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The International Treaty
ON PLANT GENETIC RESOURCES
FOR FOOD AND AGRICULTURE

**Views, Experiences and Best Practices as an example of possible options for
the national implementation of Article 9 of the International Treaty**

Note by the Secretary

At its [second meeting](#) of the Ad hoc Technical Expert Group on Farmers' Rights (AHTEG), the Expert Group agreed on a revised version of the [template](#) for collecting information on examples of national measures, best practices and lessons learned from the realization of Farmers' Rights

This document presents the updated information on best practices and measures of implementing Article 9 of the International Treaty submitted by Southeast Asia Regional Initiatives for Community Empowerment (SEARICE) on 1 August 2019.

The submission is presented in the form and language in which it was received



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Basic information

- Title of measure/practice

Building on Community Traditional Knowledge and Practices for Food Security

- Date of submission

July 31, 2019

- Name(s) of country/countries in which the measure/practice is taking place

Vietnam

- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person)

Southeast Asia Regional Initiatives for Community Empowerment (SEARICE)
14-D Maalalahanin Street, Teachers Village West, Diliman, Quezon City 1101 Philippines
Telephone numbers: (63-2) 9226710; (63-2) 5081891
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URL: www.searice.org.ph
Contact person: Normita Ignacio, Executive Director

- Type of institution/organization (categories)

Non-Government Organization

- Collaborating/supporting institutions/organizations/actors, if applicable (name, address, website (if applicable), e-mail address, telephone number(s))

Centre for Sustainable Rural Development (Hanoi, Vietnam)
Plant Protection Department (PPD) of the Ministry of Agriculture and Rural Development (MARD)
Field Crops Research Institute (FCRI) of the Vietnamese Academy of Agricultural Sciences (VAAS)
Oxfam International

Description of the examples

Mandatory information:¹

- Short summary to be put in the inventory (max. 200 words) including:
 - Implementing entity and partners

¹ This mandatory information is required in order for the measure/practice to be included in the Inventory.



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- Start year
- Objective(s)
- Summary of core components
- Key outcomes
- Lessons learned (if applicable)

Southeast Asia Regional Initiatives for Community Empowerment (SEARICE) implemented ‘Putting Lessons into Practice: Scaling up Peoples’ Biodiversity Management for Food Security’ (2012-2015), in collaboration with partners from government, non-government and research institutions. Objectives were to develop adaptation strategies for food security by bridging traditional knowledge and science; to influence policies on food and agriculture from local to international level toward realizing the right to food of indigenous and smallholder farmers; and to strengthen their adaptive capacities in plant genetic resources conservation, including access to and sustainable use of PGRFA, by scaling up successful and/or innovative models. Components include capacity-building through collaborative strategies, e.g. Participatory Plant Breeding (PPB) and community seed management, and policy support by providing venue for farmers to articulate their concerns and issues to government leaders. The Farmer Field School approach was used as a learning and empowering methodology, while the system of rice intensification and PPB were introduced as climate-change mitigation measures. The initiative targeted 75,000 low-income farming households from several regions of Vietnam. Farm productivity and yield increased by 10%, while periods of food scarcity were reduced from a maximum of 17 weeks to a maximum of 7 weeks across all regions by its conclusion.

(199 words)

- Brief history (including starting year), as appropriate

The initiative Putting Lessons into Practice: Scaling up Peoples Biodiversity Management for Food Security was implemented in Vietnam from 2012 to 2015. The project recognizes that the knowledge and experiences of the farming communities of indigenous peoples and smallholder farmers (IPSHF) are integral elements and actors in the ‘global responses’ to climate change. For one, the participants’ prior knowledge of ecosystems and their resilience are keys in identifying the challenges posed by climate change and in building appropriate responses. The initiative thus anchored and capitalized on these knowledge and experiences by building on them and at the same time enhancing them by introducing new adaptation mechanisms whose adoption or not was decided by the participants themselves based on their contexts.

This project builds on past similar SEARICE projects in Vietnam, i.e. the Community Biodiversity Development and Conservation (CBDC) implemented in 1994 to 2005, Biodiversity Use and Conservation in Asia Program (BUCAP) implemented in 2000 to 2005 and the merged program (CBDC-BUCAP) implemented from 2006 to 2011.

- Core components of the measure/practice (max 200 words)

The measure has two components: 1) capacity enhancement using collaborative strategies involving other stakeholders in agriculture and 2) policy support by providing venue for the farmers to articulate their concerns, needs and issues to government leaders.

Technical skills and topics discussed and subsequently applied included participatory plant breeding and community seed management. The principle of rice intensification (SRI), a known ecological farming method that is also touted as a climate change adaptation and mitigation measure for agricultural systems, was also implemented. The inclusion of SRI was important as it was new to the participants and it made



them re-think their already established IPSHF farming practices such as continuous standing water, dense transplanting of seedlings, overuse of nitrogen fertilizer, and spraying of pesticide, among others.

Farmer Field School (FFS) was used as a learning and empowering methodology. Through FFS, farmers got organized, supported each other, and were able to sustain the efforts beyond project implementation.

Policy support was in the form of provision of venue for farmers to air their concerns, issues and needs such as events like farmers field day, end-of-season assessment and planning and farmers' technical and policy conferences which were attended by local government officials.

- Description of the context and the history of the measure/practice is taking place (political, legal and economic framework conditions for the measure/practice) (max 200 words)

It is a given that farming communities are highly at risk and vulnerable to impacts of climate change. But while they are vulnerable, farmers also hold a crucial key in mitigating and adapting to the impacts of such. It is thus critical that farmers' potential to address their own vulnerabilities are strengthened by harnessing their traditional knowledge and skills and providing them with capacity to adapt to climate change.

At the start of the project, it was found that farmers were nowhere near to being able to even just withstand the effects of climate change. Results of baseline studies showed a notable dwindling of agrobiodiversity in the communities. There were also food security issues, with reported hunger periods of up to 17 weeks annually.

The project sites were in mountainous and coastal plains. They have small arable lands and crop productivity is highly constrained by soil salinity and low soil fertility, which were further aggravated by adverse weather conditions. Since the arable lands in this province are affected by salinity and acidity, and since they have not yet found the most adaptable variety for these adverse conditions, the farmers continue to experience crop failures.

- To which provision(s) of Article 9 of the International Treaty does this measure relate

Art. 9.1

Art. 9.2a

Art. 9.2b

Art. 9.2c

Art. 9.3

Other information, if applicable

- Please indicate which category of the Inventory is most relevant for the proposed measure, and which other categories are also relevant (if any):



No.	Category	Most relevant ²	Also relevant ³
1	Recognition of local and indigenous communities', farmers' contributions to conservation and sustainable use of PGRFA, such as awards and recognition of custodian/guardian farmers		
2	Financial contributions to support farmers conservation and sustainable use of PGRFA such as contributions to benefit-sharing funds		
3	Approaches to encourage income-generating activities to support farmers' conservation and sustainable use of PGRFA		
4	Catalogues, registries and other forms of documentation of PGRFA and protection of traditional knowledge		
5	In-situ/on-farm conservation and management of PGRFA, such as social and cultural measures, community biodiversity management and conservation sites		
6	Facilitation of farmers' access to a diversity of PGRFA through community seed banks ⁴ , seed networks and other measures improving farmers' choices of a wider diversity of PGRFA.		
7	Participatory approaches to research on PGRFA, including characterization and evaluation, participatory plant breeding and variety selection		
8	Farmers' participation in decision-making at local, national and sub-regional, regional and international levels		
9	Training, capacity development and public awareness creation		
10	Legal measures for the implementation of Farmers' Rights, such as legislative measures related to PGRFA.		
11	Other measures / practices		

- In case you selected 'other measures', would you like to suggest a description of this measure, e.g. as a possible new category? _____

- Objective(s)

a) to develop locally appropriate adaptation strategies for food security by bridging traditional knowledge and science on plant genetic resources and incorporating local perceptions on climate change

² Please select only one category that is most relevant, under which the measure will be listed.

³ Please select one or several categories that may also be relevant (if applicable).

⁴ Including seed houses.



b) to empower indigenous and smallholder farmers to influence local, national, regional and international food, agriculture, and climate change policies toward realizing the right to food

c) to strengthen the adaptive capacities of smallholder farmer communities and indigenous peoples in plant genetic resources conservation and access and sustainable use, by scaling up successful and/or innovative models

- Target group(s) and numbers of involved and affected farmers⁵

The project was able to reach 75,000 poor farming households from the upland areas of the northwest (Hoa Binh, Son La, and Lao Cai), northeast (Yen Bai) and northern central (Thanh Hoa) consisting of at least 20% ethnic groups engaged in rice and maize production and the southern Mekong regions of the country.

- Location(s) and geographical outreach

The project was across five provinces in Vietnam: Son La, Hoa Binh, Thanh Hoa, Lao Cai and Yen Bai with counterpart implementation in 19 provinces in Mekong Delta.

- Resources used for implementation of the measure/practice

The project cost was around USD420,000 for three years. In addition, institutional partners provided staff time, office spaces, and other supplies and materials as their counterpart.

- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture?

The initiative was able to help address genetic erosion and limited access to locally adapted varieties of rice and corn. The IPSHF communities were able to learn concepts and skills to allow for the development and rehabilitation of local and traditional varieties. Subsequently, these were reintegrated and reintroduced into the farming systems. The initiative contributed in improving access to locally adapted seeds and lessened farmers' dependence on for-sale seed sources. The introduction and integration of new techniques likewise lessened the amount of seeds required for production, thus allowing for seeds to be saved.

From the capacity building, farmers also had the opportunity to select and develop varieties that provide high yields, adapted to local conditions, including saline tolerant varieties and which had the characteristics preferred by the IPSHF.

- Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)

Ethnic communities tend to be disconnected from the larger society missing economic and developmental opportunities. The programme connects them by involving government services and educating farmers to make use of science-based technologies and opportunities in the market. The culture of sharing is strong among ethnic groups, particularly women. Female FFS-graduates, widely recognized for their knowledge and capability to supply quality seeds, reach out to wider number of farms in the communities. This has tremendous impact on their self-consciousness and pride.

⁵ Any classification, e.g. of the types of farmer addressed, may be country-specific.



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Through the mobilization of the public sector, the programme's Participatory Plant Breeding took advantage of science and technology while decision-making and final selection were devolved to farmer groups. This resulted to locally adapted and commercially competitive varieties, diversity and farmers' empowerment. The merits and potentials of participatory methods that link farmer-groups to public sector institutions are solidly demonstrated.⁶

Improvement in capacity translated to improvement of farm productivity: at least a 10% jump from harvests prior to program implementation and hunger periods reduced from as high as 17 weeks annually to a maximum average of seven weeks across the provinces with some areas even claiming zero hunger periods, attributed to the improved access to and availability of appropriate seeds.

- Other national level instruments that are linked to the measure/practice
- Are you aware of any other international agreements or programs that are relevant for this measure/practice?
 - a) Convention of Biological Diversity
 - b) Nagoya Protocol
- Other issues you wish to address, that have not yet been covered, to describe the measure/practice

Lessons learned

- Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices (max 250 words).

The involvement and acceptance of local authorities in the program was crucial in the realization of program targets. This involvement also allowed us to tap the services and expertise of the various government agencies for the benefit of the IPSHF communities.

The program included indigenous peoples as partners and beneficiaries, but it lacks a clear development framework on IPs that would have allowed us to tailor-fit interventions, or for interventions to be IP-sensitive. Thus, interventions were geared more for farmers in general and the IP dimension was merely consequential as the farmers happened to also be IPs.

Creating venues and opportunities for women's participation was a plus point of the program. Future interventions, however, can contribute further to break the gender divide and social construct or viewpoints on men and women and the power relations that go along with it.

The timeframe of the program is short in consideration of the time required for varietal crosses to become fully stable. A longer timeframe would allow for full development of new varieties within the program period. A longer timeframe would likewise allow a more extensive experiential learning for the farmers.

⁶ Trygve Berg. 2016. Putting Lessons into Practice: Scaling Up People's Biodiversity Management for Food Security. External Evaluation Report (unpublished)



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The role of local institutions cannot be discounted. It cannot be denied that these institutions contributed to the realization and implementation of the program. Direct engagements with community formations like unions (e.g., women, youth, and farmers) and people's committees can be explored in the future for better chances of institutionalization of program.

- What challenges encountered along the way (if applicable) (max 200 words)
- What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity? (max 100 words)

Supportive policies that allow farmers to continue their traditional practice of seed exchanges contribute to the diversity on-farm. Likewise, allowing farmers unrestricted access to plant genetic resources not only as planting materials but as raw materials for breeding enhances the capacities of farmers to adapt to the challenges brought about by climate change. Further, allowing farmers with the capacity to develop new varieties and produce good quality seeds, sell their seeds at least at the local level, not only contributes to their livelihood but also provides easy access to locally adapted seeds among the members of the community.

Further information

For further information on the project, you may visit:

searice.org.ph

searice.org.ph/putting-lessons-into-practice



Basic information

- Title of measure/practice

Farmer-codeveloped ordinance on Agriculture (Sustainable Agriculture Code of the Municipality of Arakan, North Cotabato, Philippines)

- Date of submission

July 31, 2019

- Name(s) of country/countries in which the measure/practice is taking place

Philippines

- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person)

Municipal Agriculture Office (MAO) of Arakan, North Cotabato, Philippines
James Dulay, Municipal Agriculture Officer

- Type of institution/organization (categories)

Local Government - Municipal level

- Collaborating/supporting institutions/organizations/actors, if applicable (name, address, website (if applicable), e-mail address, telephone number(s))

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URL: www.searice.org.ph
Contact person: Normita Ignacio, Executive Director

Description of the examples Mandatory information:⁷

- Short summary to be put in the inventory (max. 200 words) including:

⁷ This mandatory information is required in order for the measure/practice to be included in the Inventory.



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- Implementing entity and partners
- Start year
- Objective(s)
- Summary of core components
- Key outcomes
- Lessons learned (if applicable)

In 2013, Southeast Asia Regional Initiatives for Community Empowerment (SEARICE) facilitated the development of the Agriculture Code of Arakan, North Cotabato. The code compiled all existing local ordinances on agriculture and added new provisions that would reflect the desire of the communities for a sustainable agricultural system. To develop the agricultural code, SEARICE and the Municipality of Arakan co-organized an ordinance-writing workshop for farmer leaders (women and men) of the municipality, led by a lawyer working with SEARICE. The Draft Code was then submitted for consideration and adoption. Provisions include (1) management, utilization, exchange and development of PGRFA, including protection of local seed systems and institutionalization of community seed banks; (2) municipal guaranteed protection of farmer-bred varieties, including institutionalization of a seed registry and protection against misappropriation; (3) free access to seed for all farmers; (4) a ban on genetically modified organisms (GMO); (4) facilitating and monitoring access and benefit-sharing, including through the Arakan Farmers' Trust Fund; (5) protection and promotion of Farmers' Rights; (6) provision of incentives for farmer-breeders of traditional and indigenous varieties; (7) development of a loan assistance program; and (8) commitment to make an annual Farmers' Day a permanent part of the Municipal Foundation Anniversary.

- Brief history (including starting year), as appropriate

This measure started with a vision of then Municipal Agriculture Officer of Arakan, North Cotabato, to transform the destructive agricultural practices in the municipality into sustainable agriculture. This was just a part of his bigger dream to have sustainable livelihood and food security; empower farmers; protect the natural resources; improve watershed and wildlife habitat; and improve the land tenure arrangement in Arakan. His vision is in harmony with the empowerment agenda of SEARICE hence the collaboration between the two institutions was sealed in 2011. In 2012, the collaborative started to lobby for Arakan Municipality to adopt an Ordinance that would support the vision of the Municipal Agriculture Office. A workshop to draft the Ordinance was conducted in 2013 and the final Draft was completed in August 2013. However, the Ordinance was approved and adopted only in 2017 due to political rivalries among the members of the Municipal Council. Finally, in January 2019, the Implementing Rules and Regulations (IRR) was drafted and was approved immediately in March 2019.

- Core components of the measure/practice (max 200 words)

The core components of the measure include the participatory development of the agriculture code by key stakeholders including the farmers, and its subsequent submission for the municipality for consideration and adoption. The farmers' active participation in the process is reflective of a key outcome of SEARICE's engagement with the farmers—farmer empowerment—which enable them to speak out about their issues, make informed decisions, and lobby for the adoption of supportive policies.

The salient points of the agricultural code include a.) management, utilization, exchange and development of plant genetic resources for food, agriculture and health, including protection and promotion of traditional seed systems and institutionalization of community seed banks; b.) municipal guarantee and protection of



farmer-bred seed varieties including institutionalization of community seed registry; c.) free access to seeds of all farmers from Arakan; d.) ban on GMO; e.) protection against biopiracy; f.) benefit sharing through Arakan Farmers’ Trust Fund; g.) facilitation and monitoring of Access and Benefit Sharing; h.) protection and promotion of farmers’ rights; i.) commitment to make Farmers Day a permanent part of the Municipal Foundation Anniversary every 27th August; j.) development of loan assistance program; k.) provision of incentives for farmer-breeders of traditional and indigenous varieties

- Description of the context and the history of the measure/practice is taking place (political, legal and economic framework conditions for the measure/practice) (max 200 words)

This ordinance is one of the very few local legislations on agriculture in the Philippines that support farmers’ rights to PGR and most likely the only one that went through a participatory process involving smallholder farmers. This ordinance is seen by Arakan farmers as a huge support to their efforts to completely transition to sustainable food production systems.

Arakan used to have a rich and diverse agricultural biodiversity. However, at the height of the “MASAGANA 99” or the modernization of agriculture program of the country’s Department of Agriculture and local government units (which involved the promotion of a package of technology of seeds, fertilizer, and pesticides), crop diversity was significantly eroded due to the introduction of new varieties that were oftentimes not adaptable to the local environment.

Seed savings and exchanges between and among farmers traditionally existed in the community. Introduction of new and package of technologies particularly on seeds is one of the main reasons of ecological imbalance that resulted in the emergence of different and new strain of pests and diseases. Farmers became dependent on the different private companies and public research institutions for seed supply.

- To which provision(s) of Article 9 of the International Treaty does this measure relate

- Art. 9.1
- Art. 9.2a
- Art. 9.2b
- Art. 9.2c
- Art. 9.3

Other information, if applicable

- Please indicate which category of the Inventory is most relevant for the proposed measure, and which other categories are also relevant (if any):

No.	Category	Most relevant ⁸	Also relevant ⁹
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⁸ Please select only one category that is most relevant, under which the measure will be listed.

⁹ Please select one or several categories that may also be relevant (if applicable).



1	Recognition of local and indigenous communities', farmers' contributions to conservation and sustainable use of PGRFA, such as awards and recognition of custodian/guardian farmers		
2	Financial contributions to support farmers conservation and sustainable use of PGRFA such as contributions to benefit-sharing funds		
3	Approaches to encourage income-generating activities to support farmers' conservation and sustainable use of PGRFA		
4	Catalogues, registries and other forms of documentation of PGRFA and protection of traditional knowledge		
5	In-situ/on-farm conservation and management of PGRFA, such as social and cultural measures, community biodiversity management and conservation sites		
6	Facilitation of farmers' access to a diversity of PGRFA through community seed banks ¹⁰ , seed networks and other measures improving farmers' choices of a wider diversity of PGRFA.		
7	Participatory approaches to research on PGRFA, including characterization and evaluation, participatory plant breeding and variety selection		
8	Farmers' participation in decision-making at local, national and sub-regional, regional and international levels		
9	Training, capacity development and public awareness creation		
10	Legal measures for the implementation of Farmers' Rights, such as legislative measures related to PGRFA.		
11	Other measures / practices		

- In case you selected 'other measures', would you like to suggest a description of this measure, e.g. as a possible new category? _____
- Objective(s)
 - a) to develop an agricultural code for the municipality of Arakan that embodies the aspirations of men and women farmers in the municipality to have an agricultural system that protect and sustain the natural resources and promote farmers' welfare.
 - b) to ensure that the necessary government support is provided for the implementation of the agricultural code through a Municipal Ordinance

¹⁰ Including seed houses.



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- Target group(s) and numbers of involved and affected farmers¹¹

All farmers in the entire Municipality is affected by the ordinance. Farmer leaders of Arakan, North Cotabato in partnership with the municipal agriculture office (MAO) and the Agriculture Committee of the Municipal Office were directly involved in drafting the Ordinance.

- Location(s) and geographical outreach

Arakan, North Cotabato, Philippines

- Resources used for implementation of the measure/practice

The main resources used in this measure are the time and energy used by the farmers and ally government officials in lobbying for the adoption of the Ordinance. Minimal costs were invested on the travel costs and time of the lawyer from SEARICE who facilitated the workshops for both the Ordinance and the IRR drafting.

- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture?

The agricultural code of Arakan, from its development to its subsequent adoption empowers the farmer leaders on realizing their role, capacities and potential in affecting policies for their development. The code recognizes the critical role of small farmers in the conservation of PGRFA through the protection and promotion of traditional seed systems, farmer-bred varieties through the institutionalization of community seed banks, benefit sharing among many others.

The adoption of the municipal ordinance is monumental step, a legal measure that concretizes the centuries of work of our small farmers and a stepping stone for future generations of farmers. Arakan has since strengthened its campaign, and moved towards sustainable, organic farming. Within the municipality they have established learning farms that serve as an encouragement to other farmers, convincing them that a sustainable farming is possible. It plans to influence its neighbouring communities and provinces to adopt the same measure.

- Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)

The development of the agricultural code is indicative of the deep commitment of the municipality to promote and protect farmers rights. It puts to task the local government leaders to ensure the protection of farmers. The ordinance ensures that budget will be allocated by the government to implement the law. As of this writing Php 1 million was already allocated for the implementation of the ordinance. This clearly demonstrates Article 9.2(c) of the ITPGRFA. Its subsequent adoption serves as an example for other local government units to follow through with concrete ways to protect and support their farmers. Ultimately, the farmer leaders who participated in the process realized that they have a voice in advancing their welfare and that they can and should raise their voice.

¹¹ Any classification, e.g. of the types of farmer addressed, may be country-specific.



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- Other national level instruments that are linked to the measure/practice
 - a) Indigenous Peoples Rights Act
 - b) Magna Carta for Smallholder Farmers
- Are you aware of any other international agreements or programs that are relevant for this measure/practice?
 - a) ITPGRFA
 - b) Convention on Biological Diversity
 - c) Nagoya Protocol
 - d) Cartagena Protocol
- Other issues you wish to address, that have not yet been covered, to describe the measure/practice

Lessons learned

- Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices (max 250 words).

Collaborative multi-stakeholder policy development ensures that the voice of the most important stakeholder—the farmer—is duly heard. The draft ordinance contains provisions from the farmers' personal and collective experiences and learning from their years of managing their land.

Involving the farmers in the development of policies on agriculture was an empowering exercise. Not only did the exercise ensure that their voices were heard, it also informed the farmers that they do have a voice and that they can use it to speak up and advance their issues and concerns.

- What challenges encountered along the way (if applicable) (max 200 words)

Law making processes in the country has slowed down the adoption of the code. But with the persistent lobbying of our champions within the local government unit, the law has been adopted. With the lessons learned from the Ordinance development, the IRR development and subsequent approval went through an easier and faster process.

- What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity? (max 100 words)

Involvement of the municipal agriculture office and openness of the local government to truly consider the voices of the farmers in their community. Identifying champions within the local government can greatly facilitate the process and ensure adoption. Representation of all relevant sectors, particularly women farmers and indigenous communities, in the whole process is crucial for the collective ownership and eventually, effective implementation of the law.



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Further information

For more information on the initiatives related to this practice, you may visit:

searice.org.ph

searice.org.ph/demystifying-the-law

searice.org.ph/ph-municipality-adopts-agricode



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Basic information

- Title of measure/practice

Establishing Resilient Community-managed Seed Systems

- Date of submission

July 31, 2019

- Name(s) of country/countries in which the measure/practice is taking place

Cambodia and the Philippines

- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person)

Southeast Asia Regional Initiatives for Community Empowerment (SEARICE)
14-D Maalalahanin Street, Teachers Village West, Diliman, Quezon City 1101 Philippines
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Email: searice@searice.org.ph
URL: www.searice.org.ph
Contact person: Normita Ignacio, Executive Director

- Type of institution/organization (categories)

Non-government Organization

- Collaborating/supporting institutions/organizations/actors, if applicable (name, address, website (if applicable), e-mail address, telephone number(s))

Department of Rice Crops, General Directorate of Agriculture, Ministry of Agriculture, Forestry and Fisheries (Cambodia)

Shrer Khmer (Cambodia)

Regional Field Offices and Municipal Agriculture Offices of the Department of Agriculture (Philippines)



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Description of the examples

Mandatory information:¹²

- Short summary to be put in the inventory (max. 200 words) including:
 - Implementing entity and partners
 - Start year
 - Objective(s)
 - Summary of core components
 - Key outcomes
 - Lessons learned (if applicable)

Southeast Asia Regional Initiatives for Community Empowerment (SEARICE) considers the empowerment of farming communities at the forefront of agricultural production as the most sensible way to making local seed systems resilient. Thus, SEARICE projects include the development of community managed seed systems as a key outcome of its various projects. For the purposes of this documentation, however, we describe only the initiative implemented in the project 'Building Resilient Community-Managed Seed Systems towards Climate Change Adaptation' in the Philippines and Cambodia (2013-2015), in collaboration with government units in each of the participating countries. It made significant contributions towards the technical empowerment of farmers in 55 project communities in seven (7) and nine (9) provinces in Cambodia and the Philippines, respectively. The capacities of 1,546 men and women (832 or 53%) farmers to manage crop genetic diversity and strengthen their local seed systems to adapt to the changing climatic conditions have been enhanced through Farmer Field Schools on community managed seed systems. Previously disadvantaged farmers, they too have been organized to gain social and political influence, actively assert their rights and interests and pursue activities collectively to develop further their resilience to the impacts of climate change.

- Brief history (including starting year), as appropriate

The project was implemented in the Philippines and Cambodia from July 2013 up to June 2015 building on the accomplishments of its predecessor similar project, i.e. the Community Biodiversity Development and Conservation (CBDC) project. It serves as an expansion of CBDC as it was implemented in other communities and provinces in Cambodia and Philippines. But it builds on the existing knowledge and skills of FFS facilitators in the two countries, who helped in training more FFS facilitators and thereby multiplying the impacts faster and at a bigger scale.

- Core components of the measure/practice (max 200 words)

Core components of the initiative include a) climate vulnerability assessments of the project communities, conducted through focus group discussions and participatory rural appraisal; and b) capacity building which allowed farmers to learn crucial skills to collect, conserve, and rehabilitate traditional varieties and develop new ones through participatory plant breeding (PPB) and participatory varietal selection (PVS) which are conducted in farmer field schools.

Another important component of the project was the capacity development of partner institutions in facilitating a farmer-centered development initiative. Coupled with this capacity enhancement was the

¹² This mandatory information is required in order for the measure/practice to be included in the Inventory.



development of tools and methodologies for assessing community vulnerabilities, facilitating experiential learning processes on securing local seed systems, and policy advocacy.

Another key component of the project was policy advocacy, principally on the strengthening of local seed systems and the recognition of men and women farmers' contribution in policy formulation as part of climate change adaptation and sustainable development strategies. In the National Seed Policy development of Cambodia for instance, efforts were made to integrate farmers' rights to seeds. These inputs to the Seed Policy came out as a result of the National Seed Forum in 2014, organized through this project and participated in by key stakeholders including smallholder farmers.

- Description of the context and the history of the measure/practice is taking place (political, legal and economic framework conditions for the measure/practice) (max 200 words)

Farming communities are vulnerable to the impacts of climate change. But in their hands also rest the key in mitigating such impacts. Only, farmers need support to enhance their potential to address their own vulnerabilities through capacity building that leads to the development and adaption of crop varieties that are suitable to their needs, development of community-managed seed systems, and empowerment demonstrated by their ability to make informed decisions, self-determination, and speaking out for themselves.

One of the biggest hurdles among small farming communities is the lack or limited access to plant genetic resources. Without access to PGR, farmers will not have as much choices for varieties to use in their farms, leaving them content with using varieties that may not be suitable to the conditions of their area, resulting in plants that may not be able to withstand climatic conditions, which in turn result in limited to no harvest. SEARICE thus ensures that in its projects, having such access is a key outcome.

- To which provision(s) of Article 9 of the International Treaty does this measure relate

Art. 9.1

Art. 9.2a

Art. 9.2b

Art. 9.2c

Art. 9.3

Other information, if applicable

- Please indicate which category of the Inventory is most relevant for the proposed measure, and which other categories are also relevant (if any):

No.	Category	Most relevant ¹³	Also relevant ¹⁴
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¹³ Please select only one category that is most relevant, under which the measure will be listed.

¹⁴ Please select one or several categories that may also be relevant (if applicable).



1	Recognition of local and indigenous communities', farmers' contributions to conservation and sustainable use of PGRFA, such as awards and recognition of custodian/guardian farmers		
2	Financial contributions to support farmers conservation and sustainable use of PGRFA such as contributions to benefit-sharing funds		
3	Approaches to encourage income-generating activities to support farmers' conservation and sustainable use of PGRFA		
4	Catalogues, registries and other forms of documentation of PGRFA and protection of traditional knowledge		
5	In-situ/on-farm conservation and management of PGRFA, such as social and cultural measures, community biodiversity management and conservation sites		
6	Facilitation of farmers' access to a diversity of PGRFA through community seed banks ¹⁵ , seed networks and other measures improving farmers' choices of a wider diversity of PGRFA.		
7	Participatory approaches to research on PGRFA, including characterization and evaluation, participatory plant breeding and variety selection		
8	Farmers' participation in decision-making at local, national and sub-regional, regional and international levels		
9	Training, capacity development and public awareness creation		
10	Legal measures for the implementation of Farmers' Rights, such as legislative measures related to PGRFA.		
11	Other measures / practices		

- In case you selected 'other measures', would you like to suggest a description of this measure, e.g. as a possible new category? _____
- Objective(s)
 - a) to provide men and women farmers with knowledge and skills that will enable them to adapt to the impacts of climate change;
 - b) to establish resilient farms through conservation and development of agricultural biodiversity that will contribute to food security;
 - c) to facilitate ongoing learning of national research and extension systems to strengthen their support roles in community-managed seed systems;

¹⁵ Including seed houses.



d) to affect policies towards the recognition of the rights of men and women farmers over local seed systems and support of their participation in policy formulation and inclusion of their working methods/approaches as part of national climate change adaptation and sustainable development strategies

- Target group(s) and numbers of involved and affected farmers¹⁶

The projects reached out to 657 farmers (321 women or 54%) in 22 farmer field schools conducted in the Philippines, with 1,500 farmers attending the farmers field day (FFD) and gained access to the seeds resulting from the FFS trials. In Cambodia, the project involved 889 farmers, 487 (or 55%) of whom were women. A total of 1,229 farmers took part in the FFD and gain access to the seeds resulting from the FFS trials.

- Location(s) and geographical outreach

In the Philippines: Pangasinan, Camarines Sur, Bohol, Negros Oriental, Misamis Oriental, Bukidnon, Cotabato, Lanao Del Norte, Misamis Occidental, and Negros Oriental.

In Cambodia: Siem Reap, Battambang, Kampong Thom, Pursat, Kampong Channang, Prey Veng, Svay Rieng

- Resources used for implementation of the measure/practice

The total project cost was around USD450,000 with staff time as counterpart of local partners.

- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture?

a) There has been a dramatic increase in rice diversity in the project sites. A total of 117 segregating lines, 38 stable lines, and 25 upland rice varieties were introduced in the project sites in the Philippines while 2 segregating lines, 4 stable lines from SEARICE, 6 old releases from the government of Cambodia and 10 varieties from the Mekong Delta Development Research Institute (Vietnam) were introduced to the partner communities in Cambodia for FFS trials. The project likewise contributed to the establishment of resilient farms by giving farmers access and control to quality seeds. More than 3,000 farmers have enhanced access to good quality seeds.

b) Farmers were capacitated to develop varieties that will adapt to their local conditions and make them more resilient to climatic challenges.

c) Groups of farmers that pursue activities collectively to develop further their resilience to the impacts of climate change were organized

d) There have been some supportive government programs and local policies towards the recognition of farmers' rights principally on the strengthening of local seeds systems.

¹⁶ Any classification, e.g. of the types of farmer addressed, may be country-specific.



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- Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)

In addition to the achievements mentioned in the previous sections, around 1,500 farmers now have the basic skills to develop varieties that will adapt and make them more resilient to the challenges of drought, flood and saltwater intrusion into their farms. They should be able to continue developing their own varieties based on their needs and preferences even when they face new challenges in the future. The project also impinged on policies towards the recognition of farmers' rights and managed to amplify discussions on relevant farmers' issues on the roles and rights of the farmers to seeds.

An equally major achievement of the project was the headway made in transforming the partner institutions, mostly from government, to accept farmers as co-innovators and equal partners in the food security and climate change agenda and in making the people behind these institutions champion the cause of Participatory Plant Breeding and rally behind the active push for farmers' rights. Most notable to mention are the continuing institutional support in the form of financial and staff provision from the institutional partners to spread out these efforts to other farming communities within their jurisdiction even after the project life.

- Other national level instruments that are linked to the measure/practice
 - a) National Seed Policy of Cambodia
 - b) Seed Industry Development Act of the Philippines (RA 7308)
- Are you aware of any other international agreements or programs that are relevant for this measure/practice?
 - a) Convention on Biological Diversity
 - b) Nagoya Protocol
- Other issues you wish to address, that have not yet been covered, to describe the measure/practice

Lessons learned

- Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices (max 250 words).

It was important that farmers saw the importance of securing their local seed systems including establishing their own community seed banks in order for them to withstand events that may threaten their crops and still be able to plant again because they have kept surplus amount of seeds exactly for these situations.

Involving agricultural extension workers and/or agricultural technologists on technical and farmers issues allowed the extension workers and agricultural technologists to have a broader understanding of issues and equipped them to facilitate discussions of both technical and farmer-centered issues.

Two years however were very short to ensure institutionalization of PPB at the local community level. The project being new and innovative, it encouraged farmers to form themselves into organizations to continue their journey in improving and/or developing varieties that increases their capacity to cope with challenges



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of climate change. More inputs are needed to make these organizations become more cohesive and able to sustain the journey of managing community seed and food security. If not sustained with proper orientation, guidance and support, the current organizations may cease to exist. The push for institutionalization of community-managed seed systems can only be realized through a strong support for community organizations, thus more interventions are needed for this.

Moreover, community seed banking, community seed registries, participatory plant breeding, policy advocacy etc. will only get off the ground with real farmer/community empowerment and this is done only through collective community action. Thus, community organizing is critical for the institutionalization of all project gains.

- What challenges encountered along the way (if applicable) (max 200 words)

The lack of recognition on the capacity of farmers to breed new crop varieties made relevant government institutions unwilling to provide pre-breeding materials to farmers. Worse, those who recognized the potential of farmers as breeders were unwilling to provide segregating materials to farmers because of their desire to release the new varieties as their own innovation for proprietary reasons. In the Philippines, where the law mandates the devolution of agricultural services to local government units, the political bias of the local chief executive (whose term security is only three years) complicates the matter of mainstreaming and sustainability even more. The short two-year duration of the project called for creative ways to ensure sustainability or at least increase the chances of it. Along this end, several partnership schemes were tried out.

- What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity? (max 100 words)

There is a need for a long-term commitment from all the actors involved, including the donors, for this kind of initiative since the results will take time to be completely realized. While partnering with national departments and ministries will tend to hasten mainstreaming, a lot of transformational capacity development is necessary. The initiative is heavy on processes, which are equally important with the content for desired transformation to happen. Openness and willingness to collaborate among the different stakeholders, i.e. farmers, government institutions, research institutions, and civil society organizations, are key to the achievement of the objectives.

Further information

For more information on this practice and other related projects, you may visit:

searice.org.ph

searice.org.ph/building-resilient-community



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Basic information

- Title of measure/practice

Community Seed Registry

- Date of submission

July 31, 2019

- Name(s) of country/countries in which the measure/practice is taking place

Philippines

- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person)

Municipal Council of Bilar, Bohol Province

Campagao Farmers' Production and Research Association (CFPRA)

Cansumbol Organic Farmers' Association (COFA)

Zamora Organic Farmer-Researcher Association (ZOFRA)

Farmers' Association for Community Development – Riverside (KMKK)

Vieja Sustainable Farmers' Association (PVSFA)

Malitbog Sustainable Farmers' Association (MASFA)

- Type of institution/organization (categories)

Local Government together with Farmers' Organizations

- Collaborating/supporting institutions/organizations/actors, if applicable (name, address, website (if applicable), e-mail address, telephone number(s))

Southeast Asia Regional Initiatives for Community Empowerment (SEARICE)

14-D Maalalahanin Street, Teachers Village West, Diliman, Quezon City 1101 Philippines

Telephone numbers: (63-2) 9226710; (63-2) 5081891

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Description of the examples

Mandatory information:¹⁷

- Short summary to be put in the inventory (max. 200 words) including:
 - Implementing entity and partners
 - Start year
 - Objective(s)
 - Summary of core components
 - Key outcomes
 - Lessons learned (if applicable)

Starting in 2002, the Campagao Farmers' Production and Research Association (CFPRA) of the municipality of Bilar, province of Bohol, in collaboration with Southeast Asia Regional Initiatives for Community Empowerment (SEARICE), established a community seed registry. The registry is not intended to claim property rights but aims to prevent others from doing so by placing knowledge in the public domain. The community seed registry recognizes farmers as the developers of the varieties and upholds the principle that seeds should be freely and widely accessed and exchanged. Through a municipal resolution, the community seed registry was officially recognized. Community seed registries may evolve differently in different contexts, but share common elements, including (1) a community declaration, through which the local communities publicly and collectively assert their rights over local plant genetic resources, e.g. a joint resolution or statements of communities or farmers' organizations, public ceremonies, rituals/oral traditions, audio/video techniques, or other indigenous means of documentation; (2) legal recognition, which obliges the State to recognize the registries and to provide them with a mantle of legal protection; and (3) community protocols or procedures meant to regulate and facilitate access more systematically and to ensure that Farmers' Rights to the accessed materials are recognized.

Brief history (including starting year), as appropriate

When plant variety protection was introduced in the Philippines in 2002 with the Plant Variety Protection (PVP) Act, as a *sui generis* system in compliance with WTO-TRIPS, many small-scale farmers engaged in participatory plant breeding (PPB) reacted, fearing—among other things—that their innovations could be misappropriated by those who are interested to benefit from the PVP. As a collective response to the Act, the Campagao Farmers' Production and Research Association (CFPRA) of the municipality of Bilar in the province of Bohol, decided to establish a community seed registry. The Community Seed Registry serves as a defensive mechanism of the community to protect their seeds and propagating material against misappropriation. This was done in collaboration with SEARICE.

The CFPRA community registry provided a model for other farmer associations in nearby communities. Experiences were shared at farmers' field days, meetings and seminars. Later, farmers' associations in two more villages established their own seed registries. Through the continued lobbying of SEARICE and partner communities, the seed registry moved to the municipal level.

In June 4, 2004, Resolution No. 81, Series of 2004, entitled 'A resolution recognizing the rice community registry of CFPRA, COFA, ZOFRA and KMKK, whose location is based in the Municipality of Bilar, Bohol,' was adopted by the Municipality Council of Bilar, Bohol.

¹⁷ This mandatory information is required in order for the measure/practice to be included in the Inventory.



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- Core components of the measure/practice (max 200 words)

The first component is the recognition of farmers plant breeding efforts. Since 1996, the farmers of Bilar have been involved in rice breeding and varietal selection and have already developed stable varieties widely used among farmers in the local communities. The local government recognizes this valuable contribution of the farmers hence they supported the farmers' efforts to protect their varieties including theirs.

It also provided support to farmers' traditional practice of seed saving, exchange, and selling. For years, farmers in the Philippines relied on farm-saved seeds to use, share, exchange, and sell to other farmers. They have been practicing a traditional seed supply system based on free and open access to genetic sources. Activities leading to the establishment of community seed registry highlighted the importance of local seed exchange in maintaining and enriching the genetic resources in the communities.

Lastly, the protection of traditional knowledge. Through the seed registry, farmers in Bilar aim to protect local rice varieties from misappropriation and unfair monopolization, and to assert the community's rights over its genetic resources. Moreover, the people of Bilar believe that the rights of communities to exercise control over their resources will be recognized and respected through the community seed registry.

- Description of the context and the history of the measure/practice is taking place (political, legal and economic framework conditions for the measure/practice) (max 200 words)

Although the Philippines has a vibrant seed industry, smallholder farmers remain to be the main source of seed supply particularly on rice, the staple food in the country. Ironically, even with their huge contribution in the seed supply, their seed systems are not recognized in a number of relevant laws. The PVP Act or the Republic Act 9168 is one example of such laws. It does not recognize farmers as plant breeders for instance. When the PVP Act was adopted, the farmers felt that they needed to protect their varieties from misappropriation. The threat of local genetic resources being misappropriated and claimed by other people also serves to dampen the farmers' traditional practice of sharing seeds to anybody. Community seed registry was a collective response of farmers to threat they perceived from the PVP Act. It serves as an instrument to avoid misappropriation by putting community materials and knowledge in the public domain. It does not claim ownership nor place plant varieties under a strict and monopolistic property right. It recognizes that the origin and developer of the varieties are the farmers and upholds the principle that seeds should be freely and widely accessed and exchanged.

- To which provision(s) of Article 9 of the International Treaty does this measure relate

Art. 9.1

Art. 9.2a

Art. 9.2b

Art. 9.2c

Art. 9.3

Other information, if applicable



- Please indicate which category of the Inventory is most relevant for the proposed measure, and which other categories are also relevant (if any):

No.	Category	Most relevant ¹⁸	Also relevant ¹⁹
1	Recognition of local and indigenous communities', farmers' contributions to conservation and sustainable use of PGRFA, such as awards and recognition of custodian/guardian farmers		
2	Financial contributions to support farmers conservation and sustainable use of PGRFA such as contributions to benefit-sharing funds		
3	Approaches to encourage income-generating activities to support farmers' conservation and sustainable use of PGRFA		
4	Catalogues, registries and other forms of documentation of PGRFA and protection of traditional knowledge		
5	In-situ/on-farm conservation and management of PGRFA, such as social and cultural measures, community biodiversity management and conservation sites		
6	Facilitation of farmers' access to a diversity of PGRFA through community seed banks ²⁰ , seed networks and other measures improving farmers' choices of a wider diversity of PGRFA.		
7	Participatory approaches to research on PGRFA, including characterization and evaluation, participatory plant breeding and variety selection		
8	Farmers' participation in decision-making at local, national and sub-regional, regional and international levels		
9	Training, capacity development and public awareness creation		
10	Legal measures for the implementation of Farmers' Rights, such as legislative measures related to PGRFA.		
11	Other measures / practices		

- In case you selected 'other measures', would you like to suggest a description of this measure, e.g. as a possible new category? _____

- Objective(s)

¹⁸ Please select only one category that is most relevant, under which the measure will be listed.

¹⁹ Please select one or several categories that may also be relevant (if applicable).

²⁰ Including seed houses.



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The Community Seed Registry aims to:

- Assert community control over and access to biological and genetic resources and associated knowledge
 - Protect community resources and knowledge from misappropriation arising from biopiracy, application of IPR and plant variety protection (PVP)
 - Raise the awareness of community members, especially children and youth, on the richness and value of local biological and genetic resources and associated knowledge
- Target group(s) and numbers of involved and affected farmers²¹

All farmers in the Municipality of Bilar

- Location(s) and geographical outreach

Municipality of Bilar, Province of Bohol

- Resources used for implementation of the measure/practice

The main resources used in this measure were the farmers' knowledge and time. The mapping of rice varieties used in the communities, including the inventory and completion of passport data were done by farmers themselves with SEARICE facilitation. Minimal resources were used in conducting workshops with local government units to craft the resolution and protocol.

- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture?

The community seed registry gives the security to farmers that the varieties they keep and breed will not be misappropriated. This enables them to continue with their traditional practice of sharing their seeds freely without the fear of possible misappropriation. In addition, the community seed registry helps in raising awareness among the members of the community on the value of crop diversity and the need to conserve this diversity for food security.

The community seed registry is instrumental in maintaining varieties. Through the registry, a system has been brought in place which makes it possible to keep track of the varieties at hand and ensure that they are maintained and conserved. The members of the different farmers' associations had experienced an increased understanding of the political aspects of plant breeding. The recognition through the Community Council and the Municipality Council had strengthened their self-esteem. As such, the process had led to more empowerment among the farmers.

- Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)

The initial model of seed registry was established in Campagao, a village in the municipality of Bilar in Bohol Province. From one community the community registry was replicated in 4 more neighbouring villages, with the community registry recognized not only within the village but was raised to a wider recognition at the municipal level as well. One partner community in Mindanao, the farmers having

²¹ Any classification, e.g. of the types of farmer addressed, may be country-specific.



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been exposed and visited the area in which the community registry was established in Bohol, also decided to establish their own community registry. Two more partner communities in Mindanao followed. The concept of community registry as a protection mechanism from misappropriation and unfair monopolization has slowly taken wing in other communities and earning the recognition of organizations who are also working on the protection of farmers' rights.

- Other national level instruments that are linked to the measure/practice

Republic Act 9168 or the Philippine Plant Variety Protection Act of 2002

- Are you aware of any other international agreements or programs that are relevant for this measure/practice?

- a) Convention on Biological Diversity
- b) Nagoya Protocol

- Other issues you wish to address, that have not yet been covered, to describe the measure/practice

Lessons learned

- Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices (max 250 words).

The Community Seed Registry Model goes hand in hand with the idea on Community Protocol, which is the notion that communities, through their own processes, can come up with their own set of rules or standards or guidelines, or mechanisms, through which the use of their resources are governed or regulated. As such, it is crucial that farmers are organized and agreed to establish the registry. The work behind is not easy and cooperation among the members of the community is therefore very important. Another important pre-requisite is the understanding of the issues related to seeds, particularly the issue of biopiracy and misappropriation. Once the members of the community understood the threats, they themselves push for the establishment of the registry.

- What challenges encountered along the way (if applicable) (max 200 words)

Initially, some local government units were not supportive of the initiative. Their limited understanding of the issues became a hindrance.

- What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity? (max 100 words)

The support of the local government unit is crucial for the success of this initiative, without which the list and inventory of crop varieties will not have legitimacy and will not have strong impact. It is therefore important to raise the awareness of local policy makers on the issues related to seeds and involve them in the activities on securing the local seed systems, i.e. baseline establishment, participatory plant breeding, farmers' field day, among others.



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Further information

For more information on this practice, you may visit the following:

searice.org.ph/other-publications

Frequently Asked Questions About Community Registry

routledge.com/Realising-Farmers-Rights-to-Crop-Genetic-Resources-Success-Stories-and/Andersen-Winge/p/book/9780415643849; pp. 82-93



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Basic information

- Title of measure/practice

Participatory Plant Breeding in Lao PDR

- Date of submission

July 31, 2019

- Name(s) of country/countries in which the measure/practice is taking place

Lao PDR

- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person)

Rice Research Center (RRC)
National Agriculture and Forestry Research Institute Ministry of Agriculture and Forestry (NAFRI)
Lao PDR

Dr. Chanthakhone Boualaphanh
Director

- Type of institution/organization (categories)

Government/ Research Institution

- Collaborating/supporting institutions/organizations/actors, if applicable (name, address, website (if applicable), e-mail address, telephone number(s))

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Bonsu Soudmaly
Department of Agriculture (DOA)
Ministry of Agriculture and Forestry, Lao PDR



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Description of the examples Mandatory information:²²

- Short summary to be put in the inventory (max. 200 words) including:
 - Implementing entity and partners
 - Start year
 - Objective(s)
 - Summary of core components
 - Key outcomes
 - Lessons learned (if applicable)

In 2000, the Southeast Asia Regional Initiatives for Community Empowerment (SEARICE), an NGO operating at regional level, and the Agriculture Research Center (RRC) of the National Agriculture and Forestry Research Institute (NAFRI) together with the Department of Agriculture in Lao PDR launched a program called Biodiversity Use and Conservation in Asia Program (BUCAP), which later merged with another program called Community Biodiversity Development and Conservation (CBDC), and implemented from 2006-2010. Activities centred around Farmer Field Schools (FFS) on rice breeding, through which farmers co-defined breeding objectives, and together with scientists of the ARC, identified suitable parent materials. Researchers and extension agents were trained as FFS facilitators, while policy makers from local and national levels were consciously involved in all key activities to raise awareness and generate support for the work of farmers on the ground. As a result of the initiative, 55 high performing rice varieties were developed, of which some exhibit adaptation to specific conditions, including tolerance to drought or acid soils; one variety was granted official release in 2018, while others are still going through the same process.

- Brief history (including starting year), as appropriate

In 2000, SEARICE together with partners from National and local government institutions of each country, launched BUCAP in Bhutan, Laos and North Vietnam. Building on the lessons from the CBDC, a similar program implemented in the Philippines, Thailand, South Vietnam and in 9 other countries in Africa and Latin America, BUCAP embarked on multi-stakeholder partnerships and empowering methodologies such as Farmer Field Schools. BUCAP was meant to explore collaboration with plant breeding institutions in developing capacities of farmers in crop breeding with particular focus on rice as the staple crop in Southeast Asia. BUCAP was implemented from 2000 to 2005. In 2006, it was merged with CBDC. CBDC-BUCAP was implemented in Bhutan, Laos, the Philippines, Thailand, and Vietnam from 2006 to 2010. From 2011-2014, CBDC-BUCAP was taken over by Democratizing Agricultural Research and Extension (DARE), which focused on mainstreaming work. Then from 2014-2018, Sowing Diversity = Harvesting Security (SDHS) took over with the aim of scaling up the earlier achievements in PPB.

- Core components of the measure/practice (max 200 words)

The main component of the measure was the capacity development of farming communities on rice breeding using farmer field school (FFS) as an approach. Farmers enhanced their knowledge and skills on rice breeding through experiential learning. Breeding objectives were defined by farmers and, together with

²² This mandatory information is required in order for the measure/practice to be included in the Inventory.

the ARC, they identified parent materials for their breeding. Included in their field trials were actual crosses that farmers made, selection from segregating lines provided by ARC who conducted pre-breeding based on the breeding objectives defined by farmers, and varietal evaluation for local adaptation and rehabilitation of mostly traditional varieties.

Another level of capacity building was for the researchers and extension agents who were trained as FFS facilitators. The capacity development designed for them was transformational meant to develop them as facilitators of learning and co-innovators, conscious of the inherent capacities of farmers.

Another important component was the link with policy work. Policy makers from local and national levels were consciously involved in all key activities to raise awareness and generate support for the work of farmers on the ground. They are invited to participate in farmers' field days, farmers' policy and technical conferences, seed fairs, among other activities.

- Description of the context and the history of the measure/practice is taking place (political, legal and economic framework conditions for the measure/practice) (max 200 words)

SEARICE advocates for policies that recognize, strengthen, and institutionalize community initiatives in conservation and development of plant genetic resources (PGR). SEARICE develops the capacities of its partners for policy advocacy and campaign work through participatory action research and lobbying for policies that protect farmers' rights.

Like in other countries where SEARICE implements PPB, the work in Laos was meant not only to conserve and develop PGR but more importantly, to empower farming communities. This empowerment helped farmers recognize their inherent capacities and realized that they can secure their local seed systems to avoid dependence on the government or seed companies. This is very important in Laos where the formal seed systems can only provide around 10% of the seed demand in the country.

This initiative enjoyed strong support from local and national government of Laos because they valued the contribution of farmers in the conservation and sustainable use of PGR.

The diverse landscape and ecosystems in Laos made it difficult for ARC to develop rice varieties that will perform well in the whole country. ARC acknowledges that the active participation of farmers in plant breeding is key to addressing the gaps in the seed supply system in the country.

- To which provision(s) of Article 9 of the International Treaty does this measure relate

Art. 9.1

Art. 9.2a

Art. 9.2b

Art. 9.2c

Art. 9.3

Other information, if applicable

- Please indicate which category of the Inventory is most relevant for the proposed measure, and which other categories are also relevant (if any):



No.	Category	Most relevant ²³	Also relevant ²⁴
1	Recognition of local and indigenous communities', farmers' contributions to conservation and sustainable use of PGRFA, such as awards and recognition of custodian/guardian farmers		
2	Financial contributions to support farmers conservation and sustainable use of PGRFA such as contributions to benefit-sharing funds		
3	Approaches to encourage income-generating activities to support farmers' conservation and sustainable use of PGRFA		
4	Catalogues, registries and other forms of documentation of PGRFA and protection of traditional knowledge		
5	In-situ/on-farm conservation and management of PGRFA, such as social and cultural measures, community biodiversity management and conservation sites		
6	Facilitation of farmers' access to a diversity of PGRFA through community seed banks ²⁵ , seed networks and other measures improving farmers' choices of a wider diversity of PGRFA.		
7	Participatory approaches to research on PGRFA, including characterization and evaluation, participatory plant breeding and variety selection		
8	Farmers' participation in decision-making at local, national and sub-regional, regional and international levels		
9	Training, capacity development and public awareness creation		
10	Legal measures for the implementation of Farmers' Rights, such as legislative measures related to PGRFA.		
11	Other measures / practices		

- In case you selected 'other measures', would you like to suggest a description of this measure, e.g. as a possible new category? _____
- Objective(s)
 - a) Conserve and develop rice genetic diversity;
 - b) Improve livelihoods through sustainable use of rice genetic diversity;
 - c) Strengthen farmers' management system of their plant genetic resources;

²³ Please select only one category that is most relevant, under which the measure will be listed.

²⁴ Please select one or several categories that may also be relevant (if applicable).

²⁵ Including seed houses.



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- d) Strengthen and develop capacities of local institutions and other stakeholders to support farmers' management of their PGR diversity; and
- e) Affect policy environment with positive changes and actions at local and national levels towards the protection of farmers' rights over their PGR.

- Target group(s) and numbers of involved and affected farmers²⁶

Over a thousand farmers were trained through FFS and more than 50 villages benefited from the rice varieties and seeds developed by farmers.

- Location(s) and geographical outreach

Lao PDR

- Resources used for implementation of the measure/practice

Resources used for implementation of the measure/practice: Around USD1 million was the cost of the program for 18 years

- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture?

Rice farming in the project sites used to be limited to household consumption, even with hunger periods of around 3 to 4 months in some communities. But farmers made a considerable achievement through PPB, having produced 55 rice varieties of very good performance—some are drought tolerant and some are tolerant to acid sulfate soil. Some communities of indigenous peoples in Luangprabang for instance, claimed to have closed the three-month hunger gaps they used to experience because of the benefits from the rice varieties.

SEARICE farmer-partners have become vital sources of seeds especially since the government and commercial seed producers could not meet the demands in volume and quality. The dependability of rice varieties developed, and seeds produced by farmers was demonstrated when disaster struck some villages in Laos in 2008 resulting in massive loss of harvest. SEARICE farmer-partners provided the villages with the needed volume of seeds to replace crops damaged by flood and strong typhoon.

Farmers gained government support on three major fronts: partners' acquisition of diverse segregating materials from ARC, the provision of technical backstopping by researchers whose salaries were shouldered by the government, and the incorporation of PGR conservation and development in the extension system of four provinces which later expanded to additional 3 provinces.

- Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)

Apart from developing 55 good performing rice varieties, the varietal diversity of rice grown per community has increased from 4-5 at the start of the project to 10-15 varieties based on the end-line assessment conducted in the project sites. Farmers involved in the PPB interventions continue to develop

²⁶ Any classification, e.g. of the types of farmer addressed, may be country-specific.



varieties that are adapted to specific ecological conditions and perform well under extreme environmental conditions caused by climate change, thus contributing to the development of resilient communities. In Laos, 8 drought-tolerant varieties and another 8 varieties which can be grown under flooded conditions were developed through PPB. Some farmers also started producing and selling good quality seeds from their own selections. This resulted to food sufficiency and increase in income. More than 4,000 farmers have been trained on crop selection and breeding since 2000 and most of these farmers continue to do at least varietal selection from promising lines provided by RRC and farmer-breeders. More than 400 farmers are doing crop breeding in more than 100 villages in 7 provinces of the country. Just as importantly, farmers repeatedly mention the sense of pride and self-confidence that they have regained after being freed from years of dependency on external sources of seed.

- Other national level instruments that are linked to the measure/practice

National Seed Policy

- Are you aware of any other international agreements or programs that are relevant for this measure/practice?
 - a) Convention on Biological Diversity
 - b) Nagoya Protocol
- Other issues you wish to address, that have not yet been covered, to describe the measure/practice

Lessons learned

- Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices (max 250 words).

Few farmers are interested to do breeding. These farmers should be rewarded for their service to the community to sustain their efforts. Some form of incentives should be worked out and included in the government policy.

Our efforts on this bore fruit recently. A farmer variety was granted official release in October 2018—the MP1 (named after Meuong Phiang District in Xayabouly Province). The variety spread widely and gained popularity, thus warranting its official release. Two other farmer varieties are going through the same process to be released at the provincial level. This process of provincial release is new and currently being refined in Laos.

Professional plant breeders engaged in PPB needs incentive too. Plant breeding is said to be a dying profession as the current plant breeders are molecular biologists working in the laboratories and not on plants in the fields. The work with plant breeding institutions requires changes at various levels within the institution. Changes in program and project planning and evaluation procedures and in the criteria used to assess researchers' and extension workers' performances may be needed.

In general, the series of projects and programs on PPB was able to effectively draw the support and cooperation of local government institutions, which contributed greatly to the realization of



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the PPB objectives. And the greater the local government support to project activities, the more successful is the project in the communities.

- What challenges encountered along the way (if applicable) (max 200 words)

Developing the capacities of government extension agents to become FFS facilitators was challenging, and the process takes longer, but it pays to work in partnership with them. Having them unlearn old practices and misconceptions was difficult, but once they experienced and saw for themselves how skillful and creative farmers are, extension agents gradually learned how to work with farmers more effectively and in the end, they enjoyed the experience as together with farmers they achieved significant progress that they themselves couldn't accomplish on their own.

The same is true with the partner plant breeding institution. Most plant breeding institutions don't give segregating materials to farmers as they don't believe that farmers can handle such materials. So, it was a struggle with the plant breeders initially, but when the plant breeders involved in the program implementation discovered for themselves that farmers can do breeding even better than some of them, they realized how efficient PPB is in bringing locally adapted varieties in the field and addressing the various needs of farmers across different agro-ecosystems.

- What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity? (max 100 words)

Raising awareness on the value of PGR diversity and the importance of conserving the traditional varieties and landraces is crucial for this kind of initiative to succeed. Crop breeding takes a long process and both farmers and partner institutions would not commit to this process if there was no understanding of the need to develop the traditional varieties for farmers to conserve them.

If PPB is to be mainstreamed, it needs to be supported by governments. PPB must be institutionalized in the plant breeding program of government partners. Likewise, donors must have a long-term commitment to realize a transformative change.

Further Information

For more information on the practice, you may follow: www.searice.org.ph/cbdc-bucap



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Basic information

- Title of measure/practice

Securing Local Seed System Through Farmers' Seed Clubs

- Date of submission

July 31, 2019

- Name(s) of country/countries in which the measure/practice is taking place

Vietnam

- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person)

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Fax No. +842923831270
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Contact person: Dr. Huyn Quang Tin
Head, Department of Crop Resources Research and Development

- Type of institution/organization (categories)

Research / Academic Institution

- Collaborating/supporting institutions/organizations/actors, if applicable (name, address, website (if applicable), e-mail address, telephone number(s))

Southeast Asia Regional Initiatives for Community Empowerment (SEARICE)
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Description of the examples

Mandatory information:²⁷

- Short summary to be put in the inventory (max. 200 words) including:
 - Implementing entity and partners
 - Start year
 - Objective(s)
 - Summary of core components
 - Key outcomes
 - Lessons learned (if applicable)

Empowerment of farmers has been an ongoing undertaking and objective in Mekong Delta since 1996, based on various projects and partnerships. One such initiative, implemented by the Mekong Delta Development Research Institute (MDI), in collaboration with Southeast Asia Regional Initiatives for Community Empowerment (SEARICE), included capacity development in rice breeding and seed production through experiential learning in Farmer Field Schools. As a result, over 300 seed clubs were formed across the Mekong Delta, which produced and distributed 158,000 tons of seeds of 77 rice varieties in 2018, benefitting 24,000 households. They supply at least 35% of the seed in the region and are recognized by farmers and local government authorities, such as Seed Centers, Extension Centers and the Provincial Department of Agriculture and Rural Development (DARD) as important suppliers of good quality seeds. Furthermore, they developed 359 rice varieties, of which four have been registered and certified nationally, while five are in the process of registration. The contributions of seed clubs to improving seed systems and encouraging participation of individuals and communities in local seed production and distribution caused the Ministry of Agriculture and Rural Development (MARD) to issue Decision 35/2008/QĐ-BNN, encouraging local authorities to support community-based on-farm seed management.

- Brief history (including starting year), as appropriate

Vietnam is the second country (first was the Philippines) where SEARICE implemented PGR conservation and development. The work in Mekong Delta started in 1996 through the Community Biodiversity Development and Conservation (CBDC) program. The program mobilized farmers, agricultural specialists, policymakers, and funding agencies in a convergence of efforts on the promotion of farmers' rights and empowerment towards proper management of PGR.

In 2006, CBDC was merged with another program called the Biodiversity Use and Conservation in Asia Program (BUCAP), another SEARICE program with different thrusts but with the same end goals as CBDC. CBDC-BUCAP further pushed for the development of the farmer-managed seed system, with the Participatory Plant Breeding (PPB) strategy helping build up the capacities of farmers for them to develop their own rice varieties and organize community seed clubs.

Efforts continue with the implementation of the successor of the CBDC-BUCAP called Strengthening Farmer-Agricultural Research and Extension System Partnership or FARES which was implemented in 2011- 2013. Thus, empowerment of farmers has been an ongoing undertaking that has produced significant impacts in the field of plant breeding.

²⁷ This mandatory information is required in order for the measure/practice to be included in the Inventory.



- Core components of the measure/practice (max 200 words)

The main component of the measure was the capacity development of farmers in rice breeding and seed production. As with the other country partners of SEARICE, farmer field school (FFS) was used as a learning and empowering methodology. Farmers enhanced their knowledge and skills on rice breeding and seed production through experiential learning.

Mekong Delta provides a good example of how PPB works in highly commercial agricultural context as opposed to the common notion that PPB works only in marginal and subsistent agriculture, where there is no vibrant seed industry. Mekong Delta is the rice bowl of Vietnam but seed supply remains inadequate despite the huge capacity of government plant breeding institutions such as the Cuu Long Rice Research Institute and the active seed multiplication and distribution of some private companies in the region.

The other key component of the measure is the organizational development of the seed clubs. Members of the seed clubs especially the Officers have to undergo additional training on group management, marketing, basic accounting, and other skills to help strengthen and sustain the seed clubs.

- Description of the context and the history of the measure/practice is taking place (political, legal and economic framework conditions for the measure/practice) (max 200 words)

Seed clubs, now over 300 across the Mekong Delta, serve as vehicles for farmers' capacity-building, as seed club membership requires interested farmers to undergo trainings in plant breeding and seed production. Seed clubs are also a mechanism for sustainability. A leading rice producer, Vietnam requires great volumes of seeds to meet domestic demands for production, which the government and seed companies in the region cannot meet. Seed clubs supply at least 35% of the seed demand in the whole region. This is highly significant considering that the formal system contributes only 3.5% of the total rice seed requirement in the Mekong River Delta (Tin, et al. 2008).

With the growing demand for seeds, the role of seed clubs as seed producers of farmer- developed varieties and local authorities come into play. Local authorities at the provincial level provide a guarantee system on farmer varieties and apply strict inspection on the seeds produced by the seed clubs to ensure quality. Farmers belonging to seed clubs undergo trainings on seed inspection thus, farmer-developed varieties often pass such tests, allowing for seeds to be sold locally, effectively giving farmer-developed varieties the character of being certified at least locally.

- To which provision(s) of Article 9 of the International Treaty does this measure relate

- Art. 9.1
- Art. 9.2a
- Art. 9.2b
- Art. 9.2c
- Art. 9.3



Other information, if applicable

- Please indicate which category of the Inventory is most relevant for the proposed measure, and which other categories are also relevant (if any):

No.	Category	Most relevant ²⁸	Also relevant ²⁹
1	Recognition of local and indigenous communities', farmers' contributions to conservation and sustainable use of PGRFA, such as awards and recognition of custodian/guardian farmers		
2	Financial contributions to support farmers conservation and sustainable use of PGRFA such as contributions to benefit-sharing funds		
3	Approaches to encourage income-generating activities to support farmers' conservation and sustainable use of PGRFA		
4	Catalogues, registries and other forms of documentation of PGRFA and protection of traditional knowledge		
5	In-situ/on-farm conservation and management of PGRFA, such as social and cultural measures, community biodiversity management and conservation sites		
6	Facilitation of farmers' access to a diversity of PGRFA through community seed banks ³⁰ , seed networks and other measures improving farmers' choices of a wider diversity of PGRFA.		
7	Participatory approaches to research on PGRFA, including characterization and evaluation, participatory plant breeding and variety selection		
8	Farmers' participation in decision-making at local, national and sub-regional, regional and international levels		
9	Training, capacity development and public awareness creation		
10	Legal measures for the implementation of Farmers' Rights, such as legislative measures related to PGRFA.		
11	Other measures / practices		

- In case you selected 'other measures', would you like to suggest a description of this measure, e.g. as a possible new category? _____

²⁸ Please select only one category that is most relevant, under which the measure will be listed.

²⁹ Please select one or several categories that may also be relevant (if applicable).

³⁰ Including seed houses.



- Objective(s)
 - f) To address farmers' limited access to quality seeds and locally adapted rice varieties
 - g) To contribute to the livelihood of both farmer seed producers and users of seeds as the seeds are sold at a lower price compared to commercial seeds
 - h) To demonstrate farmers' empowerment and show how farmers can be an effective and efficient contributor to national seed security if given opportunities
- Target group(s) and numbers of involved and affected farmers³¹

In 2018 alone, the Seed Clubs produced and distributed 158,000 tons of seeds which benefited approximately 24,000 households (computed based on 6.6 tons seed rate per hectare with average land area of 1 hectare per household).

- Location(s) and geographical outreach

Mekong Delta, Vietnam

- Resources used for implementation of the measure/practice

Around USD 100,000/year was the cost of the project with counterpart staff time and office spaces of local partners

- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture?

The role of seed clubs in the conservation and sustainable use of rice genetic resources cannot be denied. All members of the seed clubs are graduates of FFS and are skilled in rice breeding and seed production. Aware of the impacts of climate change, they continue to develop varieties that adapt to their local conditions. From 2000 to 2018, the seed clubs in Mekong Delta developed and “released” 359 rice varieties, of which four have already received national registration and certification, an evidence that farmer varieties can pass the rigid tests of the formal system. Five more farmer varieties are currently in the pipeline for national registration, proof that the common notion that farmer varieties are of “poor quality” is unfounded.

The seed clubs do not only fill a significant share of the gap in the seed supply system, they also provide diversity of choices for farmers. In 2018, for instance, seed clubs produced and distributed 77 different rice varieties compared to the 27 rice varieties produced and distributed through the formal system. Of the 27 varieties produced by the formal system, four are farmer varieties, which again indicates the recognition accorded even by the formal system to farmer varieties.

- Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)

The major contribution of the Seed Clubs is in terms of securing farmers' access to affordable good quality seeds which are adapted to the local conditions in Mekong Delta. As mentioned in previous sections, the Seed Clubs are able to provide 35% of the potential rice seed demand in Mekong Delta.

³¹ Any classification, e.g. of the types of farmer addressed, may be country-specific.



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Those seeds are more diverse (about 77 different varieties) and are sold at a lower price compared with the commercial rice seeds sold in the market thus providing services to the farming communities. At the household level, seed production contributed to securing additional source of income to the Seed Club members. Seeds command a higher price per kilogram than grains. Hence farmers with the capacity on seed production like the members of the Seed Clubs, opt to specialize in seed production and distribution. The successful registration and certification of 4 farmer-bred varieties is another victory of the seed clubs, which serve as a link between farmers and the relevant local government institutions. Through the seed clubs, local government recognized the potential of the varieties developed by farmers and supported their registration, certification and eventual distribution to other parts of the country.

- Other national level instruments that are linked to the measure/practice
- Are you aware of any other international agreements or programs that are relevant for this measure/practice?
 - a) Convention on Biological Diversity
 - b) Nagoya Protocol
- Other issues you wish to address, that have not yet been covered, to describe the measure/practice

Lessons learned

- Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices (max 250 words).

Farmers can be very effective partners in securing local seed systems, if they are given opportunity. The key is to always start with what they need and build on what they have. Addressing their needs would ensure commitment from them. If farmers are self-reliant, sustainability can be assured.

It is important to involve key relevant government institutions right from the start to raise their awareness on the important role of farmers and how they can effectively and efficiently support the farmers, and eventually allow them to take on the role of a support system. This support includes allowing farmers to save, exchange, and sell their seeds using a quality-control system which is appropriate to smallholder farmers.

A local variety certification can attest the adaptability of a particular variety to a particular locality that may be, as an example, drought-prone and with high salinity; and that it can generate good yields with minimal external inputs. Moreover, a local certification would allow mass production and trading of that variety in that particular area, and in other areas with similar environmental conditions, which in this case would need a good land use characterization and zoning. This will also reduce the incidence of crop failure, and therefore afford farmers with protection from using poor quality seeds, while at the same time, provide guarantee of access to good quality seeds.

- What challenges encountered along the way (if applicable) (max 200 words)

As proven by the certification of the HD1, NV1, TZ7 and AG1, farmer-bred varieties can have the same qualities, if not better, as those of certified seeds, and therefore have the potential of becoming part of the



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support system to the seed requirements in the country. However, the procedures that varieties need to go through, and the financial costs required before they are granted national certification status are much too stringent for farmer-breeders.

While the national variety seed certification policy has good intent in ensuring good quality planting materials for improved crop production and economic development, it has, at the same time, become a bottleneck rather than a channel that facilitates easy access and availability of good quality seeds. Genetic diversity has been identified as the solution to counter food insecurity caused by climate change. But the increasing dependence on few certified varieties defeats the principle of promoting genetic diversity and counters the objective of developing varieties that will adapt to various needs of farmers considering the very diverse ecological conditions in the country. As experienced, current commercially available varieties have exhibited vulnerability to different kinds of environmental stresses, such as drought, salinity, pests and diseases.

- What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity? (max 100 words)

Government support is key to the success of seed clubs. The support can be technical, material, equipment, and/or supportive policies. An alternative seed certification system appropriate for farmer varieties would be crucial. Rather than genetic uniformity, variety certification would serve the farmers best by establishing the general identifying characteristics of a variety, with greater allowance for variability, reflecting the diversity of its genetic base, resembling a landrace—the kind of crop that farmers would like to have in their farms. In such a case, national certification may not be necessary, and a local variety certification system may be more appropriate.

- [Link\(s\) to further information about the measure/practice](#)

For more information and other related projects, you may visit: searice.org.ph



Basic information

- Title of measure/practice

Community Seed Banks: Enhancing Local Seed Conservation

- Date of submission

July 31, 2019

- Name(s) of country/countries in which the measure/practice is taking place

Bhutan
Philippines
Thailand

- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person)

National Biodiversity Center of Bhutan
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Hug Mueang Nan Foundation
Nan Province, Thailand
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- Type of institution/organization (categories)

Government (Bhutan and Philippines)
Academic (Philippines)
Non-Government Organization (Thailand)



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Telefax number: (63-2) 9226710
Email: searice@searice.org.ph
URL: www.searice.org.ph
Contact person: Normita Ignacio, Executive Director

Description of the examples

Mandatory information:³²

- Short summary to be put in the inventory (max. 200 words) including:
 - Implementing entity and partners
 - Start year
 - Objective(s)
 - Summary of core components
 - Key outcomes
 - Lessons learned (if applicable)

The establishment of Community Seed Banks (CSB) has been undertaken by Southeast Asia Regional Initiatives for Community Empowerment (SEARICE) in collaboration with research institutions, universities, government and non-government organizations through various projects aiming to empower communities and small-scale farmers in Southeast Asia since 1996. CSB's are collections of seeds that are administered by the communities and play a significant role in ensuring seed security, conserving agricultural biodiversity and associated traditional knowledge, and providing options for climate-change adaptation; they can also contribute to the realization of Farmers' Rights. The main component of the practice was capacity development through Participatory Plant Breeding, Participatory Variety Selection and ecological management through experiential learning in Farmer Field Schools. In the Philippines, the CSB's became a model of both climate resiliency and agrobiodiversity: mitigating drought through seed distribution to affected farmers in Bohol and enriching the local 'Dinorado' variety in North Cotabato. In Bhutan, there was a resurgence of local crop varieties and the inclusion of conservation of PGRFA in their national policies. The impact extends further in Thailand, enabling the revival of the local cultural festival 'Bun Kao Mai', a Buddhist celebration of bountiful harvest, excellent seeds and diversity in rice varieties.

- [Brief history (including starting year), as appropriate

SEARICE implemented community biodiversity management across Southeast Asia through its various projects. Community Biodiversity Development and Conservation (CBDC) program started in the Philippines and was followed shortly in Viet Nam and Thailand. The program mobilized farmers, agricultural specialists, policymakers, and funding agencies in a convergence of efforts on the promotion of farmers' rights and empowerment towards proper management of PGR conservation, development, and utilization.

³² This mandatory information is required in order for the measure/practice to be included in the Inventory.



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In 2006, CBDC was merged with another program called the Biodiversity Use and Conservation in Asia Program (BUCAP), another SEARICE program with different thrusts but with the same end goals as CBDC. CBDC-BUCAP further pushed for the development of the farmer-managed seed system, with the Participatory Plant Breeding (PPB) strategy helping build up the capacities of farmers for them to develop their own rice varieties and establish community seed banks (CSB).

Efforts continue with the implementation of the successor of the CBDC-BUCAP called Democratizing Agricultural Research and Extension or DARE which was implemented in 2011- 2013. Thus, empowerment of farmers has been an ongoing undertaking that enabled the strengthening of the initiatives of the CSB's.

- Core components of the measure/practice (max 200 words)

The main component of the measure was the capacity development of farmers in crop breeding and seed production. As with the other country partners of SEARICE, farmer field school (FFS) was used as a learning and empowering methodology. Farmers enhanced their knowledge and skills on crop breeding and seed production through experiential learning.

Through Participatory Rural Appraisal (PRA) target communities were able to identify the problem areas including access to seeds and the conservation and preservation of local crop varieties.

Community Seed Banks store seed from a wide range of individuals, informal groups and non--government organizations that share seeds among themselves. The seeds are primarily obtained from participants' own production through individual selection process and handling skills, with some partnered with the formal seed sector and research institutes. CSB's have three common underlying principles: 1) farmers require steady and reliable access to a wide variety of appropriate planting material, 2) farmers are the stewards of agricultural biodiversity, particularly crop biodiversity, 3) optimal crop biodiversity requires sustainable use through on--farm conservation, i.e. the maintenance and recovery of viable populations and species in the natural surroundings where they developed their distinctive properties.

- Description of the context and the history of the measure/practice is taking place (political, legal and economic framework conditions for the measure/practice) (max 200 words)

The methods that farmers obtain and develop seeds are as old as agriculture. Most small-scale farmers in developing countries routinely save their seed from one harvest to the next, and would share and exchange seeds with neighboring, and even far-flung, farmers. This is how farmers have developed the widely diverse crops that humans enjoy today and evolved from weeds and wild plants. In many developing countries, farmers still source some 70-80% of their seeds from seeds that were saved on-farm.

These informal community systems of seed supply are increasingly coming under pressure. First, factors such as calamities, droughts, crop failure, conflict, storage conditions and poverty erode the quantity and the number of varieties available to farmers. Second, through agricultural modernization and the rise of formal breeding institutions and corporations, farmers are increasingly purchasing more of their seed requirements, where a few mass-produced and commercialized homogenous varieties replace so much of the local varieties. This shrinks PGR diversity in two ways: the older local varieties become increasingly unavailable as they are neither planted nor stored, and no new local varieties are developed as farmers lose the knowledge in and resources for plant breeding.



- To which provision(s) of Article 9 of the International Treaty does this measure relate

Art. 9.1

Art. 9.2a

Art. 9.2b

Art. 9.2c

Art. 9.3

Other information, if applicable

- Please indicate which category of the Inventory is most relevant for the proposed measure, and which other categories are also relevant (if any):

No.	Category	Most relevant ³³	Also relevant ³⁴
1	Recognition of local and indigenous communities', farmers' contributions to conservation and sustainable use of PGRFA, such as awards and recognition of custodian/guardian farmers		<input checked="" type="checkbox"/>
2	Financial contributions to support farmers conservation and sustainable use of PGRFA such as contributions to benefit-sharing funds		<input checked="" type="checkbox"/>
3	Approaches to encourage income-generating activities to support farmers' conservation and sustainable use of PGRFA		<input checked="" type="checkbox"/>
4	Catalogues, registries and other forms of documentation of PGRFA and protection of traditional knowledge		<input checked="" type="checkbox"/>
5	In-situ/on-farm conservation and management of PGRFA, such as social and cultural measures, community biodiversity management and conservation sites		<input checked="" type="checkbox"/>
6	Facilitation of farmers' access to a diversity of PGRFA through community seed banks ³⁵ , seed networks and other measures improving farmers' choices of a wider diversity of PGRFA.	<input checked="" type="checkbox"/>	
7	Participatory approaches to research on PGRFA, including characterization and evaluation, participatory plant breeding and variety selection		<input checked="" type="checkbox"/>

³³ Please select only one category that is most relevant, under which the measure will be listed.

³⁴ Please select one or several categories that may also be relevant (if applicable).

³⁵ Including seed houses.



8	Farmers' participation in decision-making at local, national and sub-regional, regional and international levels		
9	Training, capacity development and public awareness creation		
10	Legal measures for the implementation of Farmers' Rights, such as legislative measures related to PGRFA.		
11	Other measures / practices		

- In case you selected 'other measures', would you like to suggest a description of this measure, e.g. as a possible new category? _____
- Objective(s)
 - i) to address farmers' limited access to quality seeds and locally adapted rice and other crop varieties
 - j) to promote farmer's preferred varieties through maintenance and seed exchange among farmers
 - k) to conserve the local crop biodiversity and germplasm collection for genetic improvement
 - l) to develop local mechanisms to recognize and protect farmers' rights
 - m) to demonstrate farmers' empowerment and show how farmers can be an effective and efficient contributor to national seed security if given opportunities
 - n) to mobilize institutional support to CSBs through coordination mechanisms among relevant institutions and groups such as national government research/extension offices, local government units, academic institutions, CSOs, farmers' groups and consumers
 - o) to establish networks of CSBs and farmer- rice breeders to facilitate exchange of genetic materials, sharing of knowledge and skills, and to strengthen community-based efforts in conservation, development and sustainable use of seeds
- Target group(s) and numbers of involved and affected farmers³⁶
- Location(s) and geographical outreach

Bhutan
Philippines
Thailand

- Resources used for implementation of the measure/practice
- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture?

Community seed banks provide easy access of preferred seeds to farmers in a specific community. CSB materials are part of the pool of plant varieties continually being planted, multiplied, evaluated, selected and bred by local farmers over time. Depending on a community's access to materials from different sources, CSBs can store diverse materials based on farmers' varietal preferences. This can include

³⁶ Any classification, e.g. of the types of farmer addressed, may be country-specific.



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traditional and farmer-developed varieties and also modern/formal varieties and exotic ones coming from other countries. Being an *in situ* conservation practice, the local crop varieties continue to evolve and adapt in their local environments.

CSBs address all concerns of a healthy seed system which provides diversity and stability. It has the capacity enable vibrant seed distribution within and across communities, of quality seeds that can adapt to the challenges changing climate and is a promising mitigation in times of natural disasters.

- Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)

Community Seed Banks in the Philippines, became a model of both climate-resiliency and agrobiodiversity. Farmers' organizations in the province of Bohol established CSBs, with access to high-yielding and climate-resilient local rice varieties which are grown organically. In 2002, a severe drought was experienced by farmers specifically in Malitbog village of Dagohoy Municipality. Through the CSBs, farmers were able to mitigate the effects of drought through seed distribution to the affected farmers. CSB's enhanced the popularity of the local upland rice variety "Dinorado" in Arakan, North Cotabato, which is also grown organically. Arakan is now supplying seeds to various institutions, all-over the island of Mindanao.

In Bhutan, a resurgence of local crop varieties was experienced, including 30 for rice, 2 for maize. Vegetables and cereals were introduced to 5 farming communities, while upland rice to 13 farming communities which greatly improved crop diversity.

The case of Thailand showcases the CSB's exemplary impacts to the local communities. The bountiful harvest, production of excellent seeds and diversity in rice varieties enabled the revival of the "Bun Kao Mai" Festival, a traditional Buddhist celebration dedicated to "Mother Rice" or the rice spirits, which has been long shelved due to the effects of green revolution.

- Other national level instruments that are linked to the measure/practice
- Are you aware of any other international agreements or programs that are relevant for this measure/practice?
 - a) Convention on Biological Diversity
 - b) Nagoya Protocol
- Other issues you wish to address, that have not yet been covered, to describe the measure/practice

Ultimately, CSBs become useful and relevant to the community if these are managed by local farmers' groups that have clear goals and basic capacities towards conservation and sustainable use of rice seeds. The decision to set up a seedbank has to be based on a felt need of the communities and the concurrence of farmers' groups. In which case, farmers should have basic knowledge and skills in varietal evaluation, selection and plant breeding, line purification, storage, regeneration, among others.

Having said this, the support of government institutions is also important, raising their awareness on local situations and seeking their support for CSBs. This support includes allowing farmers to save, use, exchange, and sell their seeds using a quality-control system which they themselves developed; and facilitating the interconnection of other stakeholders.



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CSBs are important in the sustenance of smallholder farmers and show significant potential not only on the production and development of climate-resilient crop varieties but also in mitigating the effects of natural calamities.

Lessons learned

- Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices (max 250 words).

Even while a common seedbank may exist for use by the community, individual farmers save and store seeds of their own selection of plant varieties for future planting, evaluation or breeding. Although household seed storage is usually for short-term purposes only this system helps ensure that diverse materials are available even outside of the CSB and this also serves as a kind of local backup or complement to the seedbank when materials there are damaged or rendered non-viable for some reason. As such, part of CSB initiative should be to engage or develop a network of farmers with their household level farmers' seed storage for vibrant seed distribution within and across communities.

CSBs need continuing infusion of materials to increase diversity and be able to meet changes in farmers' preferences and environmental conditions, especially with worsening Climate Change. In this regard, it is important for CSBs to be linked to each other for exchange and diffusion of materials. This helps make seeds of diverse varieties available to farmers across areas for evaluation, selection and breeding under various ecological conditions. Linkages among CSBs will also strengthen solidarity and facilitate mutual learning and support among communities in seeds conservation and use. Where possible, CSBs can be linked to and supported by institutional or NGO-managed seedbanks that will provide access to more seed materials and serve as back-up to the accessions in the CSBs.

- What challenges encountered along the way (if applicable) (max 200 words)

The common notion among key actors that CSBs are just the structure where seeds are kept and stored is quite challenging to break. This narrow understanding of CSBs contribute to its failure as in most cases, being disconnected from the actual use of the seeds turned many CSBs into seed museums and worse become channels for the so-called high yielding varieties, hybrids and even genetically-modified seeds.

Moreover, limited resources of small-holder farmers, particularly land, limits the potential of CSBs to store a more diverse collection of seeds. Land is needed for the seeds to be continuously grown, evaluated, selected, bred and multiplied by farmers. But this was remedied by organizing farmers into groups and collectively managing the CSBs with their shared resources.

Except for Bhutan, institutional support is also inadequate. The limitations of the CSBs are relieved through technical, material, equipment and supportive policies of the government. Institutional seed banks managed by schools, NGOs or government provide access to more seed materials and serve as back-up to the collections in the CSBs. These seedbanks, with better facilities to store larger number of accessions for relatively longer periods of time, can also facilitate capacity-building of farmers in managing CSBs.



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- What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity? (max 100 words)

A strong community foundation of farmer's organizations, with the concurrent support of government and non-government institutions is crucial to the success of community seed banks.

To be relevant and dynamic in relation to community's plant genetic resource needs, CSBs should be part of a larger community initiative towards conservation, improvement, and selection of locally adopted or preferred plant varieties. This means that CSB materials are part of the pool of plant varieties continually being planted, multiplied, evaluated, selected and bred by local farmers over time. Without such a context, CSB materials tend to be used very little or disregarded totally by the community.

- Link(s) to further information about the measure/practice

For more information and other related projects, you may visit: searice.org.ph