



What does the future hold for the next generations
of poor farmers?

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Chapter 9

Food for thought

Throughout this book we have presented the results of a major study on farmer-led sustainable agriculture in rice systems. The study, one of the largest undertaken on rice-based systems and the largest ever done on sustainable agriculture in Asia, has looked at a range of diverse impacts, all of which point to the tremendous potential of a farmer-led sustainable agriculture approach. Rice and rice-based agricultural systems are of major importance to feeding and sustaining our world. Rice is a crop grown largely by small-scale farmers who make up 80 percent of total producers. More than two billion people depend upon rice and rice-based systems for their economic livelihood (FAO 2004). A study on the food security, environmental and income implications of a sustainable agriculture approach is of clear importance.

Given the vital nature of the results presented in this book, we end with a discussion of conclusions and lessons. In this chapter, we work with a simple guiding question: What can be learnt from the study? The impressive success of the farmer-led sustainable agriculture approach outlined throughout the book has much to teach us.

Our intent is to be both exploratory and learning-focused. We do not claim to have found or highlighted all the valid lessons that can be learnt from this case. Rather, our aim is to promote further discussion, to encourage open reflection and facilitate debate.

While the farmer-led approach documented in this study provides an excellent model, it should not be treated as a recipe book for success. It is important to recognise the need for flexibility and locally specific approaches. There is no one-size-fits-all solution. Indeed, if solutions are to be bottom up, the idea of a prescriptive formula is an anathema. Yet there are underlying features that are broadly applicable: the need to attend to the role of farmers and for a commitment to an integrated, socially just, and environmentally sustainable approach. It is with this in mind that we have developed some 'food for thought' emerging from the study. We have divided the chapter into sub-chapters to address key stakeholders directly. We begin with some food for thought for sustainable agriculture organisations, move on to donor organisations, review the role of policy makers in governments and on trade, and provide some reflection for development economists. We conclude with a discussion of climate change.

Food for thought for sustainable agriculture programs

The empirical data presented in this report provides sound evidence that a farmer-based sustainable agriculture approach is very effective in alleviating poverty and improving the livelihoods of its practitioners. The research questions in this study that have investigated food security, household income, indebtedness, health, environment, and vulnerability to climatic hazards show, almost without exception, a marked advantage with the organic system.

What are the most important elements that make this success story possible? This is not an easy question to answer. Organic farming is a holistic concept that thrives on a complex approach. Nevertheless several aspects are striking about the MASIPAG case presented. These could be interesting for other sustainable agriculture organisations.

MASIPAG is a truly farmer-led organisation. Farmers have majority representation at all levels of the organisation. This is

not something unique to MASIPAG. The key feature, however, is that MASIPAG has created an organisational culture of respect to farmers. The staff in the secretariat act as facilitators, not implementers or experts. The farmer trainers are responsible for the majority of training activities. Staff play a support role and sometimes transfer new external experience into the network. They facilitate and ensure participatory learning and development processes, develop the centrality and leadership of farmers in decision-making, build the capacity of leaders and people's organisations and elevate skills and experiences to higher levels. Other network participants also work in a synergistic partnership that is always underpinned by and oriented towards the farmer members. The associated NGOs and scientists provide additional inputs and help enrich discussion. They also help translate some of the farmer ideas and innovations into a more scientific language, share results with a broader audience and test innovations on a broader scale. This close interaction and regular dialog fills the network with life and encourages farmers and other collaborators to work hard and advance the organisation towards their joint vision.

Another key feature of MASIPAG is its farmer breeders. The great number of farmer breeders and the quality and performance of their rice selections are outstanding. Their successes are readily acknowledged by outsiders in ways that give network members pride in their achievements. The focus on breeding elevates the awareness of the value of seeds and the need to maintain biodiversity. This awareness propels an active sharing of seeds and other planting materials so that biodiversity is not only talked about but achieved concretely. It is not the external donor-funded implementing agency that hands out seeds, but it is the farmers that possess the skill and experience to develop them. The approach both encourages seed sharing and the revival of traditional knowledge, and builds new experiences through active sharing and engagement with innovation. Farmers are no longer mere knowledge and technology recipients but active knowledge creators. If participatory breeding could be successfully introduced in other sustainable agriculture organisations, this could contribute to significant farmer-based social and

environmental change.

The holistic nature of the program is also noteworthy. The organisation combines social, environmental and economic aspects in an integrated way. The organisation's work is underpinned by a commitment to farmers' rights. Its focus is not one of charity but of respect and recognition for the rights of farmers. Collective action, through peoples' organisations and at the level of the network as a whole, is also key. Collective action helps with empowerment. It finds a manifestation, for example, in the increase of *bayanihan* or communal labour among organic farmers and in organising marketing groups that help farmers engage in the market on more favourable terms.

Food for thought for donor organisations

The results of the study clearly indicate that organic farming is the best strategy to promote food security. The claims that high-tech agriculture and genetic engineering are indispensable to feed the world are falsified. The study results thus suggest the need for increased donor support to sustainable agriculture programs. Funding of conventional agriculture should be gradually phased out or reoriented towards sustainable farming.

The study also points to the benefits of a participatory approach. The 1990s saw the emergence of many participatory tools to facilitate a bottom up approach to development work. These tools, however, remain peripheral to many development efforts and project planning and implementation are often top down. Project beneficiaries need more influence in the design and implementation of projects. The farmer-led approach developed by MASIPAG could provide a model for implementing an appropriately participatory system. All rural development programs should facilitate the empowerment and self-determination of farming communities. Development should not be imagined, designed or conducted on behalf of farmers but by them.

Development assistance can be driven by fads with frequent policy and concept changes. What is required is a clearer long-term orientation and commitment to partners. The study shows that long-term orientation pays back. Misereor has supported MASIPAG

for more than 20 years. This has permitted a good partnership to develop with strategies that have improved over time. However, this case is rather rare. The main paradigm is that assistance must be phased out after a certain period of time. Very often the timeframe is too short. For example most programs of the European Union run for three years with the possibility for one single extension. These funding cycles are not conducive for sound, long-term sustainability-oriented or partnership-based development work.

The study results show positive outcomes for the poorest farmers through a farmer-led sustainable approach though more work is still needed in this regard. Facilitating improvements in the lives of the poorest means incorporating them in the management, design and implementation of projects. This way, projects are specific to their needs and their knowledge and energies are respected.

Food for thought for policy makers in governments

The study results are a clear call for governments to support sustainable agriculture. The empirical evidence reveals that sustainable agriculture provides much better food security, better health and better income outcomes. At the same time, it offers substantial potential to reduce climate change emissions from agriculture.

Policies are needed to enable a gradual transition from conventional to organic farming. Conventional, high input farming and the 'green revolution' were phased in on a major scale beginning in the 1960s, a period of only 50 years. In a similar way, these technologies need to be phased out and replaced by environmentally sound farming practices in the coming 50 years.

Government involvement is needed both to remove the existing barriers to sustainable agriculture and to put appropriate support in place. There is a significant groundswell in grass-roots support for sustainable agriculture as farmers, farmer organisations and consumers attempt to pursue sustainable policies. An important government response should be to remove the policies that

compromise the ability of farmers and farmers' groups involved in promoting organic agriculture to meet their goals. These include seed programs that support only the use of hybrid and non-farmer bred varieties, programs that involve free or subsidised distribution of chemicals, and subsidies that support export-oriented approaches thereby distorting the market for other farmers.

To fully and appropriately support the movement towards sustainable agriculture, governments must not only remove subsidies and distortions that support conventional farming but should develop policies that actively support a pro-sustainable approach. There are many potential avenues for appropriate support including new regulations, incentives, appropriate research, taxation and education to support sustainable initiatives. Conventional farming could be penalised by increasing taxes on fertilisers, pesticides and imported feeds. Research on non-sustainable approaches should not be supported with public funding. Rather, funding should be directed towards sustainable, pro-farmer approaches.

Government policies need to take an integrated approach and not view organic farming in a limited, technological way. The MASIPAG experience reveals the importance of pro-farmer policies that support the innovations and knowledge of small farmers. Such policies should be based on a recognition of farmers' rights, should encourage diversity and build the empowerment and self-determination of small farmers. Pro-poor policies must include genuine land reform and provision of resources, and should support the development of small-scale locally adapted and locally focused agricultural systems.

Finally, appropriate structures are needed to allow farmers to have a role in decision making and the design of appropriate policies. The MASIPAG network reveals the successes possible when farmers are involved in the management, planning and implementation of programs. These lessons can be applied to government policy by allowing farmers to lead policy generation in ways that centre the knowledge and experiences of farmers in sustainable agriculture.

Food for thought for policy makers on trade

The results of the study not only indicate the success of farmer-led, sustainable approaches, they also are a clear condemnation of export oriented, market-based high input agriculture. The experiences of conventional farmers reported in the research are extremely concerning. These farmers have experienced stagnating incomes and express a sense of powerlessness. Clearly, the existing system needs to change.

A fundamentally different approach to trade is needed. A reliance on distant markets, at the expense of farming households, is clearly not the way forward. The results suggest that food sovereignty, farmer control of production and an orientation towards subsistence and place-based agriculture is a much more efficient and appropriate approach. A commitment to food sovereignty that promotes the rights of communities to determine not only what they eat but how they produce it should underpin engagement in trade. Trade should support, not undermine, the evolution of small-scale, vibrant and diverse local agricultural systems.

The income results of the study further emphasise the potential role of sustainable agriculture in improving the balance of payments situation of developing countries such as the Philippines. Not only are imports reduced through reducing or eliminating the need for importation of fertilisers, pesticides and fossil fuels, but the farmer-led sustainable agriculture approach was seen to generate greater income per hectare. This means that the Philippines is actually losing GDP as a result of its orientation toward conventional agriculture.

Food for thought for economists

The results also provide food for thought for conventional economists. There are several lessons and challenges that emerge from the research. Economists, in recent decades, have played a prominent role in world affairs. Economists represent the majority of staff in international institutions such as the International Monetary Fund and the World Bank. Economists hold senior

positions in consultancy companies, in policy institutes, in governments and in the private sector. The current President of the Philippines, Gloria Macapagal Arroyo, is also an economist by training.

Peter Senge (2006), one of the world's leading management consultants, draws attention to the fact that the behaviour of managers is determined to a great degree by mental models that build up during education and exposure to society. During working life, these mental models become more and more part of the sub-consciousness. Their validity is rarely questioned by the individual. He warns that such fixed mental models deter the individual or entire working teams from open analysis and taking appropriate action. In response, Senge calls for systems thinking. This is a call that is supported by the results of the study. Systems thinking not only improves our mental models (what we think) but it alters our way of thinking: shifting our mental models dominated by events and simple linear cause-effect relationships to mental models that recognise longer-term patterns of change and the underlying structures that produce those patterns.

The study calls for an integrated and systems approach. The multifaceted benefits gained by organic agriculture cannot be understood in isolation from each other. Rather, attention to all elements – social, ecological and economic – is needed. These factors create synergies that allow the model to work. Ecologists and organic farming practitioners have always been at the forefront of systems thinking, demanding a more holistic world view. They warn that current world economic trends are unsustainable and are geared towards short term profits in ways that ignore complex ecological cycles and inter-relationships.

Another striking point for reflection is the failure of current approaches. With declining incomes and a lack of empowerment, conventional farmers, many of whom have diligently followed the most 'economically correct' path of high-input, specialised agriculture, have been let down by the current economic orthodoxy. A lesson from the MASIPAG farmers is the need to look at total farm productivity and subsistence, as well as integrated health, environmental and social outcomes, when making management

decisions. This allows most organic households, unlike the households of conventional farmers, to achieve positive cash balances for the year. For conventional farmers, their experience is one of increasing indebtedness.

Finally, the environmental and social issues associated with a high-input, ecologically and socially exploitative approach should no longer be considered externalities within the economic system. This problem has been criticised by environmental groups for decades.

Food for thought on climate change

Climate change will lead to more frequent incidents of drought, heavy storms and other extreme climatic events. The development budgets for disaster relief have expanded significantly in the recent past. Unfortunately such policies are necessary, but they just represent repair work. With advancing climate change, the costs are likely to rise astronomically. An investment in organic farming is one important prevention policy both for its ability to mitigate climate change and for its role in enhancing the resilience of farming communities in the face of climate stress.

Mitigating climate change is a complex problem, potentially the most important challenge to humankind today. It cuts across all countries in the world and affects all domains of human activity in direct and indirect ways. Clearly many solutions are needed on a global scale.

The results of the study show that organic agriculture provides a way of reducing the climate change impacts of farming. Farmer-led sustainable agriculture supports food security and enhances incomes in an ecologically responsible way. The approach also encourages resilience and promotes adaptive mechanisms. Indeed, the study shows that valuable adaptive systems are already being practiced. The diversification of crops and rice varieties and the development of integrated farms create more resilient and secure agricultural systems. Land managed sustainably will improve microclimates while an increase in on-farm diversity provides greater economic resources, better security and improves the capacity of farms to withstand extreme climatic events. The social

mechanisms in place through the network also support the ability of farmers to respond flexibly and quickly to stresses. The message is clear; support is needed for small-scale farmer-led sustainable approaches.

The documented experiences of increased extreme weather events such as typhoons, droughts and floods point to the urgent need for climate mitigation measures at an international scale. Industrialised nations need to start serious reduction programs now and develop the legal, social, and technical solutions to minimise their disproportionate impacts on the climate, the consequences of which are felt hardest by the world's poor and vulnerable.

Conclusion

The farmer-led sustainable agriculture approach documented in this book is a clear cause for hope, not only for small-scale farmers seeking solutions but to all of those who care about our world. While it can often seem like solutions and alternatives are few and far between, the impressive success of this movement reveals that real progress is being made. This is not progress created in the laboratories of corporations, in the parliaments of rich country governments or in the halls of diplomatic institutions, it is progress imagined and created in the fields of small scale farmers in the Philippines. This is an amazing achievement and these farmers must be respected and supported.

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Acronyms

APM	Alternative Pest Management
BAS	Bureau of Agricultural Statistics
BDSI	Balay Dabaw Sur Inc. in Davao Sur, a cooperating NGO partner of MASIPAG
BIGAS	Bahanggunian ng mga Isyu Hinggil sa Bigas
BURF	Back Up and Research Farm
DIFS	Diversified Integrated Farming System
FAO	Food and Agriculture Organization
HYV	High Yielding Variety
IBON	IBON is a research-education-information development institution
IPCC	Intergovernmental Panel on Climate Change
IRRI	International Rice Research Institute
LU	Labour Units
MASIPAG	Magsasaka at Siyentipiko para sa Pag-unlad ng Agrikultura (Farmer-Scientist Partnership for Development)
MFGS	MASIPAG Farmers Guarantee System
NCD	Newcastle Disease
NGOs	Non-Governmental Organizations
POs	People's Organizations