UNIVERSITY OF HOHENHEIM

Institute of Agricultural Science in the Tropics (490)

Department of Social and Institutional Change in Agricultural Development (490c)

Success factors of PGS-based value chains:

A case study among smallholder farmers in Jharkhand, India

Master Thesis

M.Sc. Program Environmental Protection and Agricultural Food Production

Submitted by

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This work was financially supported by the foundation fiat panis.

Stuttgart Hohenheim, April 2019

1 Introduction

Worldwide organic agriculture is on the rise with increasing numbers of producers, hectares being cultivated, consumers and thus overall market volume (Willer & Lernoud, 2017; Willer, Lernoud, & Kemper, 2018). A lot of farmers, consumers and standards giving institutions advocate the perspective that organic agriculture is the original and most sustainable way of farming that should without exception strictly follow standards and regulations of organic associations and governmental institutions. In addition to other factors this includes the complete regulation and control of inputs such as the renunciation of mineral fertilizers and synthetic pesticides and herbicides (Bioland e.V., 2018; Nelson et al., 2015). Others argue that concepts such as integrated farming or other alternative forms of farming, which are considered sustainable, are at least as good as organic practices if not better. This is because they allow the use of e.g. synthetic pesticides to a certain amount and in more controlled ways and can thus help to avoid big yield losses, while still not excessively harming the environment as in the example of integrated pest management (Meissle et al., 2009; Tilman et al., 2002). There have been cases where certified organic farmers have stopped being certified because regulations were too bureaucratic, but nevertheless these farmers continue following these standards closely in their farming practices (Koesling & Løes, 2009).

However, consumers buying organic products demand trustworthy organic labels since they are not able to distinguish conventional from organic products (Janssen & Hamm, 2012; Roe & Sheldon, 2007). Further, consumers don't have the knowledge to judge the amount of pesticide input, including sustainable designated methods, and residues in food products on the market. In this context it is obvious that reliable systems of monitoring product characteristics and controlling mechanisms are inevitable (Sacchi et al., 2015).

Just after the beginning of the organic movement vague and trust-based guarantee systems including mechanisms, which assure consumers a veritably organic product, were established (Nelson et al., 2015). Those early certification systems functioned mostly on a voluntary basis using peer review and they were meant to preserve resources as well as protect products and consumers from fraud (González & Nigh, 2005; Seppänen & Helenius, 2004). Since then organic agriculture grew worldwide and the original peer review certification from the 1970s and 1980s have been reduced a lot (Nelson et al., 2010). Instead, farming practices and the respective certification

processes have been increasingly regulated by associations and governments, formulating guidelines for domestic and international markets worldwide (Seppänen & Helenius, 2004) which are monitored and certified by external control bodies. Today this is commonly referred to as third-party certification. This certification system might have promoted and even been necessary for the growth of the organic sector (Michelsen, 2001; Sacchi et al., 2015), but also hinders the adaption to situational problems (Michelsen, 2001; Säppenen & Helenius, 2004), as it generally offers only standardized solutions. An alternative certification system that is meant to be adapted to local conditions and situations of farmers are Participatory Guarantee Systems (PGSs). PGSs were first defined by the International Foundation of Organic Agriculture Movements (IFOAM). PGSs root back to the 1970s and 1980s and reflect the original functioning and concept behind early organic certification as described above (Fonseca, 2004). They aim to offer an alternative to extremely bureaucratic, costly, third-party, mainly organic certification to the economically vulnerable, food and nutrition insecure groups of smallholder farmers in developing countries (IFOAM, 2008; Rapsomanikis, 2015). Thus, PGSs potentially offer smallholder farmers an opportunity to market their produce more easily under a system of organic certification (Biénabe & Vermeulen, 2011) making it a potential means to reduce rural poverty among such farmers and increase nutrition security. Another difference to third-party certification where certifying bodies are presumed to be completely independent in all steps along a product's value chain (VC) (González & Nigh, 2005), is that monitoring and certification of farms within PGSs are carried out by peer reviews of farmers and sometimes even consumers (IFOAM, 2008). Further, because PGSs, aside from a rather loose definition from IFOAM, underlie only the rules and interpretations of involved stakeholders (IFOAM, 2008; Nelson et al., 2015; Sacchi et al., 2015), the system offers a certification instrument in between strict third-party certification and an absence of certification, adapted to the needs of its stakeholders. However, potential challenges within PGSs can result from difficulties and communication issues within stakeholder groups or between stakeholders (Home et al., 2017). This might also affect the certification process itself to which stakeholders, especially farmers, must get used to (Mutersbaugh, 2002; Nelson, Tovar, Rindermann, & Cruz, 2010). Also, some critics argue that certification based on peer review is too much influenced by trust and relations between peers and thus not as reliable as third-party certification which is why they reject the concept (May, 2008a).

1.1 Research gap

Farmers' motivations, benefits and some challenges of PGS are rather well studied in several countries (see 2.3) (Hill, 2016; Home et al., 2017; Nelson et al., 2010). Yet, studies on development processes and success factors of PGS-based VCs offering new marketing options for smallholder farmers are lacking (Home et al., 2017). This includes the identification of key stakeholders and their role in this process as well as measures to enable and ensure market access for farmers. Further, problems occurring within the development process and their problem-solving strategies remain understudied. Considering the various opportunities and benefits of PGS-based VCs for smallholder farmers in developing and transition countries, filling these knowledge gaps is of high importance and could help to further improve respective processes.

1.2 Objective

This thesis intends to examine the understudied success factors of establishing PGS-based VCs among smallholder farmers in the state of Jharkhand in eastern India. Principally, it strives to understand the functioning of PGS-based VCs as well as the role of various stakeholders in their development by addressing the following three objectives:

- Identifying stakeholders and key stakeholders and the type and extent of interlinkages between them for the implementation of PGS-based VCs
- Identifying success factors, problems and challenges of PGS-based VCs
- Evaluating how occurring problems and challenges during the process of establishing PGS-based VCs might be solved and which stakeholders are the main drivers for solving them

6 Conclusion

This case study was conducted to investigate and identify success factors of PGS-based value chains including key stakeholders and interlinkages between them. The research aimed to evaluate problems, challenges and potential solution strategies.

In India, the group of rather poor and nutrition insecure smallholder farmers oppose the group of middle-class consumers with increasing income and awareness regarding health and environmental issues. Combined with a government that not only accepts PGS as a valid form of organic certification but also promotes it through the PGS India program, the potential to bring both these groups together for a mutual benefit is high. The investigated case was a project that tries to support this process by aiming to increase smallholders' income by focusing on facilitating marketing opportunities beyond small local markets in farmers' living areas.

The results of this case study suggest that overall PGS is a promising means to promote organic agriculture for the domestic market in India. Considering the new mandate from the Food Safety and Standards Authority of India, the PGS India program is even necessary to give smallholder farmers a chance to participate in the country's organic market. The research revealed several stakeholders being essential for setting up PGS-based VCs. On the production side, these are not only farmers but also a farmer's business when the PGS strives for large-scale marketing. The market side is driven mostly by consumers, especially in (bigger) cities, which influence retailers that are the connection between the farmers' business and consumers. Promoting stakeholders who are in close contact with consumers plays an important role too. Confirming literature, local NGOs are an essential stakeholder interlinking all other stakeholders. In a social and infrastructural setting as in this case, NGOs or an equivalent supporting structure, might even be the most important stakeholder for the establishment of successful PGS-based VCs.

The proper functioning of linkages between stakeholders is important as all mentioned key stakeholders are required for solving the main challenges. Further, solving only one main challenge isn't enough to establish a PGS-based VC operating successfully beyond local/village markets as stakeholders and their needs influence each other.

Because of these close relationships between stakeholders and within stakeholder groups, trust plays a very important role in both direct and non-direct VCs. On the market side, measures to increase consumer awareness are essential and should accompany the whole process of setting up PGS-based VCs starting from the beginning. This includes consumers actively participating in the management of PGSs to reach spillover effects between consumers. To increase trust between farmers PGS group meetings are essential as they foster several social processes facilitating properly working interactions between farmers based on know-how and communication. According to Home et al. (2017) parallel social processes like sharing of knowledge and resources are an essential contribution and preservation of the long-term success of PGSs.

In addition, for stakeholders to be involved in the approval of farmers' certification decisions, being familiar with farming conditions and local circumstances is crucial as PGSs are designed to take these into account. Overcoming related obstacles such as limited time and monetary resources is a main challenge for guideline defining bodies. If this cannot be realized the system might tend to quickly become as inflexible and standardized as third-party certification.

Concluding the above-mentioned points, if

- stakeholders involved in a PGS have a proper supporting structure facilitating interlinkages and information,
- farmers' communication with each and having the knowledge and understanding of basic theoretical and practical principles,
- the demand on the market is given by consumers and retailers being aware of the special circumstances of PGSs and are willing to purchase/sell PGS products, and
- the PGS guidelines are not too bureaucratic but appropriate for smallholder farmers and transparent for consumers

PGSs have a high potential to serve many stakeholders as a balance between strict third-party certification and the absence of certification. PGS seems to be an important means to promote organic agriculture, not only in India, and especially among vulnerable groups of smallholder farmers in rural areas.