

## **Participatory Guarantee Systems (PGS) How PGS can Intensify Knowledge Exchange Between Farmers**

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Key words: PGS, knowledge, traditional, local, trust, cooperation

### **Author's Background**

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### **Summary**

*The significance and value of local and traditional farmers' knowledge on improving agricultural practices is gaining more and more recognition. Participatory Guarantee Systems have been shown to hold great potential, to encourage knowledge sharing between farmers, and thus contribute to nurturing farmers' knowledge. This paper is based on a study conducted by IFOAM among PGS initiatives from all continents and explores which tools are provided and utilized in PGS to facilitate knowledge exchange, what kind of knowledge is exchanged and how this impacts the farmers.*

### **Background: The importance of local and traditional knowledge**

Organic agriculture is a system, which can contribute to addressing various challenges such as poverty, climate change or biodiversity loss. Since organic agriculture is knowledge intensive, continuous learning and knowledge dissemination are crucial in order to implement innovations and be able to react to new situations and challenges.

Local and traditional knowledge have been denied legitimacy over a long period of time, at least in the western world. Until the 1990s, only scientific knowledge generated by researchers was recognized. This kind of knowledge was transferred mainly in a top-down, unilinear manner from the teaching scientists to the learning farmers. Knowledge dissemination relying solely on this approach has been criticized for unequal distribution of impacts and benefits of the technology and for reaching mostly better-educated and economically more powerful farmers (EUC 2011, Ingram 2012, Von Munchhausen 2012).

Today, the relevance of local and traditional knowledge has gained broad recognition. Farmers are no longer seen as passive recipients of information, but their practical experience and knowledge are now recognized and respected as valuable sources of information and means of innovation. Not only in the organic but also in the entire agricultural sector, processes involving various stakeholders in a participatory manner, such as farmer-to-farmer approaches, have been identified as indispensable tools for information dissemination. Farmer-to-farmer approaches have shown to be particularly useful in less industrialized countries among farmers in less privileged contexts (EUC 2011, Ingram 2012, Von Munchhausen 2012).

The principles of participation, empowerment and ownership of the problem play an important role in both the sharing and exchange of local and traditional knowledge. The approach implicates that, given the right conditions, information, mutual interactions and the opportunity; farmers will use their own knowledge and develop their own appropriate solutions to address problems (Ingram 2012).

Today, there is recognition that organic agriculture needs to be supported by diverse knowledge systems, which draw on both local and scientific knowledge. In order to enhance sustainable agriculture and environmental management, effective ways of exchanging knowledge between farmers and their stakeholders need to be identified (EUC 2011, Ingram 2012).

### **Main Chapter**

#### **Participatory Guarantee Systems as a platform for knowledge exchange**

Facilitating knowledge exchange can be a challenging task. To make it happen a number of prerequisites need to be fulfilled of which trust is among the most fundamental ones. Only if farmers trust each other will they share their ideas and experience. Important is also the availability of tools and opportunities to meet and to exchange knowledge. It is important to keep in mind that farmers represent diverse attitudes, capabilities and needs regarding the adoption of knowledge. Practices to facilitate knowledge sharing and dissemination have to fit the respective conditions and demands of the farmers.

As defined by IFOAM, "*Participatory Guarantee Systems (PGS) are locally focused quality assurance systems. They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange.*"

PGS, by definition, are systems that build on a high level of collaboration and information sharing between the individuals involved. It incorporates many components that can contribute to the creation of a favourable environment for knowledge exchange. Trust, horizontality, shared vision and transparency represent key elements of PGS, which help to create a setting where stakeholders do not feel like competitors, but rather show an attitude of supporting each other. A high level of interaction, knowledge exchange and a continuous learning process are key characteristics of PGS.

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The core question behind this paper is whether these ideals as described in the PGS key elements and features are also reflected in reality. Does PGS lead to increased knowledge exchange between farmers? The paper further analyses, which tools are used and provided in the different PGS initiatives, what kind of knowledge is shared and the actual impact on the farmers involved.

The paper is based on quantitative and qualitative data gathered by IFOAM from PGS initiatives on all continents. Quantitative data on knowledge exchange was collected during the Annual Global PGS Survey in 2013, a survey that involves all initiatives known to IFOAM. From the Global Comparative Study on Interactions Between Traditional Social Processes and Participatory Guarantee Systems (PGS), carried out by IFOAM between 2011 and 2014, qualitative data from nine PGS initiatives in seven countries on four continents was obtained. This data is complemented by a review of the respective literature, which includes material from past PGS projects implemented by IFOAM.

### **Local knowledge is particularly relevant**

PGS initiatives exist in many shapes and contexts. The size of PGS initiatives ranges from less than a dozen of farmers operating in a small regional scale up to national PGS involving thousands of farmers. The existence of an organic regulation and a national plan to support organic agriculture in a country and the stage of development of the organic sector influence the implementation of PGS. PGS can be administered by the farmers themselves, managed by a local NGO or by a wider range of stakeholders. This diversity also applies to the practices of knowledge sharing adopted by PGS initiatives.

All PGS initiatives that participated in the Annual Survey or in the Comparative Study on PGS reported on an intensification of knowledge exchange between farmers since the implementation of the PGS. Some PGS initiatives even promote cooperative learning and knowledge sharing as a key benefit of their PGS (e.g. Sapphire Coast PGS in Australia and Sistema ABIO in Brazil). From Nature & Progrès in France, which is the oldest PGS known and was founded in 1964, we learned that the desire to participate in knowledge exchange could be a main motivation for farmers to join the PGS. With regard to Nature & Progrès, it is important to mention that one of the main objectives for the creation of the organization was the establishment of a forum to exchange knowledge on production techniques.

The most common kind of knowledge that is shared between farmers participating in PGS is organic farming techniques and practices, including both traditional knowledge as well as innovations. Local knowledge and experience from fellow farmers that consider the specific characteristics of the soil, the climatic conditions and the market is particularly useful and relevant for farmers. Some PGS initiatives (e.g. Keystone in India, MASIPAG in the Philippines) mentioned that PGS functions as a key tool in preserving traditional knowledge or even re-establishing already almost-forgotten knowledge and practices.

Not only technical farming knowledge is shared between farmers. Through joint activities in many PGS initiatives, farmers share their skills and knowledge on other practical issues like marketing or food processing. Through participatory workshops or by working together on different issues farmers in the PGS network learn and cultivate their knowledge together. They also commonly share and exchange other practical information like suppliers of farm inputs or recipes. Another kind of knowledge frequently exchanged through PGS structure, which is considered as very useful complement to other kinds of knowledge, is specialized and expert knowledge. It is provided either by experienced farmers in the group or specialists (e.g. technicians, scientists) who are also participating in many PGS.

### **Peer reviews as the most valuable tool for knowledge exchange**

The creation of opportunities for farmers to share knowledge is a key strength of PGS. Throughout the initiatives from which data was collected the regular farm inspections by peer farmers were referred to as the most valuable tool for knowledge exchange in PGS. During the peer reviews, farmers discuss problems and challenges and give advice to each other. Being on the farm and taking the time to have a close look at the applied techniques allows the identification of good practices as well as weaknesses and possible improvements during the visits. It was also mentioned that using a well-created evaluation sheet during the inspection can be helpful in encouraging such discussions.

In many PGS initiatives farmers do not only meet for the farm visits, but they also hold regular meetings within the local groups. These can be related to specific activities like the election of representatives for the PGS councils or the development of a marketing plan or rather be informally aimed at socializing and knowledge sharing. The customs differ between the PGS initiatives. While in some PGS groups farmers do not come together in such meetings at all, there are many PGS initiatives where farmers come together in their small groups on a regular basis. At the minimum, annual meetings are envisioned by most initiatives. In some PGS groups where farmers practice joint marketing or sell their products together at a market, interactions can be even more frequent. In some initiatives where farmers live close together they might even help each other in regular farm work. For example in the Maendeleo Farmer Group in Tanzania, farmers who live in the same village help each other to build terraces.

Apart from regular group meetings, many PGS conduct trainings or workshops. These trainings are often organized to educate new members and to teach them both PGS procedures as well as organic practices. However, it is also common that trainings are organized for all farmers addressing general issues and challenges. Some PGS have established farmer field schools (e.g. Tanzania and India). Other tools that were mentioned by some initiatives to be useful for the promotion of knowledge exchange are online/digital platforms and PGS manuals. Some PGS have an active online presence, using tools like newsletters or online forums to exchange knowledge (e.g. Certified Naturally Grown in the US or Sapphire Coast PGS in Australia). This is particularly important for those initiatives with large distances between the farms and few personal meetings. PGS manuals and procedures were mentioned as beneficial tools for providing guidance to farmers and for exchanging knowledge on efficient PGS implementation.

### **Not only the farmers in a group participate and benefit from knowledge exchange**

Sharing of knowledge is most common and frequent between farmers in the local PGS groups. A number of PGS initiatives report that knowledge is shared not only between farmers in the group, but also with other organic farmers who are not (yet) participating in the PGS and even conventional farmers that live closely. That is how PGS can take over the important function to increase knowledge and awareness about organic practices in the region. Among other stakeholders who are frequently involved in the PGS, carrying out various roles, and thus participating in knowledge sharing are consumers, NGO staff, traders, government officials, students and representatives from the media. The type and frequency of involvement of these stakeholders differ between the PGS initiatives and depend on how the PGS is arranged, who conducts the inspection visits, how meetings are arranged and what marketing channels are used.

### **Farmer empowerment and improved organic techniques**

The Global Comparative Study on Interactions Between Traditional Social Processes and Participatory Guarantee Systems shows that farmer empowerment is one of the most remarkable benefits of PGS. This empowerment involves personal growth, strengthening of individual self-confidence and an increase in knowledge and skills. Women in particular are directly empowered through PGS, as they receive equitable access to training and technical support. Knowledge sharing between farmers is one core component contributing to this farmer empowerment.

Furthermore, the study indicates that PGS initiatives allow the development of organic practices by acting as platforms for farmer-to-farmer knowledge sharing. At the same time, PGS contribute to traditional knowledge maintenance and dissemination and empower farmers to make use of locally available inputs and breeds, contributing to improved natural resource management in the communities. The study additionally revealed that joining a PGS contributes to a wide adoption of different organic farming practices, resulting in improved natural resource management within the concerned areas and communities. These practices include: use of traditional seeds and breeding of local species, organic input production and use, tree planting and sustainable agroforestry, increased biodiversity through the incorporation of greater variety of cultivated species, vermicast production, contour plugging and mulching as well as crop rotation etc. (IFOAM 2014).

### **Challenges and limitations**

The top-down dissemination of scientific knowledge has been criticized to reach only the privileged, better-educated farmers. While as a result of this study it can be clearly observed that PGS play an important role in facilitating and encouraging knowledge exchange between farmers and that some initiatives are successful in reaching out especially to less-privileged farmers, there are also limitations in the reach of information in the different PGS initiatives. Some PGS reported about an unequal distribution of knowledge between farmers in their network. In South Africa for example it was reported that rural and less-educated farmers have little involvement in the knowledge sharing processes, many of them are only involved during the peer inspection of their own farms. This example shows that the reach of PGS is limited and does not always benefit all farmers equally.

In addition, it is important to keep in mind that all collected data derives from operational PGS initiatives. This means that cases where PGS failed, PGS is unknown or not being considered as the most appropriate model for the context are outside of the scope of the study and have not been researched. It is possible and likely that there are settings where success of PGS in facilitating knowledge sharing between farmers is limited. This could be for example in regions where competition of farmers is very high and the willingness to cooperate low. Another example could be a cultural background that does not favour the creation of trust-relationships between farmers and/or other stakeholders. Nevertheless, the result of this study is rather clear: PGS, even though one has to be careful to not consider it as a universal model appropriate for all contexts, can provide useful tools to farmers and has shown to benefit farmers and other stakeholders in many regions of the world.

### **Core messages and conclusions**

Knowledge dissemination is essential for farmers, particularly in the organic sector, in order to implement innovations and to react to new situations and challenges. Knowledge exchange enables farmers to learn from each other and from past experience. There is much unsatisfied demand from farmers to obtain more knowledge, information and training. This refers to both expert knowledge as well as local/traditional knowledge. Farmers, farming practices, growth conditions and cultural backgrounds are diverse and so are the needs for information, the types of information and information sharing and distribution practices between farmers.

PGS is one tool that can provide a valuable contribution. Being easily adaptable to local conditions it can create a favourable environment for the sharing of information and provides a set of tools to facilitate knowledge exchange. While locally technical knowledge is the most common knowledge shared by PGS farmers, the setup can be used to exchange various kinds of information. Knowledge sharing between the farmers in the local groups is most frequent, but PGS also has the potential to integrate a wider range of stakeholders in the process and contribute to an increased awareness about organic practices among consumers and other farmers in the region. Peer reviews were found to be the tool most valued for information exchange between farmers by initiatives around the world. But most PGS initiatives provide and implement a wider range of tools to be used by the stakeholders.

Having a closer look at knowledge sharing practices in PGS is useful for the organic sector, particularly in two regards: firstly, it provides encouragement and inspiration to other PGS initiatives, including the ones that are under development; secondly, most of the tools are not bound to PGS, but can also be adapted and implemented in other contexts. This way,

PGS can provide tools to intensify knowledge sharing among farmers, on one hand contributing to the development of the organic sector and on the other to the dissemination of good agricultural practices.

## References

- European Union Committee (2011): Nineteenth Report. Innovation in EU agriculture.  
<http://www.publications.parliament.uk/pa/ld201012/ldselect/ldecom/171/171.pdf>
- IFOAM (2007): Participatory Guarantee Systems. Shared Vision, Shared Ideals.  
[http://www.ifoam.org/sites/default/files/page/files/ifoam\\_pgs\\_web.pdf](http://www.ifoam.org/sites/default/files/page/files/ifoam_pgs_web.pdf)
- IFOAM (2008): Participatory Guarantee Systems: 5 Case studies from Brazil, India, New Zealand, USA, France,  
[http://www.ifoam.org/about\\_ifoam/pdfs/PGS\\_PDFs/Studies\\_Book\\_Web\\_20091030ILB.pdf](http://www.ifoam.org/about_ifoam/pdfs/PGS_PDFs/Studies_Book_Web_20091030ILB.pdf)
- IFOAM (2013): Sistemas Participativos de Garantía. Estudios de caso en América Latina  
[http://www.ifoam.org/sites/default/files/page/files/la\\_case\\_studies\\_color\\_print\\_fc\\_0.pdf](http://www.ifoam.org/sites/default/files/page/files/la_case_studies_color_print_fc_0.pdf)
- IFOAM (2014): Global comparative study on interactions between social processes and Participatory Guarantee Systems.
- Ingram (2012): Farmer-scientist knowledge exchange: an essay. Paul B. Thompson and David M. Kaplan (Eds.):  
Encyclopedia of Food and Agricultural Ethics. Volume 1. Springer.
- Katto-Andrighetto, Joelle (2013): Participatory Guarantee Systems in East Africa. Case Studies from Kenya, Tanzania and Uganda  
[http://www.ifoam.org/sites/default/files/page/files/pgs\\_in\\_east\\_africa.pdf](http://www.ifoam.org/sites/default/files/page/files/pgs_in_east_africa.pdf)
- May, Chris (2008): PGS Guidelines - How participatory guarantee systems can develop and function,  
[http://www.ifoam.org/sites/default/files/page/files/pgs\\_guidelines\\_en\\_web.pdf](http://www.ifoam.org/sites/default/files/page/files/pgs_guidelines_en_web.pdf)
- Von Munchhausen et al (2012): Lifelong learning for farmers: enhancing competitiveness, knowledge transfer and innovation in the eastern German state of Brandenburg. *Studies in Agricultural Economics*, 114/2, October 2012.

## Video Material:

- Eat Drink Explore (2013): Organic alternative: Certified Naturally Grown.  
<https://www.youtube.com/watch?v=ATbgfQWHVzQ>
- IFOAM (2013): PGS in Tanzania. The case of the Maendeleo Farmer Group.  
[https://www.youtube.com/watch?v=CGJdl\\_RRxPo](https://www.youtube.com/watch?v=CGJdl_RRxPo)
- Media One Vietnam (2013): PGS. A new way forward.  
[https://www.youtube.com/watch?v=RcUqlrmTD\\_0](https://www.youtube.com/watch?v=RcUqlrmTD_0)