Archived at http://orgprints.org/111634

Organic agriculture and rural livelihoods in Karnataka, India

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Organic agriculture, sustainable livelihoods, rural development, India, Karnataka

Abstract

The research explored the effects a change from conventional to organic farming had on the livelihoods of a group of farmers in Karnataka, South India. It involved semi-structured interviews with organic farmers, NGOs, consumers, marketing organisations, and the State Agricultural Department. The farmers in the case study perceived that they had improved their livelihoods over the long term by the conversion from conventional to organic farming. Reduced costs for external inputs and reduced labour requirements together with similar or higher yields and premium prices resulted in higher net-farm incomes. The conversion to organic farming reduced the reliance on credits and the risk of crop failure due to pests, diseases and droughts, thereby reducing vulnerability. In addition, the farmers mentioned enhanced natural assets, reduced risk of pesticide poisonings, improved food safety, higher levels of self-sufficiency, and the access to networks supporting knowledge exchange and political participation as important benefits of the conversion. However, almost all the case study farmers noted that the conversion period was difficult due to temporarily declining yields and a lack of information and experiences. This is likely to be a major constraint preventing asset-poor farmers from adopting organic agriculture.

Introduction

Agriculture is the most important livelihood strategy in India, with two thirds of the country's workforce depending on farming. Most farmers are small and marginal farmers cultivating areas of less than two hectares. Increasing land fragmentation, diminishing natural assets, high costs for external farm inputs, indebtedness, and pesticide-related health issues have threatened the livelihoods of many farming families (NCF 2006, MSSRF & WFP 2004, Ninan & Chandrashekar 1993). While incomes in urban areas have risen, farm incomes in real terms have declined in many parts of India during the past decade. Since the 1990s, a growing number of farmers have adopted organic agriculture to improve the economic viability of farming and combat negative social and environmental side effects of conventional farming (Parrot & Marsden 2002, UNDP 1992). Organic farmers' groups and NGOs have formed an 'organic grassroots movement' that supports organic farmers, establishes organic marketing channels and tries to influence policies. However, institutional and scientific support for organic farmers has been limited until recently. A proper understanding of the effects, potential and constraints of organic farming is necessary as a basis for political decision making, the design of support strategies for farmers and further research. Therefore, the aim of the research was to explore changes in the livelihoods of a group of farmers in Karnataka, India that had converted from conventional to organic farming.

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Methodology

The research was inductive and qualitative, although some quantitative data was used to support qualitative findings. Issues that were not considered before were able to emerge, and aspects that were not able to be quantified were explored in depth. Semi-structured face to face interviews were carried out with 15 farmers who had converted from conventional[3] to organic agriculture. They were asked about income sources, land ownership, their motivations for adopting organic farming, factors that had supported the conversion, and their perceptions of what effects the conversion had on their assets, their livelihood outcomes, including income, health, nutrition and self-sufficiency, their vulnerability, and their external environment, including policies, institutions, and processes. The interviews were held in the farmers' fields and/or in their homes providing the opportunity to gather additional information by observation. After ten interviews, no additional information was obtained, indicating that the important issues had been covered.

Most organic farmers in India are not certified or registered in any way, but organised in farmers' groups or supported by local NGOs. Therefore, collaboration with GREEN Foundation, an NGO supporting small and marginal farmers in Karnataka, and Sahaja Samrudha, the Organic Farmers' Association of Karnataka, was chosen as a way to identify a sample of farmers. GREEN Foundation provided background information and Sahaja Samrudha the contacts to organic farmers. The selection of eight of the 15 interviewed farmers was based on a contact list provided by Sahaja Samrudha. These eight respondents provided the contacts to seven other organic farmers in their communities who could be subsequently interviewed.

In addition to the interviews with organic farmers, background information was gathered through a review of literature and NGO documents and semi-structured face to face interviews with representatives of NGOs, marketing organisations, consumers, and the State Agricultural Department.

Results

The major motivation for the interviewed farmers to adopt organic agriculture was their negative experiences with conventional farming, e.g. deteriorating natural assets, continuous pest and disease problems, high costs for external farm inputs, and health problems that were related to the use of pesticides. The field research identified two major assets or processes that facilitated the adoption of organic farming as a livelihood strategy: firstly, education and information, and secondly, material assets, e.g. large land holdings, savings or off-farm incomes, helping to overcome the conversion period. Figure 1 summarises the case study farmers' perceptions of the effects the change from conventional to organic farming had on their livelihoods.

The interviewed farmers perceived enhanced natural assets, e.g. improved soil structure, improved water holding capacity and increased abundance of beneficial organisms, as a positive effect of the conversion to organic agriculture. Enhanced natural assets were said to allow production with less amounts of external inputs. Through encouraging farmers to experiment and actively enhance their knowledge, and through providing access to organic farmers' networks that support knowledge exchange and social contacts, a conversion to organic farming improved the

[3] 'Conventional farming' or 'conventional agriculture' is a form of agriculture that includes the use of synthetic fertilisers and pesticides

interviewed farmers' human and social assets. Organic farming was said to be more in harmony with cultural values and contributed to the preservation and continuous development of indigenous knowledge, an important element of cultural assets.

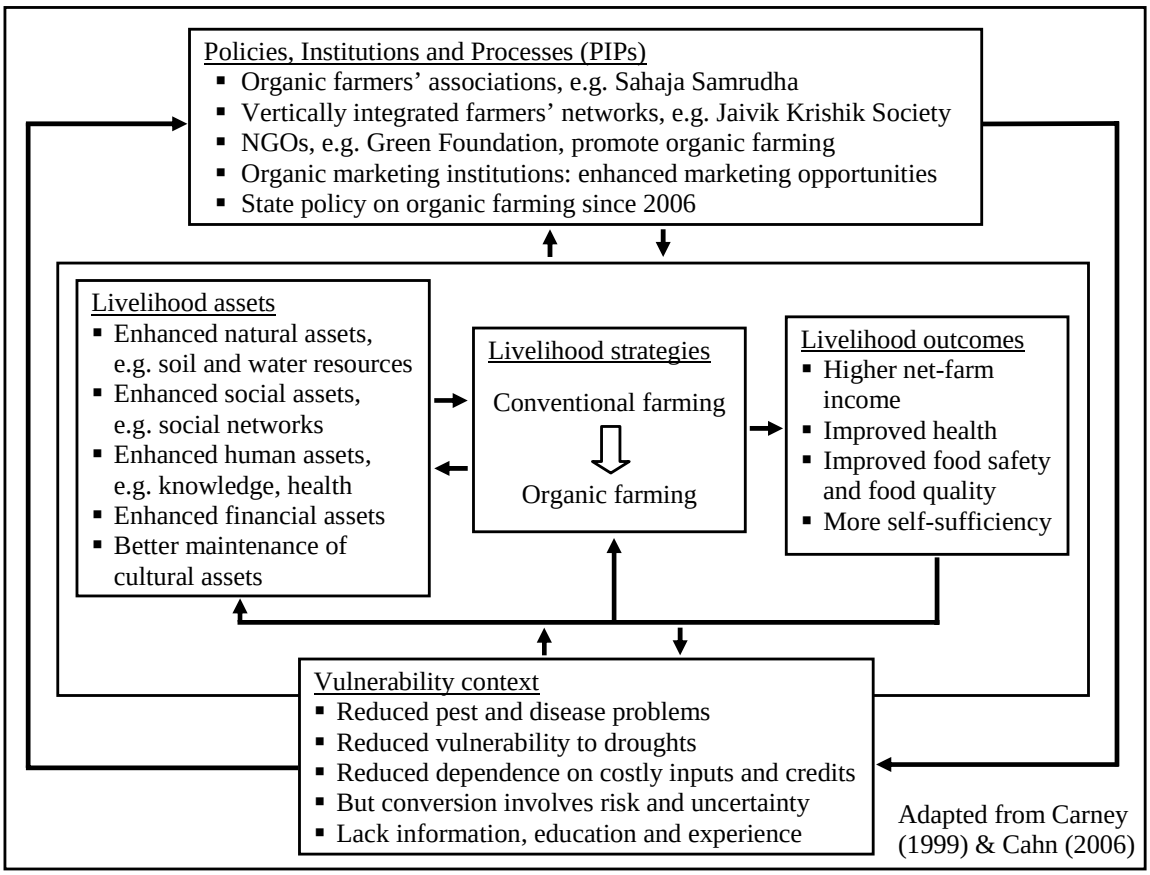

Figure 1: Summary of the effects a conversion from conventional to organic farming had on the livelihoods of the interviewed farmers in the case study

Reduced use of costly external farm inputs and lower labour requirements reduced production costs on all farms in the case study. This together with similar, or in some cases, higher yields improved net-farm incomes. Improved net-farm incomes enhanced the farmers' financial assets, contributed to reduced vulnerability, and provided the potential for investments in physical assets, such as drip irrigation systems. The exclusion of synthetic pesticides was said to improve food safety, to eliminate the risk of health hazards through exposure to pesticides, and hence to improve human health. Improved health is not only a livelihood outcome, but also an important human asset, in that it determines the ability to labour. Many of the interviewed farmers perceived higher levels of self-sufficiency as an important benefit of organic farming. They pointed out that the conversion to organic farming reduced their costs for farm inputs and thus the need for credit, which is a major source of vulnerability for farmers in Karnataka. In addition, many farmers in the case study perceived that the conversion had reduced their vulnerability to pests, diseases and droughts over the long term.

Until the early 1990s, institutional and political structures and processes did not provide any support for organic farmers. Since then, a growing number of farmers have adopted organic farming, and together they have changed the political and institutional environment. Organic farmers' associations and vertical networks provide platforms for the exchange of knowledge and expertise, and enable farmers to

influence policies. The creation of separate organic marketing channels has improved marketing opportunities, and a number of NGOs and a recently introduced state policy support organic farming. The interviewed farmers perceived that the change from conventional to organic farming had improved their livelihood sustainability, not only environmentally, but also economically and socially. Without exception, all farmers expressed satisfaction regarding their decision to convert to organic farming.

However, the conversion process itself involved high levels of risk and uncertainty, and in many cases, farmers faced the problem of temporarily lower yields for a conversion period of one to three years. In addition, organic farming was said to require more knowledge about agro-ecological processes than conventional farming, which can be a major constraint for farmers to successfully adopt organic agriculture.

Discussion and conclusion

The organic farmers in the case study perceived that the conversion from conventional to organic agriculture had improved their livelihoods in a range of ways. They pointed out that over the long term the conversion had improved their net-farm incomes, reduced the risk of pesticide poisonings, lead to more self-sufficiency, improved food safety and reduced vulnerability, and improved the access to networks supporting knowledge exchange and political participation. However, risk and uncertainty related to the conversion period, such as temporarily declining yields and the lack of experiences and information, were mentioned as major constraints preventing in particular asset-poor households from adopting organic farming. To date, lack of institutional extension and educational material on organic agriculture require farmers to rely on their own knowledge and farmers' networks. This was highlighted as self-sufficiency in knowledge and expertise by knowledgeable farmers, but might be a major source of risk and uncertainty for others.

Acknowledgments

This research was carried out as part of the Master programme 'International Rural Development' at Lincoln University, New Zealand. I want to extend a very sincere thank you to the staff of Lincoln University who contributed to this programme, to Sahaja Samrudha and Green Foundation, and to all research participants in India.

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