

# THE ROLE OF ORGANIC ENTREPRENEURSHIP AND INNOVATION FOR POVERTY ALLEVIATION AND DEVELOPMENT

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## **Introduction:**

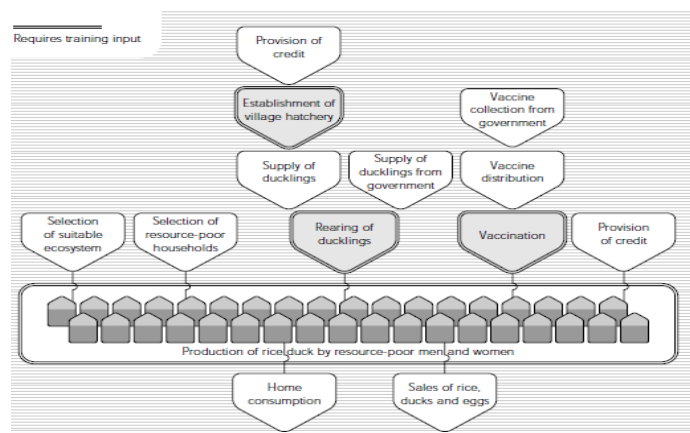
Agricultural production from small farms is currently meeting the food needs of one-third of the world population. Agriculture in Asia is characterized by small holders of farmland with an average size of less than 2 hectares (80% of total farms). These small-scale farmers are challenged by increasing cost of production and decreasing profitability. They cannot afford high input agriculture, such as available chemical solutions for their crops and therefore, by default, most of them are operating as organic farmers but yet they are not fully organic. There is ample opportunity to help these marginal farms become fully organic and in turn profitable enterprises by introducing organic farming practices. To do this there is a need for policies and strategies which are pro-poor and pro-organic. Millions of small farm enterprises could be included in larger scale organic farming which would give producers profit from agriculture and transform them from subsistence to more viable farming enterprises.

Poverty remains an enormous problem worldwide with over 800 million people in Asia alone living in abject poverty with nearly 20 million children either malnourished or undernourished. Reducing poverty, in all forms, is the greatest challenge for the developing countries and for the international community. Of the world's 6 billion people, 1.2 billion live on less than one dollar a day and 2.8 billion live on less than two dollars day. The population of Bangladesh which is below the poverty line is 31.51% according to HIES-2010 (BBS, 2011) with a majority of rural households being functionally landless. To address these challenges, what is needed includes: concerted public-private partnership supported by innovative policies and strategies; the development of supportive markets; standards for organic production; and value chain development. Such changes would contribute to poverty alleviation far more effectively than conventional agricultural intervention projects, such as subsidies, mechanization or high input agricultural practices.

## **Bangladesh case studies**

Integrated rice-duck farming: It is a low-cost, organic farming method for small entrepreneurs in Bangladesh. By raising ducks on rice paddy, no chemical fertilizers or pesticides are required, a 20% higher crop yield is obtained and net income, on a cash cost basis, is increased by 80%. The ducks effectively control insect and weed populations in rice crops which encourages cleaner organic agricultural practices (Hossain *et al*, 2005). The ducks also add value and provide another source of income for farmers and farm families. Higher income from the rice-duck system is generated in three ways namely: the higher rice yield; the reduced cost of production; and the

additional income from the ducks. Small-scale farmers are gaining benefits from rice-duck farming practices and the following entrepreneurship web shows the opportunities of this technology in Bangladesh (Khan *et al.*, 2005).



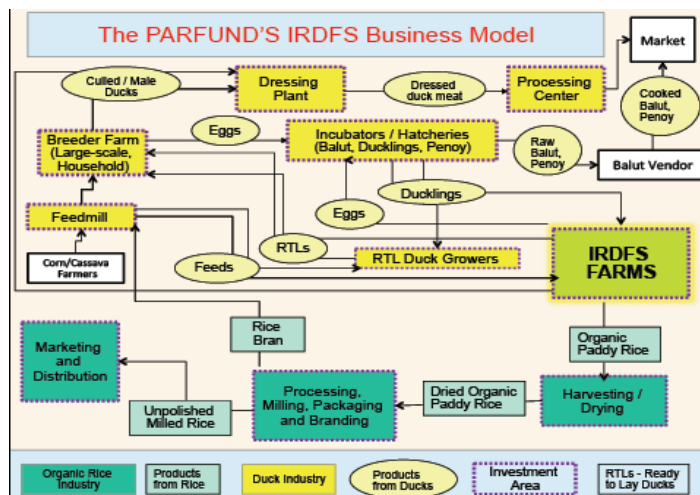
**Vermin-compost:** The use of vermin-compost is one of the most sustainable low cost technologies to achieve productivity gains and profitable business on small farms in Bangladesh (Hossain *et al.*, 2012). It has been observed that on an average profit was BDT 9420 per year can be obtained from two rings in addition to other environmental benefits such as soil health improvement. The farmers benefit in two ways: the first is the availability of vermi-compost for their own domestic use; and the second is from the sale of earthworms and compost to neighboring farmers and markets.

### **Key Constraints for expanding these opportunities**

Both duck-rice farming and vermin-compost have demonstrated that organic farming can be profitable businesses in the Bangladesh context. However, small business expansion is constrained by identified limitations including that: organic producers have limited access to the market; and that they lack the organizational arrangements, such as cooperative or community-based organization, to participate in the market supply chain. It is understood that if development and poverty reduction are to be achieved, small farmer producer groups need to be united and involved in the organic market supply chain. There have been some successful cooperative models in Bangladesh since 1960s, but it was not widely adopted amongst farmer groups due to management problems both from the government as well as the field sites and lack of trust among the members or leaders. Today the challenge is to overcome identified cultural and social barriers to the adoption of a cooperative based approach.

### **Success examples of some other countries**

Rice-duck farming can provide opportunities at many levels. It can be adopted by a range of agencies including private companies, NGOs, government agencies and farmer cooperatives. It can also be adopted at the individual farmer level including opportunities for local duck breeders and hatcheries. It can contribute to a range of organic rice and duck products including eggs and meat. Downstream opportunities can include organic rice and duck product packaging, branding and distribution. Rice-duck farming is becoming a successful business in the Philippines supported by the PARFUND Foundation in northern Mindanao and other regions (Source: Personal communication with PARFUND).



India has the highest number of organic growers in the world (FiBL, 2011) and most of them are small-scale. In India, bio-fertilizers are an important component of agricultural innovation systems, or bio-innovations. Two successful bio-innovations include: *Rhizobium* for Soybean production in Madhya Pradesh and *Azospirillum* to help improve the major crop yields (especially rice) in Tamil Nadu. Both these bio-innovations have been particularly studied for ‘Poverty relevance’ and hailed as inclusive of the poor, as both poor and non-poor households benefit equally with lower production costs given the economies of scale due to the low costs involved in biofertilizer production as compared to chemical fertilizers (Sangar, 2011).

In recent years, Japan and South Korea have successfully operated a cooperative approach for their growers including the Japan Agricultural Cooperatives (JA) and the South Korean Hansalim model.

### Hansalim model of South Korea

Hansalim is a cooperative nonprofit association of Republic of Korea that produces environmentally friendly, organic products and organizes direct trade between farmers and consumers. It is Korea’s biggest consumers’ cooperative founded in 1986 as a single grocery store. It now has 284,000 consumer members, 2000 producer members, 328 employees, 131 stores and a turnover of \$160 million in 2009. Hansalim’s producers own their own farms and/or processing facilities and all Hansalim products are delivered from production sites to consumers directly through the distribution center without any commission based sales. In an effort to support sustainable agriculture, payments to producers account for 76% of the price structure (Hansalim, 2013).



### Conclusion

The challenge facing small-scale organic farmers to develop cooperative arrangements to enable access to the market supply-chain differs widely between countries. Simple

technologies such as rice–duck farming or vermi-compost production are already demonstrating that such access could be used to lift very poor households from extreme poverty. However, extension and improved practices are required to improve the domestic organic market with initiatives such as: public-private partnerships; improvement in consumer trust in product quality; and farmer cooperation. Bangladesh can learn from the experiences of Hansalim and adapt the model to its own situation.

A poverty focus is often missing from the agendas of the key agencies and organizations. Pro-poor institutional innovations analysis is relevant as it helps in identifying areas where positive change is taking place to advance sustainable rural livelihoods, social inclusion and building on initiatives that are already successfully in place. Nevertheless, organic production is the one of the fastest growing agricultural markets due to consumers' increasing concern about their health and the environment. This provides the opportunity to educate consumers in the production and availability of organic food. For such to happen, sustainable market development it is required to develop an effective communication for both growers and consumers to achieve a win-win situation. Hansalim has been working under the slogan, 'producer takes responsibility in consumer's life and consumer takes responsibility in producer's livelihood'. To establish an effective organic enterprise, the local government can be an important partner into a joint venture agreement with the cooperative organizations as a viable social enterprise that will result in the triple bottom lines of business viability, community prosperity, and environmental protection.

There are numerous questions regarding technologies for reducing poverty in the future, particularly for small and marginal levels. It can make a tremendous impact to improve the livelihoods of poor peoples and have benefited the rich than the poor, landed than the landless and men rather than women. Effective innovation processes require long-term engagement between policy-makers and communities and practice-led research can play a central role in ensuring that people living in poverty benefit from innovation processes through critical collaborations and the development (Nelson, 2011).

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