have not been provided for the recovery, protection, production, and free circulation of native and creole seeds, as well as for the protection of associated traditional knowledge.

5.4.6 Gaps and needs with regard to the realization of Farmers' Rights

- Legal and policy frameworks

- In many countries from this region, the absence of a comprehensive legal framework, or outdated legislation, weakens the enforcement of measures to protect and promote Farmers' Rights.

- In some instances, while laws exist to safeguard traditional knowledge and seed conservation, enforcement remains weak due to bureaucratic obstacles, limited institutional capacity and lack of awareness among farmers of their legally enshrined rights.
- In certain countries, regulatory frameworks on genetic resources primarily outline general principles but lack implementation mechanisms and sufficient funding to ensure meaningful application.

- Institutional coordination

- Another issue across the region is the lack of inter-institutional coordination and harmonization of policies. In several cases, national and provincial regulations do not align, creating inconsistencies and gaps in compliance with international treaties.
- In other cases, national commissions dedicated to plant genetic resources exist but lack operational capacity and coordination mechanisms.

- Obstacles to support farmers' efforts in *in situ* and on-farm conservation and sustainable use

- Farmers face difficulties accessing and conserving seeds due to legal and logistical barriers. In some cases, indigenous communities lack the technical and legal expertise to negotiate with governmental and corporate entities regarding seed conservation and benefit-sharing.
- In other countries, seed registration, production, and commercialization standards are either non-existent or need to be standardized to facilitate the exchange and conservation of native seeds.
- While there have been initiatives to support PGRFA conservation, these efforts often lack an integrated and systematic approach. For instance, although some institutional projects have been launched for the sustainable use of genetic resources, they have largely been driven by researchers rather than coordinated national strategies.
- Some countries lack a comprehensive inventory of traditional and native crop varieties and documentation of new seed varieties which hampers documentation efforts.
- Research efforts on genetic diversity remain fragmented, and valuable data is often scattered across different institutions without a centralized database.

- Financial and human resources to support activities that protect and promote Farmers' Rights

- Limited investment in conservation programs restricts efforts to safeguard genetic diversity.
- In several cases, research programs on plant genetic resources are underfunded, leading to a lack of comprehensive studies, particularly on traditional or underutilized crops.
- Financial support for farmers to access markets and benefit from conservation efforts remains inadequate.
- There is also a shortage of skilled personnel specialized in genetic resource management, research, advanced conservation techniques and legal matters.
- Capacity-building efforts are further constrained by limited training opportunities for farmers and institutions responsible for implementing conservation programs.

- Awareness raising

- One important obstacle to implementing Farmers' Rights is the limited awareness among farmers themselves of their rights, reducing their ability to engage in conservation and benefit-sharing initiatives such as financial incentive schemes.

- Some nations have implemented financial incentive schemes, such as guaranteed minimum price policies for traditional crops, to support socio-biodiversity product chains. However, bureaucratic inefficiencies and low levels of farmer engagement have limited the effectiveness of these mechanisms.
- The lack of public awareness and political engagement in the conservation and use of PGRFA has further hindered progress in implementing Farmers' Rights.

- Gender-related factors that may limit the realization of Farmers' Rights

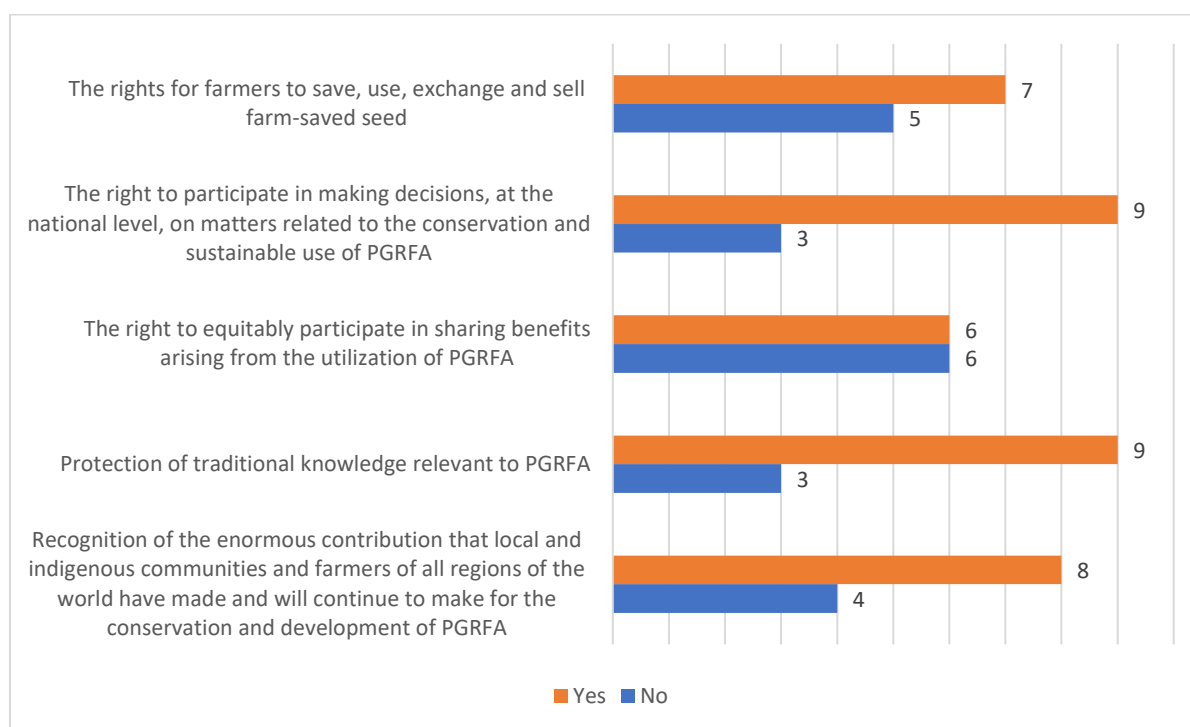
Some respondents of the multistakeholder survey highlighted that there are policies that do not address the situation of many women farmers, where the distribution of financial resources is restricted, thereby affecting their potential for innovation and entrepreneurship. This subsequently limits the capability of women farmers to manage and conserve PGRFA.

5.5 NEAR EAST

There are 20 countries in Near East, including 18 countries who are contracting parties to the International Treaty. By April 2025, a total of 12 countries from this region have submitted a national compliance report to the Secretariat of the International Treaty. The information below summarizes the information found in the 12 national reports submitted to the Secretariat of the International Treaty, supplemented by information from the Inventory (13 submissions) and 11 responses from nine countries gathered through the multistakeholder survey conducted by the Secretariat of the International Treaty.

All reporting countries from Near East have taken measures that contribute to the implementation of Farmers' Rights, although not in all aspects of Farmers' Rights (see Figure 5.1). Although no country from Near East has adopted a legislation specifically dedicated to protecting and promoting Farmers' Rights, one country has a legislation aimed to ensure ownership of genetic resources and decision-making power for farmers.

Figure 5.1
Number of reporting countries from Near East (n = 12) who have taken measures for:

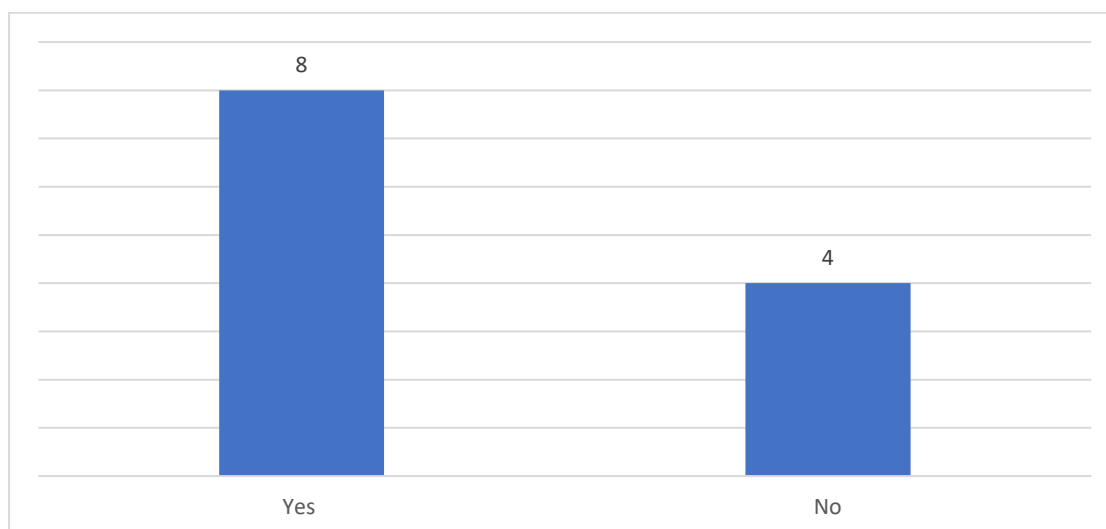


PROVISIONS OF ARTICLE 9

5.5.1 Recognition of the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development (Article 9.1)

A total of eight countries from Near East, or 67% of reporting countries from this region, report having taken measures to recognize the enormous contribution that local and indigenous communities and farmers of all regions of the world have made and will continue to make for the conservation and development of PGRFA.

Figure 5.2
Number of reporting countries from Near East (n = 12) who have taken measures to recognize the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development



Some initiatives include awards and festivals that reward farmers for maintaining traditional varieties and practicing sustainable agriculture. For instance, initiatives such as national farmers' awards for date palm and traditional festivals explicitly incentivize farmers and encourage participation by celebrating indigenous agricultural practices and promoting organic farming groups. In another context, the recognition of farmers' contributions is promoted by naming improved crop varieties after farmers who collaborated in breeding or selection processes (e.g. "Baftaim" onion, "Ghoneimi", wheat, and "Wadel Bashir", and Ashana" millet). Other recognition awards were through the designation of GIAHS.

Experiences and lessons learned

Based on the available information, below is the summary of the experiences and lessons learned regarding measures introduced to recognize the contribution made by local and indigenous communities and farmers in the conservation and development of PGRFA.

- Some agricultural laws cover the recognition and support to farmers.
- However, these laws necessitate further detail and support, including a need for continuous institutional and financial backing for initiatives, projects, and programs.

Box 5.1

Capacity building of farmers and local communities in conserving and managing local crops

Technical support for farmers

The NARC in Jordan is dedicated to enhancing agricultural production while preserving our precious natural resources and maintaining ecological harmony. Through a series of impactful projects, NARC empowers farmers with vital technical and logistical support. The Food Security Project, launched in 2016, established 200-250 field observation sites, paving the way for hope and growth. The Field Schools Project, which began in the 2004/2005 growing season, started with vegetables and later embraced fruit trees and other crops. Its mission is to unite researchers, agricultural extension agents, and farmers in a groundbreaking agricultural journey. In a bold step towards innovation, NARC introduced the Agricultural Innovation Incubator Initiative on February 26, 2019. This inspiring initiative transforms entrepreneurial ideas into reality, strengthening the national economy, fostering sustainable development, and creating job opportunities and success stories that celebrate the resilience of farmers.

Transfer of technology to farmers

Farmers in the semi-arid regions of the Al Jaffara plain, south of Tripoli, Libya, face challenges with limited access to technology and high prices for agricultural inputs. In 2018-2019, the Safit Station for Agricultural Research and Studies and the Animal Research Center reignited hope by re-launching a technology transfer

program to support these resilient farmers. Initially established from 1991 to 2000, this program aimed to empower farmers with the knowledge of appropriate agricultural techniques for cultivating crops in their arid environment. Through this initiative, farmers learned to apply suitable methods, select the best seed types and varieties, and ultimately enhance their farm incomes. The program began with 49 farmers in 2018 and expanded to approximately 136 in 2019, demonstrating a commitment to community growth. As a result, farmers gained a newfound appreciation for the significance of adopting agricultural techniques tailored to their harsh conditions, enabling them to make informed choices in crop cultivation and embrace agricultural technologies that can transform their lives.

Evolutionary Participatory Plant Breeding

In 2008, the Centre for Sustainable Development and Environment (Cenesta) embarked on an ambitious journey through the Evolutionary Participatory Plant Breeding (EPPB) Programme in Iran. This initiative brings together a diverse network of national and international partners, including government agencies, non-governmental organizations, research institutions, and farmers' associations. The mission is to empower low-input, marginal farmers across Iran's unique microclimates, enriching their resilience by increasing genetic diversity and cultivating evolutionary crop populations that can thrive amidst the challenges of climate change and local stressors such as drought, water scarcity, salinity, pests, and diseases. Central to this program are two vital components: the establishment of evolutionary populations (EPs) in farmers' fields, ensuring a sustainable seed supply, and the enhancement of policies and regulations that promote the responsible use of PGRFA. By developing the capacity of farmers and researchers, the programme fosters a supportive environment to access, maintain, and utilize these innovative crop populations. This not only boosts productive gains but also ensures yield stability and reinforces ecosystem resilience. Through this inspiring initiative, nutritious food and feed can flourish in the market, fostering a sustainable future for all.

Community-based initiatives

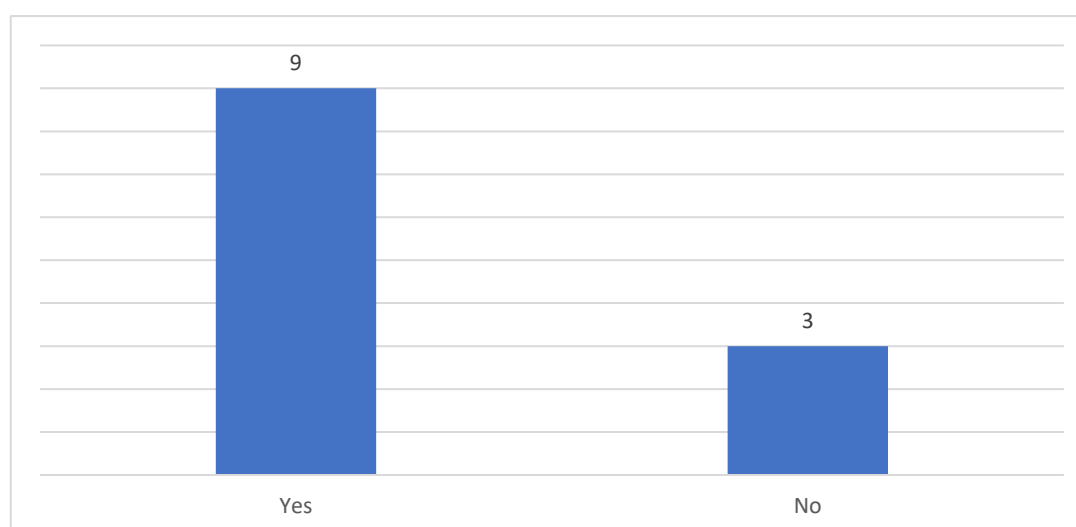
Between 2010 and 2012, PPB trials were conducted in Sudan, supervised by plant breeders from three agricultural research stations located in the traditional rain-fed regions of Kordofan and Darfur. The goal was to develop and release improved millet varieties suitable for these areas. The trials included two varieties co-developed by a farmer named Wad el-Bashir, who worked with a plant breeder from the Elobied research station. These varieties were based on local millet species, alongside a previously released variety called 'Ashana'. The new varieties were registered under the name of Wad el-Bashir, representing a form of non-monetary benefit-sharing. This registration allowed for the legal production, marketing, and distribution of these farmer-developed varieties, which significantly increased the area cultivated with millet and contributed to improved food security at a national level. Another initiative to support farmers was the establishment of Community-based Seed Growers Groups (SGGs) as part of the Seed Development Project, implemented from 2012 to 2018. This project was a collaborative effort between government organizations and authorities in North and South Kordofan, alongside public and private sector partners such as service providers and local extension teams. The aim was to enhance the productivity of smallholder farmers by promoting the use of certified seeds for crops grown under rain-fed conditions in both states. The project encompassed four complementary components: (i) strengthening the regulatory environment and relevant government institutions; ii) improving the seed production system through necessary support; (iii) developing markets by assisting farmers' groups, associations, and private sector enterprises in providing relevant technologies, goods, and services; and (iv) effective project management. As a result of these efforts, 17 community-based SGGs were established, involving a total of 853 farmers, with women constituting 38% of the participants. These groups were enabled to produce certified seeds of both improved and traditional varieties, which were sold to seed companies, neighbors, and farmers in other regions of Sudan, including West Kordofan and Darfur. Ultimately, these achievements have led to a significant enhancement of food security nationwide.

Sources: Extracted from the Inventory ([Jordan](#), [Libya](#), [Iran](#) and [Sudan](#)).

5.5.2 The protection of traditional knowledge relevant to PGRFA (Article 9.2a)

A total of 9 countries, or 75% of reporting countries from Near East, have taken measures to protect traditional knowledge relevant to PGRFA.

Figure 5.3
Number of reporting countries from Near East (n = 12) who have taken measures to protect traditional knowledge relevant to PGRFA



While direct legal recognition of traditional knowledge associated with PGRFA remains limited in scope, some countries have adopted intellectual property laws that include specific provisions for the protection of traditional knowledge related to plant genetic resources. Another country has initiated steps that contribute to its preservation. For instance, legal instruments regulating the harvesting and use of wild medicinal and aromatic plants help to protect traditional knowledge and uses associated to them.

In addition to legal measures, some countries have established specific mechanisms to document traditional knowledge. In one country, the traditional knowledge and practices of farmers from various regions have been documented under national projects and programs. Another country reports that nine agricultural research stations dedicated to field and horticultural crops have been established, where seed collection and conservation efforts are systematically conducted, ensuring documentation and selection of valuable plant varieties and the associated traditional knowledge. However, one country mentioned that the focus of protection of traditional knowledge is more on WFP and less on local landraces and farmers' varieties.

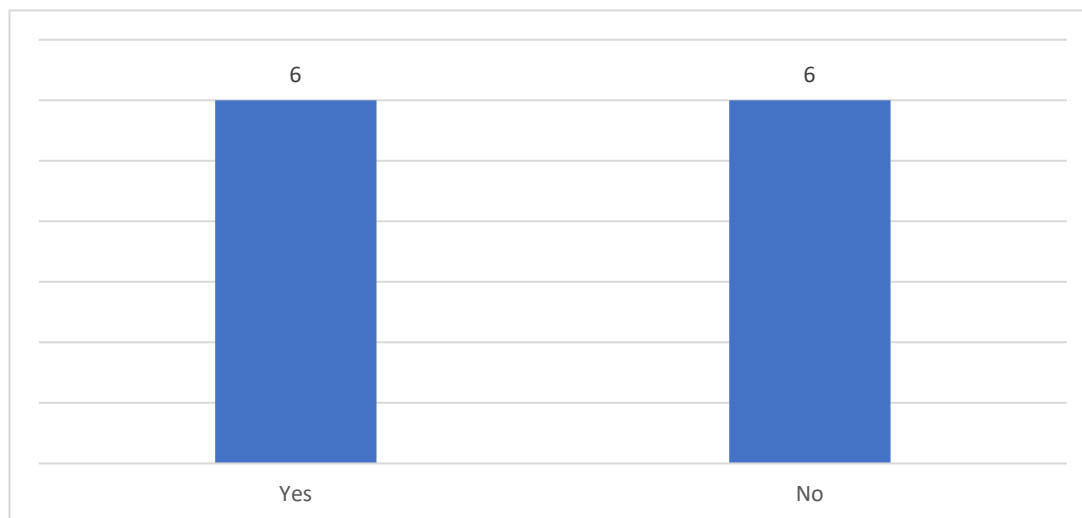
Community engagement also supports the protection of farmers' traditional knowledge. Two countries highlight the importance of collaboration and social inclusion in conservation initiatives and preservation of traditional knowledge. In one reporting country, farmers are encouraged to organize into associations, for instance the seed producers' association, the grape association, and the coffee association, allowing them to collaborate on conservation and marketing of traditional varieties and exchange traditional knowledge. In another country, women are encouraged to participate in conservation projects, expanding engagement across different farming groups, strengthening social inclusion in conservation programs, and contributing to the use of their traditional knowledge and hence its preservation.

Protection of traditional knowledge, innovations, and practices related to PGRFA were also promoted through, inter alia, farmer-managed seed system i.e. CSBs, seed fairs and local markets, cross-visits between farmers and researchers/scientists.

5.5.3 Farmers' right to participate in benefit-sharing (Article 9.2b)

A total of 6 countries, or 50% of reporting countries from Near East, report having taken measures in relation to farmers' rights to equitably participate in sharing benefits arising from the utilization of PGRFA.

Figure 5.4
Number of reporting countries from Near East (n = 12) who have taken measures to protect farmers' right to participate in benefit-sharing



5.5.3.1 Legal and policy frameworks on access and benefit-sharing

Several countries have draft or enacted laws guided by the Nagoya Protocol which include access and benefit-sharing (ABS) provisions. In one case, dedicated legislation has been developed specifically to implement ABS commitments under both treaties through a unified legal instrument.

Other measures include seed laws, legislation on plant breeders' rights, legislation to manage PGRFA, agricultural laws and environmental protection acts that indirectly reinforce equitable access to benefits derived from the use of genetic material.

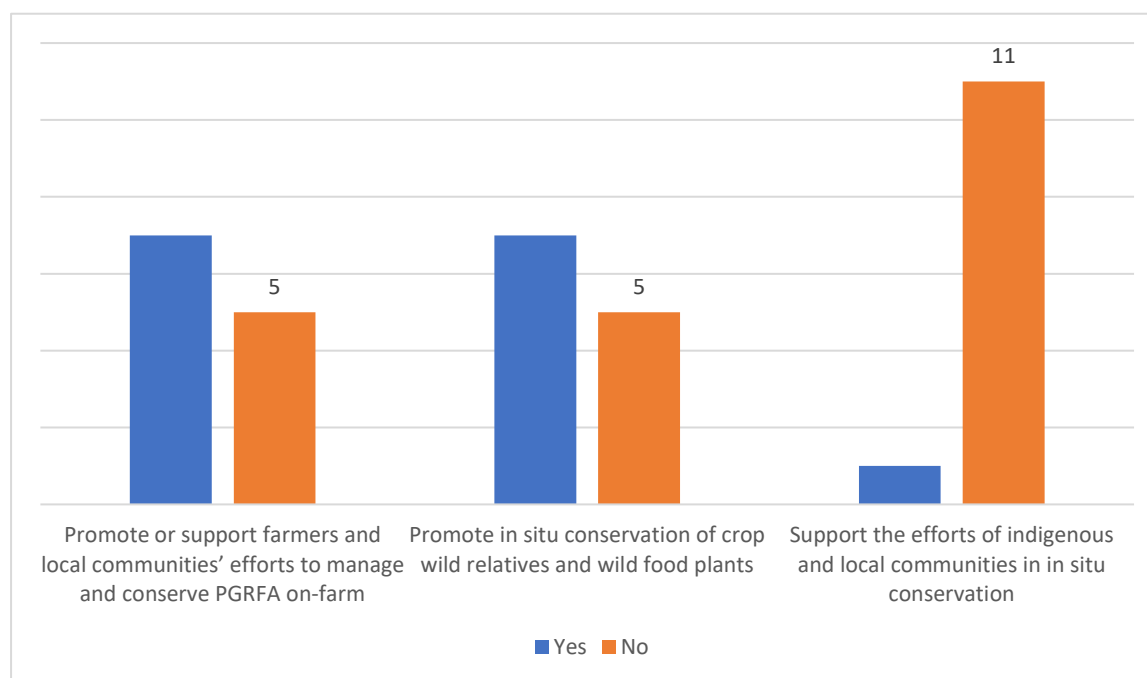
At the policy level, several countries have adopted national PGRFA, agricultural or biodiversity strategies and action plans that also support farmers' efforts in conservation and sustainable use of PGRFA, while others have also developed national seed policies.

5.5.3.2 Non-monetary benefits

A. Supporting farmers and local communities' efforts to manage and conserve PGRFA on-farm and *in situ*

A total of seven reporting countries from this region (about 58% of reporting countries from Near East) have promoted or supported farmers and local communities' efforts to manage and conserve PGRFA on-farm. However, while seven countries from this region also report promoting *in situ* conservation of CWR and WFP, only one country has supported the efforts of indigenous and local communities in *in situ* conservation.

Figure 5.5
Number of reporting countries from Near East (n = 12) who have taken measures to:



Legal and policy instruments that support on-farm and *in situ* conservation across the region include general environmental protection laws and more targeted agricultural regulations that safeguard plant genetic resources in their natural habitats and support the conservation of CWR, as well as national biodiversity strategies and action plans. However, it is noted that these policies do not provide adequate reference to or even mention farmers. In one case, reforms to seed laws are underway to better align with breeder's rights and international treaty obligations.

- *Facilitation of farmers' access to a diversity of PGRFA*

Most countries have initiatives for providing farmers with improved or traditional seeds, often linked to national institutions or international genebanks. For instance, in one country, a seed multiplication programme has been implemented with subsidies from the Ministry of Economy leading to the distribution of wheat and barley seeds to farmers at a symbolic price. In the same country, farmers from a specific region received old accessions of wheat and barley landraces from ICARDA Genebank under a regional project implemented through the BSF of the International Treaty. This helped restore traditional seed systems and improving seed diversity and resilience. In another country, the registration of local farmer varieties has led to commercial seed production and marketing. This process has enabled farmers to legally produce and distribute seeds, resulting in an increase in millet cultivation and improved food security.

- *Institutional and research support*

In some countries, governments play a critical role in ensuring that seeds of traditional and improved varieties remain accessible to farmers. In one country, the expansion of government-supervised seed production over the years has strengthened conservation efforts with a focus on important crops like wheat and barley. In three other countries, farmers are encouraged to conserve and use local genetic resources by receiving improved seeds and seedlings from government institutions who also provide financial and technical support to make seed conservation economically viable. Collaboration among the Ministry of Agriculture, the national Agricultural Research Institute, and the private sector in another country has resulted in the implementation of a programme to produce certified seeds of fruit trees such as stone fruits, olive, grapevine, and citrus.

- *Farmers' participation in agricultural innovation and research*

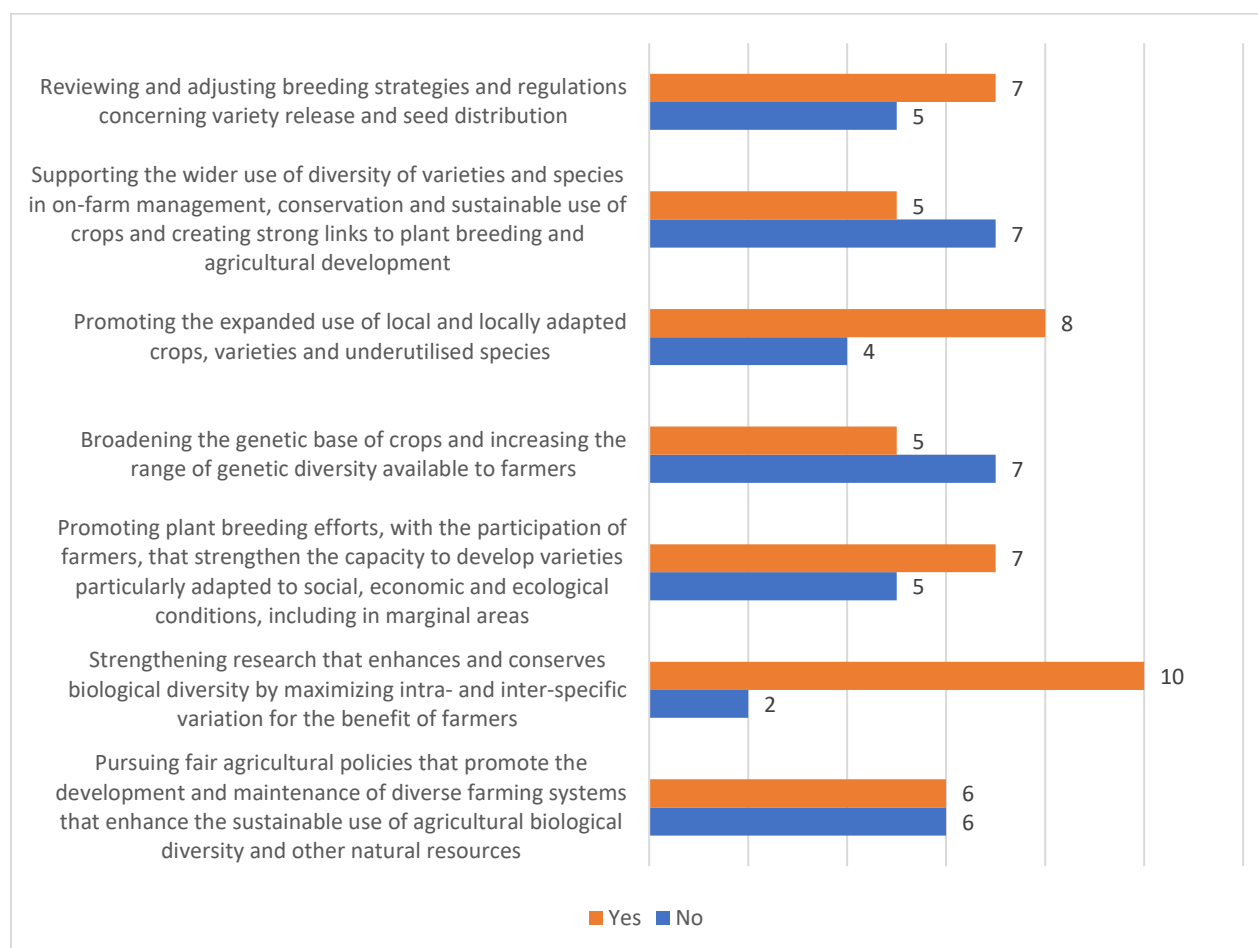
Reliance on farmers' traditional seed selection also enhances PGRFA diversity. For instance, in one country, the use by farmers of resilient, long-lived stands over multiple generations of the 'Omani' alfalfa variety has ensured that these important 'survival' characteristics are preserved and enhanced in successive multiplications. In this country, farmers actively produce vegetables and fruit crop seeds as well as propagating materials of tree crops such as date palm, mango, acid lime and other citrus species, while the Ministry of Agriculture has established nurseries in different regions which produce seedlings of date palm, mango, acid lime, and other citrus species and crops.

B. Supporting the participation of farmers in sustainable use of PGRFA

All but one reporting countries from Near East have taken policy and legal measures that promote the sustainable use of PGRFA. Figure 5.6 provides details on the types of measures adopted in the region.

Figure 5.6

Number of reporting countries from Near East (n = 12) with policy and legal measures in place for:



Efforts to promote the sustainable use of PGRFA are supported by a range of seed laws, PVP frameworks, and national agricultural strategies. For instance, one country has developed a comprehensive seed policy that includes provisions to support private sector participation in seed development while ensuring public access to new varieties. In another country, recent efforts have focused on drafting or updating legislation concerning the protection of new plant varieties and seed certification.

- *Participatory research/plant breeding*

Several countries from Near East focus on research-driven improvements in PGRFA use, particularly in breeding and varietal development with the involvement of farmers through breeding programs with direct farmer involvement; integration of PGRFA use into research, education, and on-farm practices; and promotion of farmer-led breeding efforts for crop improvement. For instance, depending on the country, farmers participate in field evaluation of breeding lines; researchers and plant breeders are encouraged to develop varieties suited to local environments, with research centers and universities leading efforts to find resilient crop varieties; evolutionary/PPB is supported and the expansion of local and underutilized crop varieties is promoted.

In three countries that are experiencing significant unrest, affecting the livelihoods of rural communities, agricultural activities and local agrobiodiversity, a FAO regional project implemented through the BSF of the International Treaty “Strengthening national capacities and regional integration for efficient conservation of Plant Genetic Resources in a post-conflict region” involves farmers in crop selection strategies. Under this project, PGRFA are used for scientific (some accessions might enter a research programme), educational, and farmer-centered purposes (farmers will benefit from certified landrace seeds that were planted previously). Some landrace accessions have been reintegrated into research and production systems.

- *Market access and value-addition initiatives*

In one country, a six-year project on rural economic growth and employment funded by IFAD engages farmers, rural entrepreneurs, and microfinance institutions to integrate smallholder farmers into value chains. In this country, the Ministry of Industry, Trade and Supply is responsible for buying grains from farmers at preferential prices.

C. Training, capacity-building and awareness raising

Various training initiatives have taken place in Near East to strengthen technical capabilities among stakeholders, including researchers, extension agents, farmers, and policymakers. For instance, national agricultural research institutes organize periodic workshops, specialized training courses, and seminars on plant breeding techniques, germplasm management, seed multiplication, and conservation methods. Transfer of technologies and their application to conservation and sustainable use of PGRFA were also delivered to farmers as a form of non-monetary benefit-sharing. Additionally, farmer field schools, through demonstration plots and collaborative group learning, represent a practical and participatory approach adopted in some countries to enable farmers to directly gain practical experience in sustainable agricultural practices, integrated crop management, and effective conservation techniques. In parallel, study tours and international or regional exchange visits constitute an additional capacity-building method utilized in the region.

Countries in Near East have also adopted varied approaches to public education and community. Notably, national awareness campaigns, media outreach, national biodiversity celebrations, traditional festivals, and targeted dissemination of educational materials are utilized across the region. Initiatives at the community level, such as festivals to promote dates, mangoes and citrus farming, highlighting traditional agricultural knowledge, play a dual role by simultaneously raising awareness and incentivizing participation among local farmers. Besides, science days and specialized events that stakeholders ranging from scientists and extension agents to farmers and policymakers are organized as platforms for knowledge dissemination, research sharing, and public engagement.

5.5.3.3 Monetary benefits

- *Financial support and direct subsidies*

Some countries implement direct financial support measures, particularly through seed production and distribution programs. For instance, governmental subsidies enable farmers to obtain seeds at subsidized or symbolic prices, facilitating access to improved varieties. In one country, an established

seed multiplication and distribution programme has been in place since the 1960s, providing wheat seeds to farmers at minimal cost. Another example includes governmental contracts with local farmers who produce certified seeds under supervision, subsequently distributed at promotional prices to other local farmers. This arrangement not only ensures wider access to high-quality seeds but also provides direct economic returns to the participating seed-producing farmers. In another country, Farmers' Rights are indirectly supported through preferential pricing.

- *International funding mechanisms*

Funding mechanisms frequently involve cooperation with international bodies. A notable project supported by international funding specifically aims at rural economic growth, employment creation, and value chain integration for small-scale farmers with a special focus on vulnerable rural populations, including youth and women. Financed through international loans and grants, this project enhances farmers' capacity, market integration, and overall economic empowerment.

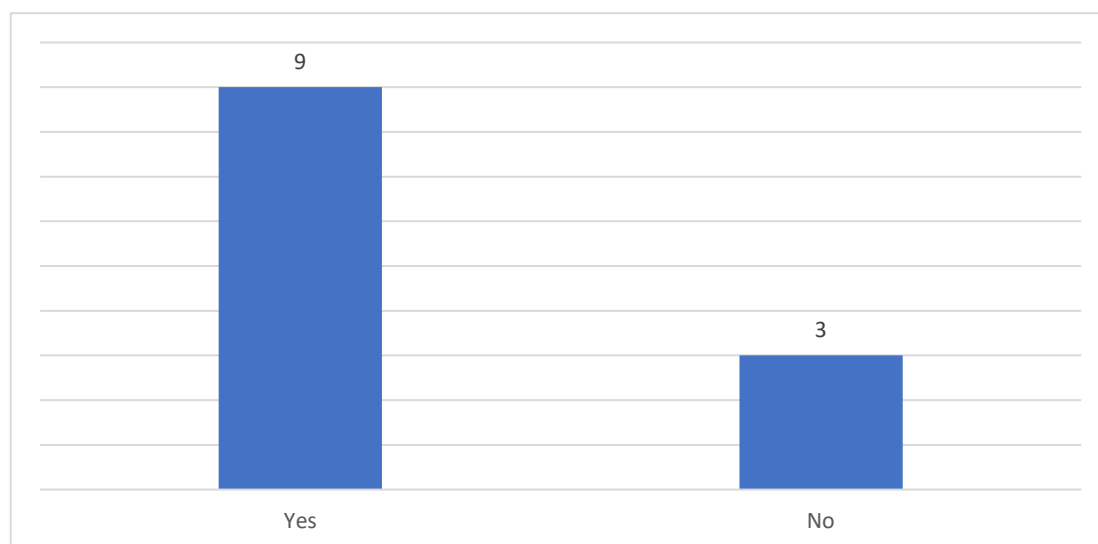
Additionally, as of this assessment, there are 14 projects funded under the BSF of the International Treaty, with 11 projects completed. Three ongoing projects span six countries, focusing on the on-farm management of local crop genetic diversity. These projects engage farmers in the crop genetic improvement of this diversity, aiming to enhance food security, improve rural livelihoods, and increase resilience to climate change through improved crop production.

5.5.4 Farmers' right to participate in making decisions, at national level, on matters related to the conservation and sustainable use of PGRFA (Article 9.2c)

A total of nine countries, or 75% of reporting countries from Near East, have taken measures to protect the right of farmers to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of PGRFA.

Figure 5.7

Number of reporting countries from Near East (n = 12) who have taken measures to protect and promote farmers' right to participate in making decisions



- *Institutional mechanisms for farmers' participation in decision-making*

Formal mechanisms for farmers' participation in policy and law-making on PGRFA matters are emerging in a few countries. National PGRFA committees have been established and include not only government and scientific representatives, but also stakeholders from the private sector and farmer representatives. Besides, one legislative framework explicitly provides for the participation of farmers and civil society actors in decisions related to PGRFA conservation and use, including access regulations and benefit-sharing arrangements.

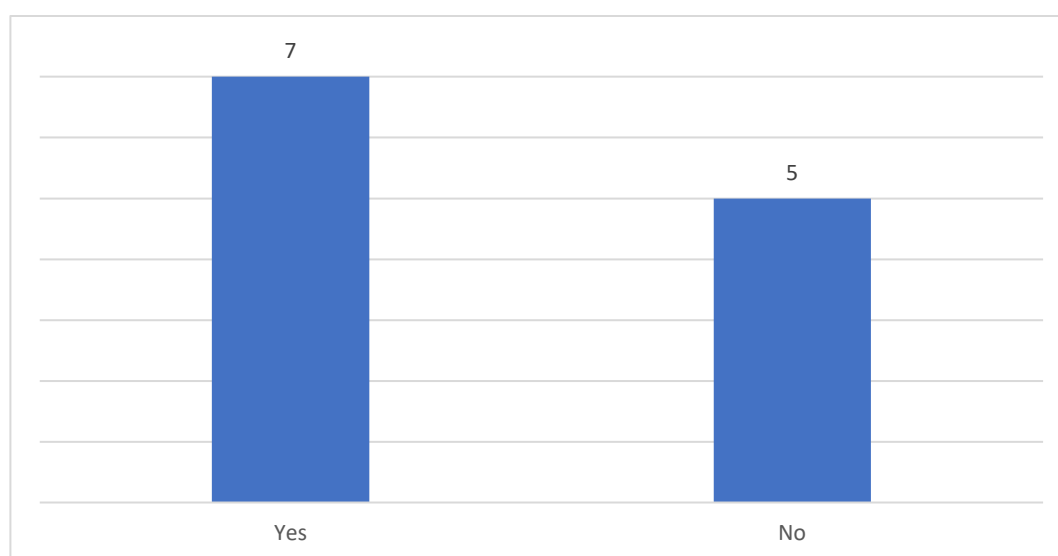
- *Community-based decision-making*

In some contexts, the organization of farmers supports their representation in decision-making processes. For instance, the establishment of CSBs, farmers' societies and cooperatives provide a collective voice for farmers and some institutional recognition. In another country, the initiative by the governmental corporation to contract farmers for improved seed multiplication to produce seeds under the supervision of specialists should contribute to their participation in national seed policies.

5.5.5 Farmers' right to save, use, exchange and sell farm-saved seed, subject to national law and as appropriate (Article 9.3)

A total of seven countries, or about 58% of reporting countries from Near East, have taken measures to protect farmers' rights for farmers to save, use, exchange and sell farm-saved seed.

Figure 5.8
Number of reporting countries from Near East (n = 12) who have taken measures to protect the rights for farmers to save, use, exchange and sell farm-saved seed



- *Legal frameworks governing farm-saved seeds*

Seed laws in Near East reflect varying degrees of support for farmers' seed systems. In several countries, existing seed and variety protection laws focus primarily on regulating commercial seed markets and protecting plant breeders' rights, with limited explicit provisions for farmers' managed seed system and associated traditional seed practices. Notably, in some instances, new seed legislation has been proposed to bring national frameworks in line with international obligations while also addressing the rights of farmers to seeds. Where seed programs exist under public institutions, such as seed multiplication and certification schemes, they often prioritize distribution of improved varieties through subsidized channels.

In contrast, the adoption of forestry and environmental laws indirectly support traditional propagation methods, such as grafting and pruning of wild fruit species, by regulating but not prohibiting these activities in both public and private lands. Still, comprehensive frameworks explicitly protecting farmers' rights to save, use, exchange, and sell farm-saved seed are generally lacking across the region.

- *Institutional support and participatory initiatives*

Institutional measures that have been developed in the region to protect farmers' right to save, use, exchange and sell farm-saved seed include national strategies and action plans on PGRFA and/or biodiversity and a seed and seedling guide to support improved seed systems and agricultural practices.

Additionally, one country has developed a national seed system project and established a committee to register local seed varieties. In another country, seed exchange and data sharing among farmers, research institutions, and seed producers is promoted. In yet another country where farmers play a key role in decision-making for traditional seed production, various projects have been implemented to encourage farmers, especially those considered as pioneers/innovators, to reuse, produce and share the seeds produced in their fields with the participation of researchers and extension workers, and sell them to other farmers. In this country, an attempt has been made to reform seed distribution by developing a mechanism for seed sharing and varietal registration. However, governance issues, including weak institutional structures, a lack of clear vision by decision-makers in the Ministry of Agriculture, and ongoing conflicts, hinder the establishment of a coherent national seed policy.

5.5.6 Gaps and needs with regard to the realization of Farmers' Rights

- Legal and policy frameworks

- Policy gaps in some countries hinder effective implementation of PGRFA use strategies. For instance, one country reports that the existing seed law needs adjustment, particularly in sections related to breeders' rights. While a new proposed legislation on the protection of new plant varieties and breeders' rights has been drafted, it has not yet been adopted.
- Several respondents of the multistakeholder survey expressed the absence of legal measures that recognize the role of farmers in the conservation and sustainable use of PGRFA, as well as for the protection and promotion of the provisions of Article 9.
- Limited legal expertise restricts progress in Farmers' Rights protection and PGRFA regulation and implementation, and difficulties with articulating existing frameworks with local farmers' varieties.

- Institutional coordination

- Institutional weaknesses, lack of expertise, and conflict-related disruptions are major barriers in some countries.
- In some countries, national efforts in genetic resources conservation and research remain scattered, with no central body coordinating the various relevant units.
- Many countries have noted the lack of or inadequate coordination between and among sectors in promoting the sustainable use of PGRFA, which is adversely affecting the promotion and protection of Farmers' Rights.

- Obstacles to support farmers' efforts in *in situ* and on-farm conservation and sustainable use

- In some countries, *in situ* conservation activities are largely absent due to a lack of clear policy for local genetic resource conservation, whereas in other countries, conservation of CWR is not a priority by protected area authorities, leading to a lack of monitoring.
- Ongoing conflict-related disruptions in some countries have halted survey and inventory operations for over seven years, leading to a significant loss of genetic resources.
- Insufficient funding and trained personnel hinder germplasm collection and conservation.

- In some countries, national efforts in sustainable use are fragmented, lacking coordination and legal backing.
- Breeding programs and research efforts are expanding, but need stronger institutional backing and farmer participation.
- Although some countries have made efforts to improve seed systems, seed distribution and farmer access remain inconsistent in other countries.

- Financial resources to support activities that protect and promote Farmers' Rights

- Greater financial support is generally needed to protect Farmers' Rights and promote conservation and sustainable use of PGRFA.

- Capacity building and awareness raising

- In some countries, limited government support and security issues restrict capacity-building efforts.
- Generally speaking, there is a need for expertise, capacity building and training courses, and financial support, including to build legislative and institutional capacities related to genetic resources access and benefit-sharing.
- In some countries, there is a need for public awareness campaigns on the International Treaty and its provisions, including on Farmers' Rights.

- Conflict and political instability

- Armed conflict, socio-economic instability and poor security conditions in some countries of the region make it difficult for policymakers to prioritize the implementation of Farmers' Rights and efforts on conservation and use of PGRFA.

- Irregular participation of farmers

- The participation of farmers in making decision related to PGRFA is currently confined to specific projects and depends on their proximity and accessibility of farmers. It is essential to enhance coverage across all farming communities and strengthen the representation of farmers at various levels.

5.6 NORTH AMERICA

There are two countries in North America, who are both Contracting Parties to the International Treaty. Both countries have submitted a national compliance report to the Secretariat of the International Treaty.

The following summary consolidates the data presented in the national reports of the two Contracting Parties, supplemented by information from the Inventory and responses collected through the multistakeholder survey conducted by the Secretariat of the International Treaty.

Both countries from North America have taken measures to protect and promote the provisions of Article 9 of the International Treaty.

PROVISIONS OF ARTICLE 9

5.6.1 Recognition of the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development (Article 9.1)

Both countries from North America have taken measures to recognize the contribution of farmers and local and indigenous communities to PGRFA conservation and development.

In this region, there is legal and constitutional recognition of the essential role that farmers, Indigenous communities, and local custodians play in the conservation and development of PGRFA. In Canada, this recognition is anchored in the Constitution Act which acknowledges the inherent rights of Indigenous Peoples to their lands, territories, and resources. This constitutional framework is complemented by international engagement with the country's active participation in and contribution to the funding of international agreements such as the International Treaty, the CBD, and the UNDRIP.

The legal and constitutional recognition is translated into national funding programs and policies. For example, Canada's Indigenous-led Conservation Support Funding programme, launched in 2021, reflects a significant commitment to empowering Indigenous communities in environmental governance, explicitly supporting their leadership in the conservation of ecosystems and biodiversity, including agrobiodiversity. These commitments are further strengthened by collaborations with global research institutions, such as the CGIAR. Another example is through the Agricultural Conservation Easement Program of the United States of America, established in 2014, which provides financial and technical assistance to help conserve agricultural lands and limit non-agricultural uses of the land. Agricultural Land Easements protect the long-term viability of the country's food supply by preventing conversion of productive working lands to non-agricultural uses. Land protected by agricultural land easements provides additional public benefits, including environmental quality, historic preservation, wildlife habitat and protection of open space.

In addition to policy and legal measures, recognition is also demonstrated at the technical level through various programs and project activities that support farmers and Indigenous local communities in the development, management, conservation, and sustainable use of PGRFA. These initiatives include PPB programs, the provision of access to PGRFA from national gene banks, knowledge exchange, and the conservation of heirloom varieties donated by heritage seed growers and farmers. These efforts are being implemented at local, national, and regional levels and have been extended globally where international cooperation exists.

Experiences and lessons learned

Based on the available information, below is the summary of the experiences and lessons learned regarding measures introduced to recognize the contribution made by local and indigenous communities and farmers in the conservation and development of PGRFA:

- Inclusive cooperation at the national and international levels is described in Canada's Compliance Reports on implementation of the International Treaty of 2017 and 2024.

- A Memorandum of Understanding between the Canadian national genebank and a non-governmental organization engaged in conservation and sustainable use of PGRFA has been in place since 1995.

Box 6.1

Indigenous Peoples *in situ* conservation and management of CWR and WFP

As of 2016, Indigenous Peoples represent 4.9% of the total Canadian population and manage reserve lands with an area of more than 3.5 million hectares. Locally harvested traditional foods are central to the cultural, spiritual, and physical health of Indigenous Peoples and communities. About 550 different species of plants have been utilized in the traditional diets of Indigenous Peoples in Canada. Among Indigenous communities in Canada, a wealth of traditional knowledge exists regarding natural resources, particularly plants which are a large part of their traditional diet (Yi et al. 2007). Because of their close and long-term relationships with their traditional territories, Indigenous Peoples have knowledge, methodologies, practices and social controls that enable them to engage in beneficial sustainable resource use and management (Turner and Hebda 2013). Indigenous Peoples in Canada have a long history of effectively managing food plant production and plant habitats using practices such as succession, regeneration, selective harvesting, pruning/coppicing berry bushes, controlled burns, habitat creation, and distributed use and harvest across landscapes and over time (seasonal rounds).

The Government of Canada is committed to advancing reconciliation with Indigenous Peoples through a renewed, nation-to-nation, Inuit-Crown and government-to-government relationship based on the recognition of rights, respect, cooperation and partnership; enhanced departmental capacity and Indigenous representation; and inclusive policies and programs. A key objective is increasing awareness and appreciation of traditional methods and fostering reciprocal, non-transactional partnerships with Indigenous communities to increase food security, revitalize Indigenous agricultural practices, revive traditional knowledge systems, conserve traditional food/medicine plant genetic resources and empower Indigenous Peoples, including communities, organizations, businesses, and individuals. In 2018, Agriculture and Agri-Food Canada (AAFC) launched the Indigenous Agriculture and Food Systems Initiative (IAFSI), a five-year (2018-19 to 2022-23), CAD 8.5 million Initiative that supports Indigenous communities that seek opportunities in agriculture and the food system more broadly.

AAFC also launched an Indigenous Pathfinder service in 2018. This is a one-stop shop for advice and referral to help Indigenous Peoples and communities to navigate relevant information, tools, and support available to start or expand activities in the agriculture and agri-food sector.

In October 2017, AAFC officially established an Indigenous Support and Awareness Office (ISAO), to enhance departmental capacity to support Indigenous cultivation through knowledge and awareness of the history, cultural contexts, and current barriers and opportunities for Indigenous cultivation through the development of an Indigenous Awareness Learning Series (IALS). The ISAO is also mandated to increase recruitment and retention of Indigenous employees by supporting the activities of the Indigenous Student Recruitment Initiative (ISRI), the Indigenous Network Circle (INC) for employees, and the departmental Elder. ISAO provides access to Elder services, which ensures on-going support for Indigenous employees and activities across the department of AAFC. Learning content providers within the office support stronger cultural awareness for employees and senior management.

AAFC's Science and Technology Branch (STB) established a Senior Indigenous Science Liaison Officer position in 2017 to act as a liaison between AAFC researchers and potential Indigenous partners in the context of scientific research partnerships. This position now leads the Indigenous Science Liaison Office (ISLO) which was established by STB in 2020 to support AAFC researchers in building relationships, engaging, and ultimately co-developing research projects with Indigenous partners. ISLO does this by providing science-specific Indigenous cultural literacy and intercultural competency training to STB staff, researchers, and management, liaising between researchers and potential Indigenous partners, creating guides, tools, and providing input in science policy and programming to facilitate Indigenous research partnerships.

AAFC supports several Indigenous science projects.

Agricultural Living Laboratories functions as a local innovation hub, where various participants explore, demonstrate, and adapt beneficial management practices and technologies within a working agricultural landscape. The Agricultural Living Laboratory initiative has established a national network of Agricultural Living Laboratories situated in various production systems and landscapes across Canada, including First Nations' lands in cooperation with Indigenous people. The establishment of the network allows for the development of comparative studies, cross-sectoral collaborations, and sharing of lessons learned.

AAFC STB Transformative Workshops – In recent years, STB carried out several transformative workshops related to Indigenous cultivation. The Empowering Indigenous Communities and Seeding Agricultural Resilience by Revitalizing Indigenous Food Plant Production workshop encompassed an STB initiative to capitalize on the collective expertise and creativity of leading government and academic researchers and First Nations traditional knowledge holders, community members, and leaders to identify the potential for collaboration on traditional foods production, and specifically, bridging Indigenous Traditional Knowledge and AAFC research (Sharifi and Edwards 2017). The 2017 Transformative Workshop on Vertical Farming, which was initially held as a general workshop in 2016, focused specifically on northern greenhouses.

AAFC STB has funded several Indigenous agriculture and Northern agriculture projects since 2018. This initiative was followed up by allowing internal funding for research priorities to cover Indigenous Agriculture, such as:

- Understanding Indigenous food systems and revitalizing key Indigenous food plants in Interior and Coastal regions of British Columbia
- The “Three Sisters” project conducted by AAFC was initiated in 2015 to study characteristics of accessions of corn, squash and beans and the products derived from them to develop added value for Indigenous communities, while also studying health benefits. This project brought together participants from different backgrounds, including AAFC scientists, technical staff and Indigenous Peoples.
- Supporting Makkovimiut food systems: This six-year project results from two years of consultations (2019-2020) with the Inuit community of Makkovik. AAFC scientists worked with Makkovimiut in Labrador to identify shared priorities in developing agricultural opportunities in this remote northern community.
- Lingonberries project is a STB research project on the genetic and climatic conditions affecting lingonberry (*Vaccinium vitis-idaea* L.) cold-hardiness and antioxidant content. This project explores how lingonberries, which are endemic to Canada and are a traditional food plant for many Indigenous groups, can be integrated into a supply food chain that could help engage Indigenous communities and establish partnerships with university, government, NGOs, and industry groups.
- Labrador Tea project (2012-2019). AAFC-STB research in collaboration with an industrial partner, carried out a controlled extraction of medicinal ingredients from Labrador tea (*Rhododendron tomentosum* Harmaja and *R. groenlandicum* (Oeder) Kron & Judd).

Source: Edited, extracted from “Diederichsen A. and Davidson C. (Eds.) 2022. Canada’s Country Report for the Third Report on the State of the World’s Plant Genetic Resources for Food and Agriculture. Ottawa, Agriculture and Agri-Food Canada.” Available at: <https://agriculture.canada.ca/en/agricultural-science-and-innovation/agriculture-and-agri-food-research-centres-and-collections>

5.6.2 The protection of traditional knowledge relevant to PGRFA (Article 9.2a)

Both reporting countries from North America have taken measures to protect traditional knowledge relevant to PGRFA.

- *Legal and institutional frameworks*

In Canada, traditional knowledge protection is approached through a mix of international obligations, national legislation, and policy initiatives. Participation in the CBD reinforces commitments to protecting traditional knowledge, while the adoption of the UNDRIP Declaration into domestic law in 2021 represents a further institutional shift, requiring that national laws align with the United Nations Declaration on the Rights of Indigenous Peoples. This act obliges the federal government to develop action plans that recognize Indigenous rights — including rights associated with traditional agricultural practices and knowledge systems — thereby affirming the contribution of traditional knowledge to national biodiversity and food security strategies. Although Canada has not ratified the Nagoya Protocol, its principles inform policies on access to genetic resources and equitable benefit-sharing.

Nationally, domestic laws contribute to traditional knowledge protection by embedding Indigenous participation in biodiversity conservation and environmental governance. For instance, Canada’s legislation requires the integration of traditional knowledge in conservation strategies, particularly for species of ecological and cultural significance. National legislation also recognizes the value of Indigenous environmental stewardship, reinforcing the role of traditional knowledge in shaping policies related to land and resource management.

In the United States of America, the protection of traditional knowledge is primarily guided by national laws and executive actions that focus on local governance and cultural heritage preservation. While this country has not ratified the CBD or the Nagoya Protocol, the protection of traditional knowledge is primarily facilitated through government-to-government relationships and consultations with Indigenous communities, as mandated by executive orders and federal policies. National environmental agencies play a key institutional role by consulting Indigenous groups and incorporating traditional knowledge into the management of protected lands. National parks, recognized as ancestral homelands for many Indigenous communities, serve as focal points for preserving cultural and ecological heritage. Consultation mechanisms with local communities aim to incorporate traditional knowledge into land and resource management decisions, particularly within federally protected lands and national parks.

- *Confidentiality and intellectual property considerations*

Both countries have developed policies to address the confidentiality and ethical use of traditional knowledge, recognizing that traditional knowledge is often closely tied to cultural identity and spiritual practices.

In Canada, benefit-sharing mechanisms remain under development, with ongoing discussions about how to ensure that Indigenous communities retain control over their knowledge while also participating in agricultural and biodiversity-related research. The implementation of the UNDRIP Act requires further policy refinements to establish clearer guidelines on intellectual property rights and equitable benefit-sharing.

In the United States of America, federal agencies prioritize the protection of culturally sensitive information through legal provisions that restrict public disclosure. National legislation explicitly prevents the unauthorized release of information concerning cultural patrimony, acknowledging the need to safeguard traditional knowledge from exploitation. Policies further ensure that any collection and use of traditional knowledge are conducted with the full participation and consent of Indigenous communities.

- *National inventory, catalogues, and studies and publications*

Canada is undertaking various initiatives to enhance the protection of traditional knowledge at both local and national levels. These initiatives include the creation of catalogues, as well as the registration and documentation of knowledge systems related to PGRFA. Furthermore, the dissemination of traditional knowledge, innovations, knowledge exchange, academic research, studies, and publications on the subject are actively promoted by the communities, academic and government institutions.

Experiences and lessons learned

Numerous local initiatives have been undertaken by communities, academic institutions and government entities that are provided in the Country Report for the Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture.³⁵

5.6.3 Farmers' right to participate in benefit-sharing (Article 9.2b)

Both reporting countries from North America have taken measures in relation to Farmers' Rights to equitably participate in sharing benefits arising from the utilization of PGRFA.

35 Diederichsen A. and Davidson C. 2022. Canada's Country Report for the Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture. AAFC, Ottawa 106 p. (https://agriculture.canada.ca/sites/default/files/documents/2022-07/Canadas_Country_Report_for_3rd_Rpt_on_State_of_the_World_PGRFA_EN-Final.pdf) / Rapport du Canada en vue du Troisième Rapport sur l'état des ressources phylogénétiques pour l'alimentation et l'agriculture dans le monde. Ottawa, Agriculture et Agroalimentaire Canada. 120 p. https://agriculture.canada.ca/sites/default/files/documents/2022-07/Rapport_du_Canada_en_vue_du_3e_Rpt_sur_l%27etat_RPGAA_FR-Final.pdf.

5.6.3.1 Legal and policy frameworks on access and benefit-sharing

While benefit-sharing in North America often takes the form of national investment in public research, conservation funding, and agricultural extension services, legal mechanisms for direct benefit-sharing linked to PGRFA utilization remain under development. Efforts toward equity are reflected in programs that support, inter alia, agricultural research by government and universities including outreach and technical cooperation, access to and transfer of technologies, access to germplasm and associated information, collaboration on germplasm characterization, PPB, seed-saving networks, and Indigenous conservation leadership, although these are not codified under a specific legal benefit-sharing framework.

5.6.3.2 Non-monetary benefits

A. Supporting farmers and local communities' efforts to manage and conserve PGRFA on-farm and *in situ*

Both reporting countries from this region promote or support farmers and local communities' efforts to manage and conserve PGRFA on-farm. Both countries also promote *in situ* conservation of CWR and WFP, including one country who also supports the efforts of indigenous and local communities in *in situ* conservation through capacity building.

Box 6.2

Supporting on-farm management and on-farm improvement of plant genetic resources for food and agriculture

Globally, on-farm conservation is complemented by the *ex situ* collections of PGRFA by genebanks. In Canada, the three CNPGS genebanks distribute germplasm for research and breeding, including initiatives for participatory breeding.

In October 1991, PGRC signed a Memorandum of Understanding with the Seeds of Diversity Canada, which is engaged in the on-farm conservation of vegetables (Seeds of Diversity Canada 2021). Since then, collaborative activities have continued, PGRC has stored security back-up samples, has hosted visitors and field tours, provided seminars using on-line technology and suggested several on-farm conservation projects.

Seeds of Diversity Canada regenerated seed of genebank accessions chosen in common with PGRC and engaged in a Citizen Science project that focused on tomato diversity. Canadian farmers have rarely requested PGRC germplasm directly, and if so, this was done for small research projects. CSOs have been involved in the on-farm conservations of vegetables and potatoes in Canada for many years and more recently increased their involvement to include cereal crops. PGRC hosted the Executive Director of the Bauta Family Initiative on Canadian Seed Security (BFICSS) in 2012. The BFICSS has a unique focus on on-farm research, and on low-input ecological production practices. The BFICSS is part of a larger organization SeedChange, formerly known as the Unitarian Service Committee of Canada, USC (BFICSS 2021). In fostering an environment for plant breeding, new and improved cultivars are bred giving farmers options for growing cultivars that require less input (e.g., efficient use of nutrients, resistance to plant pests and diseases, salt and drought tolerance, and better adaptation to climatic stress). This gives farmers options to sustainably increase productivity and product quality in agriculture, horticulture and forestry, whilst minimizing the pressure on the natural environment. Farm-saved seeds are still common in Canada. Resistance to seed borne diseases is part of the breeding objective in many public breeding programs and helps to reduce the need to apply chemical seed treatments.

Support to on-farm management internationally

In 1996 Canada supported the establishment of Pan-Africa Bean Research Alliance (PABRA). PABRA is a pan-African research and development alliance comprising three regional networks operating in 24 countries in Eastern, Central, Southern and Western Africa. PABRA works focuses on improving bean (*Phaseolus* spp) crop to increase its productivity for the benefit of the urban and rural poor, enhancing food security, reducing malnutrition and generating income from the sale of beans. Canada's CAD 15 million contribution to PABRA (2009-2015, phase IV) reached out to an estimated 6.5 million households that benefited from new drought-resistant and more nutritious beans varieties. PABRA's major beneficiaries are women, who play the main role in the crop's production and sale. The Canadian International Food Security Research Fund (CIFSRF) has been a CAD 124.5 million research for development program implemented by the International Development Research Centre (IDRC) and Global Affairs Canada (GAC) since 2009. CIFSRF has contributed to the development of

more productive, sustainable, and gender-sensitive agricultural techniques for women subsistence farmers, with the ultimate goal of making food sources more secure and accessible, and the food produced more nutritious, for poor households – particularly for women and girls, who face the heaviest burden of chronic hunger and malnutrition in developing countries. CIFS RF has contributed directly to capacity building on PGRFA including the sustainable production and utilization of underutilized vegetables to enhance rural food security in Nigeria (to assess 18 varieties of indigenous vegetables harvested in the wild and commonly consumed in southwest Nigeria to determine their production potential, nutritional content, drought tolerance and disease resistance) and the synergistic use of fertilizer micro-dosing and indigenous vegetable production to enhance food and economic security of West African farmers (to promote innovation in field production practices including fertilizer micro dosing and optimum water management, to innovation in food processing and value addition). Canada provided CAD 8.2 million (2012-2020) to promote regional opportunities for produce through enterprise and linkages. Canada's contribution supported economic growth in the Caribbean through increased sales of fresh produce by small-scale local farmers to high value markets. The project helped small farmers in Jamaica, Trinidad and Tobago, St. Lucia, Grenada, St. Vincent and the Grenadines, Dominica, Barbados and Guyana to increase the quality and quantity of fresh, regionally grown fruits and vegetables, linking them to buyers such as regional grocery chains, cruise lines, airlines, hotels and restaurants. Canada contributed CAD 14.9 million (2015-2020) to scale up the CSO – USC Canada's "Seeds of Survival" program in Central America and Africa. USC (now SeedChange) works with smallholder farmers (women, men and youth) in Africa, South and Central America, Asia and Canada, to strengthen their knowledge and their food and seed systems through PPB, CSBs and agroecological practices. This project reached an estimated 293 communities and over 44,000 beneficiaries, improving their food security and climate resilience, with particularly strong results in Ethiopia and Honduras.

Source: Extracted from "Diederichsen A. and Davidson C. (Eds.) 2022. Canada's Country Report for the Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture. Ottawa, Agriculture and Agri-Food Canada." Available at: <https://agriculture.canada.ca/en/agricultural-science-and-innovation/agriculture-and-agri-food-research-centres-and-collections>

- *Facilitation of farmers' access to a diversity of PGRFA*

Farmers in North America benefit from multiple initiatives that support access to diverse plant genetic resources. Government agencies, civil society organizations, and Indigenous communities play critical roles in ensuring the availability and conservation of seeds and propagating material. In Canada, AAFC collaborates with NGOs to facilitate on-farm conservation. A Memorandum of Understanding exists between a national genebank and an NGO, allowing for the security backup of germplasm and ensuring continued farmer access to seed varieties. Collaboration with another NGO has identified heirloom potato varieties as priorities for conservation, promoting genetic diversity in staple crops.

In the United States of America, access to PGRFA is facilitated through various NGOs and networks of farmers, such as Seed Savers Exchange, as well as nurseries and seed businesses that specialize in heirloom varieties, ensuring their continued availability to farmers. Public agencies provide information and technical assistance, reinforcing farmers' ability to maintain and use traditional and locally adapted seeds.

- *Farmers' participation in agricultural innovation and research*

Participatory research programs have expanded in recent years, enhancing the role of farmers in conservation and breeding efforts. Civil society organizations have developed initiatives that integrate farmer knowledge with scientific research, increasing the adaptability of crops to specific environmental conditions, notably with cereal crops. In Canada, one prominent initiative is the Bauta Family Initiative on Seed Security which engages farmers in conservation efforts, adaptation, and breeding to improve resilience in the face of climate change. This initiative leads participatory on-farm research and education programs on seed conservation and plant breeding to increase the quantity, quality and diversity of regionally adapted seed. Other initiatives in Canada, such as the Agricultural Living Laboratories, encourage collaborative research between Indigenous communities and scientists, leading to innovative conservation methods.

Formal collaborations at the national level among various organizations on PPB, PVS, and seed conservation also contribute to improving documentation, exchange of information and sharing of plant genetic resources.

- *Institutional support*

Improved inter-agency collaboration in Canada has enhanced storage, collection, and documentation standards, strengthening farmers' ability to conserve and access PGRFA. Collaborative workshops between researchers from North and Central America in this country have also facilitated knowledge exchange on ancestral plant genetic resources.

In the United States of America, Government-funded conservation programs provide financial and technical assistance encourage farmers to maintain biodiversity in agricultural systems. Other conservation programs incentivize sustainable land use practices, indirectly supporting genetic resource conservation. Additionally, the Native Plant Materials Development Program works to develop high-quality native seeds and seedlings for restoration projects. A National Native Seed Assessment is currently underway to evaluate the capacity of different sectors to meet conservation and restoration needs. These efforts ensure that native plant populations remain viable in their natural habitats, contributing to both environmental sustainability and agricultural resilience.

- *Indigenous and local community stewardship*

In North America, Indigenous and local communities play a crucial role in conserving plant genetic resources in their natural habitats. Traditional knowledge and sustainable resource management practices contribute to the protection and utilization of a wide range of plant species. In Canada, Indigenous communities manage reserve lands covering more than 3.5 million hectares, incorporating traditional practices such as regeneration, controlled burns, selective harvesting, and habitat creation to sustain plant biodiversity. National policies and government-funded projects and initiatives aim to strengthen partnerships with Indigenous Peoples to enhance their role in conservation efforts and empowerment, while increasing awareness of the value of traditional knowledge and supporting food security. Canada's Indigenous Agriculture and Food Systems Initiative is an example of governmental support for Indigenous-led conservation, providing funding for projects that integrate traditional agricultural knowledge with modern conservation strategies.

In the United States of America, federal agencies promote the conservation of native species of CWR in partnership with NGOs. Programs like Seeds of Success focus on collecting and preserving wild plant species, ensuring their availability for ecosystem restoration and agricultural development. Federal agencies also collaborate with Indigenous communities to develop native plant materials for conservation and restoration projects, recognizing the importance of traditional knowledge in maintaining genetic diversity.

- *Civil society initiatives*

Civil society organizations actively support *in situ* conservation by funding research, establishing conservation programs, and integrating traditional knowledge into biodiversity strategies. In Canada, Indigenous-led conservation projects have focused on revitalizing traditional food systems, including research on native species such as lingonberries and Labrador tea.

B. Supporting the participation of farmers in sustainable use of PGRFA

Both reporting countries from North America have taken policy and legal measures that promote the sustainable use of PGRFA in all aspects of use, including for:

- Pursuing fair agricultural policies that promote the development and maintenance of diverse farming systems that enhance the sustainable use of agricultural biological diversity and other natural resource;
 - Strengthening research that enhances and conserves biological diversity by maximizing intra- and inter-specific variation for the benefit of farmers;
 - Promoting plant breeding efforts, with the participation of farmers, that strengthen the capacity to develop varieties particularly adapted to social, economic and ecological conditions, including in marginal areas;

- Broadening the genetic base of crops and increasing the range of genetic diversity available to farmers;
 - Promoting the expanded use of local and locally adapted crops, varieties and underutilised species;
 - Supporting the wider use of diversity of varieties and species in on-farm management, conservation and sustainable use of crops and creating strong links to plant breeding and agricultural development; and
 - Reviewing and adjusting breeding strategies and regulations concerning variety release and seed distribution.
- *Participatory research/plant breeding*

Over the past decade, participatory breeding has gained prominence in North America as a means of developing cultivars tailored to specific regional conditions and market demands. The Organic Vegetable Improvement Project implemented in Canada exemplifies participatory breeding efforts. In partnership with research institutions, farmers contribute germplasm and field-testing expertise to develop new open-pollinated vegetable varieties. The program collaborates with universities and seed producers, working with farmers nationwide to manage breeding projects on crops such as pepper, carrot, rutabaga, and lettuce.

In the United States of America, government-supported research promotes the involvement of farmers in plant breeding through open-access policies. Scholarly publications funded by public research programs are made freely available, ensuring that farmers worldwide can benefit from scientific advancements.

- *Enhancing crop diversity and adaptation*

Breeding programs in North America integrate diverse PGRFA to develop improved crop varieties with higher yields, increased nutritional value, and greater resilience to environmental challenges. These programs enhance productivity and income for farmers while reducing reliance on chemical inputs. Through targeted breeding, crops with resistance to diseases and pests are introduced, promoting sustainable agricultural practices and minimizing ecological impact. The introduction of new crops has further expanded biodiversity, strengthening both ecological and economic resilience in agricultural systems.

In Canada, national genebanks play a critical role in providing germplasm for research and breeding, supporting participatory breeding initiatives. By developing cultivars with improved nutrient efficiency, disease resistance, and stress tolerance, these breeding efforts offer farmers a range of options suited to various climatic and soil conditions. Farm-saved seeds remain a common practice, with breeding programs emphasizing resistance to seed-borne diseases, reducing the necessity for chemical treatments.

Similarly, in the United States of America, public-sector plant breeders collaborate with farmers to develop locally adapted varieties that meet diverse agricultural needs. Expired PVPs result in unrestricted public access to formerly protected seeds for use in plant breeding. The broadening of genetic diversity remains a key objective, with initiatives like the Germplasm Enhancement of Maize project incorporating exotic and public germplasm to expand the genetic base of staple crops.

- *Market access and value-addition initiatives*

In Canada, diversification of crop production through the utilization of a broader range of plant genetic resources in breeding programs and the introduction of novel crop varieties has opened new market opportunities for farmers. The conservation and use of traditional and Indigenous PGRFA hold potential for expanding niche markets for heritage foods that align with consumer demand for diverse food product, contributing to both economic benefits and cultural preservation.

C. Training, capacity-building and awareness raising

In Canada, a significant milestone in the training of farmers towards on-farm conservation of vegetable varieties occurred with a formal collaboration between a plant genetic resources center and a national organization dedicated to biodiversity. Since the signing of a Memorandum of Understanding, ongoing activities have included the storage of security back-up samples, organization of field tours, and provision of seminars utilizing online technology.

In this country, the establishment of an Indigenous Support and Awareness Office within the AAFC aims to enhance institutional capacity to support Indigenous cultivation. By developing an Indigenous Awareness Learning Series, this initiative has educated both Indigenous farmers and governmental employees on the historical and cultural contexts of Indigenous agricultural practices. Additionally, initiatives aimed at increasing the recruitment and retention of Indigenous employees underscore a commitment to building a culturally competent workforce that understands and respects Indigenous agricultural traditions and practices. Further, a Senior Indigenous Science Liaison Officer role within a governmental science and technology branch promotes knowledge exchange between researchers and Indigenous communities, facilitating collaborative research projects that respect Indigenous traditions. Training on Indigenous cultural literacy and intercultural competency enhances the sensitivity of researchers while empowering Indigenous partners by fostering collaborative research environments.

In Canada, several workshops initiated by AAFC focused on developing viable economic models using indigenous plant genetic resources have equipped farmers with essential tools for sustainable development.

Additionally, community-driven initiatives such as seed exchange events and the establishment of community seed libraries highlight grassroots efforts to cultivate a culture of seed saving and sharing, providing educational resources and workshops that empower farmers in sustainable practices. Instructional handouts and how-to resources available for seed savers aim to enhance farmers' skills and foster a community-oriented approach to agriculture.

Broader support mechanisms have allocated resources for ecosystem protection and sustainable economies. Government-funded participatory research encourages farmers to adopt biodiversity-enhancing practices, with financial and technical assistance emphasizing the importance of sustainability.

5.6.3.3 Monetary benefits

- *Conservation-driven financial incentives*

National governments in North America have established large-scale frameworks to directly support farmers through financial incentives, subsidies, and sustainability-linked payments. Canada has implemented a multi-billion, five-year agricultural support programme designed to bolster the competitiveness and adaptability of its agri-food sector. This initiative, known as the Sustainable Agricultural Partnership, includes the Resilient Agricultural Landscape Programme, which allocates multi-millions dollar specifically to help farmers adopt land conservation and climate-smart agricultural practices. Farmers participating in this programme receive payments that offset the costs of sustainable land management, while also improving the long-term economic viability of their farms.

The United States of America has also embedded financial support for biodiversity and conservation directly into its agricultural policy framework. Two major programs — the Agricultural Conservation Easement Program and the Environmental Quality Incentive Program — offer both financial and technical assistance to farmers who adopt land stewardship strategies that contribute to ecological balance and long-term productivity. These initiatives directly inject financial resources into rural economies while aligning productivity with ecological stewardship.

- *Targeted funding for indigenous communities*

A landmark initiative in Canada, the Indigenous-led Conservation Support Funding, allocates substantial financial resources toward ecosystem protection, sustainable economies, and Indigenous leadership in conservation. This funding empowers Indigenous communities by reinforcing their leadership in ecosystem stewardship, enabling the development of sustainable economies rooted in cultural values and ecological knowledge and fostering place-based economies that are rooted in traditional ecological knowledge.

5.6.4 Farmers' right to participate in making decisions, at national level, on matters related to the conservation and sustainable use of PGRFA (Article 9.2c)

Both countries from North America have adopted measures to protect the rights of farmers to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of PGRFA.

- *Institutional mechanisms for farmers' participation*

National legislation and policies in North America incorporate mechanisms such as advisory committees, regulatory frameworks, and formal research collaborations to involve farmers. For example, in the United States of America, legal instruments including executive orders reinforce the necessity of consulting tribal governments on federal policies affecting their lands and resources through the establishment of the Indian Agricultural Resource Management Planning Programme. In Canada, national legislation incorporates Indigenous knowledge into biodiversity conservation efforts.

Box 6.3

Representation of farmers in various decision-making bodies

- Federal Advisory Committee – National Agricultural Research, Extension, Education, and Economics Advisory Board

The U.S. government has several federal advisory committees that provide opportunities for farmers to participate in making decisions relative to the conservation and sustainable use of plant genetic resources, including the National Agricultural Research, Extension, Education, and Economics Advisory Board (NAREEEAB), established in 1996. The NAREEEAB provides advice to the Secretary of Agriculture and landgrant colleges and universities on top priorities and policies for food and agricultural research, education, extension and economics.

- The United States Department of Agriculture (USDA) Crop Germplasm Committees

The Crop Germplasm Committees (CGCs), established under the United States Department of Agriculture (USDA), comprise a cross-section of National Plant Germplasm System (NPGS) users, including farmers, who provide technical support to NPGS genebanks and collections. They serve as subject matter experts to guide curatorial staff on best practices, including the priorities and techniques for characterizing the collections. They also help review proposals that fund plant explorations and evaluate grants for scientific rigor. The first CGCs were established in the mid-1980s as outgrowths of commodity-specific crop improvement/breeding conferences; while initial CGCs covered primarily the major agricultural commodities (grains, oilseeds), there are currently 43 CGCs representing almost all major and minor crops of economic importance in the United States. Each committee includes a chair and members from government agencies, universities, and commercial interest groups, such as commodity groups and farmers/producers, who volunteer their time and expertise to support the NPGS.

Federal Advisory Committee – Plant Variety Protection Board

The U.S. government has several federal advisory committees that provide opportunities for farmers to participate in making decisions related to the conservation and sustainable use of plant genetic resources, including the Plant Variety Protection Board (PVPB), established in 1970. The PVPB advises the Secretary of Agriculture concerning the adoption of rules and regulations to facilitate the proper administration of the PVP Act; makes advisory decisions for the Secretary on appeals concerning decisions on applications by the Plant Variety Protection Office and on requests for emergency public-interest compulsory licenses; and advises the Secretary on any other matters under the rules and regulations.

Source: Extracted from the Inventory, USA

- *Participatory governance structures*

In both countries, advisory committees and working groups serve as important platforms for farmers to engage in governance processes and shape agricultural biodiversity policies and initiatives. For example, in the United States of America, farmers contribute through dedicated bodies such as the PVPB and the NAREEEAB, which provide oversight on matters related to conservation and sustainable use of plant genetic resources. Additionally, the Crop Germplasm Committees (CGC) enable farmers to provide technical input on the conservation of plant genetic resources by advising national genebanks and collections.

In Canada, the Canadian Plant Breeders' Rights Act which was enacted in 1991, Section 73 of the Act, requires that the Minister of Agriculture and Agri-Food form an Advisory Committee consisting of representatives of various associations and enterprises involved in the value chain (e.g. plant breeders, horticulturists, seed dealers, farmers, and other persons the Minister considers appropriate). The measure is intended to involve the farming community, as well as other representatives, in the administration of the Canadian intellectual property regime for the protection of new plant varieties. It thus ensures that legislative, policy, and procedural decisions surrounding the administration of the Plant Breeders' Rights Act, are made respecting interests of all value chain members, including farmers, and benefits the value chain as a whole. The advice comes in various forms; it could be communicated to the Plant Breeders' Rights Commissioner via an annual face-to-face meeting or in written format. The outcomes of this measure/practice are reflected in the impacts of the decisions taken by the Advisory Committee, or the policies implemented, for example, improved access to new plant varieties for Canadian farmers.

- *Public consultations and legislative processes*

Public consultations in Canada allow stakeholders, including farmers, to provide input during processes of policy development, seed legislations, regulatory amendments and legislative changes on agricultural and environmental policies affecting PGRFA at local and national levels. In this country, the Truth and Reconciliation Commission's Calls to Action have also influenced legislative efforts by emphasizing the need to integrate Indigenous perspectives into regulatory and policy development, particularly in biodiversity and agriculture.

- *Farmer-led research and community-based decision-making*

In Canada, participatory research and community-led initiatives enable farmers to influence research priorities and outcomes in PGRFA conservation. Farmers collaborate with government agencies, universities, and research organizations to develop research priorities and outcomes for the conservation and use of PGRFA.

Decision-making processes regarding conservation of biodiversity, including PGRFA, also involve Indigenous and local communities, ensuring that traditional knowledge and localized agricultural practices are incorporated into conservation efforts.

- *Farmer organizations and advocacy groups*

Farmer organizations in Canada play an instrumental role in representing farmers' interests in national decision-making processes related to PGRFA by advocating for policies that reflect the needs of farming communities through consultations, advisory committees and participatory research. However, participation is often informal or indirect, limiting the influence of farmers on policy outcomes. Efforts to strengthen these participatory mechanisms, including more structured inclusion of diverse farming communities, are necessary to ensure more equitable and effective decision-making in PGRFA conservation and sustainable use.

- *Communications and publications*

An essential component of encouraging farmer participation is enhancing awareness through effective communication and publication at both local and national levels.

Experiences and lessons learned

The responses in the region described their experiences and lessons learned that are summarized as follows:

- The primary objective of PBR is to promote investment and innovation in the development of new plant varieties, which benefits both farmers and breeders. Therefore, it is essential that farmers and breeders work collaboratively in decision-making processes to fully leverage the advantages provided by the PBR intellectual property framework. From Canada's perspective, involving farmers, breeders (both public and private), and other stakeholders in the value chain, such as seed growers, ensures a well-balanced representation of views and interests.
- In the United States, there are currently 43 CGCs representing nearly all economically significant crops. Each committee comprises a chairperson and members from government agencies, universities, and commercial interest groups, such as commodity groups and farmer/producers, who volunteer to support the NPGS. These committees benefit from a diverse range of perspectives and experiences, including various scientific disciplines, public and private sectors, farmers and scientists, as well as representatives from different geographical regions across the country.

5.6.5 Farmers' right to save, use, exchange and sell farm-saved seed, subject to national law and as appropriate (Article 9.3)

Both reporting countries from North America have taken measures to protect the rights for farmers to save, use, exchange and sell farm-saved seed.

- *Legal and policy frameworks*

In this region, the rights of farmers to save, use, exchange, and sell farm-saved seed and propagating material are subject to legal and regulatory frameworks that balance farmers' rights with plant breeders' interests, seed quality control, and agricultural innovation. While farmers retain the ability to save, use, exchange, and sell farm-saved seed and propagating material, their rights are not absolute. These practices are governed by national legal frameworks that regulate seed quality, intellectual property rights, and market access.

In Canada, while the Seeds Act and Plant Breeders' Rights Act set regulatory parameters for seed quality and intellectual property protection, they also allow for certain farmer exemptions. In this country, seed legislation seeks to maintain seed quality, protect plant health, and regulate the trade of seeds that meet established safety and quality standards, while ensuring that farmers can still engage in traditional seed-saving practices under specific conditions. Although such laws place restrictions on certain seed-saving practices, they also aim to uphold public policy goals to help maintain the integrity of the agricultural sector, prevent the spread of plant diseases, and support long-term economic sustainability. Similarly, specific exemptions in the Plant Breeders' Rights Act such as the Breeders' Exemption, the Private and Non-commercial Use Exemption, and the Experimental Purposes Exemption, ensure that farmers can continue certain traditional practices, including the adaptation of locally suitable seed varieties, while fostering agricultural diversity and innovation.

Similarly, in the United States of America, PVP law grants farmers the right to save and use seed from protected varieties on their own farms unless restricted by contractual agreements with breeders. This balance between breeder protection and farmer autonomy enables seed saving under specific conditions, ensuring that traditional practices can persist alongside modern breeding systems. Additionally, the Federal Seed Act supports seed quality standards, which indirectly influence the practices of seed saving and exchange by regulating the labeling and sale of seeds.

- *Information and communication*

Canada stated having a system that facilitates communication between governments and the stakeholders or clients requesting information.

5.6.6 Gaps and needs with regard to the realization of Farmers' Rights

- Legal and policy frameworks

- Legal frameworks and market systems often do not favor the commercialization of farmers' varieties/landraces or underutilized species. These varieties may be subject to regulatory requirements that do not reflect their nature or value, posing obstacles for small-scale farmers and community-based seed systems.
- Current seed laws and regulations can act as barriers to innovation and diversification, particularly for non-commercial or traditional seed systems. More adaptive and flexible regulatory approaches are needed to accommodate farmers' varieties.

- Institutional coordination

- While various policies and programs support individual components of Farmers' Rights, an integrated national approach that systematically promotes conservation, benefit-sharing, and participation is still evolving. The fragmented nature of policy implementation limits synergies and hinders the full operationalization of Farmers' Rights.
- Efforts to promote on-farm conservation face regulatory complexity and require stronger coordination among seed sector regulators, agricultural agencies, and local communities. Despite increasing interest in plant breeding tailored to on-farm systems, a supportive and harmonized policy environment is still emerging.

- Obstacles to support farmers' efforts in *in situ* and on-farm conservation and sustainable use

- The identification and documentation of PGRFA *in situ* remain limited due to the complexity and subtlety of distinguishing among species and cultivars. Traditional knowledge could greatly enhance classification efforts, yet remains under-integrated in mainstream scientific approaches.
- Ethnobotany remains underutilized in current conservation practices. Scientific inquiry into the cultural uses of native plants — especially those recognized by Indigenous and immigrant communities — often lacks the cultural sensitivity and collaborative frameworks necessary for respectful engagement.
- Participatory plant breeding is still limited. Greater inclusion of farmers and local communities in cultivar development is needed to ensure that breeding responds to a broader range of needs and contexts

- Capacity building and awareness raising

- Despite growing recognition, general awareness of plant genetic resources and their role in food security, climate resilience, and cultural identity remains limited. Public education and engagement efforts need to be expanded to support policies that promote conservation and sustainable use.
- Many stakeholders, particularly smallholders and Indigenous groups, face challenges in understanding complex legal structures governing the use and commercialization of cultivars. Outreach and capacity-building initiatives are essential to make legal frameworks more accessible and supportive of community-level participation.

5.7 SOUTHWEST PACIFIC

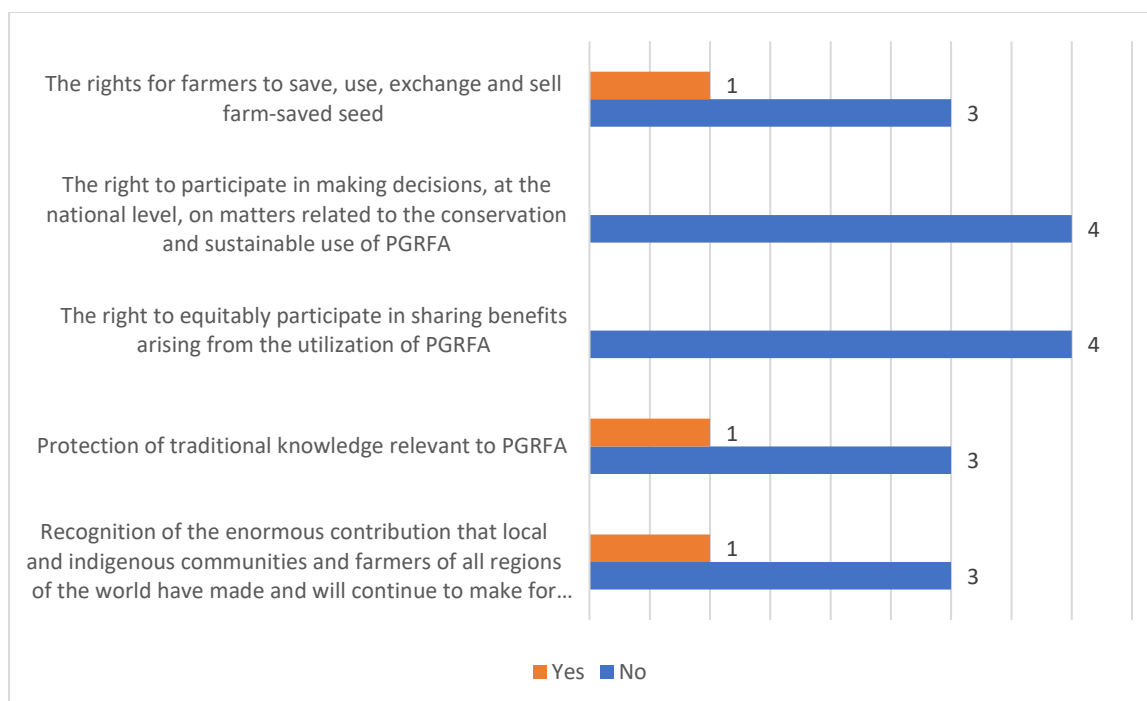
There are 16 countries in Southwest Pacific, including 10 countries who are contracting parties to the International Treaty and 1 country who has signed it. By April 2025, a total of four countries from this region have submitted a national compliance report to the Secretariat of the International Treaty.

The information below summarizes the information found in the four national reports submitted to the Secretariat of the International Treaty, including responses from the multistakeholder survey (12 respondents), the Inventory (two submissions received), and the details from the projects funded under the BSF with recipients from eight countries.

Among the four countries from Southwest Pacific who have submitted a national compliance report, only one country has taken measures to protect and promote Farmers' Rights (25% of reporting countries from this region) in relation to (see Figure 6.1):

Figure 6.1

Number of reporting countries from Southwest Pacific (n = 4) who have taken measures in relation to:



No comprehensive legislation or policy specifically developed for Farmers' Rights are in place in the region. While matters related to PGRFA are usually included in broader laws, policies, plans and strategies governing biodiversity, the need to develop policies and legislation dedicated to protecting and promote Farmers' Rights and enhance the conservation and sustainable use of PGRFA has been recognized.

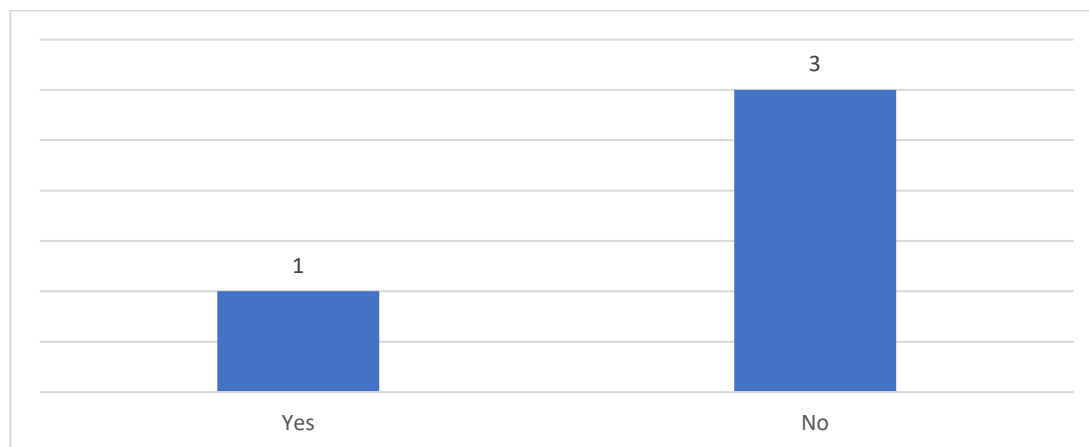
PROVISIONS OF ARTICLE 9

5.7.1 Recognition of the enormous contribution of farmers' and local and indigenous communities' contribution to PGRFA conservation and development (Article 9.1)

One country from Southwest Pacific (or 25% of reporting countries from this region) has taken measures to recognize the contribution of farmers and local and indigenous communities to PGRFA conservation and development. However, this recognition has not been formally recognized in legal texts. In this country, the establishment of Indigenous Protected Areas (IPAs) has supported voluntary

land management by Indigenous Peoples, drawing upon both traditional and scientific knowledge to support *in situ* conservation of wild crop relatives.

Figure 6.2
Number of reporting countries from Southwest Pacific (n = 4) who have taken measures to recognize the enormous contribution of farmers and local and indigenous communities to PGRFA conservation and development

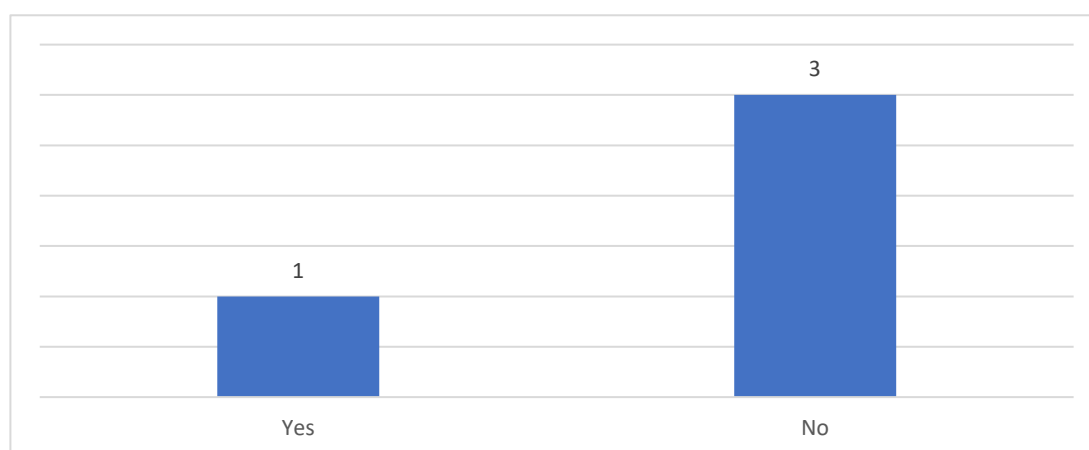


A country has implemented a project designed to acknowledge farmers and local and indigenous communities by promoting genetic diversity in agricultural fields through PPB. The project documented best practices that led to increased genetic diversity in the farm fields, while fostering positive perceptions among the farmers and communities involved in the initiative.

5.7.2 The protection of traditional knowledge relevant to PGRFA (Article 9.2a)

One country from Southwest Pacific (or 25% of reporting countries from this region) reports having taken measures to protect farmers' traditional knowledge.

Figure 6.3
Number of reporting countries from Southwest Pacific (n = 4) who have taken measures to protect traditional knowledge relevant to PGRFA



Countries in the region generally lack dedicated legislation that recognizes or protects traditional knowledge. In one country, formal mechanisms such as IPAs are established under national legislation to empower communities in managing their lands, thereby embedding traditional knowledge within legal frameworks. Broader regional strategies, including those embedded in national biodiversity and conservation plans, also integrate the protection of traditional knowledge.

Documentation and protection of knowledge systems is also promoted through formal initiatives promoting the native food sector and engaging Indigenous communities in ethical partnerships. In

contexts where formal legislation and policies are less developed, community-based initiatives have emerged as key mechanisms for collecting and documenting traditional knowledge, often with support from international agencies and non-governmental organizations.

5.7.3 Farmers' right to participate in benefit-sharing (Article 9.2b)

No country from Southwest Pacific reports having taken measures in relation to farmers' rights to equitably participate in sharing benefits arising from the utilization of PGR. However, some important steps have been taken in the region, as shown below.

5.7.3.1 Legal and policy frameworks on access and benefit-sharing

Some countries have made efforts to align with the objectives of the International Treaty and drafted national access and benefit-sharing (ABS) policies under the broader scope of the CBD, but lack enforceable laws to operationalize them. A new national ABS policy spanning a ten-year period seeks to address this gap and provide a framework for benefit-sharing related to PGRFA use, although its implementation remains at an early stage.

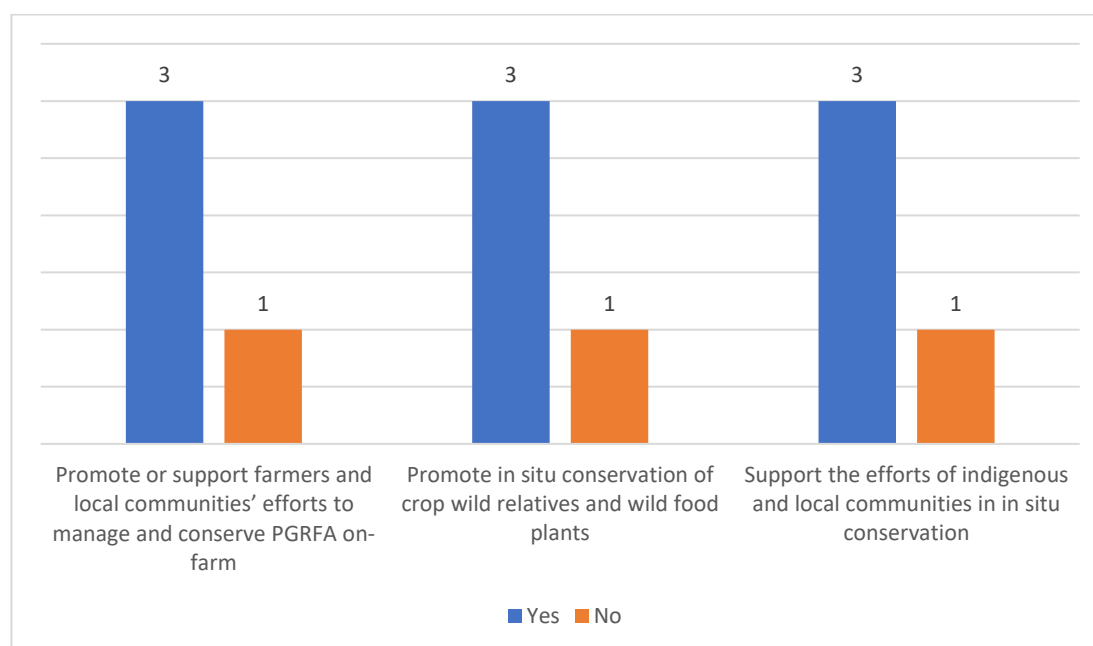
In one country, participation in MLS is supported by exempting Treaty-listed materials from general access restrictions under biodiversity access laws. Collections from national genebanks are made available under the Standard Material Transfer Agreement (SMTA), and these institutions are supported by national agricultural research strategies and biodiversity conservation laws.

5.7.3.2 Non-monetary benefits

A. Supporting farmers and local communities' efforts to manage and conserve PGRFA on-farm and *in situ*

Three reporting countries from Southwest Pacific (75% of reporting countries) have promoted or supported farmers and local communities' efforts to manage and conserve PGRFA on-farm. These three countries have also promoted *in situ* conservation of CWR and WFP and supported the efforts of indigenous and local communities in *in situ* conservation.

Figure 6.4
Number of reporting countries from Southwest Pacific (n = 4) who have taken measures to:



Countries from this region have adopted broad environmental protection acts and biodiversity conservation strategies that guide the management of wild crop relatives and native species. National policies have established protected area designations such as IPAs and National Reserve Systems, which empower local communities to engage actively in the conservation of their lands and resources.

In some countries, on-farm conservation is promoted through the BSF.

- *Facilitation of farmers' access to a diversity of PGRFA*

In some contexts, government-run agricultural programs support farmers' access to improved plant materials. For instance, in one country, the Ministry of Agriculture engages with private fruit trees and vegetables nurseries to ensure that true-to-type varieties are maintained for farmers' use while supporting the re-introduction of traditional cultivars to farmers on demand. In this country, government-led awareness and training programs promote the conservation and use of traditional varieties. National agricultural research institutes also promote *in situ* conservation of key crops like sweet potato and expanding collections. In contrast, private sector involvement in seed production and conservation remains limited, requiring public sector leadership to maintain diversity and access. However, in one country, domestic conservation efforts have focused on adapting crops to changing environmental conditions rather than on the maintenance of diverse seed systems, which restricts the conservation of traditional varieties.

- *Community engagement and participatory management of PGRFA*

Community efforts towards maintaining traditional varieties and knowledge systems exist in several countries. For instance, in one country, a growing social movement dedicated to the conservation of traditional crop varieties has seen the increasing engagement and involvement of small-scale farmers through organizations such as the Seed Savers' Network. In another country, local farmers were engaged to maintain accessions of wild banana species in their gardens as part of conservation missions.

Additionally, a country's National Reserve System, which includes more than 10,500 protected areas covering almost 20% of the country, manages a programme which assists Indigenous communities to voluntarily dedicate their land or sea country as IPAs. By supporting the conservation efforts of Indigenous communities and combining traditional and contemporary knowledge into a framework to leverage partnerships with conservation and commercial organisations, IPAs support *in situ* conservation of wild crop relatives while providing employment, education and training opportunities for indigenous people. In another country, few areas covering wild crop relatives have been declared as protected areas by nonprofit environmental organizations such as Conservation International and Birdlife International and linkages among the objectives of the International Treaty and the CBD and conservation work undertaken by NGOs have been promoted.

- *Institutional and research support*

National strategies and biodiversity policies encourage community-based conservation. This includes efforts to maintain local varieties through public programs.

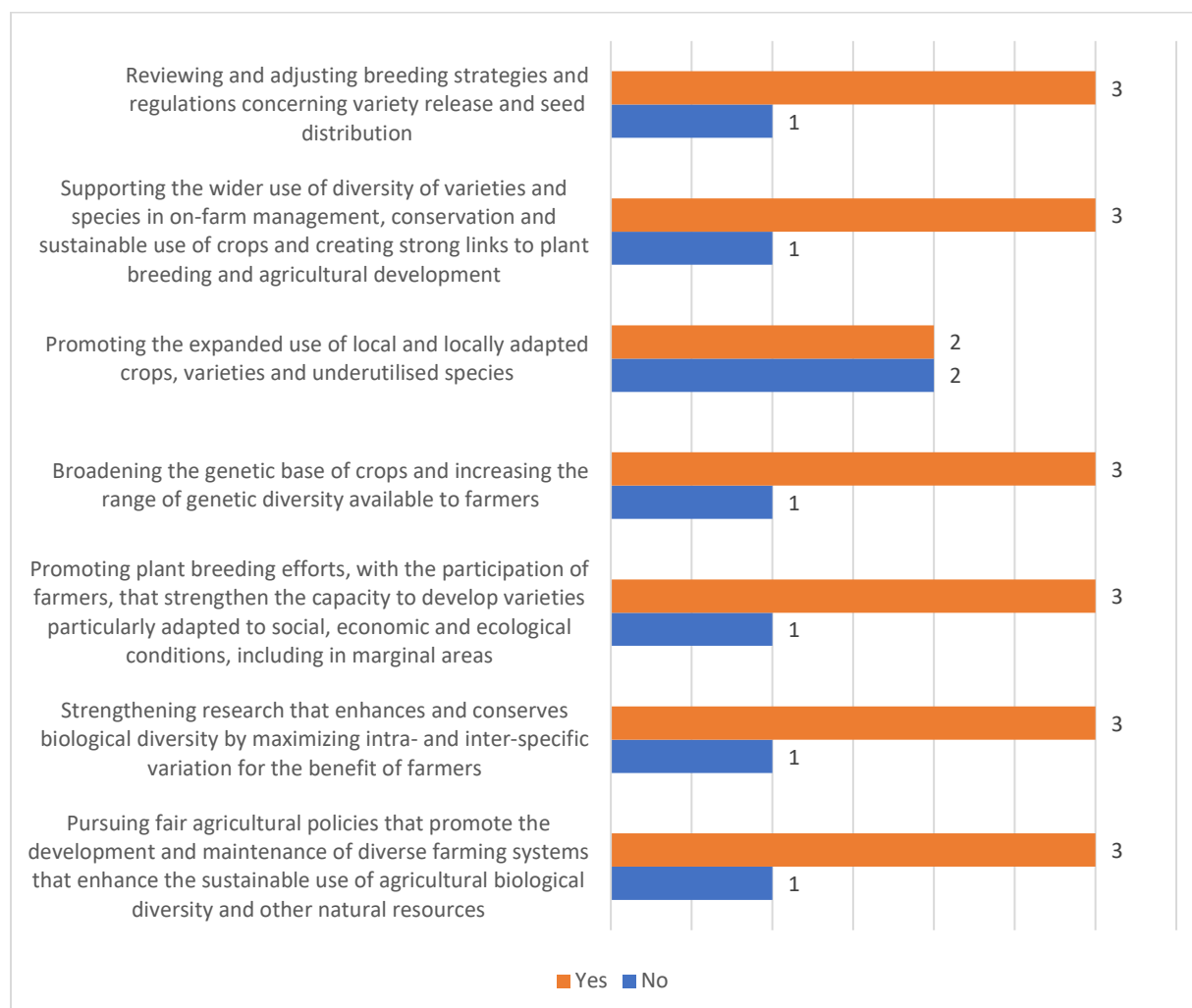
In one country, very few studies have tried to promote the concept of *in situ* conservation of PGRFA. However, in eight countries across the region, three BSF projects were completed through the implication of the national research institutions. These projects aimed to strengthen the resilience of the Pacific agricultural systems to climate change through enhanced access to and use of crop diversity. Currently, three BSF projects aimed at increasing crop genetic diversity with the participation of farmers and farming communities are on-going in four countries. For example, a project implemented since 2018 under the BSF of the International Treaty aims to promote, inter alia, *in situ* conservation of sweet potato genetic resources within four communities.

B. Supporting the participation of farmers in sustainable use of PGRFA

All four reporting countries from Southwest Pacific have taken policy and legal measures that promote the sustainable use of PGRFA, including measures in relation to (see Figure 6.6):

Figure 6.6

Number of reporting countries from Southwest Pacific (n = 4) with policy and legal measures in place for:



Depending on the country, these measures are legally binding such as the Plant Breeder's Rights Act and revised seed laws adopted in one country, or provide guidance only; and/or they relate to the use of biodiversity in general and not PGRFA in particular; and/or their implementation is challenging and not well-supported. One country reports that genetic resources management has been identified as a major result area by the national agricultural research institute, leading to the implementation of projects promoting greater use of PGRFA. However, in this country, no seed policy or intellectual property legislation are currently in place although draft policies have been proposed to address these gaps.

- *Promoting the expanding use of local and locally adapted crops, varieties and underutilized crop species*

One country promotes the use of native plant genetic resources through its Government-funded research and development corporation on rural industries, of which a Three-Year RD&E Plan (January 2015 – June 2018) focused on native foods to support production research to lift productivity and supply consistency. Within the programme, new species were also investigated for potential to add to the appeal and profitability of industry.

However, in another country, the promotion of commercial agriculture tends to drive the cultivation of only a few high-value crop varieties, leading to genetic erosion and the loss of traditional crop diversity.

- *Diversification of farming systems*

Efforts have been made to engage farmers in research and extension activities, particularly in promoting the sustainable use of crop diversity under changing climatic conditions. These include projects implemented by the national agricultural research institute to diversify household food systems by expanding varietal options.

Box 7.1

***In situ* conservation and utilization of sweet potato (*Ipomoea batatas*) empowers farmers**

One of the benefit-sharing projects in the Southwest Pacific region is the *in situ* conservation of sweet potato through Family Farm Teams in Papua New Guinea. Partners from the National Agricultural Research Station have successfully assembled 170 working collections of sweet potato, selecting 60 for further evaluation. In the Rigo District, where local communities have traditionally depended on bananas as their sole staple crop, the risk of climate-induced hazards has been significant.

The BSF project promoting the *in situ* conservation and the utilization of sweet potato diversity has inspired local communities. Embracing sweet potato as a promising alternative, farmers have eagerly committed to its cultivation, even before the Participatory Varietal Selection began. As an opportunity crop, sweet potato captivates communities with its adaptability, nutritional benefits, and resilience to changing climatic conditions.

Moreover, sweet potatoes give hope for farmers seeking sustainable income and nourishment, making its *in situ* conservation a bold and strategic choice for sustainable agriculture. The growing number of households united as Family Farm Teams is diversifying sweet potato farming through the reintroduction of new cultivars and the breeding of elite hybrids in the rural, drought-prone villages of Usurufa, Teptep, Menya, and Rigwal.

Almost 700 community members, including enthusiastic school students, are now embracing sweet potato cultivation, basic breeding methods, varietal selection techniques, and on-farm conservation strategies of sweet potato. Across these inspiring sites, over 500 sweet potato varieties, showcasing vibrant colors—orange, yellow, purple, and white—are being adopted, all exhibiting climate-resilient traits such as early maturity and drought tolerance. The sweet potato seed systems have flourished, empowered by custodian farmers who nurture this diversity, facilitating steady sharing of varieties both within and beyond the communities. As a result, farming households now thrive, enjoying access to an array of varieties that fulfill their food, nutritional, and additional source of income for the family households.

Sources: The BSF project portfolio; Papua New Guinea news site: www.thenational.com.pg/efforts-to-serve-sweetpotato/

- *Market access and value-addition initiatives*

Efforts to develop markets for native food products and foster community benefits have taken place yet they lack direct benefit-sharing mechanisms or protections for local custodians. Sector-specific research and commercialization programs have been initiated for native crops, focusing on the recognition and the development of markets for native foods. Similarly, new crop introductions evaluated and commercialized under international cooperation have improved livelihoods and economic activity. Nonetheless, such efforts are generally not framed within a national benefit-sharing policy.

C. Training, capacity-building and awareness raising

In one country, initiatives embedded within IPAs include education and technical training programs. In another country, government agencies organize workshops and extension activities on on-farm conservation, seed extraction, and storage techniques, which enhance farmers' abilities to conserve and improve their genetic resources. In some instances, implementation of the International Treaty has contributed to greater recognition of the importance of farmer involvement.

5.7.3.3 Monetary benefits

- *Funding mechanisms*

In one country, substantial public financial investments are directed toward natural resource management and sustainable agriculture through successive phases of a national natural resource management program. Although not exclusively dedicated to plant genetic resources, these funds contribute to the sustainable management of farmlands and the conservation of wild crop relatives through on-farm and *in situ* initiatives. In parallel, targeted research and development plans promote native food production by investigating new species and improving productivity, thereby fostering market opportunities and potentially increasing income for farmers.

- *Incentives*

Some policy frameworks include economic incentives that indirectly support farmers by enhancing local capacities and market linkages. For example, mechanisms such as IPAs provide employment, education, and training opportunities. Another initiative delivers economic benefits by promoting the commercialisation of native food plants and by fostering value-added processes in traditional agriculture. Through strategic partnerships with industry associations and lobby groups, these measures aim to create stable market conditions that reward conservation and the sustainable use of genetic resources.

5.7.4 Farmers' right to participate in making decisions, at national level, on matters related to the conservation and sustainable use of PGRFA (Article 9.2c)

One country has a formal mechanism enabling participatory decision-making in place, where the establishment of IPAs empowers local and Indigenous communities to directly determine the management of their lands, effectively contributing their traditional practices. Additionally, a peak national body represents all interests in the country's native food and botanical sector by, inter alia, supporting engagement with Indigenous Peoples and facilitating research and innovation in this sector.

Elsewhere, no other mechanism exists in the region to promote the participation of farmers in making decision processes related to PGRFA. In two countries, consultations are underway on access and benefit-sharing policies and on a national seed policy, providing opportunities to engage with a broad range of stakeholders.

5.7.5 Farmers' right to save, use, exchange and sell farm-saved seed, subject to national law and as appropriate (Article 9.3)

There are no explicit national laws across the region guaranteeing the rights of farmers to save, use, exchange, or sell farm-saved seed. However, in one country, plant breeders' rights legislation explicitly allows for the conditioning and propagation of farm-saved seed, providing farmers with an exemption from infringement of plant breeders' rights for these activities.

Elsewhere in the region, seed legislation and policies have yet to be enacted, and seed-saving practices are supported through informal networks and public extension services rather than protected by law. In some cases, government programs support seed distribution, training, and maintenance of traditional varieties through nurseries and public research stations.

5.7.6 Gaps and needs with regard to the realization of Farmers' Rights

- Legal and policy frameworks

- Across the region, there is no policy and legal framework specifically devoted to the protection and promotion of the provisions of Farmers' Rights. The few existing policies addressing the rights of farmers are anchored in broader sectoral policies.
- The lack of legal measures for on-farm and *in situ* conservation also hampers the realization of Farmers' Rights.
- Two countries are still in the process of developing or drafting specific national policies and legal frameworks on plant genetic resources. It remains to be seen if the provisions of Farmers' Rights will be taken into account.

- Institutional coordination

- Several countries struggle with fragmented governance structures and a lack of coordinated inter-agency efforts.
- In the region, there is a lack of or inadequate support from public institutions for protecting and promoting Farmers' Rights.

- Obstacles to support farmers' efforts in *in situ* and on-farm conservation and sustainable use

- Small-scale farmers receive little institutional or legal support to keep, improve and exchange their own seed on-farm. Because national conservation programs and seed laws do not formally recognize or reward farmers' *in situ* stewardship, farmers cannot fully claim their right to share in the benefits that flow from conserving plant genetic resources.
- Policies and incentives that favour large-scale commercial agriculture marginalize farmers' traditional varieties, shrinking the genetic pool they depend on for climate resilience and food security. Without market channels or public programs that value diverse landraces, farmers effectively lose both their crop options and their right to benefit from the diversity they have maintained for generations.

- Financial and human resources to support activities that protect and promote Farmers' Rights

- Limited funding, manpower, and technical expertise greatly constraints research, *in situ* conservation, and the effective management of germplasm. High costs of travel and monitoring hinder follow-up missions, and the lack of a dedicated seed infrastructure further impedes efficient conservation efforts.
- This shortage of resources is compounded by a need for updated equipment and advanced training in conservation techniques, which are often unavailable due to financial constraints.

- Socio-economic constraints

- Farmers are interested in conserving and using local crop genetic resources but their socio-economic status, socio-cultural impediments and economic pressures make it often difficult to maintain a diversity of crops or varieties.

- Gender-related factors that may limit the realization of Farmers' Rights

- One country identified gender-related factors that may impede the realization of Farmers' Rights. Despite the essential role women play in agriculture, they often go unrecognized due to

patriarchal norms prevalent in many societies. Women are frequently not considered for leadership positions, and most lack access to or control over resources.

SECTION 6. CONCLUSION

The Assessment of the state of implementation of Article 9 of the International Treaty provides a consolidated overview of the diverse measures, experiences, and gaps and needs encountered by Contracting Parties and stakeholders since the International Treaty's entry into force. It highlights the crucial contributions of farmers, Indigenous Peoples, and local communities to the conservation and sustainable use of PGRFA and reflects the broad commitment to upholding and promoting their rights to these resources.

Key messages

All regions have taken steps to implement Farmers' Rights, reflecting diverse legal, cultural, and socio-economic contexts. Measures include recognition of farmers' contributions, protection of traditional knowledge, benefit-sharing initiatives, participatory governance, and support for farmers' seed systems. Some countries have adopted comprehensive policies, while others rely on project-based or community-led initiatives. However, comprehensive stand-alone Farmers' Rights legislation remains rare, with most provisions embedded in broader legal frameworks.

Recognition of farmers' contributions:

Across all regions, there is broad recognition of the essential role of farmers and local and indigenous communities in conserving and sustainably using plant genetic resources. Countries have implemented various measures, including awards, seed of biodiversity fairs, community seed banks, and agricultural heritage designations to acknowledge these contributions.

Protection of traditional knowledge related to PGRFA:

Legal frameworks, biodiversity strategies, Indigenous-led conservation areas, community registers, documentation initiatives and other community-based initiatives to safeguard traditional knowledge have been adopted in many countries. However, effective protection is often hampered by limited enforcement, resource constraints, and the ongoing erosion of traditional agricultural practices.

Benefit-sharing:

Non-monetary benefits such as access to genetic resources, access to technology and information on PGRFA, participatory breeding, capacity building, and support for community seed system are the most common forms of benefit-sharing. While legal provisions for monetary benefit-sharing exist in some regions, practical implementation remains limited in some contexts.

Participation in decision-making:

Mechanisms for farmers' participation in policy and decision-making processes are being developed, including advisory bodies, technical committees, multistakeholder platforms and community governance structures. However, ensuring meaningful participation remains a key challenge. Besides, participation of women farmers in policy fora remains limited in some contexts.

Farmers' rights to save, use, exchange, and sell farm-saved seed:

The right to save, use, exchange, and sell farm-saved seed is recognized to varying degrees across regions. Traditional seed-saving, sharing and exchanging practices continue, often through farmer-managed seed systems, but are frequently constrained by regulatory frameworks that favour formal seed systems and plant breeders' rights.

Gaps and needs:

Fragmented legal frameworks, limited institutional coordination, insufficient financial and technical resources, regulatory and market barriers to farmer-managed seed systems, and low public awareness continue to impede progress. Socio-economic inequalities and, in some regions, gender-related barriers rooted in customary norms, unequal access to land, and other constraints, further limit the realization of Farmers' Rights.

Across all regions, there is clear recognition of the essential role that farmers play in maintaining and conserving agrobiodiversity and ensuring food security. Countries have taken various steps to protect traditional knowledge, facilitate benefit-sharing, promote farmers' participation in decision-making, and support farmers' rights to save, use, exchange, and sell farm-saved seeds. Innovative community-based initiatives, participatory plant breeding programs, and the establishment of community seed banks are notable examples of practical actions that have strengthened Farmers' Rights on the ground.

At the policy level, many countries have integrated Farmers' Rights-related provisions into broader agricultural, biodiversity, and access and benefit-sharing frameworks. Some regions have developed dedicated mechanisms to recognize farmers' contributions, such as award systems and national registers of traditional varieties. Others have prioritized participatory governance structures that allow farmers and local and indigenous communities to engage in policy dialogues and resource management.

Despite these positive developments, the Assessment also identifies several persistent challenges that require attention. Legal and policy frameworks related to Farmers' Rights remain fragmented or underdeveloped in many contexts, limiting the coherence and effectiveness of implementation efforts. The balance between formal and informal seed systems and farmers' traditional practices remains delicate, with regulatory barriers sometimes constraining farmers' ability to exercise their customary rights to save and exchange seeds. Additionally, the erosion of traditional knowledge, insufficient institutional coordination, and limited financial and technical resources continue to impede the full realization of Farmers' Rights.

Farmers' participation in decision-making processes, while increasingly acknowledged, often lacks the depth and consistency needed for meaningful influence on national strategies and policies. Socio-economic barriers and gender inequalities rooted in customary norms, unequal access to land, and other constraints, further limit the inclusion of marginalized farming communities in these processes.

The experiences and measures gathered through this Assessment underscore the importance of tailored, context-specific approaches to implementing Farmers' Rights. Successful initiatives often combine legal recognition with farmers and community empowerment, capacity building, and sustained support mechanisms.

Looking ahead, the continued advancement of Farmers' Rights will require renewed efforts to strengthen legal and policy coherence, enhance institutional coordination, and secure sustainable financial resources. Raising public awareness and fostering a greater appreciation of the importance of Farmers' Rights within broader agricultural and environmental agendas will also be essential.

PROSPECTS AND PLANS FOR FURTHER IMPLEMENTATION OF FARMERS' RIGHTS

Through the multistakeholder survey, respondents were invited to indicate prospects and plans relevant to the implementation of Farmers' Rights among three broad categories that are indicated below.

The survey revealed a high degree of convergence across regions regarding the prospects and plans for further implementation of Farmers' Rights. Unless otherwise specified, the following examples of prospects and plans for further implementation of Farmers' Rights reflect common priorities that were identified or selected by respondents across all regions.

(i) Awareness raising, outreach and communication

- Promote recognition of local and Indigenous communities and farmers' contributions to the conservation and sustainable use of PGRFA, such as awards and recognition of custodian/guardian farmers.
- Support farmers' participation in decision-making at local, national and sub-regional, regional, and international levels.³⁶

³⁶ Not endorsed by North America.

- Promote annual events to raise awareness of the importance of PGRFA and the role of farmers in the conservation and sustainable use of crop genetic diversity.
- Encourage sharing and dissemination of measures and practices and submission to the *Inventory*.³⁷
- Use, promote, and disseminate the *Options for encouraging, guiding, and promoting the realization of Farmers' Rights as set out in Article 9 of the International Treaty*.³⁸
- Organize global, regional, national and local/community sharing of experiences, practices and lessons learned.³⁹

(ii) Capacity development, training, and technical cooperation

- Promote regional exchanges on practical implementation of Farmers' Rights and the relevance of South-South cooperation, North-South cooperation.
- Conduct training, capacity development and awareness raising on new themes/topics that can protect and promote Farmers' Rights as set out in Article 9, such as: PGRFA data management and governance, fairness in research partnerships, impact of new technologies on Farmers' Rights, implementation of human rights instruments and declarations.⁴⁰
- Develop local/National/Regional programs/projects encouraging partnerships/strengthening cooperation among different actors to engage in South-South Cooperation.⁴¹

(iii) National implementation of Farmers' Rights

- Raise awareness and build capacity among farmers, policymakers, institutions, and stakeholders on the implementation of Farmers' Rights.
- Encourage collaboration and coordination across various sectors (such as agriculture, environment, education, rural development, trade/commerce/enterprise, and other relevant sectors) to protect and promote the implementation of the different provisions of Article 9.
- Review national measures that affect the realization of Farmers' Rights, in particular legislation concerning variety release and seed distribution, to protect, promote and realize Farmers' Rights, as set out in Article 9 of the International Treaty, as appropriate and subject to national legislation.⁴²
- Promote sustainable biodiverse production systems and facilitate participatory approaches such as community seed banks, community biodiversity registries, participatory plant breeding and seed fairs, including to provide legal recognition of such approaches as tools for realizing Farmer's Rights.

Additionally, several respondents from Europe provided additional suggestions for further implementation of Farmers' Rights. These are presented below in no particular order:

- Support through programs and projects

- Continue to support the implementation of Farmers' Rights through programs and projects at local, national, regional, and global levels

37 Not endorsed by North America.

38 Not endorsed by North America.

39 Not endorsed by North America.

40 Not endorsed by North America.

41 Not endorsed by North America.

42 Not endorsed by Southwest Pacific.

- Rights-based approaches

- Support for rights-based approaches such as the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas (UNDROP), which includes the right to seeds and contributes to the implementation of Article 9 of the International Treaty

- Access to high-quality seeds

- Continue to highlight the importance of ensuring the availability of high-quality seeds of improved varieties, and promote access to seeds of choice and good quality to prevent crop failures and enhance economic benefits

- National programme/strategies on PGR

- Review and monitoring of national programs and strategies on PGR, which inherently include several principles or activities related to Farmers' Rights. It also suggests further developing the framework conditions for placing seed and propagating material on the market, considering the impacts on on-farm management

- Knowledge sharing, education, and awareness

- Promote knowledge sharing on the cultivation and propagation of landraces, including plant health aspects and regulations on seed exchange
- Supports organizations that promote education and raise awareness on PGR

- Strengthening Farmers' Rights

Strengthen and support Farmers' Rights to use and sell self-bred seeds and livestock within relevant areas, and ensure these rights are reflected in regulations, and actively participate in discussions and development of international agreements related to this matter.