



Food and Agriculture
Organization of the
United Nations



WHY INVEST IN PARTICIPATORY GUARANTEE SYSTEMS?

**Opportunities for organic agriculture
and PGS for sustainable food systems**

Why invest in Participatory Guarantee Systems?

Opportunities for organic agriculture and PGS
for sustainable food systems

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Rome, 2019

Required citation:

Moura e Castro, F., Katto-Andrighetto, J., Kirchner, C. & Flores Rojas, M. 2019. *Why invest in Participatory Guarantee Systems? Opportunities for organic agriculture and PGS for sustainable food systems*. Rome, FAO and IFOAM - Organics International.

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ISBN 978-92-5-131873-7

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Acknowledgements

This publication was developed under the FAO project on Participatory Guarantee Systems (PGS), and was written by Flávia Moura e Castro (IFOAM – Organics International), Joelle Katto-Andrighetto (IFOAM – Organics International), Cornelia Kirchner (IFOAM – Organics International) and Mayling Flores Rojas (FAO). Various institutions and organizations made possible the implementation of the project and the realization of this publication, including the Ministry of Agriculture, Forestry and Fisheries (Cambodia), the Ministry of Agriculture and Forestry (Lao People’s Democratic Republic), IFOAM – Organics International (Germany), the Asian Development Bank, Earth Net Foundation (Thailand), GRET (France), the Sustainable Agriculture & Environment Development Association (SAEDA, Lao People’s Democratic Republic), the Cambodian Center for Study and Development in Agriculture (CEDAC), the Center for Organic Development (COD, Cambodia), Caritas Cambodia and Natural Agriculture Village (NAV, Cambodia).

The authors are grateful for the contribution of women and men farmers in Cambodia and the Lao People’s Democratic Republic who shared their valuable experience on PGS. The authors are also grateful to Bun Sieng, Chanthaly Syfongxay, Kosal Houn, Phouvong Chittanavahn and Thavisith Bounyasouk for the translation of all interviews in the field from local language (Khmer and Lao) to English.

The draft was reviewed by FAO colleagues from FAO Regional Office for Asia and the Pacific and FAO Headquarters, including Eva Galvez, Pierre Ferrand and Marcello Vicovaro.

Abbreviations and acronyms

ADB	Asian Development Bank
CAMORG	Cambodian Organic Agriculture Standards
CEDAC	Cambodian Center for Study and Development in Agriculture
COD	Center for Organic Development (Cambodia)
COAA	Cambodian Organic Agriculture Association
DoA	Department of Agriculture (Lao People's Democratic Republic)
ENF	Earth Net Foundation (Thailand)
FAO	Food and Agricultural Organization of the United Nations
FOs	Facilitating organizations
GDA	General Directorate of Agriculture (Cambodia)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (Germany)
GMS	Greater Mekong Subregion
ICS	Internal control system
MAF	Ministry of Agriculture and Forestry (Lao People's Democratic Republic)
MAFF	Ministry of Agriculture, Forestry and Fisheries (Cambodia)
NAV	Natural Agriculture Village (Cambodia)
NGO	Non-governmental organization
PAFO	Provincial agriculture and forestry office (Lao People's Democratic Republic)
PGS	Participatory Guarantee Systems
SAEDA	Sustainable Agriculture & Environment Development Association (Lao People's Democratic Republic)
SMEs	Small and medium-sized enterprises
SNRMPEP	Sustainable natural resources management and productivity enhancement project
TCP	Technical Cooperation Programme
ToT	Training of Trainers

Introduction



Smallholder farmers harvesting PGS-certified organic lettuce to be picked up and transported by the buyer from the village to the capital in Cambodia

Demand for more nutritious and safe food is increasing rapidly in Asia as a result of rapid urbanization, a growing middle class, increasing per capita income and a growing awareness of the importance of food quality and safety driven by recent food contamination scandals (Cadilhon, 2009a; Ong, 2016). This is creating both market opportunities and challenges for organic farmers. The growing market offers opportunities for better incomes and livelihoods for smallholder farmers supplying fresh, safe and locally produced organic food to consumers. However, obtaining access to this market requires certification, and many smallholder organic farmers lack the ability to differentiate their organic products from conventional products. This prevents them from profiting from these new markets.

Participatory Guarantee Systems (PGS) are one option to get around this problem by providing a certification system that addresses the specific needs of smallholders, local markets and their communities. PGS provide an alternative for organic certification based on trust, social interaction and peer-reviews. This relies primarily on direct relationships among various stakeholders including farmers, customers, local advisers or buyers (FAO and IFOAM – Organics International, 2013) and is thus widely

accepted in local markets or short supply chains. By providing a locally appropriate means of organic certification, PGS supports the development of organic agriculture, which in turn contributes to the development of local sustainable food systems.¹

In 2013, the Food and Agriculture Organization of the United Nations (FAO) and IFOAM – Organics International jointly organized the Asia Pacific Symposium on Entrepreneurship and Innovation in Organic Farming (FAO and IFOAM – Organics International, 2013). During this event participating countries from the Asian region requested technical assistance for the establishment and promotion of PGS as a low-cost quality assurance to help smallholder farmers practising organic agriculture to gain access to the emerging organic markets in the region.

This initiative resulted in 2015 in a pilot project funded through the FAO Technical Cooperation Programme (TCP) titled Small-Scale Farmer Inclusion in Organic Agriculture Development through Participatory Guarantee Systems (PGS), covering Cambodia and the Lao People’s Democratic Republic.

Drawing on the findings of this project, this publication presents the opportunities and limitations of PGS as a tool for transitioning towards sustainable

¹ Sustainable food systems are defined as “A food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised” (HLPE, 2014).

local food systems through the creation of agribusiness opportunities in rural and urban areas, empowerment of smallholder farmers and local communities and by making organic food available and accessible at local markets. It brings together the information gathered during the project implementation from face-to-face interviews with various stakeholders, field observation and national and regional multi-stakeholder meetings.

The publication aims to raise awareness of PGS among governments, local authorities, development partners, donors, small and medium-sized enterprises (SMEs) and local non-governmental organizations (NGOs) to encourage them to invest in PGS.

The first chapter presents an overview of organic agriculture, the opportunities in the organic market in the Asia region, the concept and principles of PGS and their global and regional status.

The second chapter introduces the FAO project on PGS in Cambodia and the Lao People's Democratic Republic, presents information on PGS status in these two countries and outlines the project's results.

The third chapter focuses on the lessons learned from the implementation of the project, while the fourth chapter summarizes the advantages of investing in PGS for sustainable local food systems. The final chapter presents general recommendations for the development of PGS.

Chapter 1

Organic agriculture, markets and Participatory Guarantee Systems – An overview



Smallholder farmer selling PGS-certified organic vegetables at local market in Cambodia

Organic Agriculture

"Organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems." (FAO and WHO, 1999). "Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved" (IFOAM – Organics International, 2005).

There are four principles of organic agriculture: health, ecology, care and fairness (IFOAM – Organics International, 2005). These principles apply to agriculture in the broadest sense, including the way people relate to one another and also the way people manage soils, water, plants and animals in order to produce, prepare and distribute food and other goods (IFOAM – Organics International, 2014a).

Organic agriculture is part of the *Save and Grow* approach (FAO, 2011). This aims at sustainable intensification of smallholder crop production systems by replicating nature's contribution to soil organic matter formation, water flow regulation, pollination and biocontrol of insect pests and disease through a set of practices that combine both traditional knowledge and modern technologies.

The organic market has consistently been one of the fastest-growing food segments since the end of the twentieth century. The global market for organic products quadrupled between 1999 and 2014 (Willer and Lernoud, 2016) and reached USD 97 billion in 2017 (Willer, Lernoud and Kemper, 2019). Some of the so-called 'mature' organic markets are still growing rapidly. For example, retail sales of organic food products in Sweden grew in value by 20 percent in 2015 alone (Willer and Lernoud, 2017). Growth rates are even higher in developing countries with emerging organic markets, although the lack of accurate and consistent data makes it difficult to provide precise figures. In 2017, organic production was practised on 69.8 million hectares of land, managed by more than 2.9 million producers (Willer, Lernoud and Kemper, 2019).

Asia is the third largest market for organic products in the world, after North America and Europe, and home to nearly 40 percent of the world's organic producers (1.1 million), most of them located in India (Willer, Lernoud and Kemper, 2019). In 2017, China had the largest market in the region, followed by India. National markets are developing in Asia as countries are moving from export to domestic focus (Sahota, 2019). Consumers from the growing middle class in the region, in particular, are demanding organic products that they consider better for their health (Sahota, 2019; Ong, 2016). Food scandals and health scares are the main drivers of the growth of the organic market in Asia

(Sahota, 2019). The more industrialized countries in the region, including China, Hong Kong Special Administrative Region, Japan, the Republic of Korea, Singapore and Taiwan Province of China, are the major importers of processed organic food.

This growth in demand represents an opportunity for smallholder farmers practising organic agriculture to increase their sales, access new markets and improve their livelihoods (FAO, 2017a). However, many constraints hamper their ability to access the organic market. For instance, smallholder farmers tend to have limited capacity to comply with international organic standards as a result of their lack of organizational resources, poor access to information and the high cost of third-party certification schemes. Consequently, smallholder farmers practising organic agriculture cannot differentiate their products from conventional ones and therefore are unable to supply this market (FAO, 2017a). Smallholder farmers can more easily access the emerging local markets for organic produce and short organic supply chains that use alternative forms of organic guarantee systems. By doing so, they will also improve their installed capacity, production, certification and agribusiness skills, which will allow them

to access export markets at a later stage if they so desire (Sancho, 2001).

Organic guarantee systems

As with other markets where demand for a certain product is higher than supply, the risk of fraud, i.e. non-organic products being offered as organic, exists in the organic market. Guarantee systems that verify the organic quality of products are therefore not only useful to guide producers but also to protect consumers against misleading claims, and to protect organic producers against unfair competition. These systems may be imposed by legislation, which is the case in countries that regulate the use of the term organic, or may be voluntary. Either way, they fulfil the same purpose of building trust in an organic label.

Organic guarantee systems consist of the following components:

- **An organic standard.** This defines the norms and requirements for production, handling and processing that organic farmers, processors and traders must comply with.
- **A verification system.**² This may be provided by producers themselves (first-party certification), by traders and shops buying from farmers or farmer groups (second-party certification) or by an external private actor (third-party certification).

² A verification system is also called a conformity assessment system, a guarantee system or a control system in the case of third-party certification.

- **A consumer-facing label.**³ This is usually in the form of a logo put on products that have been successfully certified as organic.

Participatory Guarantee Systems

PGS are defined as “locally focused quality assurance systems [or organic guarantee systems] that certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange” (IFOAM – Organics International, n.d.a). The development of this definition, adopted by IFOAM – Organics International in 2008, and conceptual framework was based on common features of existing alternative organic guarantee systems.

PGS represent a tool that can help in the transition towards sustainable agriculture, empowering farmers and local communities, enhancing smallholder farmers’ access to markets and making organic food available and accessible (FAO and IFOAM – Organics International, 2018). PGS share common features with other organic certification systems, such as a specific organic standard and use of logos to communicate and show the guarantee process to consumers. The differences largely relate to the verification system *per se*.

Third-party certification is the most common verification system used in the organic sector worldwide. It relies on a process of inspection and verification of compliance with an organic standard, conducted by an independent body. This is most often a company specialized in certification but may also be a government body. ‘Independent,’ in this case, means that the certification body is legally independent from both the producer and the consumer or buyer of the certified product. Most often, the producer is the one receiving and paying for the certification services, although in some instances these costs may be subsidized by the government or covered by the buyer. In third-party certification, the interaction between the farmer and the verification system is mostly limited to an annual farm inspection by a trained independent inspector, who is not allowed to give technical advice to the farmer.

PGS are based on broad stakeholder participation. This means that farmers, consumers, SMEs, rural advisers, local authorities and any other relevant stakeholder come together to make joint decisions, visit farms, support each other and decide which farmers can be awarded the PGS organic certificate. The involvement of these stakeholders in the process of set-up, implementation and day-to-day operation is important to ensure effectiveness and credibility. In

³ In village and farmer markets, farmers sometimes display posters or certificates that indicate that the products are guaranteed organic rather than using a logo.

PGS, farmers are co-owners of the guarantee system and are therefore involved in the design and verification process: the peer-review. Through the peer-review process, farmers exchange information and experiences that allow them to overcome production challenges and enable them to follow and comply with the standards. In this sense, a PGS, in addition to being a tool to guarantee the quality of the products, is a capacity-building tool. It is also an empowerment tool, as the direct relationship among members of the PGS builds ownership of the guarantee system and encourages a constant flux of information and responsibility among them (FAO, 2018a). It is often easier for smallholder farmers transitioning to organic agriculture to supply and access local markets rather

than export markets. PGS represent an alternative to third-party certification that is suitable to local markets and short supply chains (IFOAM – Organics International, 2018a). In case PGS-certified producers decide to target the exports market, they may find themselves better prepared to manage the required documentation systems.

The involvement of consumers in the PGS and the direct relations that are established between them and farmers help farmers to better understand the market expectations and consumers to better understand farming constraints and benefits of organic agriculture and to access information (FAO, 2018a). Therefore, this system acts as a market development tool.



Figure 1. Comparison of non-certification, Participatory Guarantee Systems (PGS) and third-party certification in terms of income and market access (based on the FAO project)

Organic regulation can be a limiting factor for PGS development. There are countries where organic claims are only possible via third-party certification. In these cases, it is illegal to use ‘organic’ in the logo or packaging of PGS-certified

products. Lack of awareness and multiple claims in the market can also be a limit. Consumers tend to be confused when confronted with multiple logos for from different initiatives, which can generate distrust in organic products.

Box 1. Key features of Participatory Guarantee Systems (PGS)

The following are the key features of all PGS:

1. **Principles and values that enhance livelihoods:** PGS are characterized by clearly defined principles and values that are aimed at improving the well-being of farming families, ensuring fair relations with consumers and promoting organic agriculture.
2. **Suitable to smallholder agriculture:** the participatory nature and horizontal structure of PGS allow for more-appropriate and less-costly mechanisms of certification for smallholder farmers, and actually highlight, celebrate and encourage consumers to seek out smallholders.
3. **Norms conceived by the stakeholders:** the organic standard that the PGS will be based upon is chosen through a participatory process, always in accordance with the commonly understood sense of what constitutes an organic product.
4. **Grass roots organization:** participatory certification is a result of a social dynamic, based on an active organization of all stakeholders.
5. **A farmer's pledge:** through a documented process, each farmer makes a commitment to follow the agreed organic standard and to implement the PGS processes.
6. **Clear and previously defined consequences:** from the outset, farmers are aware of and agree on the consequences of not complying with the agreed-upon standard and procedures. Actions to be taken in such cases must be transparent and consistent.
7. **Documented management systems and procedures:** there may be minimal paperwork required of farmers but there will be ways in which they are expected to demonstrate their organic commitment and integrity, which should be documented by the PGS.
8. **Mechanisms to verify farmers' compliance with the established norms:** in PGS, such mechanisms must be able to stimulate participation and to allow a learning process for all stakeholders.
9. **Mechanisms for supporting farmers:** these include learning opportunities on how to solve technical challenges of organic farming, facilitation of market access and even parallel social processes, such as collective seed management, collective work or small-scale savings systems.
10. **Seals or labels:** seals or logos on a product label enable consumers to quickly recognize which products have been guaranteed through the PGS.

Source: Based on IFOAM – Organics International (2007)

Global status of Participatory Guarantee Systems

The number of PGS initiatives globally grew from 33 in 2007 to 240 in 2018 (Katto-Andrighetto *et al.*, 2019; IFOAM – Organics International, 2018b) as result of multi-stakeholder efforts ranging from grass-roots initiatives to those implemented with government support.

In 2018, PGS were established or under development in at least 67 countries across Africa, the Americas, Asia, Europe and Oceania, with more than 391 000 producers involved in PGS initiatives worldwide (Katto-Andrighetto *et al.*, 2019; IFOAM – Organics International, 2018b). This includes mostly smallholder farmers and small-scale processors. At least 125 PGS initiatives are operational (which means that they implement a functional certification system and have handed certificates to some or all of the participating farmers) in 47 countries, with a total of 142 955 producers certified. The majority of certified PGS producers are in Asia (115 549), followed by Latin America (18 220). The numbers are smaller in Africa (4 650), Oceania (2 633), Europe (1 127) and the United States and Canada (776).

PGS growth is particularly fast in developing countries with emerging domestic organic markets such as Brazil, India and Thailand. This reflects the large proportion of smallholder farmers in these countries and the ability of PGS to help smallholder farmers convert to certified organic agriculture, with substantial livelihoods benefits.

From a policy point of view, there is also a trend for increasing support for PGS. In 2007, Brazil became the first country to recognize the equivalence between PGS and third-party certification as verification systems for organic produce. Other countries that officially recognize PGS include Costa Rica (2008), Paraguay (2008), Uruguay (2008), Mexico (2010), Bolivia (2012), Ecuador (2013), Chile (2017), India (2017) and Mongolia (2018).

Participatory Guarantee Systems in Asia and the Pacific

Recently there has been a surge in PGS development in Asia and the Pacific. Asia is the leading region in the world with 342 799 producers involved in PGS, 115 549 of which are PGS certified (IFOAM – Organics International, 2018b). This is a reflection of the increasing investment in organic agriculture by various governments including those of Indonesia, the Philippines and Sri Lanka. In south-eastern Asia, particularly Cambodia, the Chinese provinces of Yunnan and Guangxi, the Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam, national governments together with FAO, the Asian Development Bank (ADB), IFOAM – Organics International and local partners have contributed to setting up PGS pilots and establishing a favourable policy environment for PGS. The Agroecology Learning alliance in South East Asia and GRET have also supported several PGS initiatives in Cambodia, the Lao People's Democratic Republic, Myanmar and Viet Nam in recent years. All of these

countries have now active PGS initiatives established or under development.

India has the largest number of producers involved in PGS, with the number growing from 6 000 in 2014 to 333 144 in 2018 (IFOAM – Organics International, 2018b). Among these, 113 090 (about 34 percent) had already obtained PGS certification in 2018 (IFOAM – Organics International, 2018b).⁴ This growth is the result of the support from the Indian Government to PGS for the national market. The government has invested in a large-scale government-facilitated PGS programme coordinated by its National Center for Organic Farming (NCOF), part of the Ministry of Agriculture and Farmers' Welfare. The government has also allocated significant budgets to promote conversion to organic agriculture and adoption of PGS through various programmes. This has been done in the context of an unregulated domestic organic market. At the end of 2017, the Government of India extended organic regulation to its domestic market – previously the regulation had been only applicable for export and compliance on the domestic market was voluntary – and formalized official acceptance of the government-run PGS as an organic certification under the regulation.

Thailand is the second country in the region in terms of number of farmers certified, with 1 116 producers already

certified through PGS (IFOAM – Organics International, 2018b). The Philippines has set up a national organic programme that includes support measures such as subsidies for organic certification, development of organic inputs, support for organic research and capacity-building. This has resulted in 1 970 farmers participating in PGS in the Philippines out of which 266 already obtained certification (IFOAM – Organics International, 2018b).

There are several cases of local authorities having developed schemes to support PGS at local or municipal level. Central and local government authorities in Bali (Indonesia), Bhutan, the Philippines and several Indian states (particularly Karnataka, Kerala and Sikkim) have set up support policies and programmes in favour of organic agriculture. The state of Sikkim is the first state in the world to have achieved full organic status, following a decade of proactive organic policy intervention. Between 2015 and 2018, the Government of India operated the Paramparagat Krishi Vikas Yojana programme in support of organic agriculture through PGS certification and quality control, conversion of land to organic production, integrated manure management, linkages with custom hiring centres and packing, labelling and branding of products (Government of India, 2017).

⁴ The rapid growth continues to date and current figures can be reviewed on the NCOF website (<https://pgsindia-ncof.gov.in/>)

In the Pacific, PGS have become the cornerstone of organic guarantee and market access for the domestic and regional markets. French Polynesia and New Caledonia legally recognized PGS in 2011 and 2017, respectively, while other countries in the Pacific region are also developing PGS with the support of the Secretariat of the Pacific Community.

The development of PGS initiatives in Asia, particularly in the Greater Mekong

Subregion (GMS),⁵ has benefited from recent investment by ADB through the Core Agriculture Support Programme (Phase II, 2011–2015), which covers the countries of the GMS, and the previously mentioned FAO project implemented in partnership with the Government of Cambodia and the Government of the Lao People's Democratic Republic between 2015 and 2017.

⁵ Cambodia, the People's Republic of China (specifically Yunnan Province and Guangxi Zhuang Autonomous Region), Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam

Table 1. Overview of the Participatory Guarantee System (PGS) initiatives in Asia

Country	Self-declared PGS	Recognized by local authorities	Recognized by IFOAM – Organics International ⁶	Total PGS initiatives	Number of organic producers certified through PGS	Number of producers involved in PGS
Bangladesh	1	-	-	1	-	123
Bhutan	1	-	-	1	-	100
Cambodia	7	-	-	7	177	220
China	4	-	-	4	-	167
India	1	1	-	2	113 090	333 144
Indonesia	2	-	-	2	147	781
Japan	-	-	1	1	4	7
Lao People's Democratic Republic	3	-	-	3	86	288
Myanmar	7	1	-	8	44	110
Nepal	4	-	-	4	39	300
Pakistan	1	-	-	1	-	-
Philippines	13	-	1	14	266	1 970
Republic of Korea	1	-	-	1	114	2 000
Sri Lanka	1	-	1	2	111	756
Taiwan Province of China	1	-	-	1	60	60
Thailand	11	-	-	11	1 116	1 611
Viet Nam	2	-	1	3	295	338
Total	60	2	4	66	115 549	341 975

Source: IFOAM – Organics International (2018b)

⁶ IFOAM – Organics International implements a recognition programme for organic PGS initiatives. Any initiative interested in being recognized by IFOAM – Organics International can apply and go through a formal evaluation process by international PGS experts. The evaluation examines whether a PGS operates in accordance with PGS key elements and features. More information on the website of IFOAM – Organics International: <https://www.ifoam.bio/en/ifoam-pgs-recognition>

Chapter 2

Participatory Guarantee Systems in Cambodia and the Lao People's Democratic Republic: FAO project



PGS members (farmers and local authority) meeting for a farm visit and peer review in Lao People's Democratic Republic

Suitable and affordable organic certification can contribute to better market access with the potential to improve livelihoods and household food situations for smallholder farmers practising organic agriculture, while providing fresh and safe food to satisfy local consumer demand. In 2013, during the Asia Pacific Symposium on Entrepreneurship and Innovation in Organic Farming, organized jointly by FAO and IFOAM – Organics international, participating countries requested technical assistance for the establishment and promotion of PGS in the region (FAO and IFOAM – Organics International, 2013).

In response, an FAO pilot project on Small-Scale Farmer Inclusion in Organic Agriculture Development through Participatory Guarantee Systems (PGS) ran from September 2015 to December 2017. The objective of the project was to address certification and marketing issues through the promotion of PGS in Cambodia and the Lao People’s Democratic Republic. The project built on these countries’ efforts and investments to promote organic agriculture at national level as a part of their strategy towards sustainable agriculture and food security (FAO, 2015).

The project conducted four major activities:

- assessment of the legal and regulatory environment in each country, with recommendations on how to accommodate PGS;
- creation of awareness among farmers of the opportunities of organic production under PGS and enhancement of the farmers’ capacity to organize themselves in PGS groups;
- increasing local demand for organic produce;
- facilitation of various forms of direct marketing that link increased demand with increased supply, including use of PGS maps.

The project was implemented by FAO and the Ministry of Agriculture, Forestry and Fisheries (MAFF) in Cambodia and by the Ministry of Agriculture and Forestry (MAF) in the Lao People’s Democratic Republic. The project also coordinated activities with international and regional partners actively promoting organic farming and PGS, including IFOAM – Organics International, ADB⁷ and Earth Net Foundation (ENF).⁸

IFOAM – Organics International performed the assessment of the legal and regulatory environment for organic production in Cambodia and the Lao

⁷ ADB Technical Assistance Project TA 8163-REG: Implementing the Greater Mekong Subregion (GMS) Core Agriculture Support Program (Phase 2). One of the objectives of this technical assistance was to introduce PGS in the GMS countries to enhance market access for environmentally friendly agricultural products produced by smallholders (ADB, 2018).

⁸ Earth Net Foundation is a non-profit organization promoting and supporting initiatives related to production, processing, marketing and consumption of organic food, natural products and ecological handicrafts (Green Net, n.d.).

People's Democratic Republic, provided specific recommendations on how best to accommodate PGS under the existing frameworks and identified possible improvements to the organic regulations of those countries.

Both IFOAM – Organics International and ENF supported the organization of the regional training of trainers (ToT). ENF supported the organization of national ToT refreshers at national level and national ToT targeting the private sector and NGOs; it also supported media campaigns, the development of market surveys and compilation of organic inputs allowed under IFOAM Standard for organic production.

At field level, the project contacted and developed working relationships with organizations that were interested in promoting PGS in Cambodia and the Lao People's Democratic Republic and with the capacity to do so (FAO, 2015). These Facilitating Organizations (FOs) included government agencies, local and international NGOs and SMEs actively promoting organic agriculture and marketing linkages (Table 2). The project trained representatives from FOs as master trainers during a regional ToT on PGS. Eleven master trainers (four of them women) were trained, six from Cambodia and five from the Lao People's Democratic Republic (FAO, 2018b).

FOs facilitated capacity-building of smallholder farmers on PGS, formed PGS

groups in the field and created linkages between PGS groups and the markets.

The project beneficiaries included smallholder farmers with knowledge of or interest in organic agriculture and those already practising it, FOs, rural and urban consumers and SMEs.

The project organized media campaigns in each country targeting consumers to raise awareness of the basic concepts of organic agriculture and the benefits and limitations of PGS for farmers and consumers. Representatives from various media that broadcast the PGS campaign visited markets where PGS products were sold and interviewed members of PGS groups in the field (FAO, 2018b). Promotional materials developed included videos (FAO, 2018d; FAO 2018e) and factsheets (FAO, 2018a and 2018f–j). To strengthen market linkages between farmers and buyers, PGS training events targeted managers of shops selling organic produce in the capitals and facilitated meetings between potential buyers and PGS representatives.

The project also designed a global PGS map⁹, maintained by IFOAM – Organics International, which allows PGS initiatives to register and show the types and quantities of certified products offered and where they are sold, as well as their status (i.e. recognized by IFOAM – Organics International, recognized by local authorities or self-declared PGS).

⁹ The Global map of PGS initiatives is accessible under the following link: <https://pgs.ifoam.bio>

The map connects consumers, buyers and traders with farmers producing PGS organic products. It also functions as a

database to access information of PGS groups globally (FAO, 2018b).

Table 2. Facilitating Organizations in Cambodia and the Lao People’s Democratic Republic

<i>Cambodia</i>		<i>Lao People’s Democratic Republic</i>	
<i>Facilitating Organization</i>	<i>Category</i>	<i>Facilitating Organization</i>	<i>Category</i>
Cambodian Center for Study and Development in Agriculture	NGO and SME	GRET	NGO
Natural Agriculture Village Cambodia shop	SME	Sustainable Agriculture and Environment Development Association	NGO
Caritas Cambodia	NGO and SME	Provincial agriculture and forestry office	Government
General Directorate of Agriculture	Government	-	-
Center for Organic Development, Cambodia	NGO	-	-
Provincial Department of Agriculture	Government	-	-

Source: FAO (2018b)

Cambodia

Vegetable consumption in Cambodia is among the lowest in Asia and is linked to high micronutrient deficiency rates among Cambodian children and women (McNaughton, 2005). Almost half of the vegetables sold in Cambodia are imported from Thailand and Viet Nam (SDC, 2016). Between 200 to 400 tonnes of vegetables are imported daily from neighbouring countries and between USD 150 and USD 250 million is spent annually on vegetable imports from China, Thailand and Viet Nam (Khmer Times, 2017a). Food safety is a cause for concern with both imported and domestically produced vegetables and is often discussed in both traditional and social media. According to various sources (e.g. Khmer Times, 2017a; Sokcheng Thai, 2017; FAO, 2005), health issues related to pesticides are common, including acute pesticide poisoning of farmers. The use of illegally imported pesticides appears to be widespread, and concerns about pesticide residues on imported vegetables are high. The Cambodian Ministry of Economy and

Finance is working to tackle the issues and to promote domestic production of vegetables as part of a diversification of agriculture, as well as more-sustainable agricultural practices that are good for humans as well as the environment (Khmer Times, 2017b). The General Directorate of Agriculture (GDA) under the MAFF is interested in PGS as a way to increase farmer's income and improve food safety.

Organic agriculture and Participatory Guarantee Systems in Cambodia

In Cambodia, a total of 6 760 producers were involved in organic agriculture in 2017, with a total of 11 042 ha of agricultural land under organic production (including land in conversion), representing 0.2 percent of all agricultural land in the country (Willer and Lernoud, 2019). Organic cereals are grown on 10 745 ha, while organic vegetables are grown on only 30 ha (Willer and Lernoud, 2019). No information is available on domestic retail sales of organic produce.



Figure 2. Different market channels of PGS products in Cambodia: organic shop selling PGS organic vegetables.



Figure 3. PGS farmer selling in the local market.



Figure 4. PGS logo used by Caritas Cambodia



Figure 5: PGS logo used by Natural Agriculture Village

Various international and development cooperation organizations, such as ADB, Caritas and the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), have been operating in Cambodia for several years to support development of organic agriculture. These organizations have been working in partnership with both the public and the private sector, in particular with the Cambodian Center for Study and Development in Agriculture (CEDAC) and the Cambodian Organic Agriculture Association (COAA). There are few data about when the concept of organic agriculture was first introduced in the country, but documentation suggests that the main focus was (and partly continues to be) on to the production of organic rice through the system of rice intensification that is strongly promoted by CEDAC. In general, organic agriculture is promoted through the provision of training on production practices and guarantee systems, as well as certification services and development of standards.

PGS were first introduced to Cambodia in 2014 during the national PGS workshop organized by ADB with support from

MAFF and IFOAM – Organics International. Set-up of PGS pilots and provision of technical support to the farmers’ groups started in 2016 after the ToT organized under the FAO TCP. This provided training on PGS to staff from Caritas Cambodia, CEDAC, GDA, the Center for Organic Development (COD), the Natural Agriculture Village (NAV) shop and the Provincial Department of Agriculture. These FOs started the promotion of PGS by targeting their own network of smallholder farmers in the rural communities, training interested smallholder farmers on PGS, facilitating the formation of PGS local groups and linking them to the markets. They adopted different strategies for implementing PGS, having developed different procedures and PGS logos (see Figure 4).

By the end of 2017, the FAO project had trained more than 250 farmers on PGS and about 100 farmers organized in nine groups were PGS certified in the provinces of Battambang, Kandal, Kampong Chnang, Kampong Speu and Takeo and supplying their products locally (FAO, 2018b).

Table 3. Summary of PGS local groups, PGS-certified products and markets in Cambodia

<i>Number of PGS farmers</i>	<i>Number of PGS groups</i>	<i>Type of PGS-certified products</i>	<i>PGS-certified production (tonnes/year)</i>	<i>Gross value (USD/year)*</i>	<i>Existing forms of markets</i>	<i>Location of PGS groups</i>	<i>Number of consumers of PGS products per year**</i>
96 (58% women)	9	Vegetables, fruits	600	640 000	Organic shops, local markets, home delivery	Battambang, Kampong Chang, Kampong Speou, Kandal, Takeo	8 200

As at December 2017.

*Gross value calculated based on PGS-certified organic production and an average price of USD 1.1 per kilo.

** Number of consumers calculated based on 200 g/capita per day and PGS production of 600 and 609 tonnes/year for Cambodia and the Lao People’s Democratic Republic, respectively.

PGS-certified products are sold mostly in specialized organic shops in the capital Phnom Penh and in conventional supermarkets. The specialized organic shops are run by the FOs and include ten Natural Agri-Product stores established by Caritas, CEDAC and NAV. PGS groups located closer to Phnom Penh or other big cities have well-established marketing links to supply organic shops and supermarkets (Box 2). This is not the case for the farmers involved in the Caritas PGS, especially those from Battambang Province, who live in a remote area and sell their products mainly in their local communities on local and weekend markets (Box 3). All farmers involved in PGS in Cambodia produce a variety of vegetables in crop

association and practice crop rotation. PGS-certified products include cabbage, Chinese kale, bok choy, green mustard, choy sum, Chinese broccoli, Chinese cabbage, aubergine, bitter gourd, tomato, long bean and salad.

The land dedicated to PGS certified production is next to the household, with an average surface of 1 000 m² per farmer. Some farmers were already practising organic agriculture before joining the PGS and some had experience with organic certification (e.g. some groups working with CEDAC). Other farmers started adopting organic practices at the same time as the concept of PGS was introduced.

Box 2. The Natural Agriculture Village PGS

Context

Kandal is a province in southern Cambodia, close to the capital Phnom Penh. It is located in an important vegetable production area in a country where agriculture is largely dominated by rice production. Farmers in Svay Prateal (Kandal Province) typically grow one type of vegetable in the field at a time (monocropping), harvest all at once and sell for low-prices to middlemen who then resell the vegetables in Phnom Penh. Plots are quite small (e.g. 500 m²) and close to each other. According to local organic farmers, pesticide usage by other farmers in the region has become increasingly high.

Natural Agriculture Village

Natural Agriculture Village (NAV) is a private-sector initiative to support smallholder development through organic agriculture and marketing facilitation. The founder, Bun Sieng, started her business in 2012 with mobile booths selling 'chemical-free' vegetables and opened her first shop in 2015. Bun Sieng attended a training of trainers on Participatory Guarantee Systems (PGS) in 2016, organized under the Technical Cooperation Programme (TCP) of the Food and Agriculture Organization of the United Nations (FAO). She started a PGS initiative together with farmers she was supporting and had worked with in the past, in order to convince customers that the products bought from the farmers and sold at her shop were produced organically. Apart from having a shop in the capital, NAV supplies PGS organic vegetables to several supermarkets and shops in Phnom Penh and is establishing contacts with restaurants and hotels. "There is a lot of demand for organic products; the limiting factor is the supply," said Bun Sieng. She has 16 full-time employees and contracts with 48 PGS-certified farmers.

The Svay Prateal Organic Vegetable group started with nine farmers in the village and in 2014 joined a project of the Royal Agriculture University supporting farmers to adopt more-sustainable farming practices. The project provided technical training and capacity-building in organic farming. Another component was the promotion of net houses. These net houses keep insects out and make it easier for farmers to produce crops without using pesticides. Supported by NAV, this group joined the PGS in 2016 and now follows organic standards.

The NAV PGS initiative

By the end of 2017, NAV sourced PGS-certified products from four PGS groups: Svay Prateal Organic Vegetable (14 members in Kandal Province), Toul Trapang Sros Bamprong (6 members in Prey Veng Province), Samros Banleo Sarireang Koh Khsach Tonler (4 members in Kandal Province) and Phateas Samnanh Sarireang Krang Yov (4 members in Kandal Province). Their agreement with NAV ensures that all their surplus vegetables are purchased at a fixed price that is higher than that for conventional products regardless of market fluctuations. NAV picks up the PGS-certified products at the farm gate and transports them to Phnom Penh in small trucks for sale at the shop and for distribution to other outlets.

Box 3. The Caritas PGS

Context

Battambang is located in the far north-west of Cambodia, bordering Thailand. The region is one of the poorest of Cambodia, with many rural families not having access to agricultural land and working as casual labourers. Children do not attend school regularly because they are required to contribute to the family's income from a young age. All members of the family, including the youngest ones, commonly work in the fields. Many families, faced with debt, also send their children to work in fields across the border to increase family income. Takream Commune in Banan District is only a few kilometres from Kamping Puoy reservoir, a large lake that holds up to 110 million m³ of water. The water from this lake is used primarily for agriculture and allows farmers in the area to grow rice during the dry season. The area is mostly a rice-growing one and only few farmers grow a limited range of vegetables, such as cucumber, bitter melon and long bean.

Caritas Cambodia and PGS local groups

Caritas Cambodia provides assistance to poor and marginalized people and promotes sustainable agriculture in order to improve their livelihoods. In 2016, Caritas Cambodia joined the PGS Training of Trainers under the FAO TCP and started to promote organic agriculture within its development programme and to help farming families to adopt PGS.

By the end of 2017, Caritas Cambodia was supporting three PGS local groups in Battambang Province: the Green Farmer Group (14 members), the Kasekor Chamroeun Phal (18 members) and the Kasekor Rungroeung (8 members). All groups supply their PGS-certified products to the Caritas market; the Green Farmer Group also supplies the weekend market in Battambang. In order to provide additional marketing opportunities, Caritas Cambodia is setting up a weekly organic market in the provincial capital Battambang, which is 35 km from their project location.

There is local demand for organic produce and farmers can get premium prices selling on the local market. Caritas has also linked with a local restaurant in Battambang that buys PGS-certified organic produce from the farmers. Caritas Cambodia plans to expand PGS to other pilots and provinces under their own initiative.

Over the same period, ADB and IFOAM – Organics International supported the Government of Cambodia (GDA) in drafting a national organic standard. The Cambodian Organic Agriculture Standards (CAMORG) was finalized and submitted to MAFF in September 2017 for endorsement. A national PGS policy

statement was also drafted and a PGS guideline is being drafted with the support from a PGS expert under ADB Core Agriculture Support Programme, Phase 2 (IFOAM – Organics International, 2016). This policy will ensure that PGS are recognized as a means of verification with government oversight. The GDA

also foresees two versions of the national organic logo, one for third-party-certified products targeting export and national markets and one for PGS-certified products targeting local markets.

Figure 5 shows the structure of the planned National Coordinating Body for PGS. This body will have a PGS office under the GDA Department of Horticulture and Subsidiary Crops and have an advisory board composed of one member from the GDA and six

representatives of PGS operators in the country. The body will have three units: one to register new PGS initiatives, one to provide PGS training and communication and one to audit PGS.

The government welcomes efforts by PGS initiatives to develop their own standards and logos. PGS initiatives may request external review; if they pass this inspection, they are allowed to use the national PGS organic logo (FAO, 2018b).

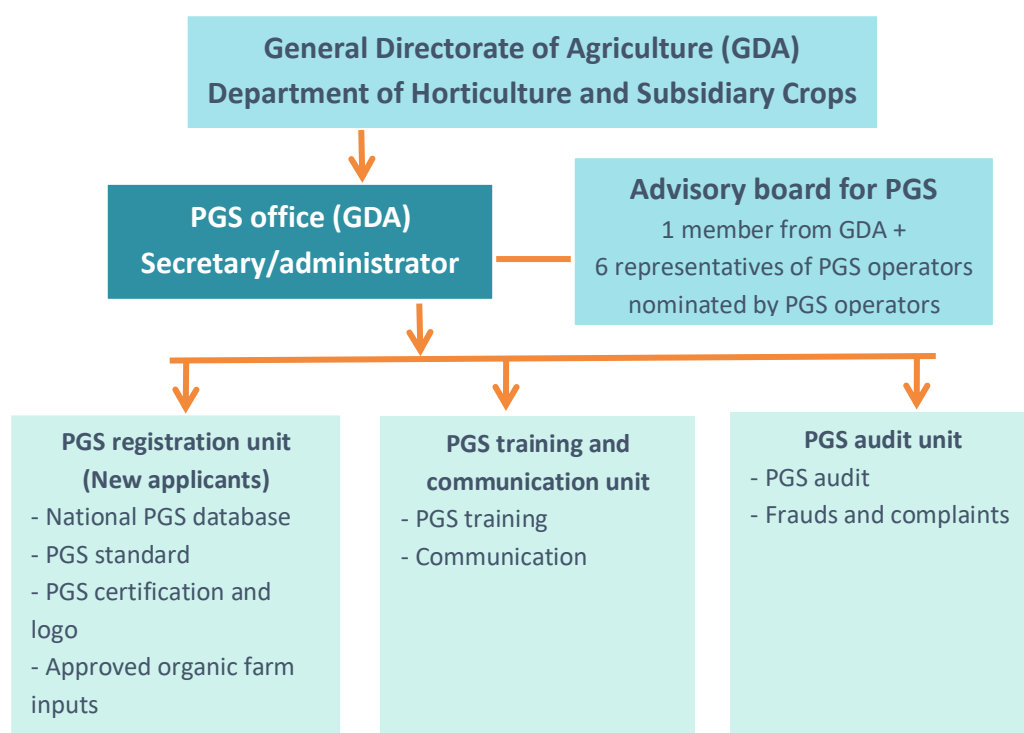


Figure 6. Planned structure of the national PGS coordination body in Cambodia.

Source: FAO (2018b)

The Lao People's Democratic Republic

Organic agriculture and Participatory Guarantee Systems in the Lao People's Democratic Republic

Until recently, smallholder farmers in the Lao People's Democratic Republic used few chemical inputs (fertilizers, pesticides); however, this is now changing and use of pesticides is increasing. This represents a risk in terms of environmental degradation and as well as health problems for the population as both farmers and consumers are exposed to pesticides (Vagneron, Kousonsavath and Xong, 2015).

Organic agriculture is new in the Lao People's Democratic Republic and is practised on only a small percentage of farmland in the country. In 2017, approximately 1 342 producers were practising organic agriculture on a total of 7 668 ha, including 4 598 ha under organic cereals, 1 363 ha under coffee and 47 ha under vegetables (Willer and Lernoud, 2019). This is 0.3 percent of the country's total agricultural land. In addition, a further 17 068 ha are recorded as being used for organic wild collection (ibid.). Data on retail sales or exports are currently not available.

In 2004, Helvetas Swiss Intercooperation launched a project on promotion of organic farming and marketing in the Lao People's Democratic Republic (PROFIL). This led to the government and NGOs starting to promote and facilitate

organic agriculture. The first national organic standards were developed under the framework of the project in 2005 and the Lao Certification Body was created in 2008 (Panyakul, 2012).

Recently, the Government of the Lao People's Democratic Republic has included organic agriculture in various strategic documents and action plans. These include the *Strategy for Agricultural Development 2011–2020* (MAF, 2010), which mentions organic agriculture as a promising element of the strategy. Similarly, the *Agriculture Development Strategy to 2025 (ADS2025) and Vision to the year 2030* (MAF, 2015) aims at "... developing clean, safe and sustainable agriculture and shift gradually to the modernization of a resilient and productive agriculture economy, linking with rural development contributing to the national economic bases."

To achieve this, the Government of the Lao People's Democratic Republic is supporting 'clean agriculture' by promoting good agricultural practices and organic agriculture (MAF, 2015). The strategy also envisages upgrading the standards, accreditation and certification systems in the country. While third-party organic certification is considered more oriented to export markets, PGS are being promoted as a tool to support 'clean agriculture,' particularly organic agriculture for domestic and local markets.

According to a study carried out in the Lao People's Democratic Republic, the main reasons for consumers to buy organic products is the perception that these products are healthier and safer (Vagneron, Kousonsavath and Xong, 2015). This study found that consumers of organic products tend to be wealthier and more educated than those who do not consume organic products. It also found that lack of availability of organic products on the market and lack of awareness of the benefits of organic products were the main reasons why consumers did not buy these products; price was not reported to be a major consideration.

In 2017, a market survey conducted by FAO in Vientiane found that small-scale entrepreneurs were interested in sourcing domestically produced organic vegetables. The main bottlenecks identified included logistics (e.g. transport) and producers' capacity to meet the market demand in terms of quantity, frequency, quality and diversity of products (FAO, 2017b).

The Government of the Lao People's Democratic Republic is providing certification services to farmers through the Lao Certification Body. Certified farmers can use the national organic logo (Figure 6). The initial approach was to implement group certification through an internal control system (ICS), an approach that facilitates access of smallholders to organic certification within third-party certification. An ICS is the part of a documented guarantee assurance system for group certification

that allows an external certification body to delegate the periodic inspection of individual group members to an identified body or unit within the certified group (IFOAM – Organics International, n.d.b). This means that the third-party certification bodies only have to inspect the functioning of the system and perform a few spot-check re-inspections of individual smallholders. Many Lao farmers certified through this scheme only participate in activities supported by international NGOs, in which project funds cover the costs of forming farmer groups and inspections. This leads to sustainability issues, as many of these smallholder groups are not able to pay for the certification services after the project funds are finished. The national government has engaged in the development of PGS to promote a sustainable alternative certification that has lower cost overheads and is geared towards local markets and smallholder certification.

PGS were introduced in the Lao People's Democratic Republic in 2014 through FAO TCP and ADB projects. The first PGS initiatives were piloted after the ToT organized under the FAO TCP in the Lao People's Democratic Republic. PGS are currently implemented in three provinces: Houaphanh, Savannakhet and Xieng Khouang.

PGS-certified products from Savannakhet and Xieng Khouang are predominantly fresh products such as leafy vegetables, herbs and fruits. These PGS-certified products are mostly sold in local markets and in organic markets in

the provincial capitals and surrounding villages, at the farm gate and through home delivery. The provincial agriculture and forestry office (PAFO) and the Sustainable Agriculture & Environment Development Association (SAEDA) supported the PGS pilots in Xieng Khouang whereas PAFO supported the pilots in Savannakhet (Boxes 4 and 5).

PGS farmers in Houaphanh produce dried bamboo shoots, which are mostly sold outside the province, with some being exported to Viet Nam. These farmers are supported by GRET. Towards the end of 2017, the export of bamboo shoots ceased due to new government regulations; farmers are working

towards meeting the new regulations, with the aim of restarting export soon (FAO, 2018b).



Figure 7. Lao national organic logo



Figure 8. Different market channels for PGS-certified products in the Lao People’s Democratic Republic: home delivery of PGS-certified products by a PGS farmer.



Figure 9. Market in Xieng Khouang where only PGS-certified products are sold.

Box 4. The Xieng Khouang PGS

Context

Xieng Khouang is a mountainous province with a population of 244 000 in 2015. The capital is Phonsavan, a small town of 37 000 people located 400 km north-east of Vientiane. The province was heavily bombed during the Viet Nam war and there are still millions of unexploded bombs on the ground. As a consequence, large areas of agricultural land remain uncultivated and explosions are frequent.

The Sustainable Agriculture & Environment Development Association

The Sustainable Agriculture & Environment Development Association (SAEDA) is a non-profit civil society organization founded in the Lao People's Democratic Republic in 1991. SAEDA supports vulnerable communities by promoting sustainable agricultural practices. In 2009, SAEDA launched the sustainable agriculture and market development project (SAMADP), aimed at improving livelihoods of smallholder farmers. SAMADP focused on the Peak District in Xieng Khouang Province and was implemented in cooperation with the local district agriculture and forestry office.

The project started with five villages in 2009. By 2015 it had grown to include more than 700 householders in 32 villages in the Peak District and had started to expand to other districts. The activities focused on the promotion of sustainable (mostly organic) agricultural techniques and the establishment of local markets for organic vegetables.

In 2016, SAEDA joined the government initiative to promote Participatory Guarantee Systems (PGS). Many farmers in SAEDA's network already had experience with organic standards and certification. SAEDA is one of the facilitating organizations (FOs) under the FAO TCP and a representative from SAEDA was trained as a master trainer. Currently, SAEDA is expanding its PGS support from the initial focus area (Xieng Khouang Province) to five provinces, with a total of 12 village groups using a PGS (FAO, 2018b). While their initial work has been on food security and local markets for organic produce, SAEDA also has a clear objective to link PGS farmers with national-level markets.

The Xieng Khouang PGS initiative

Currently there are 550 smallholders practising organic agriculture in Xieng Khouang Province. A total of 86 smallholders have been trained on PGS by the provincial agriculture and forestry office and SAEDA under the FAO TCP. By 2017, 26 farmers had received PGS certification; by the end of 2018 a total of 70 farmers in 12 villages were PGS certified and a further 17 were under conversion. The PGS-certified farmers sell their produce twice a week at the local organic market set up by the government. PGS certification is a condition to be allowed to sell at this market. Many of the smallholders also have other market channels, including farm-gate sale and home delivery. The PGS local groups also sell to local shops and restaurants. More organic farmers in the province are considering engaging in a PGS.

Box 5. The Savannakhet PGS

Context

Savannakhet is a province in the south of the Lao People's Democratic Republic with a population of close to one million people in 2015. Being one of the main plain areas in a largely mountainous country, Savannakhet province is one of the main rice production areas of the Lao People's Democratic Republic. The capital, Savannakhet, has a population of about 120 000 and is 280 km from Vientiane. The city is located on the Mekong River that forms the border with Thailand.

Government and local authorities as the main supporters

Farmers in the Lao People's Democratic Republic started to practise organic agriculture in 2011 through a government project funded by International Fund for Agricultural Development titled sustainable natural resources management and productivity enhancement project (SNRMPEP) (IFAD, 2018). Overall, this project aimed to achieve sustainable natural resource management and increased agricultural productivity. The project was divided into 70 subprojects that focused on three areas: commercialization of agricultural production, natural resources management and poverty reduction. It also provided for development of small-scale infrastructure (access road, irrigation, processing facilities). Conducted in five southern provinces – Attapue, Champasak, Salavanh, Savannakhet and Sekong – the project involved a total of 56 000 households in 1 044 villages. The Ministry of Agriculture and Forestry (MAF) was the executing agency and the Department of Planning Cooperation provided overall oversight and coordinated implementation of the project. Provincial and district agriculture and forestry offices were the implementing agencies at the local level.

The Savannakhet PGS initiative

The government introduced PGS in 2016 with support from the Asian Development Bank (ADB) and the FAO TCP. Four PGS local groups were formed, with a total of 35 farmers in two villages. The groups also received support from the district agriculture and forestry office as part of the SNRMPEP project. In contrast to the initiative in Xieng Khuang, there is little contribution of the non-governmental sector in Savannakhet. The local government is involved but is chronically underfunded. PGS stakeholders have little awareness or understanding of PGS processes and have not taken full ownership of the approach. In 2017 only two groups were still active, comprising about 25 farmers. Two of the PGS groups formed failed because all except one of the members stopped farming entirely at the end of 2016.

Table 4. Summary of PGS groups, PGS-certified products and markets in Lao People’s Democratic Republic

<i>Number of PGS farmers</i>	<i>Number of PGS groups</i>	<i>Type of PGS-certified products</i>	<i>PGS-certified production (tonnes/year)</i>	<i>Gross value (USD/year)*</i>	<i>Existing forms of markets</i>	<i>Location of PGS groups</i>	<i>Number of consumers of PGS products per year**</i>
194 (50% women)	10	Vegetables, fruits and dried bamboo	609	670 000	On-farm sell, home delivery, organic markets and wet markets	Savannakhet, Xiengkhouang, Huaphan, Vientiane and VTE Capital	8 300

As at December 2017.

*Gross value calculated based on PGS organic production and an average price of USD 1.1 per kilo.

** Number of consumers calculated based on 200 g/capita per day and PGS production of 600 and 609 tonnes/year for Cambodia and the Lao People’s Democratic Republic, respectively.

Source: FAO (2018b)

In 2017, the Department of Agriculture (DoA) and FAO delivered additional PGS training to organic farmer groups in Vientiane and Vientiane Province who had previously been third-party organic certified. These farmer groups transitioned or are in the process of transitioning to PGS certification to supply local markets in the capital Vientiane, where FAO identified good potential for organic products through a market survey carried out in 2017.

At the level of implementation, PGS local groups are encouraged to adopt the procedures and templates developed by the DoA and adapt them to their own local needs. The standards used for PGS-certified products need to be at least equivalent to the Lao National Organic Standard in order to use the Lao national organic logo.

The structure for PGS in the Lao People’s Democratic Republic has three levels (Figure 8). At national level, the DoA provides oversight and guidance, issues certificates and grants the use of the Lao national organic logo. At provincial or district level, local certification committees coordinate PGS activities.

These committees consist of stakeholders including farmers from different PGS groups, consumers and local government representatives from the provincial and district agriculture and forestry offices. At field level, farmers are organized in PGS groups of between 4 and 15 households. These are usually within a single village, so that a PGS group often corresponds to one village. The local certification committees report to the DoA in Vientiane, linking the

farmers in villages to the national authority.

PGS are expected to be adopted progressively. Farmers previously involved in third-party certification are being encouraged to transition to PGS-certified products and to supply local and

national markets. By the end of 2017, 262 farmers had been trained on PGS and a total of 194 farmers had been organized in ten groups in the provinces of Houaphanh, Savannakhet and Xieng Khouang and were certified organic through PGS certification (FAO, 2018b).

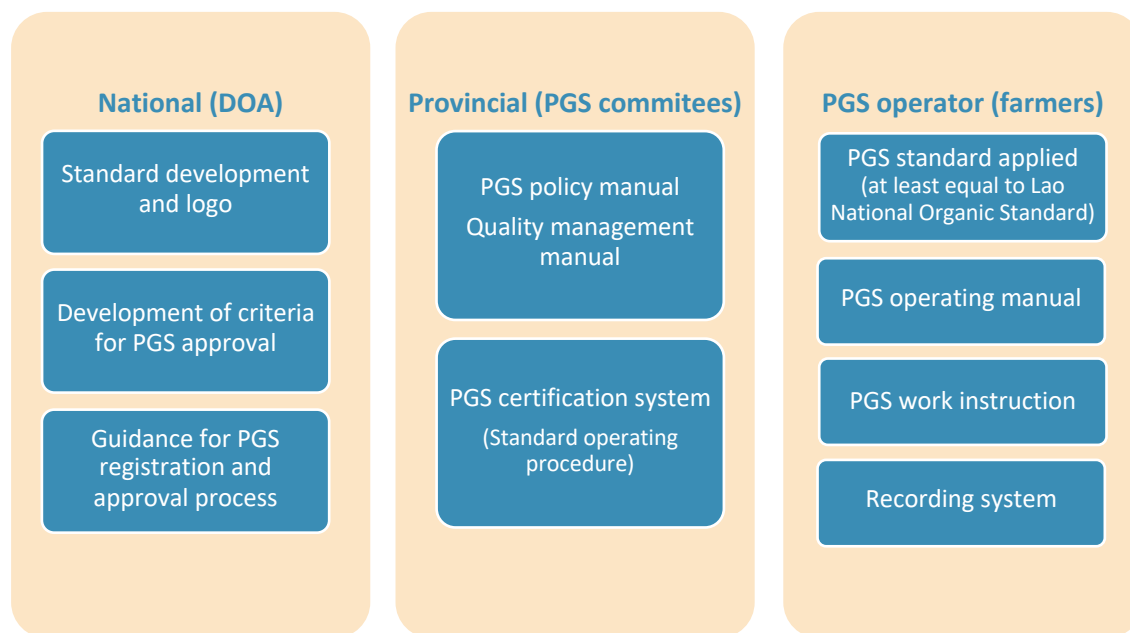


Figure 10. National structure for Participatory Guarantee Systems in the Lao People's Democratic Republic. Source: FAO (2018b).

Chapter 3

Lessons learned from the FAO project



PGS local group in Cambodia

This chapter presents the lessons learned from the PGS initiatives supported through the FAO project, with the aim of guiding future investment in PGS for the Asia and Pacific region and beyond.

1. A clear general picture is crucial to developing meaningful initiatives

Each PGS initiative is unique, adapted to fit the specific context in which it operates. Therefore, it is essential that a holistic, gender-sensitive situation analysis is carried out to understand the peculiarities of the context, including:

- the needs, incentives and capacities of the PGS stakeholders;
- the national legal and regulatory framework related to organic agriculture and PGS;
- market demand and opportunities;
- level of consumer awareness and willingness to pay more for PGS-certified organic products;
- major bottlenecks preventing market access by smallholder farmers such as issues related to logistics and infrastructure.

Methods and tools used to conduct this analysis include multi-stakeholder consultations, focus group discussions, face-to-face interviews, end-market analysis, SWOT analysis (strengths, weaknesses, opportunities and threats) and value-chain mapping.

2. A good understanding of the principles and practices of organic agriculture

PGS are, just like third-party certification, quality assurance systems for organic agriculture. It is crucial that all those involved have a good understanding of organic agriculture, its practices and inputs and the key features and elements of PGS. The benefits for farmers of converting to organic agriculture include reducing dependency on external inputs, reducing health-related risks of exposure to hazardous chemicals, managing their farms in a more-sustainable way, having access to safer, more diversified food and the possibility of increasing income as a result of the premium price paid for organic produce. Ideally, farmers should have training and hands-on experience in organic practices and suitable technologies prior to the introduction of PGS. Limited technical support from experts can make the transition from conventional to organic agriculture especially difficult and may lead to failure. Farmers should also be made aware of trade-offs in converting to organic agriculture; for instance, organic agriculture may require labour-intensive and time-consuming activities such as manual weeding, production of on-farm inputs and daily harvest (in the case of vegetable production). Other trade-offs include the potential reduction of crop yields if transitioning from high-external-input agriculture. Improved practices and labour-saving technologies such as mulching, cover crops, net houses, drip irrigation systems, etc. should be promoted in organic agriculture to

reduce labour demands and increase labour productivity.

Among the PGS initiatives featured in this publication, most cases of successful farmers show that organic practices were already in place or at least had already been introduced to the communities before the concept of PGS was presented. Conversion to organic agriculture can nevertheless be carried out in parallel to the development and application of PGS tools. This was the case for a few PGS pilots in Cambodia and the Lao People's Democratic Republic, which introduced organic agriculture and PGS at the same time, requiring further attention to address gaps in the technical knowledge needed to support organic vegetable production. This knowledge gap is not confined to organic agriculture but applies to vegetable production in general where misuse of chemicals is leading to serious issues around the safety of fresh vegetables.

3. A shared vision and involvement of food-system stakeholders

By engaging as many food-system stakeholders as possible right from the beginning and clarifying their roles for PGS implementation, it is possible to expand the pool of resources needed in the long run for a sustainable PGS initiative and to ensure democratic decision-making procedures. These stakeholders include farmers, FOs, consumers, the private sector, NGOs, government and local authorities.

A fully functioning PGS requires participation and exchange among the farmers involved at all levels, including at the stage of defining tools (e.g. the selection of an organic standard, the preparation of a manual of practices, a pledge and the forms for peer review) and structures for implementation (local committees, coordinators, regular meetings, etc.). The shared vision and values motivate and enable farmers to participate, to take responsibility, to cooperate with other members and to create collective solutions to problems. Building up the shared vision is a process that must not be overlooked. It might be slow and feedback may be negative, but this is the only way to create a common understanding of why the PGS initiative is needed and how it should be implemented. The shared vision and values can be stated in the farmer's pledge, which is signed by each producer as they become a member of the PGS initiative.

PGS initiatives can develop from a clear need manifested by producers who come together to work as a group and guarantee the organic quality of their products. In order to set up a PGS, it is essential that these producers are able to work together as peers, in their local groups. This requires, for example, being able to communicate in the same language and having the possibility to visit each other regularly, to openly ask questions and exchange information.

FOs can also be involved in the process as long as they have adequate understanding of both the key elements and features of PGS and the local context in which a PGS initiative is being developed. These organizations act as facilitators or mediators in the creation of a PGS initiative. Common FOs involved in PGS include local NGOs, consumer organizations, small businesses and local authorities. They share the incentives and capacity to facilitate the creation of PGS local groups and to provide logistics for PGS training, certification and registration as well as to create linkages with markets. Ideally, an FO should be open to engaging with a broad stakeholder group with balanced representation from private and public organizations and gender and be active in organic agriculture, thus having good knowledge on the sector in the country. Under the FAO PGS project, the FOs were instrumental for providing PGS-specific training at national level, forming the local PGS groups, linking them to potential markets, buyers or consumers and registering them in the global map of PGS initiatives.

Using PGS to add value to ongoing work on organic agriculture by the various FOs allowed the project to form PGS local groups with limited resources and in a short time (FAO, 2018c). FOs have the knowledge and networks needed to promote PGS and support PGS farmer groups. During the project completion workshop, the FOs in Cambodia and the Lao People's Democratic Republic shared an impressive local expansion of the

work on PGS beyond the project scope that was the result of their own initiative (FAO, 2018b). It is estimated that the number of PGS local groups will continue to increase after the project closes.

Consumer involvement is also fundamental to the success of PGS. Regular consumer participation is necessary for the long-term sustainability of PGS initiatives. Consumers can join a PGS initiative as individuals, but more often their participation is ensured through consumers' associations. The engagement of these in PGS initiatives can provide advantages such as structured commitment, better marketing and communication strategies and increased awareness of organic agriculture, potentially contributing to creating market channels, such as direct sales and home delivery through group purchases. Consumers' associations can also act as initiators of PGS. Nevertheless, consumer involvement can be difficult to achieve because of the distance between them and producers or the lack of consumers' awareness about organic products. Actions to ensure participation of consumers in PGS should be considered carefully right from the beginning to increase transparency and credibility. Active consumers can be excellent promoters of the benefits of organic agriculture and food production and therefore play a crucial role as an engine for demand development and economic growth for producers.

It is important to involve the private sector, such as potential buyers, shops,

restaurants, caterers and hotels, to ensure reliable market access. Moreover, these stakeholders can also take on other roles that are important for PGS implementation. Such roles include, for example, facilitating transportation and distribution of PGS-certified products, organizing the packaging and labelling and further promoting consumer awareness of the benefits of organic food products by providing information and interacting with consumers. In turn, the private sector can expand its business opportunities through the sale and/or distribution of locally produced PGS-certified products.

Governments and local authorities should also be involved when designing PGS. It was key for the FAO project to have the commitment of the governments of Cambodia and the Lao People's Democratic Republic in supporting PGS as a tool to allow smallholder farmers to access markets and supply PGS-certified organic products to local markets. There are many reasons why public-sector actors may support PGS, such as environmental concerns and the need to incentivize transition towards organic agriculture, the need to better link smallholders to markets thus increasing their incomes and reducing poverty, public health concerns, etc. They can also provide technical support and extension services to farmers' groups and facilitate the PGS process. As shown by FAO (2016a), public-sector stakeholders can promote and legitimize PGS initiatives through financial support or by providing market

outlets, as in public procurement. Public-sector stakeholders can also provide the physical space to organize farmers' markets and can improve market infrastructure.

Finally, international and local NGOs and donor agencies can provide the necessary financial, administrative and logistic support required for situation analysis, pilots and initial development. They can also incorporate organic agriculture and PGS into their own programmes. For example, joint activities between FAO, IFOAM – Organics International, ADB and ENF built on each other's efforts while avoiding duplication of efforts. By working with these international organizations with a long experience in the area of organic agriculture and PGS, the project was able to tap into their networks and capacities and translate them into results at field level (FAO, 2018b).

4. Participation is the key for empowerment

The element of participation gives farmers the opportunity to play a central role in the development and implementation of solutions appropriate to their specific situations and conditions. This helps strengthen farmers' self-confidence and builds the long-term capacity of the initiative to drive its own development and to maintain the PGS. Participation can also be further implemented by setting up mechanisms that can be included within the PGS structure such as community

seed banks and collective input sourcing; a farmer-managed trial farm; collective processing; collective sales; and management of a common fund or savings system.

Smallholder farmers who are part of a PGS initiative have the capacities (e.g. knowledge and being part of a group) and incentives (e.g. improved market access, potential increased income) to continue producing PGS-certified organic products and market them through different channels. Farmers who were part of the FAO project have reported more confidence in explaining to consumers and buyers the benefits of organic produce and PGS and some farmers have become trainers on PGS in their rural communities (FAO, 2018b).

5. Flexibility needs to be ensured

Flexibility needs to be ensured when designing the structure of the PGS initiative; this allows for continuous learning and knowledge exchange processes, which are essential to guarantee the sustainability of the initiative.

Moreover, when a PGS initiative grows, new stakeholders join, bringing new ideas and different approaches. It is vital that this diversity is embraced, recognized and included. This is more likely to happen if the system maintains some flexibility to allow for local variations, but also if farmers are not alone in their endeavour and can count on a safety net, provided for example by a local NGO, for the necessary support mechanisms and on reliable market

access, which can be ensured through partnerships with local private- or public-sector representatives, such as small entrepreneurs or local authorities.

6. Reliable market access

Reliable market access is of fundamental importance in the livelihood strategies of rural producers and it is key to the sustainability of a PGS initiative. It is important to understand the market demand in terms of type of products, quality, frequency and price; market opportunities and channels; and market rules and players. PGS farmers and local groups must plan crop associations and rotations to ensure a constant supply of products and the volume required by the market.

Moreover, reliable market access is a powerful incentive to motivate other farmers to transition to organic and to join a PGS initiative. There are various possible market channels for PGS-certified products, including direct sales at the farm gate, home delivery, local markets, organic shops, supermarkets and wholesalers, public procurement, restaurants, hotels and catering. A marketing plan to engage and actively link smallholder farmers to markets should be part of the development strategy of the PGS.

7. Economic contributions need to be in place to ensure long-term sustainability

PGS initiatives must keep expenses as low as possible to engage with smallholder farmers. However, there are

always costs associated with running the PGS and it is essential to identify sources of income or resources available to cover these costs. Most PGS initiatives rely on voluntary work from members, particularly producers themselves, to carry out administrative and coordination activities. While this can work well for some time and constitutes a strength of PGS, it can also pose difficulties in the long run, since producers have limited time to devote to off-farm activities such as a PGS. Hence, it may be necessary to charge fees or request an economic contribution from the members of a PGS initiative (producers and consumers) to ensure the availability of resources for PGS implementation. If producers experience a clear benefit from participating in the

PGS, for example by having access to a PGS farmers' market, they are usually willing to contribute small fees to the PGS. The idea is to have a self-sustaining PGS initiative in place.

Projects, funded by international donors for example, can provide the necessary finances, at least during the development stage of a PGS initiative. However, projects have limited funds and finite lives, and donor organizations might have different priorities at the end of a development programme that included setting up PGS pilots. Local authorities can also contribute to the necessary investment at the development stage, but subsidies may come to an end and should be not taken for granted.

Chapter 4

Investing in Participatory Guarantee Systems for sustainable food systems



Ms Layer Lor selling her PGS-certified vegetables at farm gate in Lao People's Democratic Republic

Governments, development partners and NGOs may choose to support organic guarantee systems, particularly PGS, as a way to transition towards local sustainable food systems, thus contributing to sustainable agricultural development, poverty reduction, food security and nutrition. Government investment in PGS is a way to channel public support to helping smallholder farmers to have regular access to local markets and improve their livelihoods while responding to the increasing demand for safe products by consumers. Governments may also want to support PGS for their additional functions as tools for market development, capacity-building and empowerment.

PGS provide various benefits to the different stakeholders involved in the process (FAO and INRA, 2016). For example, farmers benefit by being able to differentiate their organic products from conventional, non-organic ones and thus being able access new or regular markets, often with premium prices for their produce. Sellers and traders are able to attract customers willing to pay higher prices for safe, good-quality products that meet their needs for healthy organic foods (FAO, 2016a). Consumers benefit by having access to fresh, locally produced organic products.

These aspects are discussed in more detail in the following sections.

A suitable guarantee system for smallholder farmers

PGS offer a low-cost solution to organic certification and hence are well suited to the needs of smallholder farmers. They also have the additional advantage that they certify the whole production system, meaning that everything produced on the farm is certified and can potentially be sold at a premium price, whereas third-party certification is generally product-specific.

The costs of a PGS are lower because the system relies on voluntary work, particularly for the farmers' peer review. However, this places time-demands on farmers, who have to visit the farms of the other members of the PGS. This may not be a problem, because it is often easier for smallholder farmers to dedicate time than to incur in-cash expenses. Moreover, time dedicated to farm visits also provides for knowledge exchange and creates learning opportunities for PGS members.

PGS also require less paperwork than third-party certification. Within this system, smallholder farmers that are not able to fill in forms themselves can be assisted by local coordinators or group leaders appointed to handle this part of the verification process. This system is also flexible enough to adapt its documentation requirements to the local context and capacity of its members, for example by replacing written documentation with videos or publicly witnessed processes.

Gaining market access

Organic farmers who are able to differentiate their products from conventional ones can access organic markets and often benefit from premium prices, thus increasing their incomes. Some PGS members in Cambodia and the Lao People's Democratic Republic reported that PGS certification allowed them to generate more regular income as a result of the frequency of harvests and markets for organic vegetables, and that they appreciated the reliability and stability of the market demand more than the premium prices obtained.

PGS members in these two countries also reported that their produce sold more quickly following PGS certification. This may have been due to the participation of consumers in the PGS and the resultant direct relationship between producers and consumers that helps to raise awareness of the benefits of organic agriculture and organic products and to create loyal consumers.

Making fresh and locally produced food available and accessible

Consumers in various countries have growing concerns about food safety and increasingly demand safer products. PGS farmers tend to cater to short supply chains and local markets, in many cases through direct sales, thus making fresh, locally produced organic food available in rural areas.

Given that PGS is a less-costly form of certification than third-party certification, farmers can supply less-

costly certified organic products to local consumers who would not otherwise be able to access organic products. Thus, PGS have the potential to enlarge the pool of consumers of organic products and create new markets.

Opportunities for small-scale entrepreneurs and job creation

Small-scale entrepreneurs such as food-shop owners participating in PGS are able to develop a production plan for the year with PGS farmers and thus have a constant and diverse supply of PGS certified products matching market demand (FAO, 2017b). Small entrepreneurs in the Lao People's Democratic Republic reported that the close collaboration with farmers also allowed them to verify the quality of the products, and that the PGS organic logo allowed them to sell the PGS certified products at higher prices and make greater profits (FAO, 2017b). A small-scale entrepreneur in the Cambodian capital Phnom Penh reported having established a business selling organic vegetables and seasonal fruits, creating 16 full-time jobs (FAO, 2018h).

Ways of bridging the extension gap in organic agriculture

In many developing countries, government extension services have limited technical capacity in organic agriculture, while private extension services are rarely accessible or available to smallholder farmers for a variety of reasons, including costs. As a consequence, it is difficult for

smallholder farmers to convert to organic agriculture, solve organic production challenges and maintain compliance with organic standards in the long term. Many cases of non-compliance and decertification stem from farmers' lack of understanding of how to comply with the standards or a lack of knowledge and awareness of existing organic solutions to problems that have led them to fall out of compliance with the standards (Källander and Rundgren, 2008).

PGS initiatives integrate capacity-building and ongoing technical advice as an integral part of their functions. In PGS, the farm visits performed by peer farmers, often together with technicians, consumers or small entrepreneurs, to verify compliance with the standard provide an opportunity to exchange experiences and ideas and look jointly for solutions to organic production problems. The small-scale entrepreneurs (e.g. shop owners) participating in PGS and buying PGS certified products from smallholder farmers take an active role in the coordination process to ensure the quality of the products being supplied to their business. The public or private-sector stakeholders participating in the PGS provide information tools, such as simplified versions of the standards and manuals on how to make compost and other on-farm inputs. Others use regular PGS meetings or even organize special get-togethers as an occasion for PGS

members to share information and for mutual learning. These interactions between farmers and other PGS stakeholders outside their rural communities create opportunities for farmers to learn about new technologies and practices and gain confidence.

Contribution towards empowerment for smallholder farmers

Farmers who are members of PGS actively participate in the PGS processes together with other stakeholders involved. This encourages more responsibility and requires their involvement in planning, monitoring and verification. Farmers become active members of a social process, making joint decisions about the quality of their production and marketing of their products. Becoming an active part of such collective process is often a life-changing experience, especially for poor farmers, women and youths, that leads to greater self-confidence. Some limitations exist when it comes to sanctioning a member of the PGS for non-compliance with the standards, as reported by PGS members in Cambodia and the Lao People's Democratic Republic.

Many PGS farmers around the world feel that the social benefits brought about by PGS processes are the most remarkable benefits of being part of a PGS initiative (IFOAM – Organics International, 2014b).

Chapter 5

General recommendations



Diversified crop production of PGS-certified farmer Ms Sia Vue in Lao People's Democratic Republic

These general recommendations are based on the lessons learned during the implementation of the project and are valid for similar projects and initiatives on PGS whether in Asia or elsewhere. They are intended to guide PGS efforts by national governments and local partners including NGOs and SMEs, with support when required from intergovernmental and international organizations such as FAO and IFOAM – Organics International.

Enhance public–private collaboration

Governments, farmers, SMEs and consumers need to work together to develop and establish PGS. While governments facilitate the enabling environment for PGS, the private sector together with local authorities may facilitate the linkages between PGS farmers and the market. NGOs, SMEs and consumers play important roles in mobilizing resources, providing training to farmers and linking farmers to markets. National focal points on PGS from the public and private sector can coordinate and promote collaboration and provide technical assistance. A mix of PGS that are led by government, NGOs and small-scale entrepreneurs has proven most effective at fostering adoption of PGS. Governments, particularly local authorities such as municipalities, may also provide in-kind support to PGS, for instance through the designation of a public space, often including market facilities, for an organic farmers' market.

Consumer education and awareness-raising

It is important for governments and FOs to raise awareness and educate consumers on the benefits and limitations of organic agriculture and PGS through a variety of channels, including radio, television, newspapers and social media. Other ways of raising consumers' awareness is by displaying posters and promotional materials on the topic at markets and shops. It is also important to inform consumers about where they can buy PGS-certified products.

Participatory Guarantee System-friendly policies and regulatory frameworks

When national governments plan to promote and support PGS for organic production for national and local markets, it is important that they specifically mention PGS as valid verification systems for organic agriculture in organic regulations, policies, decrees or strategies. If this is not done, there is a risk that PGS will not be legally recognized as a guarantee system for organic production. The development of any organic regulation should be done with involvement of experts in the field of organic agriculture as well as in consultation with various stakeholders including national organic movements and farmer organizations, among others.

Monitor the impact in the field

[The Global Map of PGS Initiatives](#) is useful for monitoring the impact of PGS in the field. Indicators of impact include number of PGS groups, number of PGS farmers, income or profit, change in production cost, location of PGS production and number and location of markets where PGS-certified products are sold.

Strengthening capacities

Setting up and implementing a PGS is a knowledge-intensive activity and the tasks should be distributed and shared between stakeholders in a participatory manner. It is important to invest in capacity-building for all stakeholders (farmers, local authorities, private sector, etc.) potentially involved in PGS to ensure that participants have a good understanding of the key elements and features PGS. These stakeholders are the fuel that powers PGS development at the national level. PGS manuals and extension materials should be translated into local languages to facilitate knowledge-sharing. These materials should also be adapted to the local context. It is useful to document good practices and business models for PGS development for dissemination.

Realistic, cost-effective planning for long-term sustainability

While PGS are a tool that has helped thousands of producers around the world to improve their livelihoods, it is important to keep in mind that this

approach does not fit all situations and needs. Although PGS may be relatively cheap and accessible for small-scale producers compared with third-party certification for the domestic organic market, there are various costs associated with the development and operation of a PGS initiative: investments are needed during the initial phase as well as in the long run, particularly in terms of time and engagement required from the stakeholders. A realistic assessment of the needs and resources available, the objectives of the guarantee system and the target market is, therefore, essential. Experience shows that PGS initiatives will only succeed and function over the long term if participation in the PGS provides significant benefits to the stakeholders concerned, especially the producers. These benefits may include premium prices for PGS-certified products, improved access to (local) markets, access to technical knowledge or participation in various social processes. Sustainability also depends on the cost of participation, which should be low or outweighed by the benefits, as well as on the capacity of the PGS initiative to function without subsidization from external sources (e.g. government subsidies, funds from donor agencies, etc.). Processes and procedures must be designed in a cost-effective way and incentives for stakeholders to participate should be based on the local situation (market demand, benefits of organic farming) and not primarily on availability of donor or project funds.

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ISBN 978-92-5-131873-7



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CA6641EN/1/11.19