



**Organic Agriculture:
An Empowering Development
Strategy for Small-Scale Farmers?
A Cambodian Case Study.**

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Abstract

This thesis explores claims that organic agriculture may be an empowering development strategy by investigating the impacts of conversion to organic farming systems on the lives of small-scale farmers in Cambodia. The thesis interrogates the diverse uses and abuses of the term ‘empowerment’ in development rhetoric and argues for an empowerment model that is derived from farmers’ self-defined concepts of development. This model was used to conduct a qualitative case study involving semi-structured interviews and focus groups with members of organics initiatives in seven diverse Cambodian communities.

Results indicate that many farmers in all communities felt that their most important objective was not only to achieve food security, but to be able to grow sufficient rice to feed their family. Farmers joined the organics initiatives primarily to improve their health and reduce the cost of farming inputs. As a result of joining the initiatives, all farmers (including both certified and non-certified organic farmers) felt they had improved their health and food security. Most farmers also increased incomes, created stronger family and community ties and felt they had more control over their livelihoods. These benefits were not, however, distributed equally amongst individuals or communities. Very poor and isolated farmers could not generally access benefits. The three main factors that determined the impact of the organics initiatives on farmer empowerment were identified as: the individual’s level of resources, the strength of the farmer group, and the policies and values of the supporting organisation.

The implications for future initiatives are, firstly, the tremendous potential for farmers and wider rural communities to benefit from organic agriculture as a development strategy. However, this study also shows that if organics is to be viable for low-resource people, it may be necessary to promote both resources and techniques in organics initiatives. Also, a focus on building strong relationships both within the farmers group and linkages with local and wider stakeholders may enhance long-term sustainability of organics initiatives.

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Abbreviations

ADB	Asian Development Bank
AFA	Asian Farmers Association
AFN	Alternative Food Networks
ANT	Actor Network Theory
ANU	Australian National University
AUSAid	Australian Government Overseas Development Agency
CEDAC	Centre d'Etude et de Developpement Agricole Cambodgien/Cambodian Centre for Study and Development in Agriculture
COraA	Cambodian Organic Agriculture Association
DFID	UK Department for International Development
DK	Democratic Kampuchea (Pol Pot's political party)
EM	Effective Micro-organisms
EU	European Union
FAO	Food and Agriculture Organisation
FFS	Farmer Field Schools
FSR	Farming Systems Research
GAD	Gender and Development
GCC	Global Commodity Chain
GDP	Gross Domestic Product
GMO	Genetically Modified Organism
GTZ	Deutsche Gesellescha fur Technische Zusammenarbeit (German federal Development Agency)
IDRC	International Development Research Centre
ICS	Internal Control Systems (peer review inspection process for organic certification)
IFAD	International Federation of Agricultural Development
IFOAM	International Federation of Organic Agriculture Movements
ILO	International Labour Organisation
IMF	International Monetary Fund
INGO	International Non-Governmental Organisation
IPM	Integrated Pest Management
IRRI	International Rice Research Institute
JICA	Japan International Cooperation Agency
MDG	Millennium Development Goal
MFI	Micro-Finance Institution
MoC	Ministry of Commerce
NAP	Natural Agri-Products
NEDC	Network of Eco-agricultural Development Cambodia
NGO	Non-Governmental Organisation
OFNZ	Organic Farm New Zealand
ODI	Overseas Development Institute UK
PDA	Provincial Department of Agriculture
PRA	Participatory Rural Appraisal

PRK	People's Republic of Kampuchea (Government established following 1997 constitution)
PRSP	Poverty Reduction Strategy Paper
QOL	Quality of Life
RGC	Royal Government of Cambodia
SDC	UK Sustainable Development Commission
SOP	Systems of Provision
SRI	System of Rice Intensification
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNHDI	United Nations Human Development Index
US	United States of America
WED	Research group on Wellbeing in Developing Countries
WFFS	World Forum for Food Sovereignty
WHO	World Health Organisation
WID	Women in Development
WTO	World Trade Organisation

Chapter One: Introduction

I want to share this with the next generation. I want them to learn about organics; I want them to live without chemicals (V2F5).¹

Introduction

The current global food system may produce impressive quantities, but its inaccessibility to the hungry and the environmental costs it brings have demonstrated its limits. Supplies of water and productive land are dwindling. Terms of trade for commodity producers continue to decline alongside the increasing power of multi-national retailers and seed/chemical companies. Many small-scale farmers in developing countries feel powerless against these forces (KIT et al., 2006). Farmers are forced to farm more intensively on smaller areas, further promoting environmental degradation and causing families to spiral into debt. Poorer producers in isolated areas—who have often been ignored in rural development initiatives—may be the worst affected as increasingly they can neither take advantage of market opportunities nor produce enough food to feed their families. New biotechnology initiatives may raise productivity in some areas, but the ability of farmers to control what and how they grow may be negatively affected.

Rural people around the world are calling for governing institutions to respond to their plight by helping them gain back control over their own development. In 2007, a delegation of more than 500 farmers from 80 countries held a World Forum for Food Sovereignty (WFFS) in Mali, Africa, at which they signed a pledge demanding not only food security and fair market prices but ‘food sovereignty’. This concept originated from the ‘La Via Campesina’ international peasant movement in the early 1990s, and represents a strengthening global force of people demanding the right to control the production and marketing of food as they choose, in an ecological and diverse manner (Declaration of Nyeleni, 2007).² Many of these farmers, as well as some multilateral

¹ See p.60 for an explanation of participant coding.

² The concept of food sovereignty encompasses the following key areas: priority on food production for local markets, based on peasant and family farmer diversified and agroecologically based production systems; ensuring fair prices for farmers; access to productive resources through genuine redistribution; recognition and promotion of women’s role in food production and equitable access and control over productive resources; community control over productive resources; protecting seeds for the free exchange and use of farmers; and public investment in support for the productive activities of families, and

institutions such as UNESCAP (2002) believe that organic agriculture may offer the most comprehensive response to the sustainability problems facing agriculture, rural communities and our food production system. However, the viability of organic agriculture as a rural development strategy is still debated. Some studies (Janz et al., 2003; Kotschi, 2003) point to limitations of the approach in cases where the context is not properly investigated and where institutional barriers such as government policy or social barriers prevent producers from realising the benefits of their organic status. Other authors argue that the original ‘small is beautiful’ principle of organic systems has disappeared as organic markets become more mainstream, and this is eroding the power that farmers have gained (Oppermann and Rahmann, 2005).

Most studies of organic agriculture to date have focused on production aspects of organic agriculture (Holt and Reed, 2006). This thesis, however, joins the small but growing number of studies that analyse the social impacts of organic agriculture initiatives. Specifically, I devise a framework for investigating how the adoption of organic agriculture as part of rural development initiatives in Cambodia may empower farmers to live better lives as defined in their own terms. This study draws together literature on rural development, empowerment and network theory to assess the extent to which organic agriculture empowers farmers, and in doing so also addresses wider questions about the value of the empowerment concept and its relationship to wellbeing and development.

Research aim, questions and objectives

This research aims to further understanding of the socio-economic impacts of development initiatives that focus on small-scale farmer conversion to organic production. Specifically, the main research aim is:

To contribute to an understanding of the effectiveness of organic agriculture as a tool for rural development in Cambodia.

communities, geared toward empowerment, local control and production of food for people and local markets (Ferrante et al., 2002).

The research focused on three further questions in order to inform the main research aim, with specific objectives relating to each question that determined the research methodology pursued:

Question 1: How do organic agriculture initiatives impact on the lives of small-scale farmers in Cambodia?

Objectives: Devise a framework for investigating the impacts of organics initiatives, with consideration of a wide range of impacts including impacts on farmers, their families, their communities and the wider social environment.

Conduct primary research with farmers in several organics initiatives in different areas of Cambodia, in order to draw some comparisons and conclusions between and across approaches.

Question 2: Are farmers empowered by their involvement in organic agriculture initiatives to move towards their own vision of development?

Objectives: Investigate the concept of ‘empowerment’.

Determine a framework for investigating empowerment amongst organic farmers in Cambodia.

Question 3: What factors enable farmers to access and benefit from organic agriculture initiatives in the Cambodian context, and what constraints hinder the success of organics initiatives?

Objectives: Conduct primary research with organic farmers and others involved in several organic agriculture initiatives, including development organisation staff, government officials and traders to investigate factors that influence farmer empowerment and success of organics initiatives.

Key theoretical concepts

In assessing the ways in which small-scale farmers may be empowered by conversion to organic agriculture, this study brings together three broad bodies of theory:

- Emerging literature studying the sociology of organic agriculture in developing countries, which also provides the platform for this study.
- A discussion of indicators used to measure development, particularly the ‘empowerment’ concept and its relation to development and poverty alleviation. This discussion forms a base from which I develop an empowerment model for use in the study.
- Network theory which maps the process of food production and consumption. This allows me to conceptualise the many people, processes and non-human elements involved in organic agriculture and the relationships between them, so that processes of empowerment may be identified.

Context: agriculture and rural livelihoods in Cambodia

The south-east Asian nation of Cambodia is still recovering from years of social, political, cultural and environmental devastation. Problems can be traced back to a long period of French colonial occupation, followed by extensive US bombings during the Vietnam war, a drawn-out civil war that ended with the defeat of the Lon Nol government in 1975, and the Khmer Rouge Democratic Kampuchea (DK) regime from 1975-78, led by the infamous General Pol Pot. The genocidal atrocities of the DK regime have been widely documented (Vickery 1984; Chandler, 1996; Kiernan 1996), and it is estimated that over two million people were killed (Heuveline, 2001:22) and ten million landmines were laid (CTRP, 2000:2) during Pol Pot’s rule. Fighting was not stamped out until the late 1990s, and even now millions of landmines still litter the border areas.

Cambodia’s gruesome past has had a profound negative impact on the environment and human development through the dumping of pesticides and landmines, a legacy of lawlessness, and extreme poverty. Cambodia is currently one of the poorest countries in the world, ranked 133th out of 177 countries in the United Nations Human Development Index (UNDP, 2005). Although many rural people are flowing into urban areas, poverty is still essentially a rural phenomenon in Cambodia, with 91% of those who are considered poor residing in rural areas (World Bank, 2006:45). This is a startling figure, given that 80% of the population live in rural areas and rely primarily on small-scale agriculture for their livelihood (Setboonsarng, 2006: 2). Yet, agricultural growth is slow

due to limited markets, inequitable access to land and poor infrastructure—less than half of arable land is cultivated, and only 10% of that is irrigated (UNCTAD, 2004).

Cambodia's isolation during the Khmer Rouge regime meant that the country was slow to take on modern agricultural techniques—referred to in this thesis as conventional agriculture—which make use of technologies including hybrid seeds and chemical inputs to increase production levels. However, in recent years this has changed as a lack of trade regulation and the free flow of goods over the Vietnamese border have encouraged the spread of synthetic inputs such as fertilisers and pesticides. The improper use of chemicals has resulted in a high degree of soil degradation, crop failure, negative impacts on human health and pollution of water reserves (IFAD, 2005). Moreover, there is growing evidence that the high yields achieved through conventional agricultural systems are not sustainable long-term, especially on marginal land where soil fertility levels are decreasing (Scialabba and Hattam, 2002). This combination of falling yields, declining terms of trade and rising land prices associated with the booming tourist industry adversely affects the livelihoods of small-scale farmers. Both UNCTAD (2004) and the IMF (2004) have recently conducted studies into Cambodian agricultural markets and conclude that farmers lack the bargaining power necessary to achieve higher incomes due to a number of factors. These include: limited long-term finance, uncertain property rights, limited access to markets, lack of information, lack of government support, low levels of trust and lack of capacity to handle post-harvest produce. UNCTAD (2004) adds that Cambodia's accession to the World Trade Organisation (WTO) has come with the condition of strict phytosanitary³ and seed quality requirements, further placing small-scale producers at risk of failing export certification and thereby limiting their access to markets.

Growing awareness of the negative impacts of conventional farming systems on both the environment and farmers has led to a push for more sustainable agricultural systems. A number of research trials for sustainable agriculture techniques such as Integrated Pest Management (IPM), Farmer Field Schools (FFS), and more recently, low-input cultivation systems such as System of Rice Intensification (SRI) are taking place in

³ Phytosanitary regulations refer to government standards to protect the health of humans, plants and animals, and have been subject to much criticism as they are seen to constitute a barrier that prevents developing countries from accessing international markets (Henson and Loader, 2001).

Cambodia (IRRI, 2000). Since the late 1990s, organic agriculture has spread throughout Cambodia and there are now several organisations promoting organics, including non-governmental organisations (NGOs), bilateral donor agencies, private companies and government departments. Organic agriculture has been identified by the Cambodian Government as a priority sector (UNESCAP, 2002), in order to achieve food security, diversify rural livelihoods, and gain access to value-added markets. As part of this decree, the government plans to diversify production, encourage the participation of poor people and women in agriculture and enhance information flows to farmers, financed in part by a five year USD35 million dollar loan from the Asian Development Bank (UNCTAD, 2004). However, as yet there are no domestic organic standards, and barriers to participation in international markets are still thought to be prohibitive for many small-scale organic farmers (IFAD, 2005).

The two biggest non-profit organic agriculture initiatives in Cambodia are led by a local NGO (CEDAC) and the German federal development agency (GTZ). Although the two initiatives are similar in many ways, the GTZ initiative focuses more on taking advantage of the premium prices gained for export certified organic products on the world market, while the CEDAC initiatives, and the majority of initiatives developed by other local NGOs, focus more on the local non-certified and domestic certified markets. Critics argue over which market approach is most effective, and there are many unanswered questions around the ability of farmers to equitably access the potential benefits of organics initiatives.

Justification for study

Given the rural concentration of poverty in Cambodia described above and the large amounts of development funds poured into the economy that appear to have little impact (ANU, 2005), more research needs to be conducted to find effective rural development strategies for Cambodia's people. Although organic agriculture is thought to hold promise as a development strategy and several initiatives are now in place in Cambodia, little ground-level research has been undertaken (Setboonsarng, 2006). This situation is typical of research in other countries; in fact, agricultural research is said to have neglected organic farming for decades (Niggli and Willer, 2000). Several review papers point to the

need for research to be stepped up in order to drive organic farming forward (Padel, 1999; Willer and Zerger, 1999; Niggli and Willer, 2000), and the most recent Asian Development Bank (ADB) paper on the topic argues that the improvement of agricultural systems in a sustainable manner, along with provision of market access for the poor, holds the key to mass reduction of rural poverty in Asia (Setboonsarng, 2006). The author argues that there is a 'severe knowledge gap' concerning organic agriculture and small-scale farmers in Asia, and that further research is crucial for the development of effective policies to support organic agriculture for poverty reduction in developing countries (Setboonsarng, 2006:21). Other studies (Rice, 2001; Scialabba and Hattam, 2002) have drawn attention to the need for research into the linkages between farmers, development organisations, governments, institutional support and the private sector, in order to assess the challenges that small-scale farmers face when converting to organics.

Despite this apparent support from the development community, little empirical research into organic farming has been conducted in any discipline and recent work is mainly concerned with either technical questions of improving crop production techniques, or development organisation and donor reviews that aim to evaluate the potential of organic agriculture as a poverty reduction strategy by focusing on international markets with limited empirical research (Setboonsarng, 2006). While the existing literature on organic agriculture has put forward a convincing case for environmental benefits, there remains a research gap in understanding the human benefits (or otherwise) of conversion to organics. This knowledge is vital if organic agriculture is to be used as a widespread strategy for poverty reduction.

This research will therefore go some way to filling the major research gaps in sociological studies of organic agriculture, especially as it relates to the social relations within organic agriculture networks and impacts on farmers' livelihoods. This information will be useful for farmers, development organisations, donors and policy makers, in formulating the development of effective initiatives and policies to support the development of organic agriculture.

Structure of the thesis

This thesis is organised into eight chapters (Figure 1). In Chapter Two, the place of organic agriculture within rural development discourse is examined. The documented impacts of organic agriculture initiatives in developing countries including Cambodia are reviewed, highlighting the wide range of benefits experienced, but also factors that may limit success.

In Chapter Three, the concept of empowerment and the various ways in which it has been conceptualised in development are unpacked; the relevance of empowerment to organic agriculture is then examined. In the second part of the chapter, commonly used approaches to analysis of food systems in development are examined, including commodity chain analysis and network theories. The network approach is then adopted for analysing the empowerment of small-scale organic farmers in Cambodia.

In Chapter Four, the methodology used during fieldwork undertaken in Cambodia from April-May 2007 is described, including discussions on theoretical position, life in the field, and a detailed description of the methods employed for data collection and analysis.

In Chapter Five, the case study of organic agriculture initiatives in Cambodia is introduced, utilising the concept of networks and drawing on information collected during fieldwork to describe the key actors and relationships between them. The second half of Chapter Five draws on data from farmer focus groups and interviews to examine the values farmers hold about development, their aims and motivations for farming organically, and the main problems they face.

In Chapter Six, the main impacts of the organics initiatives on farmers, their families and their communities are analysed. The chapter also includes reflections on factors which may be limiting the reach and beneficial impact of the various initiatives.

In Chapter Seven, insights gained from the case studies are situated within the wider context of literature examined in the initial chapters. In this final chapter I reflect on the key questions that formed the basis of the research and also highlight the importance of

other, unanticipated findings. The chapter concludes with suggestions for possible directions for future research and organic agriculture development initiatives.

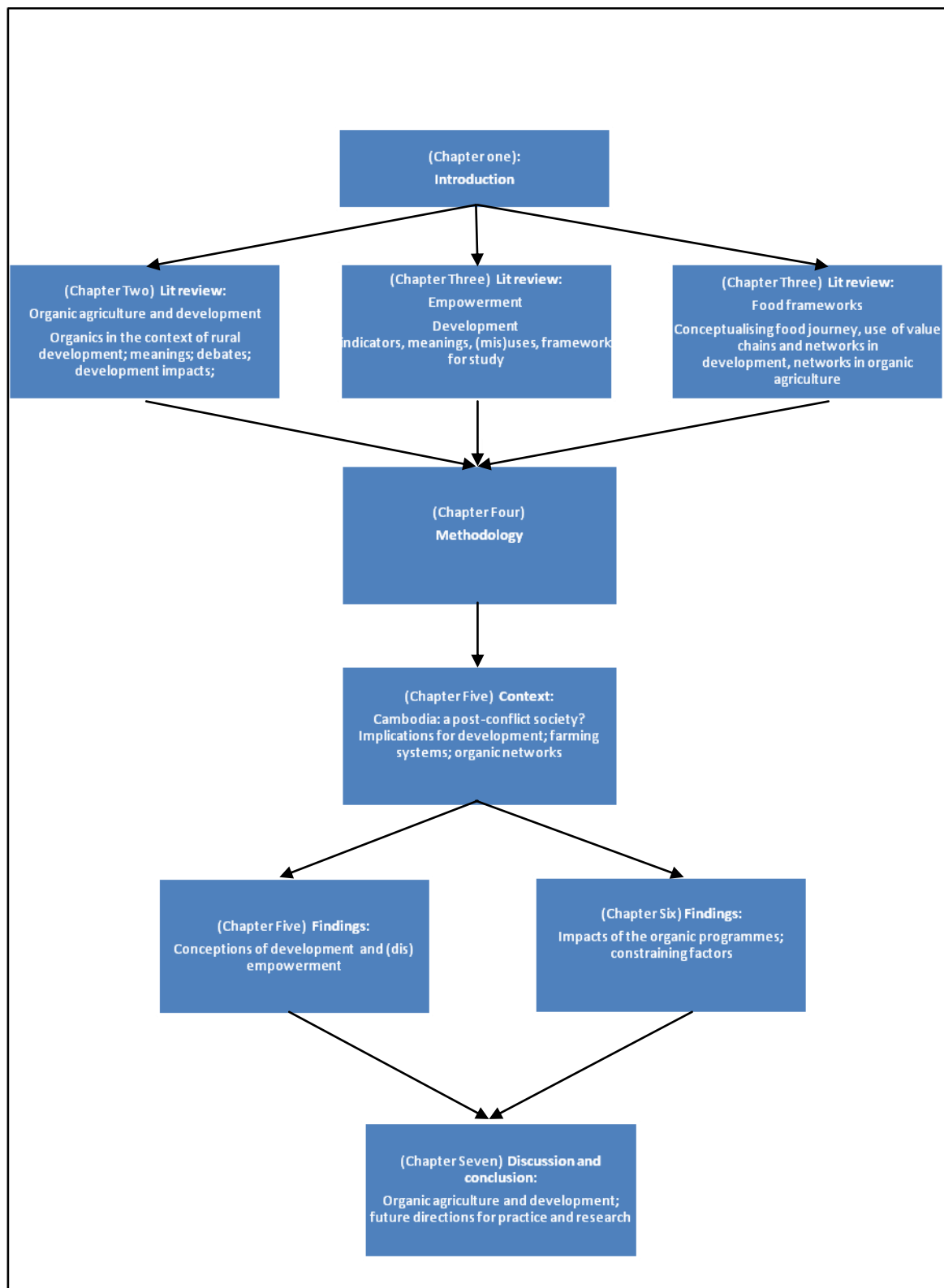


Figure 1: Thesis chapter conceptual framework

Source: Author

Chapter Two: Organic agriculture, a tool for poverty reduction or a trap for small-scale farmers?

Introduction

This chapter introduces the concept of organic agriculture and places it in the context of rural development initiatives. Through a summary of existing sociological studies on organic agriculture, I argue that organics can be a sustainable form of agriculture that can have many positive impacts for small-scale farmers in developing countries. Existing studies of organic agriculture provide background information on possible factors that limit or enhance the success of organics initiatives in various countries; this information is vital for contextualising the results of the current study.

Organic agriculture and rural development discourse

Much debate in current rural development discourse concerns the poverty reduction potential of agrarian-based development versus diversification out of agriculture. In order to understand organic agriculture's place in current rural development debates, this chapter first traces the historical pathway of rural development thought from the 1950s to the present. Adapted from Ellis and Biggs (2001), Figure 2 highlights two main paradigm shifts during a sixty year time frame of rural development. Firstly, modernisation ideas of dual growth and the backward peasant have given way to a focus on small farm agriculture as the engine of growth and development from the 1960s onward. Secondly, the authors identify a shift in rural development from 'top-down' approaches to grassroots or 'process' approaches that emphasise participation and empowerment. This has been marked by the rising power of civil society and a backlash against the failure of technological agriculture advances—known as the 'Green Revolution'⁴—in low-productivity areas (Ashley and Maxwell, 2001).

⁴ The term 'Green Revolution' refers to the rapid advances and spread of agricultural technology from the 1950s, such as chemical fertilisers and hybrid seed packages, that allowed many farmers to increase yields, but also had negative consequences for many poor farmers whose land was unsuitable for the new technology, and long-term consequences including degradation of the environment due to problems such as increased pest build-up and soil toxicity (Pingali and Rosegrant, 1994).

Decade	Development ideas	Dominant rural development themes		
1950s	Modernisation; dual economy model; 'backward' agriculture; lazy peasants.	Modernisation	Small Farm Efficiency	Sustainable Livelihoods
1960s	Transformation approach; technology transfer; mechanisation; green revolution (start); rational peasants.			
1970s	Redistribution with growth; basic needs; integrated rural development; state-led policies; urban bias.	Process; Participation; Empowerment	Sustainable Livelihoods	
1980s	Structural adjustment; free markets; retreat of state; rise of NGOs; Farming Systems Research (FSR); Women in development (WID); Poverty Alleviation.			
1990s	Microcredit; Participatory Rural Appraisal (PRA); environment and sustainability; poverty reduction; Gender and development (GAD).			
2000s	sustainable livelihoods; good governance; decentralisation; critique of participation; sector-wide approaches; poverty eradication.			

Figure 2: Dominant and sequential themes in rural development

Adapted from Ellis and Biggs (2001)

The focus of this study is the place of the small-scale farmer within alternative agriculture, a place that is still largely undefined, especially in the context of Cambodia where rural populations have often been excluded from development (Ledgerwood, 1998). The paradigm shift from the 'backward peasant' to a belief that traditional small-scale farmers could form the basis of agriculture-led development can be traced to Schultz's 1964 work '*Transforming Traditional Agriculture*', where it was shown that small farms have much potential. Small farms have been shown to perform with better economic efficiency than larger farms (Heltburg, 1998), reduce rural poverty and food insecurity (FAO, 2002), create productive employment opportunities and vibrant non-farm rural economies, and contain rural-urban migration (Hazell, 2005). In the Cambodian context, the World Bank (2006) found that small farms are more economically efficient (have higher productivity and profitability than large holdings per hectare), but they also have high transaction costs due to economies of scale.

In recent years, declining real prices of agricultural commodities and wide rural-urban migration patterns have prompted critics to question whether the focus on small farms is still appropriate for rural development; this uncertainty is represented by the dotted line

connecting ‘small farm efficiency’ with the current decade in Figure 2. Rural societies are increasingly separated into an upper tier of relatively prosperous farmers practicing high-input agriculture, a middle tier of small-scale producers who consume most of what they grow and have minimal articulation with the market, and a bottom tier of landless and near-landless who cannot subsist in rural areas and move to the cities, pushed by diminishing land, low returns and disease, and attracted by the chance of a job and a better life (yet often ending up in peri-urban slum areas). Ashley and Maxwell (2001) argue that small farms may not be viable in these increasingly separated rural spaces, noting several constraints that are relevant to the Cambodian context:

1. Small farmers are more likely to grow low value staples for self-sufficiency;
2. new technology is capital-biased and geared for farmers from the North;⁵
3. skills to manage new technologies are beyond the scope of many small farmers;
4. small farmers often pay more for inputs and receive less for outputs than large farms;
5. new commodity chains impose quality and timeliness requirements that small farmers find hard to meet (and that co-operatives cannot help with); and
6. large farmers manage dangerous chemicals more carefully and are more likely to use new, resource-saving technologies.

Ashley and Maxwell go on to suggest that greater investment in public goods or subsidies to small-scale farmers in the form of fertiliser subsidies may offer solutions (2001:408). However, this conclusion may neglect the potential of organic agriculture to reconcile a number of these constraints. For example, organic agriculture does not require use of dangerous chemicals or difficult technologies and skills, input costs are often cut, and the value of staples (such as rice in the Cambodian context) can be increased. However, the quality requirements imposed by organics regulations may be an issue for small-scale farmers (*see* p. 16).

⁵ In this thesis, the pairs of terms ‘North’ and ‘South’, and ‘developed’ and ‘developing’ are used to divide the world into two main economic spheres: rich countries (‘North’ or ‘developed’) and poor countries (‘South’ or ‘developing’). However, it is acknowledged that these terms are problematic, as they may infer a negative connotation of the ‘south’ (Samson, 2006), and there are many wealth differences between and within countries that cannot be captured by these terms. Understanding this, these pairs of terms are still seen to be relevant for this thesis discussion.

In recent years, Ellis and Biggs' second paradigm shift from 'top-down' to participation and empowerment has become entrenched in mainstream development vocabulary (Ellis, 2000). Some believe that the turn to participatory processes and poverty reduction constitutes a radical departure from structural adjustment policies, while others argue that this 're-balancing' of market-oriented economic growth and poverty reduction objectives has not gone far enough (Ashley and Maxwell, 2001). Current discourses continue to focus on poverty alleviation (or poverty eradication), but this is now seen to be achievable through a 'New Poverty Agenda' built on 'partnerships' between civil society (local and international development organisations), governments, and the private sector; however, there is much debate over the extent to which the partnerships are composed of 'partners', or whether unequal power relations between groups impede the concept (Maxwell, 2003; Power, 2003; Storey et al., 2005).

In Cambodia, there is obvious tension between apparent 'partners' involved in agricultural development, especially between those groups who focus primarily on agricultural service provision (including government and local NGOs) and those focusing on diversification by enabling market linkages and non-farm activities (mainly international development agency strategies). This tension is discussed in Chapter Five.

Organic agriculture defined

Organic agriculture is generally understood as part of the wider term 'alternative agriculture', an umbrella term for a variety of movements that have sprung up in opposition to the conventional ways of growing, transporting and consuming agricultural products. These movements seek to redress imbalances in the productivist model that causes producers to become increasingly dependent on agribusiness capital, and also seek to assert control over the commodity chain. Whatmore et al. (2003) draw together the diverse strands of alternative agriculture, which they term Alternative Food Networks (AFN), by a common focus on building trust between food producers and consumers, and articulating new forms of political association and market governance. It may be comfortable to think in terms of a binary opposition⁶ between the productivist approach

⁶ Foucault (1980) showed that in our attempts to understand the world, things get categorised according to similarities and differences and the world becomes divided by a system of binaries. These binaries have the

of conventional agriculture, characterised by its dependence on agrichemicals, monoculture production, intensive irrigation and mechanisation (FAO, 2002), and the sustainable focus of alternative agriculture with the ‘feel-good’ trust factor referred to by Whatmore et al. (2003). However, within both paradigms there are many subsets, and the line between them is becoming increasingly blurred (Kristiansen & Merfield, 2006).

Just as there are many forms of alternative agriculture, there are many forms of organic agriculture also. Common definitions frequently focus on what organics lacks; the prohibition of most (but not all) synthetic inputs is a central aspect of the practice of organics. However, organics is not simply a ‘return to the past’ (Lampkin, 2002). Organics combines traditional farming knowledge with modern scientific understandings of crop rotation, composting, green manure, multiple cropping and other techniques to create a system that relies on minimal outside inputs to keep up soil fertility, and is therefore different from many notions of traditional agriculture. Although the relationship between traditional agriculture and modern notions of organic agriculture has received little attention in the literature (UNESCAP, 2002), recent studies have attempted to bridge the divide between modern organic and traditional agriculture by highlighting the ecological benefits of traditional systems and the relative ease with which traditional small-scale farmers can convert to a certified organic system (Altieri, 2002).

The International Federation of Organic Agriculture Movements (IFOAM), the world’s leading international organic umbrella organisation, continues to evolve its concept of organic agriculture, which it defines as ‘environmentally, socially, and economically sound production of food and fibres’ (IFOAM, 2000:1). In 2005, IFOAM developed a set of organic principles that they hope will be adopted world-wide and guide the development of organic agriculture:

- Principle one: Health

Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.

potential to place one of the terms as lesser, can imply there is nothing in between, or that no change can occur; however in this thesis the binary of ‘conventional and alternative/organic agriculture’ is used merely as a descriptor and the arrangement is understood to be neutral.

- Principle two: Ecology
Organic Agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.
 - Principle Three: Fairness
Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.
 - Principle Four: Care
Organic Agriculture should be managed in a precautionary and responsible manner to protect the health and wellbeing of current and future generations and the environment.
- (IFOAM, 2005; see www.ifoam.org)

Importantly, IFOAM's principles envision organics as much more than a method of production by also encompassing social and ecological aspects. This may be compatible with indigenous conceptions of organics, such as the Bangladesh 'Nayakrishi' project, which is not about 'agriculture understood in a very narrow sense, as a sector of production', but rather 'sustainable agriculture as a precondition to food sovereignty' (Nayakrishi, 2007:17).

Organics as eco-colonialism? The roles of certification

Eco-colonialism, or eco-imperialism, is said to occur when environmentalists place the wellbeing of the environment over the wellbeing of humans, particularly people in developing countries (Driessen, 2003). Even well-intentioned conservation efforts by NGOs may fail if there is an unwitting disparagement of the traditional knowledge, culture, political systems, and integrity of indigenous peoples. There is an increasing trend in both the industrialised world and developing nations to pass laws and regulations that require products to be certified by specialised agencies before they can be sold as 'organic', 'biological', or 'natural', and this may be seen as a form of eco-colonialism (Gomez et al., 1999). The requirement for certification was first initiated by farmer's organisations to make organic products distinguishable from other types of products, thereby protecting both the consumer and the farmer. As a result, certified organic agriculture is now widely promoted by development agencies and governments in

developing countries as a high-value export option (van Elzakker et al., 2007). However, control of standards has largely moved to the private sector (for example, supermarkets in the UK such as Tesco's now expect producers to comply with requirements that are beyond those needed for organic certification (Grain, 2008)) and to 'rich' country governments whose standards may be difficult for small-scale farmers in developing countries to achieve.

In an effort to create more relevant regulations, IFOAM supports the creation of national standards, but critics argue that national standards for certification are 'drawn up almost as carbon copies of the IFOAM and other standards to facilitate exports' and the development of local markets is neglected (German NGO Forum, 2005:33). Gomez et al. (1999) argue that producers see the stringent production rules developed in the North as onerous 'eco-colonial' conditions that may exclude resource-poor, illiterate farmers, and other researchers have found that farmers are overwhelmed by the technical and documentation demands of organic certification (Kotschi, 2000; Mutersbaugh, 2002, *see plate 1* for an example of a written certification requirement in the Cambodian context). It is therefore suggested that prior formation of social and economic capital is needed for small-scale farmers to organise and afford certification (Martinez-Torres, 2006:112). In contrast, other research in the context of organic contract farming schemes in Thailand indicates that conversion to certified organic is fairly easy for farmers and involves little risk, although this was not tested in co-operatives (Parrott and Wright, 2007:131). The possibility that certification may be exclusionary has important implications for the potential for empowerment through organics initiatives. Therefore, assessment of farmer perceptions of the certification requirements is a focus of this research (*see p.122*).

Organic farming is certainly not defined just by certification, and the organics community is becoming increasingly open to peer-certified, non-certified and alternative certification schemes (Johannsen et al., 2005). IFOAM recently affirmed a commitment to non-certified producers and a vision of organics as providing healthy produce through self-provisioning and localised production-consumption linkages (IFOAM, 2006). The prohibitive cost of existing quality control systems in organic agriculture is also being addressed by IFOAM through concepts of internal control systems (ICS) and participatory guarantee systems, which cut down on the need for external inspections by

utilising peers as inspectors.⁷ The ICS concept has been criticised due to its requirements for high human resources, farmer commitment and organisational capacity (Harris et al., 2001), but over time these costs are shown to reduce significantly (Pyburn, 2003). Farmers from a co-operative in Thailand report that after adopting ICS, members felt empowered, more organised and more knowledgeable (Lorenzen et al., 2004).

This thesis aims to add to the debate over the value of various quality control methods by investigating both farmers who are members of export certified and ICS certified groups, and also non-certified organic farmers. Farmers that are ‘organic by default’ because they lack access to inputs but do not use other techniques to improve soils are differentiated in this thesis (*see* p. 14) because organic systems require conscious action on the part of farmers to proactively encourage soil and resource conservation and ecosystem management. Therefore, this study intends to include only those farmers that practice soil and resource conservation methods (such as compost, cover cropping, crop rotation or Effective Micro-organism treatments (EM)) and do not use restricted chemicals. Furthermore, although I acknowledge that many farmers who are not members of organic groups likely employ organic methods, this thesis aims to investigate organics as a development strategy and therefore limits itself to investigating farmers who are members of organic groups funded by development organisations.

Is organic agriculture sustainable?

Alternative agriculture is not necessarily sustainable agriculture, although these terms are often used synonymously (Holt and Reed, 2006). Regardless, in determining organic agriculture’s worth as a development tool, the question of sustainability is central—that is, can organic methods reduce our impact on the environment, provide a living for farmers, and support rural communities?

⁷ Most inspection systems for organic certification require the services of an ‘external’ accredited inspector but under an ICS arrangement ‘internal inspectors’ from farmer groups are trained to inspect other farmers. External inspectors function more as an auditor for the internal inspection system and visit only a small sample of farms; a vastly cheaper option than full ‘external’ certification. ICS systems are now in place in many countries, as can be seen in New Zealand in the ‘Organic Farm New Zealand’ (OFNZ) certification system. These are currently being expanded, but are still generally only available for domestic certification and not for export markets, as is the case in Cambodia.

The contested concept of sustainability⁸ has been defined by Ikerd (2001) as a balance between the three core principles:

- Ecological integrity,
- Social justice,
- Economic viability.

Goreham et al. (1992) incorporate a further dimension that is a central concern in development:

- Ability to provide enough food.

The first aspect of sustainability, ecological integrity, has received the most attention in organics literature, and hence, will not be discussed in depth here. The second aspect of sustainability, social justice, has been largely ignored in the literature, and this research will join the growing number of studies which aim to redress this imbalance. The concept of social justice will be further expanded in the following section on ‘sociological research in organic agriculture’. The third aspect of sustainability, economic viability, is a central concern in poverty reduction strategies. Most organic products currently enjoy a price premium in developed economies, but recent research raises concerns over whether the growing popularity of organics will cause the price premium to erode (Holt and Reed, 2006). However, as explained further in the following section, empirical research finds that even without price premiums, organic systems in developing countries can be economically viable, primarily due to lower input costs (Offerman and Nieberg, 2000).

Kristiansen and Merfield (2006) turn the fourth sustainability question of adequate yield on its head by stating that the problem is not whether organic agriculture can feed the world, but whether conventional agriculture is feeding the world now. They argue that high-input, high-yielding systems are failing because of problems with food distribution and social organisation; therefore, the issue of yield is less important than social issues surrounding food distribution. Furthermore, contrary to the popular rebuttal that yields are

⁸ Other writers suggest various indicators of sustainability; for example Bebbington (1999) suggests that reduction in out-migration, increasing local control over economic processes, increased incomes, use of low external input technology, improved technology, input resource management, diversification, greater economic and social linkages, and social capital linked to natural capital are indicators of sustainability in rural development initiatives.

lower under organic systems and therefore a widespread switch to organic agriculture would need more agricultural land to feed growing populations, recent studies have shown that after the initial conversion period yields are similar (80-100%) to conventional yields, and up to 94% higher than yields in low-input, traditional systems (Halweil, 2006). A comparative paper published last year compiled yield data from 293 studies, and found that organic methods could produce enough food on a global per capita basis to sustain the current human population, and potentially an even larger population, without increasing the agricultural land base (Badgley et al., 2007:86).

Using the four criteria above, organic agriculture appears to be a sustainable form of agriculture. However, the sustainability of each agricultural system will depend on the political, social and environmental situation, and hence there is a need to determine sustainability strategies based on the particular context.

Sociological research in organic agriculture

Social science investigation into organics has lagged behind technical production research (Holt and Reed, 2006). Despite claims to holism, organic research epistemology has largely remained constrained within the reductionist scientific paradigm, with most studies still focused on quantitative changes to the environment and physical farming techniques (Holt and Reed, 2006). However, arguably the biggest questions confronting the organic sector are not about farming management and systems, but about creating viable businesses, policies, and the contested meanings of what constitutes 'organic' (Kristiansen & Merfield, 2006). In this context, sociological investigation needs to occupy a central role in the research agenda of organic agriculture.

Early sociological studies into organics were primarily concerned with farmer adoption and the development of organic agriculture as a social movement in the West. Key sociological debates in the global organics literature currently centre on the 'conventionalisation' question: is the organics movement becoming too mainstream for its own survival? Political economy-inspired approaches, such as Julie Guthman's (2000) study of the Californian organics industry, argue that organic agriculture is being subsumed into dominant forms of agribusiness by economic processes that undermine the

movement's ideologies. With agribusiness firms now developing organic certified fertilisers and pesticides, the original ideologies of organic farming self-sufficiency and reduced dependence on outside inputs is called into question by 'input-substitution' focused farmers (Magdoff et al., 2000).

Some authors believe that more than commercial interests, it is the growing relationships with the state and over-regulation that is contributing to the downfall of organics as a social movement (Courville, 2006). This 'institutionalisation' argument points to the inequitable subsidies,⁹ regulations and labeling procedures as creating significant barriers that make it increasingly difficult for small-scale farmers to enter the market.

The organic sector in developing countries such as Cambodia is at a different place in its development from the well-studied, mature markets of Europe. Demand from the domestic and tourist market is only beginning to expand, and awareness is growing slowly amongst farmers. If retailers and distributors continue to take control of the sector, small-scale farmers could be squeezed out of price premiums and control of negotiations, but it is hard to know yet whether the sector will become 'conventionalised' through agribusiness or retail interests. The potential role of the government is also unknown. Despite the government's official commitment to support organic and GMO-free agriculture and to become the 'green farm of South-east Asia' (Halweil, 2005), field tests with GMO seeds including Bt-cotton and corn are rumoured to be taking place presently in Cambodia (G6).¹⁰

However, the organic sector in Cambodia currently appears to be defining itself as a strong social movement (as identified by Tovey, 1997), led by farmers and development organisations who are contesting biased government policies and lack of agrochemical regulation. For example, a recent eco-agriculture demonstration in Siem Reap, at which more than four hundred farmers and supporters marched through the city, shows the vibrancy within the movement (CEDAC, 2007). These farmers are embracing organic agriculture as part of a wider food sovereignty movement that calls for political change

⁹Agricultural subsidies paid to farmers to supplement their income, particularly in the US, Japan and EU, are said to depress the world market and thereby disadvantage farmers in developing countries. Although the EU has reformed their subsidy system, the US continues to subsidise farmers in the face of global criticism (Mulama, 2006).

¹⁰ For an explanation of coding systems for interview participant references, *see* p. 60.

such as stricter controls on informal imports and more producer input into WTO negotiations (NEDC, 2006).

Although few sociological studies of organic agriculture have been undertaken in developing countries, a limited number of studies, particularly around farmer conversion to organics, have shown interesting differences from European studies. For example, farmers who converted to organics in the Pondicherry region of India reported that their main reason for conversion was the high cost of inputs (63%) and declining soil fertility (53%), (Anandkumar, 1998) in contrast to Polish farmers who converted for reasons of health, food quality and lifestyle (Zakowska-Biemas, 1998). In the Cambodian context, a survey of nearly 1000 farmers found that 70% of people said they were interested in organic farming because it was cheaper than buying chemicals—similar to the Indian study results—while 20% cited better health and others mentioned improved yields and premium prices (Saroeun, 2000).

Research concerning the impacts of organics initiatives

A growing number of reports on rural development initiatives now argue that organic agriculture can be a vehicle for poverty reduction as well as repairing environmental degradation (Hossain, 2001; Lampkin, 2002; Parrott and Marsden, 2002; Kotschi, 2003). Empirical research confirms a definite link between organic agriculture, food security and poverty reduction (IFAD, 2003; Araya and Edwards, 2005; Egziabher, 2005). However, research is biased towards certified market-led organic approaches, and the literature on the work of numerous organisations promoting organics for subsistence and local production-consumption networks is poorly developed (Parrott and Wright, 2007). Exceptions to this are Pretty and Hine's survey of sustainable agriculture (2001) and the International Federation of Agricultural Development's (IFAD) studies in Latin America and Asia, which broadened analysis from basic yield and profitability to incorporate socio-economic impacts and food security (IFAD, 2003, 2005). The Food and Agriculture Organisation (FAO) conducted a wide report of organic agriculture's potential to contribute to food security in 2002, concluding that organics is a beneficial strategy not only for export, but for subsistence farmers attempting to meet family food requirements and perhaps sell surplus in local markets.

Although Cambodian reports are limited, GTZ have recently undertaken a survey of their certified organic rice initiatives (Schmerler, 2006) and CEDAC has collated a number of reports from their organic rice and vegetable initiatives. These reports confirm that organics initiatives have contributed to poverty reduction, especially amongst people around the poverty line.

Table 1 below reviews a number of qualitative studies into the impacts of organic agriculture on human wellbeing from around the world, including the GTZ study, with results broken down into various aspects of wellbeing and empowerment. The table shows many aspects of wellbeing that have been shown to be positively affected by organic agriculture. Impacts on health and economic empowerment are particularly positive, with a number of different studies from around the world reporting increased health and better nutrition after a conversion to organic farming, and many studies also pointing to higher overall incomes due primarily to lower input costs. Community relations and psychological wellbeing are also shown to improve in a number of studies. However, some aspects of wellbeing and empowerment show conflicting and possible negative results from the studies, including impacts on women’s empowerment, labour requirements and risk. Results from this thesis will add to the knowledge on some of these contested categories, reported in Chapter Six.

Table 1: Research into the impacts of organic agriculture for development

<p>Health</p>	<p>Many studies show health improvements for farmers under organic systems. Farmers in India said that symptoms associated with pesticide poisoning disappeared after conversion to organics (IFAD, 2005), and a Latin American study showed that farmers perceived themselves to be healthier after conversion to organics (IFAD, 2003). A further study showed a 10-80% decrease in health-related expenditure after joining an organics group (Parrott and Wright, 2007:53). Indirect health benefits may include better waste disposal because animal and human manure is used for compost, thereby lowering prevalence of diseases such as malaria (Setboonsarng, 2006:14). A reduced malaria incidence has also been observed where fish were able to be reintroduced to organic rice systems (FAO, 2002). Organic farmers may also experience health benefits due to reduced costs and premium prices, if they are able to increase spending on nutritious food, medicine and health services (Setboonsarng, 2006).</p> <p>In a Cambodian GTZ study, better health was a major benefit, and 60% of farmers said that access to healthier foods was the most important benefit they received from the initiative (Schmerler, 2006:18).</p>
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<p>Economic empowerment</p>	<p>Research from various developing countries consistently points to lower production costs in organic systems because less external inputs are used (von Braun et al., 2003; Rosegrant and Ringler, 2005). Also, price premiums of up to 300% may be gained on the international market (Setboonsarng, 2006:8). Other studies have found that even without price premiums, farmers are adopting organic agriculture to save costs and achieve sustainable yields (Scialabba and Hattam, 2002). However, one Indian study found that vegetables were slightly more expensive to produce organically when labour costs were included (Parrott and Wright, 2007:54).</p> <p>The impact of organic conversion on yields is highly debated; in an FAO (2002) study, farmers converting traditional agriculture (low-input) systems to organics found that yields stabilised and outperformed previous yields, while farmers converting from high-input systems experienced a drop in yields during the three-year conversion. Therefore, farmers converting from traditional systems may be more easily able to adapt to organic systems. Even if yields drop for conventional farmers, several studies show that profits in organic farms are the same or higher than conventional farms, as any drop in yield is compensated for by lower input costs and price premiums (Lampkin and Padel, 1994; Wynen, 1998; Offerman and Nieberg, 2000).</p> <p>In a Cambodian GTZ study, 87% of the organic group members reported increased income due to higher prices from the organics premium and less input costs. Yields appeared to be around the same level or slightly higher than before the project (Schmerler, 2006:20).</p>
<p>Negotiation</p>	<p>A Cambodian GTZ study found that empowerment in negotiations with buyers was limited for organic farmers, because there is little competition between buyers in the poorly developed market and buyers are therefore able to control the market and give lower premiums to farmers (Schmerler, 2006:22). However, organic farmers that are able to organise into co-operative groups have been shown to increase negotiation power with buyers, resulting in higher prices and stable contracts (Parrott and Wright, 2007).</p>
<p>Risk levels</p>	<p>Organic systems may be more resistant against weather extremes due to the increased ability of soil to take in water through higher levels of soil organic matter, thereby lowering farmer risk (Sullivan, 2002). Diversification is common in organic systems, which decreases risk, and some initiatives favour the use of traditional varieties more resistant to local pest and disease problems (Setboonsarng, 2006:8). The FAO (2002) found that diversification to high-value markets for organics can reduce the vulnerability of small farms by increasing the security of markets, the diversity of exports and through capturing price premiums. However, other writers observe that difficulties controlling pests and diseases may increase risk in an organic system, especially in early conversion to organics and for farmers who do not have a high knowledge of alternative control methods (IFAD, 2005).</p>

Psychological wellbeing	Increased capacity to experiment and problem-solve has been observed in farmers engaged in organic cooperatives (FAO, 2002). Cambodian farmers often mentioned increases in self-esteem in a GTZ study, and many felt that the new skills and knowledge of organic techniques were one of the main benefits received (Schmerler, 2006).
Empowerment of women	Research on the relationship between gender and organics is inconclusive; some suggest that women could be empowered through higher incomes, more power in decision making due to the increase in horticulture production under some organic systems, which are often women's work (CGAP, 2005), and employment (for example, as internal inspectors for organic certification). A long-term socioeconomic study of organic farmers in Chile, from 1994-98, found that farmers' quality of life improved due to better gender relations, as a bigger focus on horticulture production (which grew by 240%) allowed more space for woman to develop, and social capital increased through training, education and the transfer of organic techniques (IFAD, 2003). However, benefits are said to depend on initial gender relations and divisions of labour (Pretty, 2002). Organics may also increase the 'time poverty' (i.e. take up more time and leave less time for other activities) of women due to the high labour requirements (Dolan and Sorby, 2003).
Labour requirements	Almost all evidence shows an increase in labour requirements under organic systems (FAO, 2002; IFAD, 2003). The provincial department of agriculture (PDA) in Cambodia's Battambang district found that labour requirements went up about 30% for organics when compared to conventional systems for local farmers (G2). The higher labour requirements may have a perverse impact on education opportunities if children are required on the farm (Pretty, 2002), but higher incomes may also increase access to education (IFAD, 2003).
Community relations	Conversion to organic systems was found to stabilise employment and alleviate migrant labour problems in rural areas, as crop diversification under organics spread planting and harvesting times throughout the year (FAO, 2002). Cambodian farmers reported high levels of team spirit and motivation amongst organic co-operative members (Schmerler, 2006).
Migration	Organics could reduce the need for rural-urban migration by opening up income opportunities in rural areas. A report from Thailand found that migrant workers returned from urban jobs to their villages with the introduction of organic asparagus farming (Setboonsarng, 2006:18).

Source: Author

Now that the possible impacts of organic agriculture on aspects of wellbeing and empowerment have been reviewed, the literature investigating constraints to the empowerment of farmers will be summarised, in order to provide background knowledge for Key Question 3 of this thesis (*see* p. 3).

Research into the constraints to empowerment through organic agriculture

Hunger, poverty and inequitable trading relationships are not caused just by poor agricultural production standards. Unfair land distribution, inequitable resource access and degradation of natural resources, amongst other factors, can limit the success of organic farming as an approach for empowering small-scale farmers. For example, some studies suggest that major constraints exist for small-scale farmers to reach markets and at the same time secure a price premium (Janz et al., 2003; Kotschi, 2003). Kristiansen & Merfield (2006) recently analysed a number of reports from around the world to develop a list of common constraints experienced by small-scale farmers converting to organics in developing countries. They suggest that the main constraints include:

- Lack of knowledge about organic agriculture;
- lack of economic and political advocacy;
- population pressures encourage intensification;
- high cost of certification;
- low literacy levels (record keeping is a problem); and
- lack of trade liberalisation prevents development of exports.

The FAO (2002) argues that land tenure security is also a major factor, as organics needs a long-term commitment (certification often takes three years to achieve), and therefore, farmers need to feel secure in their control of the land. Institutional support is also seen to be vital for the further spread and success of organics, as the small size of the sector as a part of all commercial agricultural produce makes it difficult for organic farmers to influence trade, labour and agrochemical policies (Norse & Tschirley, 2003). Several recent reports have outlined significant constraints to the development of an organic industry in Cambodia; these are synthesised in Table 2.

When compared with the constraints suggested above by authors in other developing country contexts, Table 2 shows that the constraints that exist in Cambodia are similar and perhaps even more challenging than in other countries. Barriers such as a lack of economic and political advocacy are intensified in the Cambodian context, where political corruption and low trust levels are rife. The legacies of war, including landmines, poor

rural infrastructure and poor health are also significant constraints in the Cambodian context.

Table 2. Constraints to the development of organics initiatives in Cambodia

Physical production	Marketing
declining access to and quality of common property resources	poor post-harvest infrastructure (including transport and roads, old machinery, expensive electricity, lack of rice warehouses at local level)
poor health	poor market knowledge
shortages of key inputs (water control, quality seed, credit (high interest rates), transport, increasing landlessness)	corruption at government level inhibits flow of goods
land mines prevent utilisation of land	small domestic capital base, limited domestic demand
corrupt government with limited technical capacity and resources	low reputation and poor quality of Cambodian products
poorest people unable to access organic farming initiatives because of lack of land and irrigation	on-farm processing with high post-harvest losses.
limited skill base amongst rural population, and low literacy	lack of private investment in agriculture
lack of cooperation amongst NGOs, government and local community groups	costs and knowledge to meet phytosanitary and certification standards
disinclination toward community or group action, lack of social cohesion	cheap products imported from Thailand and Vietnam
lack of donor-interest in long-term development work	low levels of trust amongst stakeholders, cheating and theft
lack of participation of people in development process	market for paddy rice reliant upon Vietnamese market

Source: Author, based upon Bora (n.d); Turton (2000); Echo (2002); Dao (2004); Schmerler (2006); AusAid (2007)

One potential constraint suggested in Table 2 that is particularly relevant to a development studies thesis on organic agriculture is the possibility that the poorest people may not be able to access organics initiatives. Further research into this area is investigated in the section below.

Research concerning the reach of organics initiatives

Analyses of poverty reduction strategies should question the extent to which the people who arguably most need support—the poorest of the poor—are actually being reached. Padel (1999) argues that conversion to organic agriculture fits the ‘diffusion of innovation’ model, whereby ‘innovators’ adapt first and these innovative risk-takers are generally not the poorest people. An emerging critique of organic agriculture as a development strategy is that farmers without existing access to resources may be unable to capture the benefits (Martinez-Torres, 2006). This claim was substantiated in a study of 150 Indian organic farmers, where the majority of participants in the initiative were older farmers (average age 43) from mid-high castes rather than low castes (Parrott and Wright, 2007:71). Dao (2004) adds that poor people with lower quality land may find the seed varieties chosen for organic production poorly suited to their farming system, resulting in low yields. Similarly, GTZ concludes that the projects in Cambodia have had a significant impact on poverty reduction for people around the poverty line, but the very poor with limited assets were not generally reached—only 5% of families in the co-operative were identified as ‘most vulnerable’ (Schmerler, 2006).

One aspect of poverty reduction which has been largely ignored by the literature is the poverty of consumers. The high price for organic food means that it is often beyond the reach of the poor, a situation described by Allen (1999) as ‘ironic’ considering the original organic movement’s aim of social equity. Johannsen et al. (2005) also warn us that the poverty reduction potential of organic farming initiatives is not guaranteed, and if organic development initiatives ignore local socio-economic and ecological demands or if products are restricted to high price luxury goods for niche markets, there could be negative effects on local poverty levels. If food security is defined as ensuring ‘that all people at all times have both physical and economic access to the basic food that they need’ (FAO, 1983:7), the growing nichification of food products cuts off people with less money from access to a source of healthy food, and therefore contributes in one way to food insecurity. The possibility that organic agriculture may not reach poor people—both farmers and potential consumers—is a concern that needs to be addressed in research and policy; this is further explored in Chapter Six.

Research concerning success factors in organics initiatives

Now that possible constraints to empowerment through organics initiatives have been discussed, it is important to consider the factors that may lead to successful empowerment. In the context of Fair Trade coffee networks, Reynolds (2002b) argues that three factors influence the potential for development impact. These may also be important in the case of organics:

- Political and economic conditions (at local, national and global levels);
- networks and organisational capacity both within producer groups and linking to wider actors; and
- individual characteristics of farmers including resource access and ideological commitment.

The need for strong links to wider institutions such as government or development organisation support outlined by Reynolds is supported by further studies (UNESCAP, 2002) and demonstrated at a national level in the case of Brazil (Oliveira and Santos, 2004) and Cuba (Kilcher, 2001) which have both developed national organic strategies. In the absence of government support, strong development organisations and farmers groups are critical for success, such as the Kenyan Institute of Organic Farming (established in 1987), which now has the largest number of IFOAM member farmers in Africa and organises training and support for its members (Parrott & Marsden, 2002).

In contrast to Reynolds' second point about linking to wider actors, Kotschi (2000) argues that while wider links are essential, development organisations should focus on building up local and national markets so that developing countries can have independent support systems for organic production and advisory services. Confirming the findings of Martinez-torres (2006) mentioned previously, Kotschi (2000) believes that organics initiatives are currently biased toward farmers with better access to resources, and he argues that they can only become accessible to larger rural communities by channeling resources into advisory work and separating these services from export-oriented trade.

Points to take from this summary of success factors include the importance of building up capacity at local and domestic levels as well as creating relationships with wider actors.

In the Cambodian context, Raynold's first point about the importance of political and economic conditions is salient, as the current political and economic climate has many problems (*see* p. 81); but for the farmers in this study, who have limited opportunity to advocate for political change, success may depend more on group capacity and networking. The need to cultivate both local and wider relationships identified in this section will be further expanded upon in the following chapter (*see* p. 43), where concepts of network theory and 'bonding' and 'bridging' networks are introduced in the context of farmer groups.

Summary

This chapter has placed organic agriculture firmly into a rural development context through an investigation of sociological studies that have researched the impacts of organics initiatives on human development. Research shows that organic agriculture can be a sustainable form of agriculture, which may provide solutions to many problems that small-scale farmers in developing countries face today. Positive impacts on health, economic empowerment, improved psychological wellbeing and better community relations were observed in a number of studies, while impacts on other areas of wellbeing such as women's empowerment are debated. Research into possible constraints to empowerment in organics initiatives show that political corruption, low trust levels in communities, lack of economic and political advocacy, poor rural infrastructure and poor health may be significant constraints in the Cambodian context, and these constraints may prevent organics initiatives from reaching the poorest farmers. Research into factors that increase chances of success in organics initiatives shows that building up relationships with farmers and stakeholders at local levels, and also on a wider scale, may be large factors in creating sustainable initiatives.

The thesis now turns from a review of empirical research on organic farming to a discussion of theoretical research into the concepts of empowerment and food frameworks. These concepts form the basis of a framework that is used to map the organics movement in Cambodia and its impact on human development.

Chapter Three: Empowerment and the food journey

Poverty reduction on a large scale depends on empowering the central actors, those who are most motivated to move out of poverty – poor people themselves (Narayan, 2004: ix).

Introduction

Mainstream development is moving (on paper at least) toward a view of outsiders as facilitators rather than owners of the development process. An extension of this shift is the realisation that local people should be given the choice to define their own development. However, people need not only visions of their own development but also the power to enact them. This chapter argues that a true empowerment approach will work to change the power imbalances that are perpetuating poverty by helping people gain the power to define and grasp what development means for themselves.

Research into the empowerment concept within agricultural systems is limited, but the notion of empowerment is particularly relevant for small-scale farmers in developing countries as the past fifty years has been a time of marginalisation or ‘dis-empowerment’ for many people. The rise of multinational retailers, seed and fertiliser companies, distributors, and development agencies, and in many cases the policies of governments, have gradually eroded the power of farmers to control the way they run their farms and therefore the generation of their livelihoods.

As noted in Chapter One, the organics movement in Cambodia is still in its infancy, and control lies with local and international NGOs and development organisations, and to a lesser extent government and farmers associations. Retailers and private distributors have not yet become a dominant force in the movement (Schmerler, 2006). Empowerment of small-scale producers is seen as a key outcome for German federal development agency GTZ (Schmerler, 2006) and local NGOs (CEDAC, 2006). Yet, none of the project policy documents are clear about what ‘empowerment’ might encompass, and to what extent the development organisations’ conceptions of empowerment fit with an empowerment model that looks for significant changes in the social and political position of the farmers in the organics initiatives, or whether it is ‘tacked on’ while the status quo of power

relations is preserved. Different conceptions of empowerment may mean radically different development outcomes for poor rural families targeted by development projects (Malhotra et al., 2004).

To help situate the concept of empowerment within the organic agriculture movement in Cambodia, this chapter first unpacks the concepts and indicators used to measure development. I turn briefly to what empowerment may offer and how it may be measured. I then investigate frameworks that may assist in connecting organic agriculture and empowerment.

Can development be measured?

The search for a way to define and measure human development has puzzled humans since ancient times (Schalock, 1990). Does ‘development’ mean an ability to possess more things, higher intelligence, a bigger social circle, better technology, increased satisfaction with your life, or something else entirely? The development discourse of ‘development as practice’ or ‘intentional development’ (Cowen and Shenton, 1996) that is dominant today took root following American President Truman’s famous post-war speech of 1949, in which he called for wealthy countries to assist the ‘underdeveloped’ nations. Development then became a tangible, measurable item with the introduction of the ‘poverty line’, which established quantitative points of analysis for determining the effectiveness of development in different contexts (Booth et al., 1998).

Most empirical analyses on inequality and poverty use individual or household income, or consumption to approximate quality of life (QOL); however, it is well known that these measures are deficient (Campbell et al., 1976; Korten, 1990; Deutsch et al., 2003). Widespread calls for alternative measures of human development have led to a number of influential papers on broader social indicators including subjective (self-defined) measures (Stewart, 1985; Narayan, 2000; Nussbaum, 2000). The development community now declares itself committed to recognising wellbeing and poverty as multi-dimensional concepts, but subjective measures are still largely ignored in the dominant development indices (Diener and Biwas-Diener, 2004). For example, global campaigns still focus on the ‘one dollar a day’ measure of poverty, and even the commonly used

Human Development Index (HDI) still relies primarily on objective measures and is criticised as being correlated too closely with measures of income per capita to be informative (McGillivray, 2006).

As conceptualisations of wellbeing become broader, the notion of empowerment has received much attention in the literature (Sen, 1985; Agarwal, 1997; Narayan, 2002). Empowerment encompasses objective and subjective aspects: external empowerment (the actual ability to control one's environment), and internal, or psychological empowerment (feeling one can do so) (Deiner and Biwas-Diener, 2004). In fact, Diener and Biwas-Diener argue that the most important aspect of empowerment is not objective power but *feelings* of power, and therefore external conditions necessary for empowerment are not sufficient without internal feelings of competence, energy and desire to act.

Discussion now turns to the various meanings ascribed to empowerment, and ways in which the concept can be used, and misused, in development.

Empowerment

Power and empowerment

Empowerment is an increasingly popular term within literature ranging from development studies, sociology and public health to business studies, and yet the conceptual meaning of the word is unclear and it is often mis-used in the development world (Taylor, 2000). In a recent comprehensive review of empowerment literature, Malhotra et al. (2004:11) found that common themes included gaining power and control over decisions and resources, as well as notions of independence, choice, dignity, self-reliance, control, freedom and capability. However, they concluded that no rigorous definitions and measurements of empowerment have been developed. It is therefore unsurprising that there is uncertainty as to how empowerment is to be achieved, measured, and indeed whether it is possible to empower somebody else or whether empowerment must come from within. Furthermore, concepts of empowerment will differ depending on how one conceives the notion of power itself.

This study looks to a Foucauldian understanding of power as a dynamic product of social relations. Foucault (1980) acknowledged the extent to which underlying struggles for power create and destroy society's institutions; even the bastions of 'truth' and 'knowledge' are seen to be social constructions designed and maintained by the powerful. Several aspects of Foucault's power model are relevant for this research. Firstly, power is relational; it is central to all social relations and is productive (rather than simply repressive). Secondly, power is understood as a dynamic, fluid process, and crucially, 'not something to be overthrown, but rather to be used and transformed' (Cresswell 2000:264) by those restricted in power relations. Empowerment is therefore a process that changes the balances of power, and as Taylor (2000:1) notes, 'all people involved, including not just the vulnerable but also the powerful, must expect to be affected by the process of empowerment'.

This concept of empowerment as a process of transferring power stems from the work of Paulo Freire (1970), who regarded empowerment as a process aimed at changing not only a person's position in the structure of society but also changing the structure itself if necessary. He believed that the oppressed would gradually realise the forces that oppressed them (he called this realisation 'conscientization') and would then unite with others to force widespread change. Later writers such as Friedmann (1992) and Rowlands (1997) have developed empowerment frameworks to describe and measure this process. Friedmann's model includes three axes of power: social power (access to household production), political power (power to have voice and collective action), and psychological power (individual sense of potency). Friedmann criticised development projects that focused on economic empowerment, arguing that this did not guarantee social and political empowerment and therefore the economic benefits were going to certain sections of the community (rarely the most vulnerable).

Empowerment: business as usual?

Within the context of development projects, empowerment may be used less as a stimulant for major social change and more as a development tool for increasing the power and control of vulnerable groups. This is said to dilute its potential power (Taylor, 2000:1). Post-development theorists argue that empowerment and the related concept of participation have been corrupted by mainstream development agencies that use them to

achieve their own aims (Rahnema, 1992; Escobar, 1997). Rahnema (1992:2) sees a danger in adopting impressive terminology that may cover inadequacies of practice, arguing that development which sets out to fulfill the pre-determined goals of development agencies is coercive, while real development is the 'recovery of inner freedom' (1992:128).

One particularly lively debate takes place over the arena of 'economic empowerment'. While most writers agree that increasing income has positive effects on wellbeing, there is disagreement over whether a focus on helping farmers to access high value export markets is empowering, or whether this strategy further displaces control away from local hands. I term this the 'food security and cash crop debate'. Much of the literature concerning agricultural relations in developing countries tends to support the 'cash crop' side of debate, suggesting empowerment may be best achieved through international and premium price channels (for example, World Bank, 2004), which is facilitated through 'partnerships' between the state, non-profit and for-profit companies (*see* p. 13 for a discussion of partnerships). Competing tensions over which sector of society should lead development initiatives and where these should be focused are clearly articulated in policy documents; writers in favour of private sector participation and cash crop trade are calling for development organisations to 'not be afraid of linking with business' (Kirby, 2006:32) and to avoid creating a 'subsidy-based society' (SDC, 2007), although other non-profit groups (usually smaller NGOs that may see themselves as more politically defined in opposition to the government and private sector interests) have traditionally been skeptical of cooperating with for-profit agencies and have tended to create alternative marketing channels (Shepherd, 2007).

These skeptical groups ask whether it is feasible to expect empowerment in the global market place to be a solution to poverty issues, and criticise large donor agencies for a lack of dialogue on how exactly the benefits through cash crops and partnerships are expected to flow to the poor (Crowe, 1998). They argue that in developing country contexts, groups that aim to empower farmers by engaging with the private sector and other actors may find themselves turning from a facilitator to a leader in market-based development because of a lack of private-sector involvement (Danse and Vellemer, 2007), and all groups may be unable to assist with market involvement if they do not have the necessary business skills and organisational approach (Shepherd, 2007). Groups that

create alternative markets (such as shops owned and supplied by the organisation) may be seen as blocking the participation of the private sector (Delind, 2002), but they may see these alternative markets as a necessity in contexts where conventional private-sector led markets are not inclusive of marginal producers.¹¹

The trend toward market expansion and access as a development objective amongst groups seeking private sector cooperation and also those attempting to create alternative channels creates a complex environment in a country like Cambodia where both state and private sector initiatives in agricultural development are minimal. Increased trade openness following Cambodia's accession to the World Trade Organisation (WTO) is said to put more pressure on domestic producers who are faced with greater competition; in this environment, some see the development of high-value export markets as an answer (Dao, 2004). However, it is vital to understand the relationships between subsistence-focused agriculture and cash cropping, as there is a concern that household food security and soil quality may decline due to intensive land use (Mertz et al., 2005) or the neglect of subsistence crops (Kotschi, 2000). Critics argue that the focus on high-value export markets as a development strategy places more risk on vulnerable farmers and may enmesh people further in processes that they have limited control over and may not be able to comply with (Danse and Vellemer, 2007). Some see alternative arrangements such as community co-ops and informal markets as viable sources of food security that are not adequately considered in development initiatives (Lyson, 2000; Delind, 2002), and this type of 'civic agriculture' is said to go beyond economic empowerment to focus on 'citizen engagement', thereby securing long-term gains for farmers (Delind, 2002:202). While most major development agencies do not go so far as to promote informal markets as these critics suggest, there is a recent acknowledgement of the need to consider local markets as a viable, and possibly less risky and more sustainable option for development strategies (Scherr, 2004).

¹¹ This perception is part of a wider grey area around the profit-making activities of non-profits; many non-profits wish to diversify their funding sources and generate some of their own revenue, seeing this as a way to escape from the pressures of pleasing donors and relying on short-term project based funds. The dichotomy between a desire for self-funding and distortion of market activity is said to create confusion for non-profits (SDC, 2007).

The cultural appropriateness of reproducing the Western-developed economic empowerment model in a different cultural context also needs to be questioned. One Danish NGO director in Cambodia, who markets farmers' produce in the city of Siem Reap, believes that the idea of economic empowerment is foreign to Khmer¹² culture:

I think the idea that farmers need to be entrepreneurs and be 'empowered' is an American way of thinking—not the Khmer way. My beekeepers aren't interested in going into the city to sell honey; they'd rather keep doing what they've always done and get me to deal with the city market. If I left, they would go back to selling to the local market (Jump, D, 2007, pers. com, 17 April).

This view raises questions of what empowerment really means, and reinforces the need for empowerment to be defined by local people.

An organics empowerment framework

The wide distrust of empowerment in the post-development literature and the potential for the concept to be misused has left empowerment in danger of becoming a development cliché, useful for project submissions but distrusted by people on the ground. Is it still possible to rescue empowerment as a worthy goal in development? How should we attempt to measure it at all? Taylor (2000) believes that the measurement of empowerment can still be valuable if it is used to keep the process of development on track and meaningful to people. He suggests that we need to change our entire epistemology of development measurement by rejecting statistics in favour of personal narrative that focuses on people's own ideas of development, and also by including qualitative pictures of the formative relationships surrounding the person in question. Similarly, the Research Group on Wellbeing in Developing Countries (WED, 2006) argue that development strategies based on external ideas of wellbeing and development may undermine existing livelihood strategies, and therefore the focus should be on empowerment strategies that create the conditions for people to experience wellbeing as they see it.

¹² Khmer is the largest ethnic group in Cambodia. All farmer participants in this study identified as Khmer.

In line with these arguments, I felt it was vital that my assessments of wellbeing attempted to ‘give voice’ (Hay, 2005) to people by using participants’ own criteria and not a pre-determined list of values, as a large part of this research concerns people’s wellbeing and feelings of power.

Although this chapter has shown that the notion of empowerment is often reduced to economic or political foci, in a wider sense empowerment embraces the idea that people develop the ability to define and work toward their own sense of development. In this thesis I describe this notion of the life that people aspire toward as ‘the Good Life’, drawing from the work of Pacific academic David Gegeo (1998). Gegeo writes critically about empowerment and rural development measures in the Solomon Islands in relation to indigenous epistemology. He believes that outside notions of development promoted through development organisations and governments are not relevant to indigenous notions of change, and points out that Solomon Islanders have many words for concepts of development, or the Good Life, but these are distinct from Western notions of development that are equated largely with *bisnis* (capitalism). Gegeo’s post-development line of critique questions whether it is possible for even an ‘alternative’ development paradigm, rooted in notions of participation and empowerment but often led by outsiders, to understand and embrace indigenous notions of the Good Life. I agree in part with Gegeo’s observations about the dichotomies between dominant development paradigms and the goals of local people. However, this thesis asks whether there can be connections between the impacts of development initiatives pursued by outsiders (in this case the NGOs and donor agencies funding the organics initiatives), and the aspirations of local people.

The notion of empowerment is therefore defined in this study as:

People achieving their own vision of the Good Life.

Specifically, I aim to find out: What is the Good Life to this person living in rural Cambodia? Is the organic initiative helping to move people toward the Good Life?

Studies such as this that use participatory wellbeing indicators to ask people about their visions of development and the Good Life are becoming more common. For example,

reports such as the World Bank's 'Voices of the Poor' (Narayan, 2002) are excellent in illustrating the ways that people's ideas of poverty and wellbeing vary according to their culture and life situation. In a recent wellbeing study spanning four developing countries, researchers asked participants a range of questions about their values and aspirations and found that subjective quality of life was not simply equated with happiness, but related to the aspects of life people regarded as important (WED, 2006). In the WED research, respondents generally conceptualised wellbeing in terms of material things such as 'having enough food to feed my family for a year' and size of farmland. The researchers found that conceptions of 'illbeing' were also important for understanding people's values; interestingly, these were characterised in less material terms, such as having many problems, being in debt and being unhappy. Similar research has suggested that the main sources of wellbeing for rural people may be having: land and other assets, sufficient food, diverse sources of income, education, good family and community relationships and sufficient labour (Moore et al., 1998). Moore et al.'s study confirms the importance of sufficient resources, but highlights the importance of the social context, including the importance of relationships with family, community, and authorities, and self-respect. However, the authors felt that people were most likely to place importance on basic needs such as food rather than independence and self-respect, although all were important.

I drew my approach in part from a study by Veluw (2006) that questioned Ghanaian farmers about their values by asking them 'What sustains you?' In my study, the participants were initially asked to reflect on their values by answering a similar question, translated as 'What is most important to you?' I then asked about the fulfillment of the identified areas in order to gain a more accurate picture of the person's subjective wellbeing, and their vision of the Good Life. This line of questioning is explained further in Chapter Four on methodology.

The food journey

This chapter has so far focused on empowerment as a relational concept, wherein all relationships are seen to have dynamic power structures. Now I ask how these relationships may be represented in the case of organic agriculture. This section identifies

frameworks that will be used to map the organic food movement in Cambodia and analyse its impact on producers.

In recent years, the international development community has become increasingly interested in ‘linking farmers to markets’, using predominantly value chain and network methodologies to analyse the potential for farmers to access high-value markets. There is a realisation that the separation of ‘urban’ and ‘rural’ no longer describes the increasing mobility of people, goods and information flows within agriculture (Dabbert et al., 2004). Effective development strategies will need to take a wider view of the importance of agriculture to the livelihoods of both rural and urban dwellers (Garrett, 2005). Development organisations as diverse as DFID (2003), the World Bank (2003), Helvetas (Arndt et al., 2005), Oxfam (Clay, 2005) and SDC (2007) are promoting value chain analysis, but critics question whether this will prove to be another in-vogue development concept that is snapped up uncritically by donors only to be left behind when it seems not to work (Shepherd, 2007). Discourse on the related concept of ‘networks’ in development is also problematic, as there is little theorisation about what these are and how they work (Koehler, 2000, cited in German NGO forum, 2005:33). There is, then, a need to critically analyse the food frameworks that have entered into development discourse—particularly value chains and networks as these are the most popular in the development literature—and assess whether these are appropriate and useful in different contexts. This section explores the origins of various frameworks and directions in which the literature has developed; I then attempt to critically assess the usefulness of these frameworks for my own study.

The development of food frameworks

This section provides an overview of the various approaches, motivations and critiques in the literature on conceptual frameworks in order to assess the utility of such frameworks in this study; these approaches are summarised in Table 3. The table shows a gradual broadening of focus from narrower frameworks that highlight physical production and distinct power relations in a linear logic, through to attempts to incorporate conceptions of dynamic power relations, wider social relations and non-linear logic. Many of the early frameworks represented in Table 3 and their later spinoffs, such as Global Commodity Chains (GCC), are based on political economy approaches and are useful for highlighting

the potential abuse of power by large firms in commodity trade (Hartwick, 1998). However, critics argue that the simplified analysis of chains as ‘producer-driven’ or ‘buyer-driven’ means it is difficult to discern various relations of power and control along complex chains, and some believe that the framework is centred too much on the production side of commodity chains (Raikes et al., 2000). The Systems of Provision (SOP) models (Fine and Leopold, 1994) emerged in response to critiques of previous chain theories, and attempted to focus more on social relations and spaces along specific elements of the commodity chain, as does the French Filiere tradition (Goodman, 2001). Critics of SOP argue that the framework gives insufficient attention to the practices by which production and consumption are linked (Hughes, 2001); that is, it is said to privilege the (horizontal) social relations over (vertical) power relations. In response, frameworks that incorporated both horizontal and vertical chain logics were developed (Uzzi, 1997; Hartwick, 1998).

Table 3: Approaches to conceptualising the food journey

Approach	Key authors	Areas of focus
Chain approaches		
Commodity systems	Friedland (1984)	National labour relations
Commodity chain	Derived from world systems theory (Hopkins and Wallerstein, 1986)	Worldwide spatial relations
Filiere	Lauret (1983)	National political regulation and institutions
Supply/value chain	Porter (1990)	International business organisations, profit extraction
Systems of Provision (SOP)	Fine and Leopold (1994)	Horizontal relations and spaces with systems
Global Commodity Chain (GCC)	Gereffi (1994)	Large firm power – ‘producer’ or ‘buyer’ driven chains.
Hybrid approaches (chain/network)		
Netchains	Uzzi (1997)	Attempts to incorporate horizontal and vertical aspects of chain.
Network approaches		
Actor Network Theory (ANT)	Latour (1993)	Relational, context-based, inclusion of human and non-human actors.
Food networks	Arce and Marsden (1993)	Analysis of global processes embedded in local contexts.
Conventions approaches		
Quality conventions	Thevenot (1995)	Mapping quality aspects.
Mapping food relations	Holloway et al. (2007)	Mapping range of social spaces.

Source: Author, adapted from summaries by Hartwick (1998); Leslie and Reimer (1999); Jarosz (2000); Lockie and Kitto (2000); Goodman (2002); Raynolds (2002a); Mansvelt (2005)

While most of these frameworks have roots within social science disciplines, Porter's (1990) work '*The Competitive Advantage of Nations*' propelled the concept into the business world. Porter argues that in order to maximise profit, the 'supply chain' that links farms to firms, distributors and final consumers must be analysed. More recently, the concept of 'value chains', which stress cooperation between all actors in the chain to maximise value-added profit has become popular in business literature and development studies literature (Gereffi, 1994).

Within the development literature, value chain methodology has become an increasingly popular method of analysis in many aspects of rural development, and advisory handbooks that describe the uses of the value chain method have also been developed by the International Development Research Centre (IDRC) (Kaplinsky and Morris, 2001) and the International Labour Organisation (ILO) (2006). A number of analyses of alternative food systems in a development context have used supply chain and value chain methodology to analyse opportunities for producers (Kaplinsky and Morris, 2001; Dolan and Humphrey, 2001; Roduner, 2004; Hellin et al., 2005; Schmerler, 2006). Within organics, writers have used value chain theory to argue for a focus on both local market linkages with other farmers and consumers (Myers, 2005) and the benefits of distant markets that are brought 'closer' through trust developed by organic certification (Kaplinsky and Morris, 2001).

From chains to networks - socially embedding organics

In recent years, a flurry of work based on networks, particularly Actor-Network-Theory (ANT) (Latour, 1993) has dominated the food frameworks literature (most notably in Sociology, such as in the journal *Sociologica Ruralis*) to the extent that critics have begun to ask whether there is any way to see beyond ANT (Dupuis and Goodman, 2004). Many studies are perhaps misleadingly lumped under the category of network theory (Goodman, 2001), but they may be seen as a collective attempt to dissolve the binaries of previous chain-based approaches described above, particularly between natural/social and macro/micro analysis. ANT combines humans, non-human and 'hybrid' actors as networks; power is seen as the relations between and within actors. Power in this case is similar to Freud's conception of dynamic, relational power (*see* p. 33) and this post-

modern view of power allows us to move between actors to get a hold on issues of inequality that are normally considered macro-social.

Writers are now moving on from ANT and exploring alternative methodologies that seek to integrate culture without ignoring the political nature of producer-consumer relations (Raynolds, 2002a:407). An exciting recent development is the emergence of studies that incorporate aspects of both political economy and cultural and network studies, thereby showing how actors are both shaped by and shape networks (Raynolds, 2002a:409). These writers argue that ANT understates power differences by concentrating on the dynamic quality of power (Thevenot, 1995; Murdoch et al., 2000). Mansvelt (2005:124) argues that further exploration of networks on a micro-scale to show how networks are embedded within communities would aid in understanding their relationship with community change and development in distinctive regions, and thereby highlight both the dynamic nature of power and also inequalities at the micro level.

The changing organics movement and increasing complexity of agricultural relationships brings with it a need to adapt previous food framework theorisations. Critics argue that the traditional organic focus on production and short-food chains to ensure a higher income may no longer be relevant and is at the expense of the wider potential social benefits from organics (Darnhofer, 2005). Even 'pro-market' critics are searching for ways of 'socially embedding [analysing the social context of] the agricultural chain by exploring and integrating the views of stakeholders on the fringe of agri-food networks—the poor, weak, isolated, non-legitimate, and even non-human' (Hart and Sharma, 2004). Parrott and Wright (2007) similarly argue that analysing the organic supply chain in isolation from other processes does not allow us to recognise the diverse social networks that organic farmers form from linkages with other economic, social and ecological activities. Darnhofer proposes that:

When studying the potential impact of organic farming on rural development, the perspective should be widened to include the effect of conversion on activities of the farm household, instead of focusing exclusively on the food chain (2005:308).

Darnhofer goes on to argue that organics contributes to a wider reconfiguration of rural development through increased independence and social embeddedness within

communities. Stock (2000) develops a similar social and psychological networks focus in writing about the importance of social networks within the context of organic farmers in the American Midwest, arguing that organic conversion contributes to increased community networks and self-esteem for farmers.

Along with a growing focus on the social, writers are arguing that linear models are not representative of increasingly complex global food relationships. The non-directional, more inclusive framework of network models may allow the social and political aspects of food relations to be better analysed. However, many of these network-based studies focus on developed country settings with a mature organics movement, while developing country studies still tend to be based on value chain approaches to analysis (Smith et al., 2002). There is certainly nothing wrong with this approach if the aim is to observe primarily economic relations between the main stakeholders of the commodity, but if the aim is to undertake a wider analysis that looks at social, political and psychological empowerment, a chain approach may be too narrow to represent this and alternative approaches including aspects of network theory and conventions theory may be better suited (Smith et al., 2002).

Network theory is particularly useful for investigating relationships between different actors involved with development initiatives—both directly and indirectly—and the various power balances between them that can impact on the success of the initiative. The following section highlights the importance of relationships for creating successful farmers groups, including relationships both within the group ('bonding' networks) and connections with other groups ('bridging' networks).

Farmer groups and the importance of bonding and bridging networks for empowerment

This section utilises the concepts of empowerment and network theory and integrates these with the social capital concepts of bonding and bridging networks, in order to build upon the discussion of success factors in organics initiatives in Chapter Two (*see* p. 28) and focus in more depth on factors influencing farmer groups. With the limited functioning of the state and private sector in many developing countries, farmer groups are often seen as a way to improve negotiation capacity with other actors. These are known under a variety of names, such as Producer Organisations (POs), farmers

associations, cooperatives and self-help groups (I refer to them in this study as ‘farmer groups’ or specifically ‘organics groups’). Shepherd (2007) identifies two methods used to create farmer-market networks; either a ‘top down’ approach which involves identifying market demand and then seeking farmers to satisfy it, or a ‘bottom-up’ approach of first identifying farmers to work with and then finding markets they could supply. He further categorises donor interventions by the complexity of market relations: simple networks (e.g. creating farmer groups to improve negotiation within existing markets) may require only initial assistance and links with new urban markets such as hotels and processors may still be achievable by a local NGO or farmers group, while more complex linkages may require support from several different agencies, NGOs and the government (Shepherd, 2007).

Studies of farmer-to-market linkages often talk of the need to promote farmer empowerment by expanding entrepreneurial capabilities, but Shepherd (2007) points out that this raises questions over whether it is unrealistic to expect farmers to suddenly become entrepreneurs and ‘chain-owners’. He believes that direct sale in local areas should be encouraged, but also says that locally-focused projects that call for farmers to become involved in processing, transport and retail sale are questionable because most farmers will not have the capacity to manage them, and they are likely to not be profitable. Stringfellow (1997) extends this argument by stating that there is a place for both ‘linkage-dependent’ (rely on outside agency for market access and supervision) and ‘linkage-independent’ (self-sufficient) groups, as the need for managerial skills and marketing experience in independent groups may preclude some farmers joining. Woolcock (1998) agrees with Shepherd (2007) that farmers should not take on all operations themselves, and believes that farmers need to build strong relationships with others in the industry, as well as authority figures, to have more control. He argues that two forms of social capital¹³ are particularly important: firstly, strong internal relations within farmer groups to bind farmers together, and secondly, a multitude of ties to form bridges between different social and economic sectors.

¹³ The concept of ‘social capital’ was developed by Pierre Bourdieu (1986), James Coleman (1988) and Robert Putnam (1993;2000). Although no precise definition is agreed upon in the literature, social capital can be understood as encapsulating the notion of social organisation and the achievement of goals via networks of trust within an organisation or community, and ties to outside communities and organisations, which improves the social and economic functioning of the group (Stewart-Withers and O’Brien, 2006).

These two distinct forms of social capital were labeled by Robert Putnam (2000) as ‘bonding’ capital, which refers to links between individuals within a particular community, and ‘bridging’ capital, which refers to links outside the immediate group or locality. Putnam saw bridging social capital as particularly beneficial for societies, governments, individuals and communities. Bonding and bridging networks are shown to be distinctly related to empowerment; for example, one study has shown that people with more developed networks at both bonding and bridging levels are empowered to participate in civic action beyond the level at which their particular class or age group would normally participate (Larsen et al., 2004). However, it is important to qualify a discussion of the concepts of ‘bonding’ and ‘bridging’ networks with an awareness of the critiques around this discourse. International financial institutions, NGOs and many governments have used these concepts problematically by focusing on the role of the community in developing networks and ignoring larger structural issues such as access to finance and unequal trading relationships (Willis, 2005:111). In this way, the concepts of networks in social capital discourse can be mis-used, similarly to the ‘empowerment’ discourse described earlier, so that they are used to serve elite interests (Stewart-Withers and O’Brien, 2006). However, as with empowerment theory, these problematic aspects of the discourse should not discount its value in understanding social relations. Rather, it must be understood that social capital is not just about the individual’s ties to networks, but the social and political environment which shapes structures and networks, including those which are global (Stewart-Withers and O’Brien, 2006:212).

In the context of farmer groups in development initiatives, aspects of bonding networks—such as group cohesion and high levels of communication and trust—are shown to be important success factors (where success is taken as longevity and membership) by a number of studies (Stringfellow et al., 1997; Speer et al., 2001; Shepherd, 2007), *see* Table 4. Stringfellow et al. (1997) argue that group cohesion is critical for success, with tight networks both between farmers at the local level and national and international levels necessary to gain power. Indeed, psychology research into the relationship between group cohesion and empowerment has found that groups that have high levels of trust, connectedness and civic engagement experience greater empowerment (Speer et al., 2001). However, Shepherd (2007) argues that farmers incur hidden costs from group activities such as meetings, and that groups that appear cohesive may not be totally democratic, with the same people doing much of the work.

Table 4: Success factors and reasons for failure in farmer groups

Success Factors	Reasons for Failure
Group cohesion – links at local, national, international levels	Tendency to expand activities beyond capacity of group
Effective management and leadership	Farmers unwilling to take on ‘hidden costs’ of meetings, training etc
High levels of communication and trust	Lack of trust between parties may lead to collapse
Resources available to farmers (land, water other assets)	Loss of flexibility in enterprise choice
Long-term donor funding to build capacity	Dependency on donor funds for group activities, resulting in breakdown when donor funds finish
Legal status of group (recognised by authorities)	
Farmer education level	

Source: Author, adapted from Stringfellow et al. (1997); Speer et al. (2001); Shepherd (2007)

Beyond bonding and bridging networks, Table 4 shows that other factors are critical to successful farmer groups, including the timeframe available for funding, with researchers arguing it takes between 2-15 years for a group to be independent (Shepherd, 2007:xii). An FAO (2002) report stresses the possibility of donor dependency if too much external assistance is given to achieve short-term goals, and points to the case of a group in Madagascar that successfully developed over fifteen years by slowly building up larger networks and skills based on farmer’s identified needs (Bienabe and Sautier, n.d, cited in FAO, 2002). Furthermore, existing access to resources and education levels are also seen by many as correlated with successful groups (Shepherd, 2007). Shepherd notes that organisations are faced with a basic contradiction; they want to work with poor farmers, but a lack of business skills and poor access to resources may mean that other farmers capture the benefits of intervention. Considering the multitude of difficulties faced by resource-poor and isolated farmers, Shepherd remarks that it may be better to focus, in the short term at least, on better-endowed farmers (Shepherd, 2007:56). He further argues that the difficulty in working with resource-poor farmers, together with the management difficulties described above, may mean that successful ventures cannot be replicated on a large scale. He therefore suggests that alternative uses of resources, such as facilitating the development of large-scale farms for provision of employment opportunities, may be more worthwhile. There is some evidence to support this idea that large-scale farms may contribute more to poverty reduction in some areas (Humphrey, 2006), but in the Cambodian context small farms are shown to be more effective (World Bank, 2006); (*see* p. 11). Furthermore, given that ‘equity’ is one of the four principles of organic agriculture (*see* p. 15) and the Cambodian government (RGC, 2002) and the development community

at large have stated a commitment to poverty reduction (Aturupane et al., 1994), the extra time and funds that may need to be spent to make initiatives inclusive for poorer farmers are arguably necessary for the initiatives to be termed successful in a development sense.

Summary

This chapter has introduced two distinct areas of literature—work on the concept of empowerment, and theories of food frameworks. Together with the literature on organic agriculture covered in the previous chapter, these will be weaved together to become the basis for the framework followed in this study; this process is described further below. The concept of empowerment was acknowledged in this chapter to be problematic, but it was argued that empowerment is a vitally important aspect of wellbeing and is still a worthy aim for development initiatives when the concept is defined by local people. In light of the need for contextual relevance, empowerment was defined in this study as: ‘people achieving their own vision of the Good Life’.

The second section of the chapter reviewed various approaches to conceptualising the relationships involved in food, focusing on two main areas of theory—commodity chains and food networks—and also acknowledging emerging theories that reach beyond both of these schools of thought. While all theories were seen to have aspects relevant to this study, theories on food networks were considered to be most appropriate for representing the scope and dynamic power relations amongst different people and organisations covered in this study. Network theory was then used to describe relationships between development organisations and success factors in farmer groups, with a focus on the high levels of organisation and relationships both within the group and in connection with other outside stakeholders—termed ‘bonding’ and ‘bridging’ networks, respectively—seen as indicators of successful farmer groups.

Drawing on the two strands of literature throughout this chapter, Figure 3 provides a framework for investigating the impacts of the organics initiatives on farmer empowerment, using the concept of networks. The framework originates with a self-defined concept of development. The impacts of the organics initiatives are then assessed,

with a focus on the networks involved at both local level (including networks of self, family, organic group and community), and wider level (government, development organisation, national and international relations), as these local and wider networks are both shown to be important factors in the success of organics initiatives and in empowerment, as discussed in the previous section. In this framework, the identified impacts of the organics initiatives are related back to the self-defined concept of development, so that an assessment of the effectiveness of the initiatives is based on contextual aims rather than pre-determined indicators.

The following chapter details the practical methods used in fieldwork to assess the qualitative impacts of the organics initiatives.

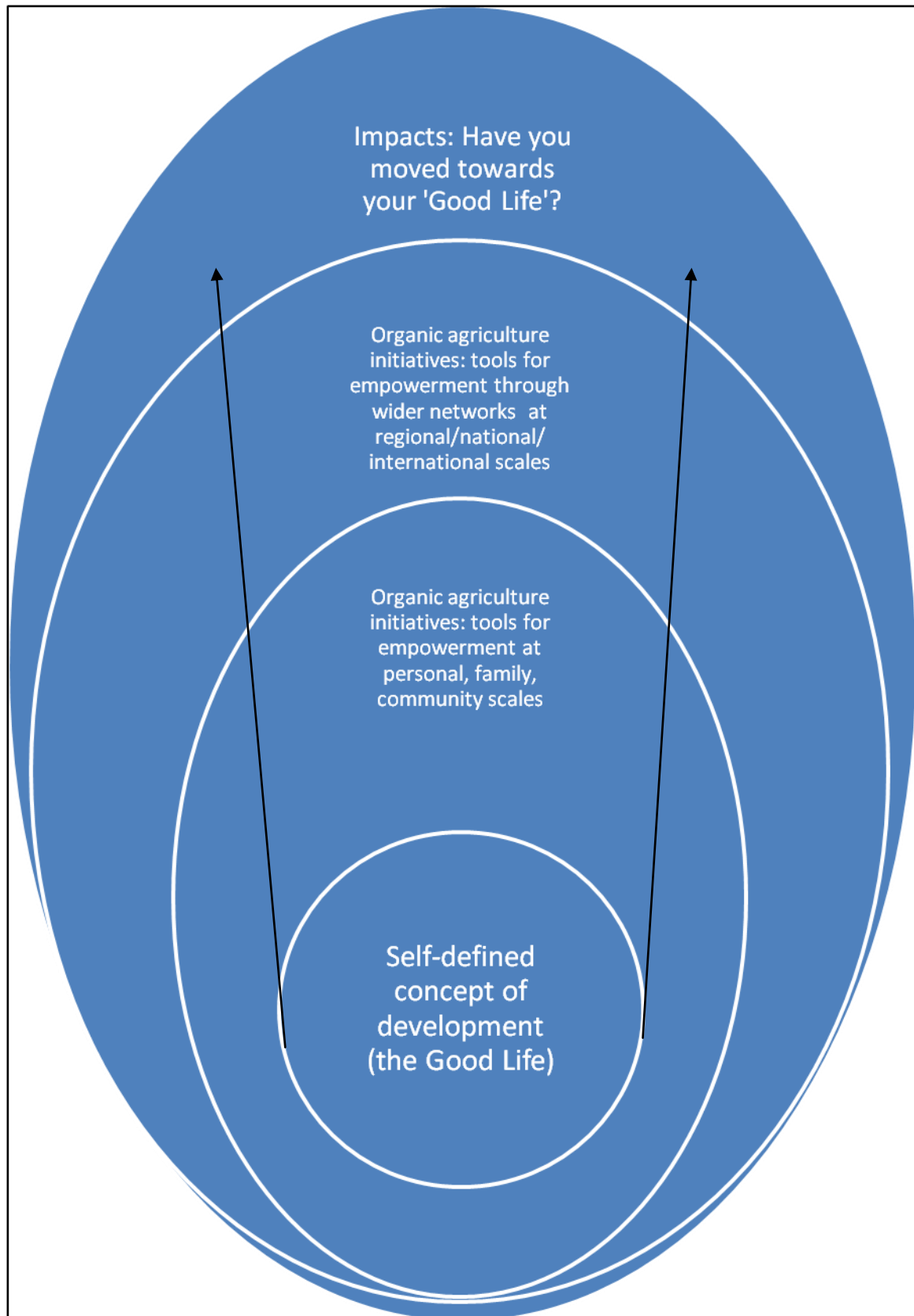


Figure 3: Self-defined development conceptual framework for research with organic farmers in Cambodia

Source: Author

Chapter Four: Methodology

Introduction

In light of the research gap into sociological studies of organic agriculture explained in Chapter Two, this study follows an interpretive methodological approach. This chapter provides background into my philosophical position, described as constructivist ethnographic and participatory, and justification for the methodologies employed—essential background for understanding research context and potential researcher bias. A detailed description of specific methods employed during fieldwork follows. The discussion of fieldwork experiences and the various spaces that had to be negotiated is substantiated through extracts from research journals, in an attempt to ‘take [you] into the setting and permit you to make your own judgement’ (Patton, 2002:23).

My philosophical position

Within sociological research into organic agriculture and development studies research generally, there is a push for researchers to clarify their own values, make transparent the motivations for research, clearly document methods, and show areas of uncertainty and ignorance (Watson et al., 2006). Some authors have criticised organic research for not being objective, because it is generally written from a strongly committed point of view (Tinker, 2000). However, science is neither value-free nor independent, and therefore rather than posturing as ‘objective’, I believe that all research should strive to be reflexive and make the role of values explicit.

I am under no illusion that I occupy an unbiased research position, as I am unashamedly a supporter of the organic agriculture movement. I have worked on an organic farm and teaching centre, purchase the NZ Soil and Health Association publications, and regularly buy organic food, primarily for its perceived environmental and health benefits. I am concerned about the impact of corporate influences on the organics movement, especially the impact on producers. I am committed to the potential of organic agriculture, and would like this research to be used for social change; in this respect, my study is ‘social

action' research, which has wider aims of producing change.¹⁴ My connections with organic agriculture make it clear that I am not an objective observer placed 'outside' the movement. I am participating in it and hold values about its worth; however, this does not render my research 'unscientific'.

I follow Kaltoft (1999) in describing my position as constructivist ethnographic and participatory; a post-modern way of doing research that calls for the researcher to reflect on the premises of the production of knowledge. This approach realises that all knowledge is 'situated'—there is no independent position from which one can fully and freely observe the world, and our position and the 'truths' we produce are central to the outcomes of the research. This is related to an awareness of hermeneutics—study which aims to interpret the meanings behind language and text and investigates the ways that humans use and make these meanings (Yates, 2004). The tradition of political science also influences my work as it is concerned with questions of power—how power is organised, created, distributed and used (Patton, 2002).

Qualitative case study approach

Lofland and Lofland (1971, cited Patton, 2002:21) believe that the first principle of qualitative research is to understand participants on their own terms by learning 'their categories for rendering explicable and coherent the flux of raw reality'. My subjects of enquiry—human development and empowerment—are intensely personal concepts, so I believe they should be defined in the language and space of the individual as opposed to a generic scale on a survey. Qualitative methods also served my purpose because the parameters of the topic were not well known and few other studies (at least in published accessible form) were available. Therefore a deductive approach was not possible (as advised by Okely (2004)). I decided upon a mix of qualitative methods, including open-ended interviews, focus group interviews, participant observation and also secondary data

¹⁴ There are numerous definitions of action research, however one of the most widely cited is that of Rapoport, who defines action research in the following way: 'Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework' (1970:499).

collection. Many authors, such as Trow (1970), argue that multiple methods of inquiry are needed to fully analyse case studies. Some methods, such as participant observation and ethnography, are useful for understanding social relations at the local level, but they are inadequate in revealing macro-level political structures and wider factors (Ellen, 1984). I chose a range of methods that would complement my research questions and theoretical standpoint by allowing me to learn about the *why* and *how* questions as well as the meanings that participants ascribed to concepts.

In light of my decision to focus on qualitative research, I chose to follow a case-study approach with an investigation of seven cases of village-based organic farming groups. This allowed me to talk with individuals and groups to some depth, but also to investigate a range of initiatives and geographic regions so that I could form ideas about the country as a whole. While the case-study approach does not contain the large sampling sizes of quantitative analysis, Perecman and Curran (2006) argue that people who say that case studies are not significant actually misunderstand the goals of case-based research, which are to understand reasons and concepts rather than causal inferences. This type of analysis seeks to understand the world by interacting, empathising with, and interpreting actions and peoples (Bryman & Burgess, 1999). I decided to focus my case study on farmers who are members of organic groups, rather than extend the investigation to include both organic and conventional farmers (this type of comparative methodology was also considered at the planning stage), as I felt that a wider approach would sacrifice richness in data gathering and analysis.

The cases were chosen in order to cover three main criteria:

- A wide geographical area with diverse farming conditions and infrastructure (*see* Figure 4 below);
- a variety of quality control approaches, including export certified, domestic certified and non-certified production systems, and, related to this, a variety of trading approaches including export, long-chain domestic (i.e. transporting to urban centres), organised local market trade and un-organised trade; and
- the two largest organic agriculture development initiatives (CEDAC NGO and GTZ) were covered.



Figure 4: Cambodian map showing research sites

Source: CIA, 2007

Figure 4 shows the cluster of research sites around the Tonle Sap lake region. Coding for village names is explained on p. 60; full case descriptions are provided in Appendix 1.

Holistic perspective

A current methodological challenge in organics, and indeed within the wider field of rural sociology, is to acknowledge that ‘rural’ can mean many things, and agriculture is a ‘multifunctional’ activity which not only involves producing food and fibre, but also has social, economic and political functions. I believe that the motivations and expectations of all people involved in the agricultural process need to be explored in order to assess the

power relations between and within groups (for examples of ‘multifunctionality’ in agriculture, *see* Bowler (2002) and Dabbert et al. (2004).

Within organic research, holism is particularly important. If we are to acknowledge the organics pioneers’ concept of organics as the recognition that everything affects everything else (Lampkin, 2002), then we must strive to see the system as a whole. However, the majority of studies continue to view organic agriculture as a production activity, or more infrequently from the consumer standpoint, but still viewing only one link of the ‘agriculture chain’. Furthermore, despite an increasing number of authors embracing the concept of holism in organic research (Woodward, 2002), a review of a large number of organic and conventional peer-reviewed studies found that there was no difference between organic and conventional research questions (Lockeretz, 2000). This result reflects the complexity and difficulties of attempting a holistic approach. Although holism sounds attractive in theory, there is no determined definition of what ‘holistic’ means and encompasses.

Dabbert et al. (2004) argue that the lack of consensus on the role of holism does not discount its worth as a methodology, and they suggest four ways in which it can be approached in organic research: holistic methods, systems research, participatory research and cross-disciplinary research. My research relates to the latter three points. I take a ‘systems’ perspective, recognising the importance of interactive processes and the need for a wide understanding of the farming systems studied; I include participatory methods (discussed in-depth below) by consulting a wide range of people, and my research is cross-disciplinary in terms of the literature drawn upon (a wide range of agriculture, development, sociology and psychology literature was consulted) and also in terms of my background (development studies, marketing and agriculture).

The first point about the need to consult a wide range of people is important as development research has a tendency to focus on the ‘poor’ and ignore the other half of the equation—the wealthy—despite the obvious importance of these people’s actions and attitudes to the lives of the poor (Scheyvens and Storey, 2003). Arguably, sustainable approaches to poverty reduction and meaningful development can only be achieved when people at all levels of society, and in all countries are consulted. The limitations of approaches that aim to empower people at the local level without ensuring that these

initiatives will be recognised and supported beyond the community level is well-documented (Rapley, 2004; Simon, 2006; *see* p. 45 for a discussion of this concept in the context of networks). My research attempted to rectify this short-coming by focusing on the linkages between different people and organisations, and interviewing both farmers and wealthy city-dwellers.

Ethical considerations

Could we do more than just ask our questions and leave? Yet, as researchers, could we justify in any way intervening? (Patton, 2002:406).

Formal ethics requirements

This study was evaluated by peer review prior to fieldwork and judged to be low risk. Consequently, it was reviewed by the Massey University Human Ethics Committee and consent to undertake the research was granted. An internal ethics review, involving a meeting with supervisors and other staff members to discuss ethical concerns, was also held prior to fieldwork. During fieldwork, all research was undertaken in line with the Massey University Human Ethics Committee Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants (2006).¹⁵

Empowerment research – beneficial or harmful?

Research is a ‘dirty’ concept for some people who see it as a colonial process of maintaining power imbalances (Howitt & Stevens, 2005). I was committed from the outset to an ‘empowerment approach’ to fieldwork that aimed to right these power imbalances, but I found varying opinions in the literature of what this may entail, and a number of empowerment advocates amongst student researchers who found the approach more difficult to implement than first thought (Scheyvens, 1995; Cahn, 2006), due in part to the difficulty of providing feedback for empowerment. Howitt and Stevens (2005:33) argue that an empowering, or post-colonial research aims to ‘right the wrongs’ of colonial

¹⁵ The major ethical principles outlined in the code are: a) respect for persons; b) minimisation of harm to participants, researchers, institutions and groups; c) informed and voluntary consent; d) respect for privacy and confidentiality; e) the avoidance of unnecessary deception; f) avoidance of conflict of interest; g) social and cultural sensitivity to the age, gender, culture, religion, social class of the participants; h) justice (MUHEC, 2006).

research by fostering self-determination and cultural affirmation, not simply through being culturally sensitive, but by respecting the legitimacy of ‘others’ knowledge. Following Scheyvens (1995), who developed guidelines for her own empowerment research, I wrote guidelines that I endeavoured to follow during my research:

- My research should be beneficial and empowering to participants.
- The participant should feel comfortable and in control of the discussion.
- I will endeavour to ‘do good’ during my time in the field and after, and at the least, will ‘do no bad’.

I tried to put the concept of empowerment research into practice in a number of ways:

- I always met with people on their own ground (usually their house or place of work) so they would feel more in control.
- I started each interview with a self-introduction in Khmer. This gave me a chance to explain who I was and most people enjoyed listening to a ‘barang’ (foreigner) struggle with the language that was so natural to them!
- When people asked, I shared with them the achievements and successful methods of similar groups I had visited.
- In focus group interviews (discussed in depth below) I encouraged participants to direct the course of discussion, and investigate ways in which they might mitigate negative influences on the group.
- I asked for questions at the end of interviews, so that the experience would feel less of a one-way interrogation. This proved to be an insightful part of the research experience in a way I hadn’t anticipated, as I learnt a lot about people’s values and concerns through their questions.
- I provided verbal summaries of my investigation to local development organisation staff in two provinces. I will provide brief written summaries in Khmer language to the farmer’s group in each area at the conclusion of the research, and more extensive summaries to organisation staff and other participants who asked for them.

Although I was able to implement aspects of empowerment research, at times I found myself questioning how empowering my study really was, and I found that negotiating a space for relationships with research participants was a constant challenge. I aimed for ‘empathetic neutrality’, a concept described by Patton (2002:34) as being caring, interested and understanding towards people while also being non-judgmental (note that ‘neutrality’ in this sense refers not to ‘objectivity’ but to lack of judgement). However, I found that I was apt to form judgements rather quickly about particular approaches and groups of people. This propensity for researchers to begin to relate and side with ‘their’ communities is common (Ellen, 1984). I was not sure how to deal with these feelings, and I settled eventually on spending time each night to reflect on my judgements and emotions and writing them down. I hoped that by making explicit my values to myself, I would be better able to understand them (or at least be aware of them) when talking to people.

Fieldwork methods

Let us be done with the arguments of participant observation versus interviewing...and get on with the business of attacking our problems with the widest array of conceptual and methodological tools that we possess and they demand (Trow, 1970:7).

Fieldwork took place over six weeks in April-May 2007. I first contacted the director of CEDAC NGO in 2006 via email after reading about their extensive organic agriculture initiatives. The NGO offered to facilitate access to possible research participants including farmers, development organisation staff (from CEDAC and partner organisations) and local government officials, and also to arrange a research assistant. I began a dialogue with the head trainer at CEDAC to determine suitable field-sites; my plan was to conduct fieldwork in two villages that contrasted in growing conditions, proximity to markets, and wealth levels, but where organic agriculture initiatives were well established. However, when I arrived in the capital city of Phnom Penh in April 2007 and met with representatives from the NGO to finalise my research plan, I discovered that they had arranged for me to visit seven villages, and had also set up a large number of interviews with officials, allowing little time for conversing with farmers.

I was alarmed at this development, and worried that I would be sacrificing depth in my research, but the NGO did not want to cancel the appointments made with officials. I compromised and decided to conduct the study in four villages, staying in each village for approximately four to ten days, with some ‘down time’ to allow for changes. This flexibility proved to be essential, as I later heard about a development initiative for the production of certified organic rice and was able to conduct research in three other villages at short notice. I also attended a ‘Workshop on Organic Products’, the first forum in Siem Reap to bring together development organisations, local government and the private sector, which was invaluable for the contacts I made.

Village selection

Upon arriving in an area, I would meet with a representative from a development organisation involved with an organic farming initiative for a pre-arranged interview, and was then accompanied to a target village by an organisation field-worker. Villages were selected on the basis of having an established vegetable and/or organic rice initiative, and I endeavoured to study a range of growing conditions, regulation systems and marketing channels to investigate how these impacted on farmer empowerment (*see* Table 5). Several different development organisations were studied, the largest being CEDAC and GTZ, and the organic regulatory systems are shown in Table 5 to include three main forms of quality control systems (non-certified, domestic certified and export certified); in each certified initiative, either rice or vegetables were certified, but not both crops.

I was usually taken to meet with the village chief and representatives from the organic farmers group first. Where possible, I took this opportunity to conduct a focus group interview, then used the ‘snowball sampling’ technique (whereby participants are asked to name other possible contacts) to select further interview participants. Moore (2006) argues that the snowball technique is convenient and practical, but perhaps not representative. However, it can provide some legitimacy to the research as participants have the chance to ‘vet’ the researcher. It was practical for my context, as I was interviewing only a small portion of the population (members of the organic farmers group) and I would have spent a long time attempting to identify members’ houses without assistance from other farmers. Also, fair representation was not so much a problem, as I was often able to interview all, or almost all, of the group members.

Snowball sampling was also invaluable in the cities of Siem Reap and Phnom Penh. For example, I managed to arrange a meeting with a top official (the Chief of the Provincial Department of Agriculture (PDA) in Siem Reap) only because an NGO staff-member I interviewed knew a PDA employee, and snowballing was particularly successful amongst the small expatriate community:

We had a really good meeting with a sustainable honey farmer from Denmark who gave me the names of three other people I should talk to (this seems to happen whenever I talk to anyone...I can imagine staying here for a year and still getting more names) (Research journal, 18/4/07).

Table 5. Characteristics of organic agriculture initiatives in study villages

Location	Code	Development organisation involved	Organic regulatory system	Marketing channels
Beungreang and Daksorsor Village Oumal Commune Battambang District Battambang Province	V1	Aphiwat S'tray (AS)	Non-certified	Subsistence/local trade
Phteas Rong Village Phteas Rong Commune Phnom Kravagn District Pursat Province	V2	CCRD	Export certified rice	Urban domestic
Ou Thkov Village Sampou Mear Commune Ro Leap District Pursat Province	V3	KNKS/CEDAC	Non-certified	Subsistence/local trade
Tmoa Riep Village Pung Ro Commune Roliep ia District Kampong Chn'ang Province	V4	CEDAC	Domestic (CEDAC) certified vegetables	CEDAC shop in Phnom Penh
Tropiang Sang Ai Village Ong Ta Som Commune Tram Kok District Takeo Province	V5	CEDAC	Domestic (CEDAC) certified rice	CEDAC shop in Phnom Penh
Kourk Ngourn Village Trapoang Russey Commune Kampong Svay District Kampong Thom Province	V6	GTZ RDP	Export certified rice	Urban domestic and export
Tua Kupor Village Chuugat Commune Ba Phnom District Prey Veng Province	V7	CEDAC	Non-certified	Group stall at local market

Source: Author

Secondary data

My subject area is relatively new and there is a dearth of published studies relevant to the country context, so I took every opportunity to search for secondary data during my time in Cambodia. I found that much of the research was unpublished, particularly the studies conducted by local NGOs. Furthermore, I found that the handful of studies sourced from the internet before I left, which were principally conducted by foreign experts, sometimes contradicted what I observed on fieldwork. For example, one author of a highly regarded study told me that he had to lie about the level of participation of central government in organic agriculture because he was afraid he may be expelled from the country (anon, 2007, pers. com, 21 May).

Interviews

I used semi-structured, one-on-one interviews as my primary fieldwork method, as I felt that issues of wellbeing and empowerment are intensely complex and personal, and therefore best addressed through individual dialogue. I conducted interviews with 57 farmers (including 26 males), nine traders, 15 development organisation staff, ten officials and four chefs (Table 6).¹⁶ More precise breakdowns of gender, location, organisation and position of all research participants are given in Appendix 2.

Table 6. Number of interview participants by occupation

Area	Farmers	Development organisation staff	Officials	Traders	Chefs
Code	F	D	G	T	C
TOTAL	57	15	10	9	4

Source: Author

¹⁶ Throughout the results section I have used codes to identify research participants and locations. A number prefaced by 'V' identifies a particular village (see Table 5), while other letter codes (as outlined in Table 6) identify the type of participant. For example, V6F2 refers to the second farmer interviewed in Kampong Thom (the sixth study area).

My somewhat naïve list of question prompts (Appendix 3) carefully arranged at my desk in New Zealand changed greatly during my time in the field, although the overall focus on my main research questions remained and this list was glued into the front cover of my notebooks to be referred to during interviews and reflections. There are several examples of the way that my questions grew, changed, or were discarded as I responded to cues from my participants and my own feelings. For example, I found that personal questions about farmers' values were sometimes met with blank expressions or embarrassed laughter by both research participants and my research assistant at the start of my research and I felt the need to use prompts to elicit responses. However, by the third research site, the question began to elicit thoughtful responses, generally without prompts. On reflection, I believe that my evolving relationship with my research assistant allowed him to understand the research aims and ask the question sensitively, and my own growing ease with interviewing and sensitivity toward ways of sitting, dressing and body language probably also played a part, as non-verbal communication impacts greatly on information received in a cross cultural context (Southworth, 1998).

Focus groups

Seven focus groups were held with farmer representatives from the organics group in each village (*see* Table 7; *Plate 2*). No focus group was able to be held in Phteas Rong Village, Pursat, due to farmers attending a festival. Two focus groups, one specifically for females, were held in Kampong Thom (*see* p. 68).

Focus group interviews have gained much attention in social research and also in the business world as a way to stimulate discussion and observe participant interaction (Perecman & Curran, 2006). They can also provide a means of 'handing over the stick' (Chambers, 1994) by stepping back and empowering participants to direct the course of discussion.

My decision to conduct focus groups was made primarily to encourage dialogue amongst participants and enable people to reflect on opportunities and problems impacting on the group. There were unforeseen benefits also; in several villages, curious farmers from the organics group came to meet me when I first arrived, and I was able to conduct a focus group discussion on the first day. I learnt much about the issues affecting the farmers

through these sessions, which I was then able to pursue and verify in subsequent interviews and casual conversations. This time also gave people a chance to get to know me in the relative comfort of a group so we both felt more comfortable during individual interviews, and I was often able to set up later interview times which allowed the rest of the fieldwork to run more smoothly. When things did not go so smoothly flexibility was essential, as the following reflection from a focus group in Takeo illustrates:

Went pretty well; not a promising start though. I finally scrounged together four people to do it and one of them (the only man) kept yawning and falling asleep, one woman with a baby kept walking off to comfort it, and our host went off to make dinner! But it all worked out—the kids joined in, the guy woke up and in the end they had a great discussion (Research journal, 9/5/07).

Table 7. Number of focus groups by location and participants

Location	Number of participants and gender	Code
V1	5 (4 W*, 1 M*)	V1FG
V3	4 (3 W, 1 M)	V3FG
V4	3 (2 W, 1 M)	V4FG
V5	3 (2 W, 1 M)	V5FG
V6	4 (1W, 3 M)	V6FG1
V6	6 (6 W)	V6FG2
V7	4 (3 W, 1 M)	V7FG

Source: Author (*W = woman; M = man)

I originally intended to use two Participatory Rural Analysis (PRA) techniques in focus groups: participatory value chain mapping, which asks participants to identify all actors impacting on agricultural chains, followed by a social ranking exercise asking groups to graphically rank the power levels of different actors. However, I adapted the exercises after my test farmers said they only knew the person(s) to whom they directly sold their products, and could not identify others in the chain; also, the number of actors impacting on the chain meant that the situation was usually too complex to illustrate in a single diagram.

Instead, I adapted Mayers and Vermeulen's (2005) model of power mapping, whereby participants constructed a spider diagram of all actors impacting on their group (*see* Appendix 4 for an example transcript). The participants chose one person to be a scribe, and despite my concerns that low literacy levels amongst participants would cause them embarrassment and affect the exercise, someone in the group could generally write well (this was only an issue in the women's focus group, where a younger literate woman was asked to join). I asked farmers to notate the exercise straight into my 'big black book', as it provided a firm, dry surface, and was much safer for record keeping. After identifying and categorising influences, participants were asked to discuss ways in which they could mitigate the impact of the negative influences they had identified. The exercise often sparked lively debate amongst participants, especially the decision as to whether something was 'positive' or 'negative'. The downside to the liveliness of debate was my reliance on translation, which meant that I often missed some debate when more than one person was talking. In two villages, farmers chose to copy down the diagram after the discussion, and I sent photocopies of the exercise to all villages at the conclusion of the research.

Participant observation

Patton (2002:262) sees direct observation as essential to a holistic perspective, as it allows us to better understand and capture the context within which people interact, and there is less need to rely on prior conceptualisations of setting. I was adamant that I would stay in each village for some days, even when I met resistance at the first study site because my research assistant felt that it might not be safe for me (as a foreign woman). I admit that my determination to stay within the village was motivated just as much by my desire for adventure as the opportunity to better observe my research participants, but I do believe that these experiences allowed me to observe and talk to people I otherwise would not have been able to interact with. I tried to interview people at their own houses, partly so that they would feel comfortable, and partly so that I could observe first-hand their gardens and rice fields, and other clues as to how their lives may have changed, such as photos on the wall:

The walls are covered with big, shiny photos (look professionally done) of the youngest daughter's wedding last year, and just one fuzzy amateur-looking

photo of the older daughter's wedding. I asked them about it, and they proudly told me that the more recent wedding was double the cost; they were able to do this because of the extra income from the project (Research journal, 22/4/07).

Observation of interactions at local markets allowed me to understand more about the difficulties and power imbalances between traders, consumers, and poor farmers. This method draws from Trauger (2004), who worked with farmers at markets as part of a study on female organic farmers, and says that this helped her to understand how they negotiate public space and isolation. I was not able to observe as many markets as I hoped, as the markets were often far away from the villages and it was not practical. Time was also an obvious constraint to my level of observation and participation. However, I observed several interesting market interactions, such as a trader in Battambang who paid a farmer less than market price for her organic cucumbers because she said they were small and damaged (despite their appearance to the contrary). The farmer accepted this with a resigned look and afterward told me that there was nothing she could do, as she needed to sell the vegetables right away.

Capturing the field

While I originally anticipated using a voice recorder for capturing interview data, I quickly found that manual note-taking using my 'big black book' suited me better when talking with people in Khmer language. This was largely my own reaction to the presence of an MP3 voice recorder—its portability and sleekness seemed to be perfect before I arrived at my research sites, but these attributes also set it apart as a high-tech device that most of the research participants had never seen and probably did not feel comfortable around. Also, I definitely did not feel comfortable setting it on the table and drawing further attention to my higher level of wealth. When conducting interviews in English, as happened primarily in urban research with well-educated Cambodians and foreigners, I found the voice recorder to be particularly useful as it allowed me to conduct faster paced, flowing interviews.

I opted not to use separate spaces for note taking, as I felt that my thoughts on the research process and my own journey as a researcher were intertwined. I preferred to

collect interview notes, reflections, annotations and thoughts on methodology and theory application in a single volume so that I could understand the complex ways in which my emotional state impacted on the research at different points. I referred frequently to my underlying research questions, which I taped into the front cover of my journal, and continually reflected (both during fieldwork and after my return back to the home field) on the appropriateness of the questions and how I may delve deeper into the issues at stake. Storey (1996) relates the importance of the journal for bridging fieldwork, analysis and writing. I also found this to be an important tool that I could refer back to during my analysis and writing. I would also urge other researchers to continue the journaling process when they arrive back from the field, for I found that the culture shock I experienced in the field was nothing compared to the ‘reverse culture shock’ I felt upon arriving home; journaling was an important way for me to work through feelings of guilt, sadness, and generally being overwhelmed at the formidable task of writing up, along with creeping doubts about the point of it all, which led me to spend a large amount of the first month back doing things which I can only justly call procrastination. I found also that my perspectives on the subject matter had changed during my time away. I had entered the field with an optimistic and perhaps naive view of the effectiveness of the development strategy; I came back still optimistic, though this was tempered by my knowledge of the complexities of the initiatives.

Negotiating fieldwork spaces

For me, field research was a journey into new spaces; the public life of the villages, my identity as a ‘foreign researcher’, the extreme contrasts of wealth, negotiation of relationships with my research assistant, organisations and participants. In this section, I discuss several important spaces which I had to negotiate during fieldwork.

Negotiating spaces: relationship with research assistant

There is an extensive literature on the complex emotional, mental and physical effects that intense fieldwork may have on the researcher who is out of their home environment (McCosker et al., 2001). However, little is written on the way that relations between researcher and research assistant affects the research experience and quality of data, especially where the assistant is translating and is therefore in control to a large extent

over information gathered. I chose to work with a research assistant because I felt that my Khmer language ability was too limited to do justice to in-depth interview research. CEDAC NGO assisted me in finding my research assistant, Ponleu, an agricultural studies graduate. My sometimes turbulent relationship with Ponleu was one of my biggest learning experiences during fieldwork. Ponleu's assistance was extremely valuable but we had several arguments during the research period, often relating to our different understandings of what constitutes research. Winchester (2005) argues that the legitimacy of qualitative methodologies is now generally accepted among most audiences, but I found that beyond the privileged environment of the university I was forced to defend my use of qualitative methodologies rather frequently, particularly to my research assistant:

I got upset with Ponleu because he was laughing and not translating fully again...I sat down afterwards and had a talk with him. He says he doesn't understand my study. He says that in Cambodia people do random surveys with big groups and ask specific questions (Research journal, 30/4/07).

I realise now that our arguments were due in part to the stress we were both under. I underestimated the extent to which Ponleu was also an outsider and in a stressful environment. As an urban middle-class Khmer staying for an extended period in a rural setting, he also faced many challenges, and I found that while I was obviously the more 'foreign' on the outside, my experiences living and working in a rural setting often gave me some legitimacy with participants. Also, I believe that my need for translation effectively took away some of the control I had as a researcher, and as a 'control freak' I did not like this! In retrospect, though, I think it was a good lesson in patience for me.

Negotiating spaces: the outsider- limitation or advantage?

The insider/outsider dichotomy often discussed in the context of cross-cultural research is in reality much more complex; obviously I was an outsider in terms of ethnicity, language, dress (despite my attempts to wear culturally sensitive attire) and my level of wealth. However, I was also an 'insider' in my attitudes and values towards organic agriculture, my rural background and my sympathy for the cause of the people I talked to. In general, I was surprised by how easily people appeared to accept me—both farmers and officials. All but one person (an Australian trader) accepted my request for interviews

and answered the questions I put to them. The categorising of insider/outsider is defined by culture and the researcher seeks to cross the boundary between these roles (Rubin & Rubin, 1995). I found that participants frequently began discussions by seeking to establish a common ground between us by asking me questions that I felt were a gauge of my character—principally about my marital status and number of children. While my lack of children met with glances that I took to be slightly pitiful (most female participants my age already had several children), having a partner afforded me a certain level of legitimacy. Patton (2002) points out that in cross-cultural research we need legitimacy both as researcher and as a person; this takes time to gain and comes from how we act and relate to people. Patton goes on to say that the outside-in position is in no way objective, but in some ways releases the researcher from the cultural ties that come with studying your own culture, as you have to try to understand everything and you cannot assume things.

In some ways, then, being an outsider can have its advantages. Although some studies report hostility and mistrust towards 'outsider' researchers, one Indian woman researching in her homeland suggests that people may open up to a foreigner who might be seen as less likely to judge them (Parameswaran, 2002; cited Patton, 2002:53). Speaking to a foreigner was a rare experience for most of my research participants, and they were generally very eager to take part. In two cases, I was asked by people who I did not plan to interview why I had not talked to them!

Negotiating spaces: gender

Gender roles in the Cambodian countryside are still strongly delineated (Marten, 2005) and although both women and men have the freedom to speak and move in public spaces, several young women complained to me about expectations of early marriage and child-bearing, which made them financially dependent on men. People accepted me as a young female researcher with a male research assistant, and there was no problem with us sleeping in the same room with the rest of the family or gaining access to speak with both men and women. Warren (1988) suggests that foreignness can facilitate cross-gender access in some cultures, and I found that on several occasions I was asked to sit with the men at group gatherings rather than join the women in the kitchen. This 'role flexibility' (Papanek, 1964) allowed me to move easily between gendered spaces, but I felt at times

that the sense of freedom could be exploited if I was to completely ignore cultural codes of behaviour. Therefore, I felt that there was still a need to dress modestly (long skirts and sarongs, covered shoulders), and often I chose to go to the ‘women’s space’ if I felt that it was more appropriate.

I aimed to have an even distribution of gender in my study, although there are a slightly higher number of women participants because several of the farming initiatives actively try to engage women and female membership was higher than male. On one occasion (Phteas Rong village in Pursat) I was not able to interview any women formally because they were taking part in a week-long festival at the local temple. On another occasion in Kampong Thom, the first focus group I attempted included only one woman who said nothing the entire time. I asked her if she would like to help me organise a women’s focus group a few days later. This turned out to be one of the most enjoyable experiences of the research process:

Excellent focus group today! Eight women got together in our host’s house. There was a slight hurdle at the start—none of them could write—but we got a girl from down the road to join; we had a great in-depth discussion in the end and everyone stayed for lunch (Research journal, 20/5/07).

Negotiating spaces: the partner organisations

I found that gaining access through an NGO or local institution is often the easiest, or only way to enter communities, but working with official ‘gatekeepers’ also brought challenges. Local organisations were generally enthusiastic about helping facilitate my research, and asked only for a report afterwards, but the use of an official pathway also meant that my fieldwork locations were controlled to some extent to places the organisation wanted me to see; an experience reported by other student researchers in Asia (Scott et al., 2006). Also, it is possible that people may have given overly favourable accounts of their relationship with the organisation, or may have over-emphasised their level of poverty and vulnerability in hope of receiving something. In general, I did not feel this to be the case, although there were two occasions when respondents hesitated before answering questions about the organisation or changed their answer, and I felt that they were not being entirely truthful.

Data analysis

How can I know what I think till I see what I say? (Forster, 1927: v)

In 1984, Miles and Huberman commented that there are few agreed on guidelines for qualitative data analysis (cited Patton, 2002:433), and to a large extent this is still the case today. Scheyvens and Storey (2003) argue that meanings attached to our fieldwork are neither pre-given nor decided during research—rather they are invented and reinvented during the writing process. Berg and Mansvelt (2000:255) put this nicely, when they say that the post-fieldwork time of the thesis is not simply a ‘writing-up’ of results, but rather a ‘writing-in’ of meanings to the experiences. Upon returning home, I continued to write in my research journal, so that I could capture the process of ‘writing-in’ and new thoughts that I had along the way. This time was (surprisingly for me) the most difficult part of the thesis process, as I struggled to maintain a sense of the people in my study as real people, while simultaneously dissecting the conversations and observations I had experienced.

Analysis was performed using NVivo software to identify and categorise data into relevant themes. Microsoft Word ‘One Note’ software was also used to create summaries of single participant stories and village descriptions, in order to maintain some balance between dissection and holism. These summaries became the point of identification for the case study descriptions in Chapter Five.

Summary

This chapter has set the scene for the following research context and results chapters by describing the research approach in detail. Key to my research methodology was an awareness of positionality and a desire to conduct a holistic study that was empowering for participants. The research journey described in this chapter shows the complexity of the empowerment concept—although I strived to empower research participants through my research methodology, this chapter has shown the constant struggles I felt over whether this was really achievable.

Chapter Five: Organic networks in Cambodia

Introduction

This chapter provides background information on Cambodian society, agricultural systems and organic agriculture initiatives that is essential for understanding the contextual results of the study. The seven case-study villages and the main development organisations involved in organic agriculture are introduced. Finally, the understandings of empowerment and ‘dis-empowerment’ articulated by farmers in the research are documented, setting the scene for the following main results chapter (Chapter Six). Key findings from this section include the extent to which people in the study place value on ideas around rice cultivation and food sovereignty as particularly important to their lives, and the overwhelming focus on ‘improved health’ as a reason for joining the organics initiatives.

Research context

Farming systems in Cambodia

Rice and rice farming are at the centre of the Khmer culture; in fact, the Khmer word for rice (‘baai’) is also the word for meal or food. Livelihood strategies in Cambodia are wide-ranging and include rice farming, horticulture, fishing, animal husbandry, trading, migration for work and loans, with rice farming the main source of livelihood for over 80% of the population (Setboonsarng, 2006:2). Following the demise of collectivised farming during the Democratic Kampuchea (DK) regime and a short period of agricultural cooperatives,¹⁷ private land ownership in Cambodia was reinstated in 1989 with 0.1-0.2ha plots allocated per family member (although more powerful villagers received larger amounts of land (Ledgerwood, 1998)). Average farm sizes in Cambodia are now between 1-2ha, made up primarily of rain-fed rice fields (85%), irrigated fields and plantation agriculture (IRRI, 2007). Farms are usually family-managed, and there is a

¹⁷ The Peoples Republic of Kampuchea (PRK) government that replaced the DK regime allocated families small house plots and organised agricultural cooperatives (known as *Krom Samaki*) to manage farmland. However, these were extremely unpopular due to unequal land distribution and management conflicts, among other problems, and were eventually discontinued (Ledgerwood, 1998).

clear gender division of tasks for rice production with more work generally performed by women.¹⁸

Chemical fertiliser and pesticide use amongst Cambodian rice farmers is extremely high compared to other developing countries, with pesticide usage estimated at 67% of farmers (Saroeun, 2000). Many highly toxic pesticides that are banned or restricted in Western countries (such as DDT and Dioxin, a component of Agent Orange), are used widely, and the alarming negative human health and environmental consequences of these are well documented.¹⁹ Despite the high use of chemicals, yield is a low average of only 1.9tons/ha (compared to an average of 4.1tons/ha over Asia) (IRRI, 2007). Low yields are thought to be due primarily to inefficient irrigation systems and the use of traditional seed cultivars and techniques, where fields are not leveled, seeds are scattered by hand, and little on-going weeding and maintenance is performed (Latham, 1998). Many areas have low soil fertility and high population pressure, and farmers are unable to produce enough rice for food security (McNaughton, 2002). Aside from rice fields, farmers commonly grow fruit, vegetables, and raise animals in integrated systems that are fundamental to the food security of Cambodian households, given the uncertainties of rice production (Mcnaughton, 2002:4; *see Plates 3 and 4*).

Production has slowly increased since the 1980s, and Cambodia has had a rice surplus since 1996, but much of the harvest is exported informally to Vietnam and Thailand. Currently more than 40,000t of rice per year is said to cross Cambodian borders to Thailand and Vietnam as un-milled paddy with low profits for farmers (JICA, 2001:2). Market access is complicated by poor infrastructure, and most farmers sell their rice directly to traders while still paddy in the field (67% of sales); the rest is sold to local mills and other buyers, who are often part of powerful families controlling large areas of trade (JICA, 2001:3). This means that farmers have little bargaining power (Echo, 2002);

¹⁸ Men are responsible for plowing and applying fertiliser, while women are more responsible for seed selection, transplanting and weeding. One survey undertaken by the Battambang PDA shows that female farmers are generally occupied with farm and family tasks for the entire day, while male farmers are busy only during the rice season (G2).

¹⁹ A report by the Environmental Justice Foundation (2002) found that 88% of 210 pesticide-using farmers interviewed in Cambodia had recently experienced symptoms of chemical poisoning (dizziness, headaches, night sweats, shortness of breath, unconsciousness), 35% of these reported vomiting after spraying and 5% had experienced unconsciousness, indicative of serious poisoning. The Economist (1993) reports contamination of water and food chains and pest resurgence due to high use of toxic chemicals in Cambodia.

rice prices fluctuate hugely, and middlemen buy rice cheaply at harvest time to re-sell later in the season. Bargaining power is also low because of a lack of organisation; farmers usually sell individually, and it is common for traders to cheat farmers on the weight of produce (Visal, 2006:33).

Donors are pressuring the government to formalise the country's largely informal trade networks and create legal frameworks to stimulate trade. However, there is concern that the promotion of formal links to the international market will not offer any substantial benefit to farmers (Thavat, 2005).²⁰ A recent report criticises donors and the Government for agreeing to WTO accession under strict conditions of trade liberalisation and the promotion of export-oriented trade, while Cambodian producers are not well prepared to benefit from this access to foreign markets or to withstand competition from tariff-free imports (ANU, 2005).

Poverty and development in Cambodia

The poor infrastructure and low-yielding agricultural systems described above are to a large extent the result of years of conflict and instability. In the civil war and Democratic Kampuchea (DK) regime that engulfed Cambodia during the 1970s, the traditional social fabric of Khmer life—including ceremonies, village support systems and trust between individuals and communities—was seriously affected; it is even argued that it was destroyed (Annear, 1998). Mehmet (1997) feels that this results in a lack of motivation to 'develop' that may be incompatible with the idea of modern development and empowerment of the poor. However, other research suggests that Khmer villages are interwoven communities capable of organising for socioeconomic development programmes (Ledgerwood, 1998).²¹

Into this uncertain climate, Western NGOs and development agencies have come en masse since the 1980s. Some believe they have become a 'new invading force' in the country (Mehmet, 1997; 681). The fragile Cambodian government established after the

²⁰ Thavat (2005) believes that informal trade offers farmers timely, flexible and less quality demanding markets than organic rice niche-marketed through formal trade links, and therefore any attempts to stop the informal trade would be detrimental to farmer survival strategies.

²¹ Note that the ability to organise is said to depend on the degree to which the village is made up of new refugees, with a higher proportion of refugees potentially decreasing levels of social organisation (Ledgerwood, 1998).

1993 constitution was unprepared to take leadership of the donor money pouring into the country, and critics suggest that real commitment to coordination among donors and to participation with local institutions never took root (Mysliwiec; 2003). In fact, most donor money never left Phnom Penh in the 1990s; efforts to reach rural communities were (and still are) constrained by a lack of organisation at government level and poor coordination of aid programmes and infrastructure (Ledgerwood, 1998). The government has taken on a strategy of 'leave it to the donors' (Nagasu, 2004:6), and the result has been a messy contest between overlapping donor agendas, led by the ADB financed 'Five Year Development Plans' and the World Bank 'PRSP' document. Despite the inclusion of poverty reduction as a central objective in both documents, the strong focus on economic growth in both is concerning as GDP growth over the last decade has been impressive while poverty levels remain little changed (ANU, 2005).

At the community level, one manifestation of the overwhelming focus on poverty reduction described above is a movement amongst development organisations to define and document village-based poverty measurement criteria.²² All of the communities in which I conducted my study had developed, or were aware of, some type of wealth ranking system.²³ These corresponded to four general categories: 'Poorest', 'Poor', 'Middle', 'Rich'. The definition of poverty varied, but the 'poorest' were generally seen to possess no rice field and few other forms of income.

Reports stress that high levels of vulnerability exist not only for the 'poorest' landless but also for those with some land, as evidenced during a severe flood in 2001, when 'very poor', 'poor', and 'middle' households all used up their savings and became caught in debt traps (Echo, 2002).²⁴ Indeed, the majority of rural people are clustered around the poverty line, indicating the potential for movement up or down (McNaughton, 2002). This point is salient for my research, as the trend towards privatisation of services and

²² The GTZ (n.d.) Most Vulnerable Household surveys are the most visible example of this.

²³ The official poverty statistics in Cambodia generally use a consumption-based poverty line (defined as adequate income to buy a daily 2,100 calorie food basket plus expenditure for non-food allowance (McNaughton, 2002)). However, households most commonly define poverty by the amount of time they are not able to supply themselves with rice, the type of house owned (e.g. the wealthy have houses with tiled roofs), land size, and number of livestock (Echo, 2002).

²⁴ A survey of three hundred farming families in Battambang undertaken by the PDA revealed that families kept on average half of their rice harvest for eating, kept a quarter for ceremonies (such as weddings and religious events), and sold one quarter. However, if there was any problem in the family such as sickness, the family would sell up to the entire allotment they had set aside for eating, and consequently experienced food shortages (G2).

little government intervention with a focus on productivity and economic growth is likely to exacerbate the risk and vulnerability of farmers (Farrington et al., 2004). With this in mind, a recent report from the Overseas Development Institute (ODI) highlights the need for agricultural interventions to be inclusive of strategies that aim to reduce vulnerability as well as maximise production (Farrington et al., 2004). Similarly, McAndrew (1998) believes that the key issue is rice self-sufficiency rather than rice productivity, and he argues that development interventions should be designed to enable vulnerable households to retain the rice they produce.

These social and political influences on agriculture in Cambodia are particularly important for understanding the context in which the organics initiatives are operating. Describing the organics initiatives using the language of network theory (as outlined in Chapter Two) allowed me to understand the distinct actors involved and also the relationships connecting them. These relationships are described below.

Organic networks

Currently, the Cambodian organics movement is fairly fragmented, with several organisations each with their own quality control schemes and agendas. There are several initiatives using third-party certification quality control to target export markets, at least four different domestic certification schemes and many initiatives that do not use certification. These are described in Appendix 5. Despite the current fragmentation, there are signs of convergence; thirty-one organisations recently formed the Network of Eco-Agriculture Development in Cambodia (NEDC), and in December 2006 the NEDC convened a conference promoting the development of ecological agriculture (NEDC, 2006). A national certification agency (COorAA) has been set up to develop domestic chemical free and organic standards, and this is seen by many key players to be a very positive development, although the extent of government and private sector support for the initiative is questioned (currently funding is coming from the EU, but the project is expected to be self-funding within a few years (G2)).

The visions for the two largest organisations promoting organic agriculture in Cambodia, that of German federal development agency GTZ (D5) and Cambodian NGO CEDAC

(D4), provide a contrast that illustrates how organics as a rural development strategy can be used in different, complex ways.

GTZ

GTZ policy and vision is strongly intertwined with a commitment to market-led poverty reduction. The organic markets were originally seen as predominantly export opportunities when the initiative began five years ago. The GTZ strategy is based on ‘a more diversified and market-oriented form of agricultural small-scale production together with the development of the agro-industry’ as the best way out of poverty for Cambodia (Schmerler, 2006:1). They presume that development policies aimed at increasing production and stimulating exports will improve food security and income generation for small-scale farmers, thereby alleviating poverty (Schmerler, 2006:2). In the network categorisation developed by Shepherd (2007) (*see* p. 43), the GTZ approach can be seen as ‘top-down’, as the potential for export organic markets was the basis of the intervention.

GTZ argue that subsidised services provided by some NGOs crowd out commercially oriented service providers in agriculture and lead to a general unwillingness to pay for services and unsustainable markets that depend on project duration (Schmerler, 2006:9). Therefore, GTZ aims to develop a functioning private service sector and build the capacity of local government and local NGOs (namely CEDAC), focusing on building horizontal networks (organising farmers in groups) and vertical networks (linking farmers to wholesalers, retailers, consumers) (Schmerler, 2006:9).

CEDAC

The Asian Farmers Association, of which CEDAC is a founding member, follows a more political agenda than GTZ, criticising the effects of trade liberalisation and calling for the mainstreaming of organic agriculture and an exploration of ‘alternative trading systems according to the principles of food sovereignty and food security’ (AFA, 2004:1). In the network approach categorisation, CEDAC can be seen to follow a ‘bottom-up approach’ as they began by first identifying farmers interested in learning organic and SRI techniques, then assisted them to create markets when surplus product was produced.

CEDAC director Yaing San Koma demonstrates this vision in an interview with Earthbeat Radio:

We promote...a culture of change among the farmers in the community...to empower the farmer to learn, to test, to share. If we keep on importing ideas and techniques, we become what we call dependent (Koma, 2002).

In contrast to GTZ's aim of engaging the private sector, CEDAC plans to change their approach from technique training to a marketing focused '*business model*' (D4.4), developing a larger presence through their own shops and restaurants. They aim for the NAP organic shop in Phnom Penh to be self-funding and to create direct links from farmers to the shop, as well as creating collective farmer selling groups for vegetables and livestock (D4.5). The NAP shop manager felt that the shop's mission was to '*keep the price low enough so that local people can afford to buy, and farmers can be encouraged to produce more*' (T4).

There were conflicting views about the worth of the two different strategies followed by GTZ and CEDAC. For example, the CEDAC strategy of keeping the price high for farmers and low for consumers may give farmers and consumers the best prices in the short term, but others believed it would not work in the long term (G:4,6; Cert1; D:5.1,5.3,7.1) because NGOs were said to be '*not business minded*' (Cert 1), '*too reliant on donor funds*' (D7.1, G4), and it was felt that they are able to use donor funds to support marketing activities so that the private sector is not able to become established (G6).

When I hear an NGO saying that they will "give the farmers the best price and the consumer the lowest price" I know that it is a recipe for disaster; they can do this in the short term because they have the donor funds, but for the long term it's not sustainable (D7.1).

Private sector operators complained to me that they could not enter the market because NGOs were preventing them from being able to compete due to their donation funding structure (T6). The unwillingness of the private sector to become involved has made it difficult for GTZ to fulfill its original aims; they were unable to find a large private mill

to organise exports or willing export traders, and have experienced considerable communication problems with the donor mill in Pursat (operated by D2) (D5.3). Senior GTZ employees told me that they have been *'attempting to export since the start of the project in 2003, but it hasn't worked well. Exports won't work here because of the country constraints; there is no interested private sector'* (D5.1). The majority of development organisation and government staff I talked with felt that Cambodia is not ready yet for exports because of the lack of private sector interest, lack of regulation and high level of corruption, the expense of inspection, certification and packaging requirements, uncertainty of supply, and high risk involved. In recent years the amount of organic rice promised in contracts has been hugely overestimated, as many farmers have sold to other traders.

Despite the failure in regular exports, the GTZ projects have been successful due to the high demand in the domestic market, to which the rice has been directed. GTZ have created a chemical-free brand *'Saravan'*, which is sold through selected traders in Siem Reap and Phnom Penh. One former GTZ employee said that the agency was beginning to think that the domestic market had more potential, but was committed to exports because the project funding stipulated a support for the export market (G6). Similarly, the CCRD mill manager said that the NGO tried exporting but found that the extra expenses involved in transport and documentation negated the higher prices and meant that the domestic market was more profitable for them, so they stopped exporting (D2.2).

Despite the differences in values between GTZ and CEDAC, the organisations are attempting to align themselves; for example, CEDAC field staff are contracted to train farmers at the GTZ initiative in V6, and an organic rice association was recently formed between CEDAC, GTZ, two other organics initiatives (CCRD (D2) and IPM) and the central government Ministry of Commerce. I observed open lines of communication between CEDAC and GTZ, with some joint initiatives and collaboration, but communication with CCRD and IPM appeared to be poor, with people from all four organisations expressing frustration at the lack of communication. Relationships with the government also appeared to be strained at times, and it seems that policy-speak often does not translate into effective support. Although organic agriculture was declared a *'main pillar'* in the National Export Strategy 2006 (MoC, 2006, cited in Schmerler, 2006), and the government have devised a national action plan for organics, one official told me

that in reality the government are doing nothing and the trade environment is not allowing private business to get involved. She felt that the importers in Europe and US were prepared to begin trading, but:

People here are what are holding it up – they are not interested... all the official documents talk about trying to promote export and organic, the expert documents talk about it – but in reality nothing is happening (D5.3).

As well as differences in values between the organisations, there was a wide variety of views as to what the term ‘organic’ means amongst the farmers, traders, consumers and government officials in my study, and I found this to influence the relationships in the organics networks. The certification advisor contracted to conduct inspections for GTZ initiatives was frustrated with the lack of understanding of organics initiatives; *‘most of the NGOs in agriculture here have something organic on their agenda, because it’s fashionable now, but I doubt that many of them know what organic means’* (Cert1). I found that development organisation representatives and farmers appeared to have a much wider appreciation of organics than ‘no chemicals’, but there was a lot of confusion. Organic regulations set out by organisations for their certification and trading systems, and the type of training given to the farmers, are indicative of their different understandings of organic. CEDAC NGO, for example, allows only organic rice produced using SRI methods to be traded by their Phnom Penh organic shop, while CCRD told me they are not concerned whether farmers use SRI or not; only with the export regulations (D2.2). Some initiatives encouraged farmers to grow particular varieties of rice to enable consistency for trade, and some farmers in these groups (most notably in V2) declared organics to be the rice variety that the NGO gave them (V2:F2,F3). One V2 farmer who had converted from a traditional system said that organics was farming the way he had before he joined the initiative, because he had used no chemicals (V2F1). However, he also said that he now employed new techniques (such as composting) that he had not used previously.

Amongst consumers and traders, there were also huge differences in the understanding of organic. The largest trader in Siem Reap supplying hotels with organic vegetables described organic as *‘the European vegetables that we can grow here in Cambodia for*

the tourists' (T6). He felt that the farm he had purchased to supply local restaurants with European varieties was 'organic' because it used a lot of manpower and was old fashioned, although he would not tell me whether chemicals were used on the farm.

There appeared to be very loose grounds for some domestic organic certification initiatives. In particular, I felt that one certification scheme through the Siem Reap Provincial Department of Agriculture (PDA) was questionable. The PDA chief was very reluctant to talk about the inspection system for the certification, and after brushing my questions aside a number of times, he told me that it was '*secret*' (G3). The trader working in conjunction with the PDA for the certification was also hazy on the details. When I asked him whether the label 'Khmer Organic' meant that the product was organic, he answered:

No, it's not certifying organic. But it means this is organic. They know, they know whether the product is organic or not. It is a type of certificate, if you want (T6).

This potential for the term 'organic' to be used fraudulently is shown in the case of a premium Siem Reap hotel that continued to advertise 'certified organic food' on its website, even though it was said to have discontinued purchasing organic produce due to the higher cost shortly after opening (C1).

Empowerment and dis-empowerment in the farmers' terms

Farmers in this village have lived in a dark period, we are trapped by chemicals (V5F3).

The chapter now moves from general discussion about the organisation and conceptualisation of organics in Cambodia to focus more narrowly on the views of farmers in this study. In order to assess whether and how organics may empower people, I felt it necessary to first learn from farmers themselves about what they feel is most important in their lives, what their main problems are, and what they hoped to gain from the organics initiatives. Firstly, I asked farmers about the main issues they faced—the problems that were creating barriers, or 'dis-empowering' them—and whether they felt

they had the power to do something about these problems. Answers centred around four main themes: chemical dependence (causing environmental, financial and health problems); post-conflict issues of knowledge breakdown and resource distribution; lack of training; and debt.

Chemical dependence causing soil, financial and health problems

Many farmers said they felt dependent on using chemicals and that the rising prices of fertiliser, coupled with decreasing soil fertility and a consequent need to apply more fertiliser, left them with financial and health problems. Many farmers said they became dependent because they had previously received fertiliser free from donors that came to their village and then had to begin paying for it themselves (V1FG; V3FG; V5FG; V6F2). One farmer who had not joined the organics group and still used chemicals fertiliser said he had tripled his fertiliser use from 50kg/ha to over 150kg/ha. However, he was still not able to maintain yields and felt that his soils were ruined from too much fertiliser and pesticide. He wanted to join the organics group but believed he would not get enough rice to feed his family if he stopped using chemicals (anon, 2007, pers. com, 25 April).

Post-conflict breakdown of knowledge systems and land tenure insecurity

During the DK regime, it appears that both traditional agricultural techniques and modern agricultural techniques were neglected. For example, during one focus group, farmers discussed their chemical use and there was a consensus that they had applied neither chemical nor organic fertiliser from the DK regime until the late 1990s (V3FG). Some farmers said they had turned to chemicals in desperation, as they did not know what else to do, and did not know about organic techniques (V3F1). Other farmers in the same village said they had experimented with applying manure on their fields, but had not been successful because they had used fresh animal waste and wilted or killed plants (V3:F4,F5).

Many of the farmers I talked with had divided their family plot of land with their children when they reached adulthood, resulting in less income and food for both themselves and their child's family. One 85 year old farmer said that after the civil war each person was allotted ten acres, but for the new generation there was no land allotment and his large family was struggling to feed themselves (V4F3).

Lack of training in new technologies

Farmers said they also felt dis-empowered by chemical farming because they were not given training in how to use chemicals effectively (V4F2). I noticed that the dominant discourse around chemical use in Cambodia is very much still focused on chemicals as a ‘modern’ way of increasing plant health (D8.1).

Debt

Many farmers talked about the debts they owed to chemical traders (V5F5), rice millers (V1F2) and other villagers (V6F3). One woman I boarded with said that her son had lost a huge amount of money to a bank branch that opened near the village because the interest rates were very high and he did not understand enough about saving and using money wisely. The family spent some years homeless (V3F1). Two farmer focus groups felt that microfinance institutions, lauded in other Asian contexts, were a threatening influence on their village (V1FG; V3FG). This concurs with the view of one NGO director in Phnom Penh:

Microfinance is not working in Cambodia – Acleda have an interest rate of 42%. Poor people have to mortgage their land, and when they don't pay the loan back they lose the land. So it shows that what happens in one place, like Bangladesh, doesn't work here. One shoe doesn't fit all (D8.1).

Motivations for joining the organics initiatives

The problems outlined above are closely related to farmers' reasons for joining the organic initiative. These are graphically depicted in Figure 4, with responses grouped into broad categories (note that where farmers gave more than one reason for joining the organics initiatives, these were counted as separate responses).

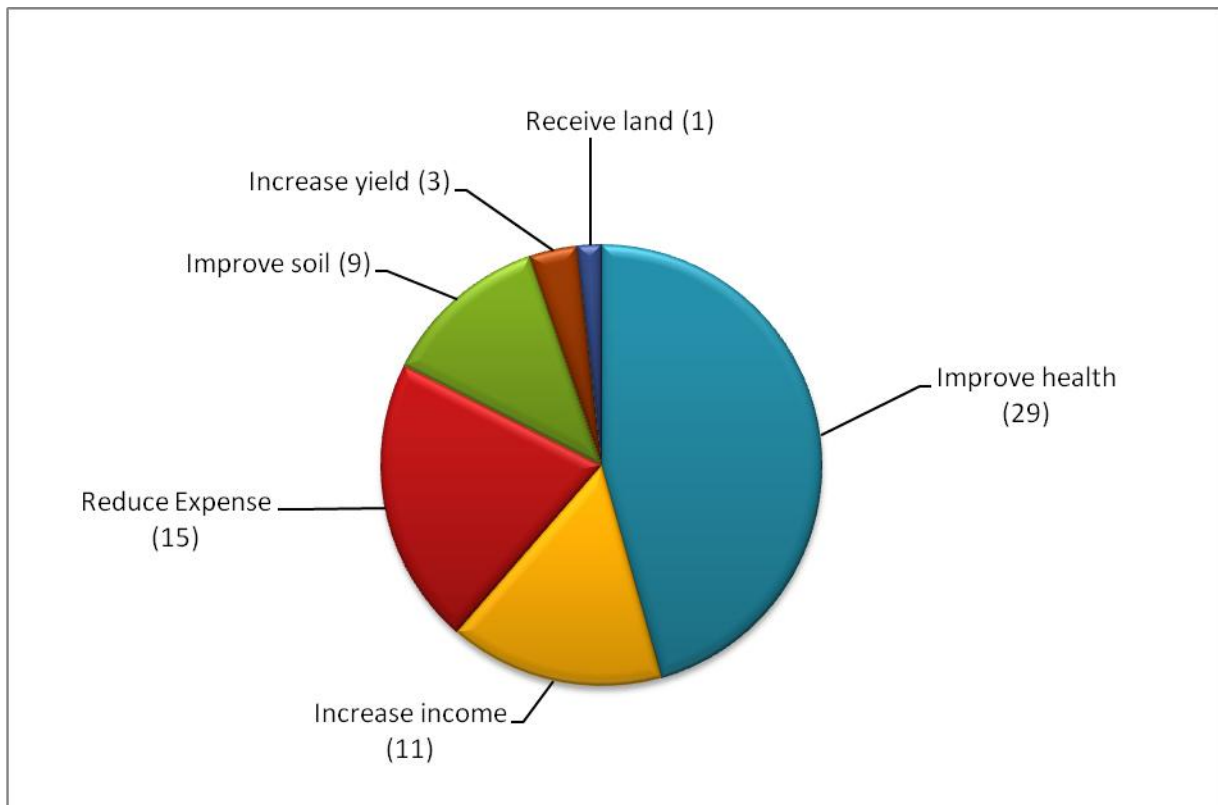


Figure 4: Farmer reasons for joining organic agriculture initiatives

Source: Author

Notably, Figure 4 shows that the possibility of better health for the farmer and family appears to play a much bigger part in people’s motivations for converting to organics than income. Even when the responses ‘reduce expense’ and ‘increase income’ are taken together as economic motivations for joining, ‘improve health’ is still a more common answer (29 as opposed to 26 responses). This is an important finding in the face of literature that sees the organics movement globally as falling prey to conventionalisation, whereby people are more motivated by conventional profit motives and perhaps losing the original ideals of the movement (Guthman, 2000).

Interesting differences were noted across gender and geographical area. Gender may have some relation with stated motivations for joining, as ‘soil health’ responses were all stated by men, with women more likely to talk about health and expenses. This supports Ellis’s (1988) hypothesis that men are more concerned with production aspects, and women may be more concerned with consumption issues in agricultural development. A slight difference was noted by area, with more farmers in V2 and V6 choosing ‘higher income’ as a motivation for joining; this is most likely due to the high price premiums received by the organic farmers in these areas.

What is the Good Life?

Empowerment is only valid if it is relevant to people's lives; therefore, I asked farmers what was most important to them, and what constituted their idea of the Good Life. This section is a cornerstone of the organics empowerment framework developed in Chapter Three (*see* p. 37) and therefore a foundation of this thesis. Responses to the question: 'What is most important to you?' are graphically depicted in Figure 5. Again, where people gave more than one response, these are counted as separate values.

The most significant finding represented in Figure 5 is the overwhelming majority of people who said that growing rice is the most important thing for them. Six people felt that 'having enough food' was of primary importance, and many also felt that health was important, but growing the food by oneself was understood to be particularly important by more than half of responses. Rice was understood as more than a food and a crop; some farmers saw it is a form of insurance, which the family could sell if they needed money quickly:

Rice. To have rice is to have everything. When we don't have money we can sell some rice (V5F7).

Some farmers declared that if they were to stop growing rice and instead work for a wage, they would spend all their money on food anyway:

If we can grow rice we can have enough money to eat, and to buy things. If we have no rice we have to buy food – how can we afford anything? (V5F11).

Rice. If we didn't have it, we'd have to buy it, and if we had a job for money we'd have to spend it all on rice anyway (V7F4).

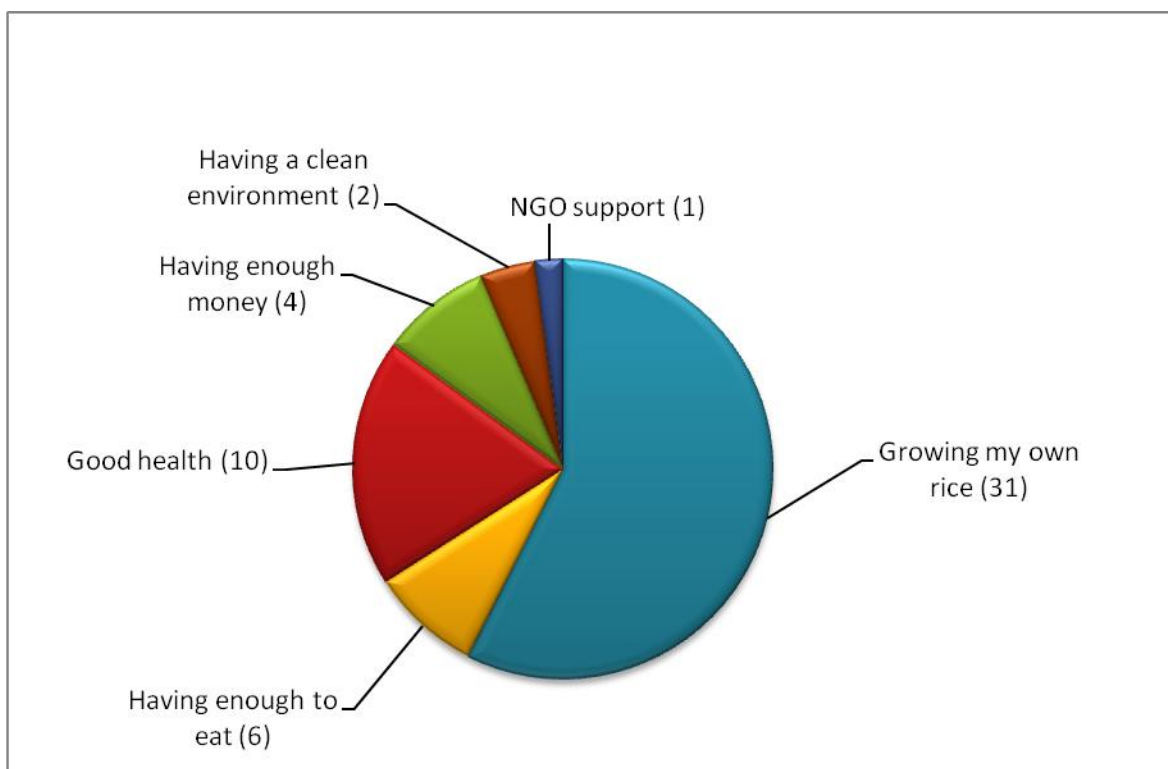


Figure 5: Most important values identified by farmers

Source: Author

The land and rice itself were symbolic of far more than a food source; despite talking about the hard life of a farmer, a number of farmers said they did not want to go to the city and wage labour would only be spent on buying rice for the family:

If we did not [farm] we'd have to work as labourers and we would spend the income on food anyway (V3F3).

Some farmers acknowledged the vital importance of being in control of their land and their livelihoods so that they could achieve their goal of growing sufficient rice.

The desire to be independent was a strong theme in many farmers' dialogue:

Farmers in this village have been trapped by chemicals and they owe money; then they lose their land. The most important thing is to grow rice, to have control of my land and not get trapped so I can grow rice and my children can grow rice (V5F9).

My wish is to be self-sufficient. To support my family with enough rice for the whole year without relying on anyone else (V3F8).

Of the four people who mentioned ‘having enough money’ in their responses, this was mentioned secondly to rice in all cases; for example:

Having enough food, and enough money to live is important. But most important is having a rice field to grow rice (V3F6).

There was no discernible relation to gender or area, with both men and women answering predominantly that rice cultivation and health were most important to them. The focus on rice cultivation across gender and geographical area shows that food security, and more specifically ‘food sovereignty’—which includes having the power to grow food as you wish to (*see p. 1*)—are vital concerns for Cambodian organic farmers.

Summary

Chapter Five is a cornerstone chapter of this thesis, as it presents both contextual material from secondary sources and fieldwork findings, which provide a platform for the main results presented in Chapter Six. Key points from this chapter that contextualise the results of the study include the strong legacy of the years of conflict in Cambodia that still determines to a large extent the difficult, complex social and political climate today and, therefore, the environment in which the organics initiatives are taking place. The detailed case study and organisation descriptions in this chapter show the variety of initiatives that can justly be called ‘organic’, and also the confusion this term presents to different actors in the organic networks. The final discussion in this chapter on ‘dis-empowerment and empowerment in the farmers’ terms’ is particularly important for understanding both the following results and discussion chapters, and also the model for empowerment that was developed in Chapter Three.

Chapter Six: Impacts of the organics initiatives

Introduction

Building on the descriptions of the Good Life which farmers articulated in Chapter Five, this chapter analyses focus group and interview data to learn how organic agriculture initiatives may empower people by helping them to move towards their Good Life. Firstly, the results of a two-part ‘power mapping’ exercise conducted in farmer focus groups are presented, showing farmers’ perceptions of the influences that affect the group. Following this, the various examples of ‘good change’ articulated by farmers through interviews are presented in a framework that organises responses into four network spaces in which good change occurred: self, family, community, and wider community. A key finding from this ‘good change’ framework of impacts is that all farmers report their lives are better after joining the organics initiative, with 56 of 57 farmers reporting improved health and all farmers reporting increased food security and increased net income. Many farmers also state that they have increased their self-esteem, knowledge, negotiating power with buyers, and that they now have better relations within the family, community and wider community. Another important finding is that almost all farmers state they are committed to continue farming organically. However, many farmers say they face problems with their farm and the organics groups, such as extreme weather events and lack of resources, and these problems are said to prevent some farmers from joining the initiatives.

From analysis of the preceding data, three key factors that influence the extent to which farmers are empowered by organics initiatives are distilled. These are: farmer’s individual level of resources; the organisation of the organic group; and the supporting organisation’s focus and marketing strategy.

Focus group power mapping exercises

Focus groups held with members of the organic groups in each study area (except for V2, where no focus group was able to be held, *see* p. 61) provided valuable insights into the ways farmers felt empowered by their involvement with organics initiatives. Focus group discussions aimed to investigate the extent to which farmers feel empowered to solve the issues they face and the factors that enable and constrain farmers from benefitting from organics initiatives, relating to Key Questions 2 and 3, and also to be an empowering method in themselves—one of the aims of my methodology (*see* p. 56)—by encouraging participants to brainstorm ideas for change. The discussions were structured through two exercises, which will be discussed in turn below.

Focus groups exercise 1

Focus groups participants were asked to construct a web diagram of the positive and negative influences on the group, marking these influences as either ‘1’ (small), ‘2’ (large), or ‘3’ (very influential). Tables 8 (positive influences) and 9 (negative influences) list the influences mentioned, arranged according to how influential these were said to be overall.²⁵ See Appendix 4 for an example transcript of the exercise.

All groups immediately noted the organisation directly supporting the project as having a very high positive influence on the group. Four focus groups mentioned five or more different development organisations as ‘very influential’. In a positive sense, this shows the amount of support that is now flowing to rural areas via the non-profit sector, but people also felt confused about the roles of the different organisations, and some said that organisations set up different parallel initiatives rather than collaborating. Networks with development organisations and both local and national political figures were seen by many to be vital factors for group success, apparently more so than both internal group influences such as honesty and group cooperation (although these were also mentioned several times) and production and marketing factors such as yield and premium prices. However, answers around knowledge and techniques were mentioned as ‘large’ or ‘very

²⁵ For example, if a response was mentioned by one group as a ‘large positive influence’ (2) and by a second group as a ‘small positive influence’ (1), these numbers would be added to give an overall response of 3 (2+1).

influential’ by three groups, showing that the farmers appeared to value the non-material gains from the organics initiatives as much as, or more than, the material economic gains.

Of the negative influences identified, most answers centred around problems with control of natural elements—extreme weather events, pest control and water resources. Some influences were seen as positive by some and negative by other groups. For example, many people were unsure about the role of the government, and this was mentioned by several groups as a positive influence, but in two cases (V5FG and V6FG1) farmers disagreed over whether the influence was positive or negative, and in one case (V6FG2) the scribe noted ‘government’ as a positive influence even though the majority of farmers disagreed. The importance of the organics group savings schemes was evident, especially amongst the women’s focus groups (V1FG, V6FG2); however, micro finance institutions were seen by two groups as a very negative influence.

Table 8. Focus group power mapping exercise 1: positive influences on organic group

Positive Influence	Overall score
support from the organisation(s) involved with the organics initiative	21
knowledge and techniques we have learned	14
support from other villagers	14
support from commune chief and council	13
support from village chief	11
support from other NGOs working in village	11
consumer demand for organics is high	11
the organics organisation supports us to find markets	10
health has improved	9
honesty in group	8
group cooperation and self-reliance	8
savings group	6
income increased; premium prices	6
PDA (provincial department of agriculture)	6
environment improved	5
government support	3
organic farmer group leaders	3
internal inspector shares ideas	3
study tours	3
yield is higher	3
seed from development organisation	3
support from farmers association	3
outside villagers support	1
water resources are sufficient	1

Source: Author

Table 9. Focus group power mapping exercise 1: negative influences on organic group

Negative Influence	Overall Score
weather (droughts and floods)	23
pest and weed control is difficult organically	11
lack of water resources	10
use of chemical fertilisers in village – contaminates organic fields	9
unsupportive villagers	7
lack of natural fertiliser materials	8
lack of capital in the group	8
micro finance institutions (MFIs) are dangerous and we lost our money	6
traders don't understand organic and offer a low price	5
lack of markets	4
middlemen buy the produce before the association can buy it	4
lack of supply to fill the demand	4
soil is not nutritious	4
lack of some organic seeds	3
flooding in lowland fields prevents people from joining	3
no rice warehouse in the group	3
people need to migrate for work and cannot grow vegetables consistently	3
vegetables spoil on the way to the city shop	2
no vegetable producers group	2
lack of labour	2
lack of transportation to take produce to markets	2
sickness prevents people from joining organics initiative	2
problems communicating with markets	2
lack of control of 'organic' labeling at local market	2
government does not support us	2
people in other villages are jealous	2

Source: Author

Focus groups exercise 2

Participants were asked to discuss how they could change the negative influences they had identified. Two focus groups (V4FG and V5FG) did not put forth suggestions; responses from the other five groups are listed in Table 10. The negative influences identified by focus groups centred around either constraints that affected physical farm production (lack of irrigation; weather; chemical pollution) or constraints affecting the viability of the organic group (lack of capital; lack of markets; lack of supply). The focus on production or marketing constraints appeared to be related to the group focus; for farmers from V1 and V3, which were groups that did not have regular access to markets sourced by the supporting organisation or a strong group stall at the local level, the main issues were production focused, while groups in initiatives that focused on market access in NGO shops or organics markets were more concerned with accessing markets through sustainable supply, capital and market knowledge.

Significantly, all groups felt that they did not have the power to change all of the negative influences identified. Production issues (irrigation, weather protection) were felt to be particularly difficult to deal with, and farmers felt the government should step in but was not helping; even writing to the authorities had no result (V1FG). As with exercise 1 above, the importance of capital in the group and the possibility that strong internal savings and credit facilities may promote group independence and long-term viability (as opposed to outside savings facilities) were mentioned by several groups.

Table 10. Focus group power mapping power to change exercise

FG	Negative influence	Power to change?	Why?
V1FG	Weather	No	We need canals, pumps and wells to fix the water problem, but we cannot change it because we do not have the money. We wrote to council leaders, but they do not do anything.
V3FG	MFIs Drought, migration	Yes No	Now we have the savings groups we do not have to use MFIs, but the savings groups are not strong yet. The organics initiative helps migration a little but we cannot do much about migration and drought.
V6FG1	Capital in association Lack of markets	Yes No	We will buy rice warehouse to store rice so we can buy it before farmers sell to Vietnamese; we will take some money from the savings group to pay for this. We're not sure about markets – we need help from the development organisation.
V6FG2	Lack of irrigation; use of chemicals	No	The underlying problem is money; we will find a way to keep funding the group amongst the members (but no specific ideas).
V7FG	Lack of supply	No	We keep promoting the organic group, but others do not join; they say they have no time.

Source: Author

Empowering aspects of the organics initiatives

Discussion now moves from focus group results to interview results and to Key Question 1, which explores the main impacts of the organics initiatives on farmers. Significantly, all farmers interviewed said that their lives were better now than before they joined the initiatives. Many areas of 'good change' were mentioned by research participants, and I have categorised the responses into four main network spaces: self; family; community (including members of the organics groups, development organisation staff, and other market relationships); and the wider community. This classification is to an extent

arbitrary, as these spaces are in reality intertwined, and it is impossible, for example, to separate the ‘market’ from aspects of community.²⁶ However, as an analytical tool, this framework shows how the enlargement and strengthening of networks, and also the increased bridges between them, may empower the farmers and communities to have more control and independence over each space. Figure 6 graphically depicts the categorisation of responses and the range of answers within each category.

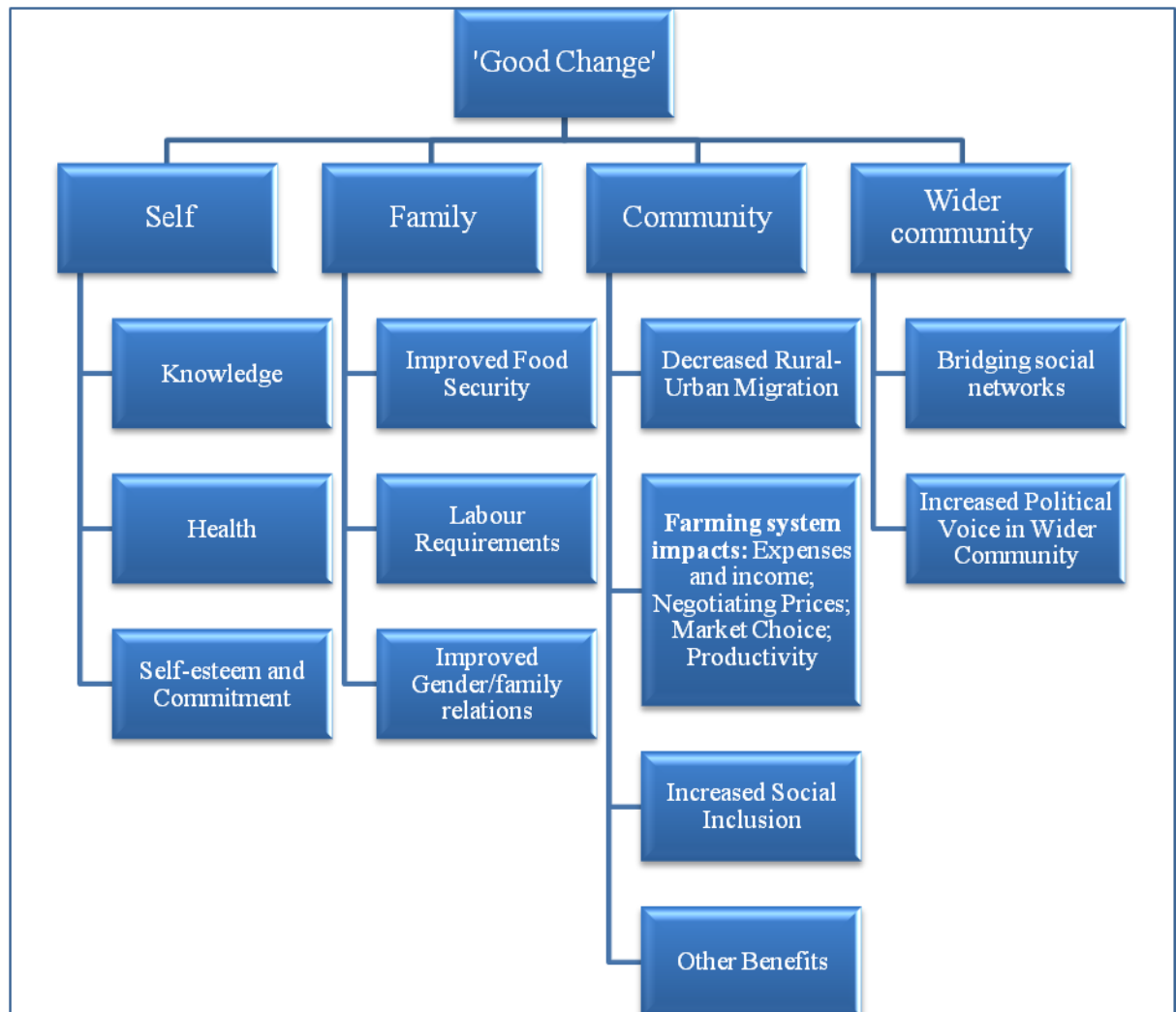


Figure 6: Good change response categorisation

Source: Author

²⁶ For the sake of clarity, the framework is presented as vertically linking in each of the four main categories of good change, but horizontal linkages also likely exist. For example, a rise in self-esteem and commitment may lead to improved family relations and increased political voice. A rise in women’s self-esteem may also, however, lead to an increase in family violence, as noted by Jewkes et al. (2002).

Good change relating to self

Knowledge

Organic farming is often said to be ‘knowledge intensive’, as the techniques require an in-depth knowledge of soil nutrition. Throughout the fieldwork process, I began to see that knowledge alone is not enough, but it is the ability (or ‘capability’ in Sen’s (1985) words) to transfer that knowledge into something applicable that is empowering. The knowledge gained was felt by many people to be the most important aspect of the organics initiatives:

CEDAC is like a second parent to me – my first parents gave us birth, CEDAC gave us ideas (V3F1).

Many people said that they would pass these techniques onto their children:

We have to do the best thing for our children. We are just farmers...but we can teach them techniques for growing so they are independent (V2F2).

This farmer’s comment is particularly revealing, as it shows that knowledge was seen to be a valuable resource that would allow not only this generation, but future generations to have more control over their lives.

Farmers varied widely across villages and initiatives in the amount of applicable knowledge they gained. Most farmers gained a high level of knowledge of organic systems, particularly in composting methods (*see Plate 5*). Others gained skills in management and marketing (V6), crop rotation, cover cropping and botanical pesticides (various projects), financial management and health and nutrition (V3, V5). In some cases, farmers said they were not able to use the techniques they had learned. For some, this appeared to be a case of ‘inappropriate technology’, such as one farmer who could not apply a composting technique because of the expense involved:

From the external inspector I learnt a new technique for...producing compost with a plastic cover, but we do not apply it because the plastic costs too much (V2F1).

Other farmers said that a lack of resources, particularly access to water, prevented them from using some techniques. In contrast to the farmers' perceptions, some organisation staff felt that lack of water and lack of will to change were the main barriers preventing farmers from adopting the techniques. In fact, some felt that the rate of technique adoption was low in some areas because of these reasons, and two organisations estimated that around 50% of farmers are unable to use all the techniques (D3.1; D7.1). However, I observed this number to be much higher in the villages I visited.

On the whole there was a consensus that the knowledge gained was empowering and beneficial. Despite the fact that inappropriate techniques might be taught, it is important not to dismiss knowledge that cannot be used immediately, as many people still talked about long-term benefits for themselves and their families through the knowledge they gained, even if they did not utilise it yet. Knowledge was particularly important because it could not be taken away, and one woman felt that even though she did not have land herself, the gains in knowledge she had experienced through the training workshops held as part of the organic initiative had developed her confidence enough to ask other farmers' permission to use their land:

The important thing is the training courses because before I never thought of growing on the land but now I can ask permission of the land owner next door to plant potatoes on his land even if I cannot afford to get the land myself. People can take things like land away, but they cannot take training away (V3F7).

Improved health

All but one research participant felt that their health had improved since joining the organic group (one farmer said his health was declining due to his old age). Many farmers said they experienced fewer incidences of dizziness, stomach problems, diarrhoea, vomiting and headaches. Many people believed this was due to relief from chemical poisoning (V3F1; V4F3; V5F1; see Box 1 below), while others felt the health improvements were due to a more nutritious, protein-rich diet. Farmers reported greater nutritional diversity due to the ability to grow more vegetables for eating and from selling premium-priced and/or larger amounts of farm produce, which allowed families to buy

more protein-rich food (V3F7; V4F1). Some farmers reported fewer hospital visits, which they said enabled them to save money for spending on food and other necessities (V2F4). Others, as noted in Box 1 below, said they were now able to work more effectively because of their improved health, and some of the poorer farmers, such as the poorest farmer in the D3 group, said they now had the money to visit hospital so sicknesses could be properly cured (V3F7).

Box 1: Improved health as a result of the organic initiative - Mrs. S

Mrs. S is an organic rice and vegetable farmer who farms on rented land and a small plot she received from D3. Previously she used twenty bottles of a variety of pesticides on her vegetables and rice; every year she increased the amount because her yields were decreasing. Five years ago Mrs. S's husband died suddenly, followed by one of her two sons. Mrs. S also became sick: *'I vomited all the time and it got so bad I could not walk'*. She was diagnosed with severe chemical poisoning. She stopped using chemicals and learnt about organic techniques from KNKS NGO. She now farms organically and is also a local trader dealing only in organic vegetables from the village. She says, *'the chemical poisoning I have got into my brain and lungs, and I am still feeling some of the effects now. Before I was sick every day, but now I'm only sick two or three times each year and I can work; I'm happy.'*

Improved self-esteem and commitment to organics

Improved self-esteem, mentioned by several farmers, was seen to enable farmers the ability to remain committed to organics, along with increased knowledge and other benefits. An increase in respect from others in the community was mentioned by several farmers, especially in V5 and V7, and from those in positions of authority within the groups, such as internal inspectors. One farmer who identified himself as the poorest member of the V5 group said that no one respected him before because he was perceived to be lazy, but now they respected him because he worked (V5F11). In reality, his 'laziness' had been due to a lack of knowledge of growing techniques, and the knowledge gained through the organics initiative had allowed him to farm more effectively and therefore grow in self-esteem (*see p.112*).

For many farmers, the self-esteem gained through their involvement with organics was strongly linked to their high level of commitment, as seen in Box 2 below. Significantly, all but three farmers said they would continue to grow organically, even if price premiums were not captured:

Even if CEDAC stopped coming, we would continue to share the techniques with everyone in the village. Because we want people to join, get better yields and better health (V4F4).

Farmers in V5 were particularly strong in their convictions that they were now independent, and would keep farming organically even if D6 only came to monitor occasionally (V5F1). The three farmers who expressed doubts about continuing had varying reasons for this, but a common thread was the perceived lack of a market if the development organisation pulled out, as opposed to not believing in an organic philosophy (V2F3; V6F2). This shows that sustainability of the initiatives may be more closely related to the management of the group by the supporting organisation than to any deficiency in the techniques or incompatibility of the organic philosophy with Cambodian farming; this is further explored in the section on ‘Development organisation focus and marketing strategy’ (see p. 120).

Box 2: Improved self-esteem through organic farming - Mrs. R

Mrs. R grew only rice before she joined the CEDAC organic group in her village and began to grow vegetables and fruit. At first Mrs. R was too shy to sell her vegetables: *‘I would sit down and put the vegetables behind my back, because I’d never sold anything before. I thought selling vegetables was a silly thing to do.’* Mrs. R now sells her produce regularly at the market and says, *‘now I’m not shy! Growing vegetables is valuable – we can use our own labour, we do not have to hire others, and do not have free time with nothing to do. I will never stop farming organically.’*

Interestingly, the farmer in Box 2 sees the decrease in ‘free time’ as a result of the organics initiative as a positive aspect. This may seem counter-intuitive, but could relate to comments made by one NGO worker who felt that many farmers, especially those in isolated areas, do not have opportunities for alternative employment during the farming

‘off-season’ and may experience depression, increased family violence and problems with alcohol abuse during these times (D4.3).

Good change relating to family

Improved food security

The impact of the organics initiatives on food security is a key focus in this study, as there is considerable debate in the literature over whether organic farmers may have lower yields and therefore decreased food security or conversely increased food security (Badgley et al., 2007) and whether export-focused initiatives may incur losses in food security if crops are exported at the cost of family consumption (Mertz et al., 2005). However, all farmers in this study said they were more food secure since joining the organics initiatives. Twenty-three farmers said they did not have enough food previously and could now fully support their families, while others had improved a smaller amount, and some had always been able to support their family. Several families that were receiving premium prices for their organic produce mentioned that they now had greater food security because they could afford to sell less and have more for the family to eat themselves (V2F2; V5F3). This point is particularly interesting as it shows that many farmers (including some in export certified groups) were more concerned about family food security and health (they perceived their rice to be healthier than bought rice) than about receiving higher incomes from selling all their premium rice.

Labour requirements

Almost all respondents noticed an increase in physical farm labour requirements (*see* Table 11). Committee members and inspectors in several groups felt that labour requirements were also higher due to their management roles within the association and organic group (V5:F1, F2; V6F3). Interestingly, however, all farmers interviewed said they did not mind the extra work because of the benefits received, and given the point made about improved health (*see* p. 94), people may be more likely to have the physical capacity to deal with the work, as well as the commitment to organic farming noted earlier. A number of farmers in managerial roles also noted an increase in self esteem (*see* p. 107) that may offset the labour costs. A reduction in labour requirements was noted by some farmers in initiatives where organic techniques were taught in conjunction with System of Rice Intensification (SRI). The SRI method of transplanting young seedlings

was felt to be easier than traditional methods, and was often said to offset the extra labour required for compost and weeding in the organic systems.

Although all farmers said the benefits outweighed the labour costs, farmers that lacked the human resources in their family to work on the farm or the money to hire labour said they found organic systems difficult (V6F5). Older farmers whose children had moved away to the city found that labour shortages for some jobs were acute (V7FG).

Table 11: Farmer perceptions of labour requirements after organic conversion

Perception of labour requirements	Research participant
More work weeding and composting but it is worth it	V2F:2; V3F:2,3,7; V4F1; V5F:1,2,3,4,7-9,12-14; V6F:2,3,4,5,6; V7F:1-5;
Less labour required for rice because I use the SRI technique	V4F2; V5F:5,6,10,11; V6F1
No more work (I can make compost in the evening; my family helps me)	V3F1; V4F4
Less work because I only apply dung twice per year	V6F7
More work because of my position in the association but it is worth it	V5F2; V6F9

Source: Author

Gender/family relations

Investigating how organics impacts on women's work is important because female farmers in Cambodia are said to have an existing heavy work load (G2) and development interventions need to be designed in a way that does not add to this burden, especially in the case of organic agriculture where the extra labour involved may accrue unfairly to women in the household (*see p. 71*). Many of the people I spoke with at development organisations were keenly aware of the existing imbalance of gender roles in agriculture, whereby women were expected to perform many of the daily farm tasks as well as caring for the household, and many initiatives specifically targeted female farmers because of this (D1.1; D3.1; D4.1; D6.1). Most women felt that there was more work involved in organic agriculture, although they generally said that their relative share of the work had not increased. In some cases, women told me that becoming part of an organic farming group meant that the family now shared work more fairly because the children could help with daily activities such as picking up cow dung and leaves around the house, whereas the previous job of dispensing chemical fertiliser had been performed only by the

adults—usually the man (V5:F5, F6). Women involved in cooperative selling groups, such as the women in V7, said that the group greatly decreased each member’s work load, as they were able to take turns selling produce at the local market. One woman said that the extra income gained as a result of the organics initiative had allowed her to give up her previous job as a fish trader at the market, giving her more time for farming and spending with her family (V4F4).

A reduction in domestic violence was mentioned by farmers and organisation staff, most notably in V3 and V5. It is important to note that the organic techniques alone probably did not produce an increase in family harmony in most cases, as a number of the farmers (especially in the V3 and V4 initiatives) had also attended specific training in gender and family relations. However, as shown in Box 3 below, a number of farmers that had not attended gender training said that the extra work required on their farm meant they now socialised less with other men and spent more time at home; therefore family relations were better (V1F1; V5F3; V5F11).

Box 3: Improved family relations - Mr. and Mrs. P

Mr. P, a married farmer with one child, described himself as the poorest farmer in V5. He used to grow one rice crop a year on the 20 acre field he rented from his father, and was unable to find other work between cultivation and harvest time. He told me that before he joined the organics group he was ‘*a lazy bad husband*’.²⁷ He ‘*used to go for walks...meet the other men and drink and play games*’. Now he grows vegetables year-round on the plot and sells them at the local market. He says the extra work keeps him busy, and ‘*now I’m not lazy*’. His wife (Mrs. P) comments, ‘*he still goes for walks, but now life is much better. We farm together and sell together at the market.*’

Good change relating to community

Rural-urban migration

Although some literature suggests that organic agriculture may contribute to a reduction in rural-urban migration (FAO, 2002), farmers in most communities felt that the organics

²⁷ The term ‘lazy’ was defined very differently by most farmers than how we would normally understand it; many people who did not have the resources to undertake an activity described themselves, or were observed as, ‘lazy’ (see p. 112).

initiatives did not have a big impact. For example, only five of the nine V7 organic group member families actively produced vegetables for the group stall, as the other four families worked in the city for long periods at a time and were not able to care for their gardens sufficiently to produce marketable vegetables (V7F1). However, farmers in V3 felt that the organics group had contributed to reduced migration in the village (V3FG), and one farmer in particular stated that the project had allowed her family to stay in the village (*see* Box 4). It is important to note that some farmers were also supported by remittances, and said that the remittances received from family members working in the city or in Thailand formed the largest part of their income and enabled them to stay in the countryside (V3F4).

Box 4: Reduction in rural to urban migration - Mrs.K

Mrs. K, a single mother with two children, identifies herself as one of the poorest people in V3. She said the D3 initiative, which provided her with land and organic growing techniques had allowed her family to stay in the village rather than migrate for work, giving them independence and a chance for her son to attend school. She felt that some poor families in the village were lazy, because they thought that organics was too hard and the city would provide a better paying option. However, she was determined to stay on the land: *‘We will not stop; if we stop we will have to migrate to find labour and will live on the street; here we can rely on ourselves.’*

This section now moves from social impacts to look specifically at economic impacts of the organics initiatives on family income, farm productivity and prices received, as well as the associated market relationships and the degree of empowerment (in terms of increased market choice and negotiating power) experienced.

Farming systems impacts: impact on income

All farmers said they had increased their net income since joining the initiatives.²⁸ Table 12 gives a simplified summary of farmers’ perceptions of the organics initiatives’ impacts

²⁸Net income is understood here as revenue minus expenses such as fertiliser, seed, and irrigation costs. It is important to note that from a Western point of view, this concept of net income may be misleading as it does not take into account labour costs. However, most farmers felt that labour costs were not an important aspect because they relied primarily on family labour, and said that they generally could not find paid off-farm employment, so any extra farm labour was not felt to be displacing other income opportunities.

on expenses and on net income. The table is presented in two series of columns in order to appreciate that even in cases where expenses had increased (V2 and V6), net income had also increased, so the overall economic impact of the organics initiatives was positive. The increased expenditure in V6 was due primarily to the type of farming system from which farmers converted; five of nine farmers interviewed in V6 converted from a traditional system and some said they had never used chemicals or composting techniques before, but now they purchased some manure for composting and therefore expenses were slightly higher.

Table 12: Farmer perceptions of the impact of organics on expenses and net income

Area	Impact on EXPENSES			Impact on NET INCOME		
	Reduced	Same	Increased	Increased	Same	Decreased
V1	10			10		
V2	1	4		5		
V3	6			6		
V4	5			5		
V5	15			15		
V6	2	4	2	8		
V7	5			5		

Source: Author

Similarly, four out of five farmers in V2 converted from a traditional system and the fifth farmer used only 1kg/ha chemicals before conversion (V2F5), hence expenditures did not generally decrease. However, all farmers reported increased income; the most common reason given for this was lower input costs, followed by increased yields, diversity of crops, premium prices and reduction in medical fees due to better health. For example, incomes increased between 1-3million riel²⁹ in V4, as most farmers had grown almost no vegetables before the organic initiative. Even farmers who had experienced a drop in yields³⁰ told me that their income had increased due to less spending on inputs, as can be seen in Box 5.

²⁹ The riel is the Cambodian unit of currency. 1USD = 3700 riel.

³⁰ These were all farmers new to the initiative, whose systems were still in the conversion stage (see p. 17).

Box 5: Reduction in expenses as a result of the organics initiative - Miss K

Miss K's rice yield has decreased slightly since converting to organic techniques, and prices have not changed; therefore her income was 550,000r this year compared to 700,000r before joining. However, she says: *'when we include chemical expenses, we used to spend 300,000r, and now we use our own compost and buy some dung for a cost of 100,000r. So we are making 50,000r more now and I think our yields will increase'*.

Farming systems impacts: impact on negotiating power

Increasing negotiating power is an important aspect of agricultural initiatives, as Cambodian farmers currently have very low negotiating power when deciding on prices received by traders (Schmerler, 2006) and this is tied in with a dependence on traders for loans and equipment rental that contributes to prolonged poverty (JICA, 2001). Negotiating power was observed to be affected in different ways by the organics initiatives depending on whether the groups had organic certification or a regular market sourced by the organics organisation, or whether farmers sourced their own markets, and these variables are discussed in turn below.

Farmers with certification or a regular organisation-sourced market outlet received price premiums of between 10% (for CEDAC rice and vegetables) and up to 20% (for fully certified rice in GTZ and CCRD initiatives). Farmers said that the price was set according to a premium above the market price, and some negotiation took place at regional (cluster) farmer's group meetings (V5F3). However, for some groups, negotiations appeared to be limited to the organic committees that were made up of a small number of group members, and most other farmers in the group said they did not take part in the negotiations (V5:F9,F12,F15). Some were unaware that these meetings took place (V2F3; V5F5). The farmers were not necessarily unhappy with this situation though; most farmers felt that even though they did not have much power to negotiate, they were happy with the prices they received (V5:F9,F12).

Almost all certified rice farmers were unable to receive premium prices for their vegetables and fruit, either in local or distant markets (in V2, V5, and V6). Many of the farmers felt that they should receive higher prices for their other organic produce, but

they were not sure how they might do this, and there was a tendency to look toward the development organisation for help (V6:F2,F4).

Non-certified farmers in some areas received premiums, although there were large price differences between villages and also between farmers in the same village (for example, V1; V3). The V7 (non-certified) organic vegetable group run a stall at the local market, and the group receives regular price premiums of between 10-20% or more (V7F1). Some V3 farmers reported 10% price premiums when selling individually to others from around the area (V3F10), and price premiums of 10-20% when selling organic rice as a group to a local trader (V3FG). They set a time to meet with the trader at one of the group's houses, and the group leader felt that their relationships with the traders, and the prices they receive, have improved as a result (V3F5). These farmers reported that they are able to receive a higher price in the village and surrounding rural area but not in Pursat city (V3FG), because D3 have promoted the benefits of organics to other villagers (V3F10). This is particularly interesting because some officials believed that organic produce would only sell for premiums in urban areas with a middle-class of consumers (D5.1; G3).

Other than the farmers in V3 and V7 mentioned above, most produce in farmer-sourced markets did not capture price premiums, although many farmers said that their organic vegetables were easier to sell than conventional vegetables because consumers were concerned about the health implications of eating conventional vegetables. Some farmers said they were able to sell all the organic vegetables they took to the market, whereas previously their conventional vegetables were difficult to sell (V3:F1,F10). In general, prices were seen to be higher when selling directly to consumers or to traders at the market, rather than to middlemen from the village. However, the trade-off in time and transport costs to access markets meant that many people sold to traders at a lower price. In V2, where there were no group selling arrangements in place and most farmers sold to the local market, farmers told me that the middleman set the price (V1:F1,F3,FG). Representatives from Padek and Fidac NGOs in Siem Reap also felt that traders had more power than the organic farmers. Four farmers said they received lower than normal prices for their organic vegetables because they did not look as good as conventional produce (V1F5; V3:F7,F9; V5F1). One V5 farmer said that traders at the local market told her consumers would buy conventional over organic because the vegetables were bigger and

better looking and the traders gave her a lower price for her organic vegetables (V5F1). However, casual discussion with consumers at the same market revealed that a number of local people are aware of organics and said they would purchase organic rather than conventional if they knew where to buy it. This shows that awareness amongst consumers may be growing, but traders still have the power to set lower prices for farmers who have not organised into groups such as those described above.

Farming systems impacts: impact on market choice

Overall, farmers were divided over whether they preferred to sell for export, domestic or local markets. Although many people were worried about securing the best price, there were also a high number of farmers more interested in selling to their local village than to potentially lucrative distant domestic and export markets. Even farmers in certified initiatives generally saved approximately half their rice yield for eating, and sold only the surplus to lucrative markets. A number of these farmers felt that using their own rice for family subsistence was a less risky strategy than selling all of their rice to the organisation or the farmers association for premium prices and using the income to buy food (V5:F1,11). The desire to ‘go local’ appeared to be particularly strong in V3 (which had a rice deficit), where more than half of the people I spoke with mentioned their desire to sell to the local area. The villagers told me that even though they ‘*will only get small price benefits, the community will benefit*’ (V3F1). The V5 cluster leader similarly believed that ‘*in the future maybe we could export if we have enough rice – but first the family, then CEDAC and the local market and then export*’ (V5F3), and the V2 leader saved some rice for the community:

This year I sold 1.5 ton to people around the neighbourhood at a cheap price, because some people are hungry and need healthy rice to eat. Even if others came to offer a higher price for rice, I would sell first to the community so that we will have enough food to eat (V2F4).

The above comment reveals a level of empowerment, as the higher prices received for the traded organic rice allowed the farmer to demonstrate his commitment to the community by selling some rice at a less expensive price. The focus on family and community is particularly interesting in the context of critical literature which questions the food security impacts of trade-based organics initiatives (Mertz et al., 2005); as noted in this

thesis, food security increased for farmers in all initiatives, regardless of whether they were trade-based or subsistence-based.

Despite these claims to local food security, one of the possibly ironic aspects of the global organic industry is the high-value niche label it has gained in recent years. As noted in Chapter Two, the poverty of the consumer is an aspect of organics that has been largely ignored in the literature and in practice (Guthman, 2000). Farmers that were receiving high prices for their organic produce told me that their customers were mainly upper and middle class consumers (V2F1; V7F2). However, other farmers were able to sell food at their local markets for less profit, and give food away to family and people in need, because of the higher prices they received for their organic produce in distant urban markets (V2F5; V3F2). These examples show that the situation is complex, and although an in-depth investigation of this issue is beyond the scope of this study, researchers are realising the need to address the problem of social inequity in the consumption of organic food through both research and policy (Allen and Sachs, 1992).

Farming systems impacts: impact on productivity

While almost all farmers said their yields had increased since they converted to organics, there are three points which should be kept in mind: where SRI methods were introduced in conjunction with organic systems, yields may be higher;³¹ a number of farmers have increased and diversified their production (for example, growing vegetables where before they grew only rice); and weather has been favourable in some areas over 2005-2006, and therefore the yields may be higher because of environmental factors. Keeping these caveats in mind, it is still remarkable to note how many farmers felt that the productivity of the farming systems improved after learning organic techniques. Overall, 45 farmers observed that the productivity of their farms had increased, while only three said that yields had decreased. However, significant differences can be observed between rice and vegetable/fruit production. Table 13 shows that impacts on rice yields were almost all positive, while impacts on vegetable yields were more variable, with the most common response being 'no change'.

³¹ This method of growing is shown to raise yields on both conventional and organic plots (Uphoff, 2004). However, one woman using SRI on both organic and conventional blocks said that her organic field was actually higher yielding than her other SRI fields because she used more (organic) fertiliser on the organic field than (chemical) fertiliser on the conventional field (V5F2).

Of the two farmers that experienced decreased rice yields, one (V6F8) said that the organic seed she received from the organisation was not suitable for her low-land field as it was more vulnerable to flood damage, and the other (V5F14) said that mice infestation had increased because the aromatic variety the organisation recommended was more prone to pest damage. Other farmers that experienced decreased or un-changed vegetable or rice yields believed they lacked experience, techniques, water and natural fertiliser, and the time needed to care for the soil properly. Significantly, all of these farmers said that they would keep using the organic techniques even if yield was lower, mainly for health, lower expenses, soil quality and taste reasons.

Table 13: Farmer perceptions of the impact of the organics initiatives on yields

Area	RICE Increased	Same	Decreased	VEGETABLES Increased	Same	Decreased
V1	4			1	5	
V2	5					
V3	7	1		2	2	
V4		3		2	2	1
V5	12	2	1			
V6	7		1	4	4	
V7				1		
TOTAL	35	6	2	10	13	1

Source: Author

The most common reasons given for higher yields included: the use of compost (twenty-one people), the higher soil fertility, better seed, more care taken in weeding, the use of SRI methods (five farmers), extending to two growing seasons (only two farmers, as most people said they could not grow during the summer due to lack of water), raising the banks around the rice field to retain fertiliser, ploughing in crop remains, ponds, other resources such as cows, and other life changes (for example, the children have grown so there is more labour and the family are able to grow more).

Other productivity benefits were also noted by many people. Organic vegetables were said to have a longer growing life than conventional (V6F2), and the soil quality was noted to be much better under an organic system (D4.3). Farmers also reported an increase in biodiversity in their rice and vegetable fields, including the ability to raise fish in the rice fields (V5:F2,F3). Some people talked about the resilience, or ability to withstand shock, that the diversification into vegetables had given them. For example, one woman said that even when the village experienced a low rice yield due to drought three years ago, her family was able to maintain food security by selling her vegetables (V7F1), while another woman said that she no longer stressed about finding food for the next day because she could sell vegetables (V7F3).

Social inclusion

Many farmers in all communities commented on the positive ways they felt their community networks had strengthened with the organic project. People used words such as ‘*share*’ (V3F1; V4F5) and ‘*support*’ (V2F4) to describe these new community networks (see Box 6 for an example of strong community networks). One farmer said that her neighbour, also a member, now let her use his manure (V4F5); another said that the group members compare yields and pest control strategies (V2F4). These social networks were about more than just sharing ideas; farmers talked about a new sense of community spirit amongst members.

When one member’s house burned down, others in the group helped to pay for a new roof through an emergency fund. It was the first time for this kind of community assistance (V1FG).

Several people felt that having an association and an organic producers group conferred more empowerment benefits in terms of social networks and price premiums than organic techniques alone (D4.1; T4). A number of organisation representatives felt that organising farmers into cooperatives or purchasing groups of some kind was absolutely essential for market access; however, some officials stressed that other benefits of an organic system such as health and lower input costs could still be achieved by isolated farmers (G6).

Box 6: Community networking - Miss J

Miss J, a single woman in her twenties and the internal inspector of the V5 organic group, runs a 0.75ha rice and vegetable farm with her sister, and helps to look after her ailing mother and grandmother. Miss J said she had very little confidence before joining the group and would not talk to others in the village whom she thought were of higher status than her. However, she was brave enough to join the organics group because she wanted to have fish and frogs in the rice field again. Now she says *'I talk to everyone at the meetings, even the village chief! When we are at the meetings we are all the same'*.

Regular group meetings were often mentioned as a tool for creating deeper social networks and spreading skills and innovations amongst members. This was also a time for women to come together and build their place in the community. In V5, women made up thirteen or more people out of seventeen at the organic meeting, and they also arranged the meetings and spoke (V5F2). However, the level of participation varied between organisations, and some V1 female farmers felt that women only attended meetings when their husbands were busy, and, when they did attend, they were still too afraid to talk (V1FG).

Other beneficial impacts

Other benefits of becoming an organics group member, such as membership of a savings group, seed distribution group, training in gender relations and training in financial management, were regarded by some farmers as the most important aspect of the organics group. A common benefit noted was the existence of savings groups run by some of the organic groups. In communities where a savings group had not been set up, farmers believed that this omission was one of their main constraints to group independence:

If we had a savings group, we could support ourselves...and be independent within two years (V2F1).

However, savings groups cannot be seen as a panacea for poor association management or bad spending decisions. In V3, the savings groups had suffered a severe loss of membership and many people said they did not trust the group because some farmers had misused group funds (V3F5).

Good change relating to the wider community

Wider social networks

Farmers commented on the increased networks created not only in their villages but also in the wider community of farmers, civil society workers and even with government representatives (V5:F1,F3):

I built up good relationships with other members, and now farmers and officials in other provinces and communities. Now that they know me I always have rice to eat when I go away (V5F3).

Farmers in most groups were actively increasing the reach of the new networks by talking to people in other villages and to relations in other communities about the benefits of the group (V5:F12,F14), although I did not observe this to the same extent in V2. The possibilities for bridging networks with authorities to empower groups are shown by the success of the V7 group (see Box 7).

Political voice in the wider community

Increased political voice when dealing with the wider community was a feature of many farmers' dialogues, especially that of women (V5:F2,F5). One woman told me she was no longer afraid of speaking at meetings (V5F5), and the V5 cluster leader said his self-confidence and ability to talk with people of a 'higher status' had improved due to the interconnected networks strengthened by the organics initiative (see Box 8).

Box 8: Increased political voice - Mr. M

Mr. M. is a middle class villager, and although he was lucky enough to go to primary school, he never attended secondary school and he never talked to the village chief. When he was voted cluster leader, he was asked to attend a meeting at the regional council office (commune). He says: *'I was afraid to go to the commune, especially entering the building. I stood in front of the commune door but I never entered. But after I joined the project and sometimes facilitated meetings with the commune council, I encouraged others to talk, especially to talk about our rice'.*

Box 7: Secrets to a strong group

I added a visit to the Prey Veng (V7) group to learn more about why they were able to successfully organise themselves to operate a local group stall – the only group I heard about that managed to successfully attract regular premium prices for produce at the local level. I found that their success was due not only their knowledge of techniques, plentiful water resources and high level of group communication, but perhaps primarily to the networks they had created with the wider community. Most importantly, the governor of the province helped to finance the stall, and the local CEDAC workers also promoted the group to influential people in the community. The CEDAC area chief explained that the success depended on ‘*good cooperation with influential villagers like teachers and others, and local authorities – from village, provincial, to district governor level*’ (D4.3).

When I asked the group members why they were successful, the most common response was the support of local government council members (V7:F1,F2,F4) the work of the CEDAC coordinator in networking with the district governor (V7F5), and the networks this created: ‘*The governor here is always supportive; he buys our produce and promotes the idea of organics to other commune chiefs at the general meetings, then word from the commune goes to village chiefs and from village chiefs to people in the village*’ (V7F1).

Some V7 farmers felt that their association with CEDAC and their group structure was more important for capturing premiums than their organic status, because consumers trusted the NGO (V7:F2,F4). ‘*The important thing is that we are with CEDAC. Other outsiders who produce organic produce but not with CEDAC cannot get as high a price as us, but they still get higher—about 100-200r—than conventional produce*’ (V7F2).

Who benefits from organic agriculture initiatives?

While all farmers experienced some type of ‘good change’, there were significant differences in the ways and extent to which farmers felt empowered by the organics initiatives. Many farmers talked about problems they experienced with their farm or with the organics group that limited the initiative's beneficial impacts. These are listed from most to least mentioned in Table 14.

Table 14: Problems I face as an organic farmer (in order of priority)

weather (heavy rain and drought)

lack of water

lack of dung

difficulty transporting dung

lack of labour

traders and consumers do not buy produce because it does not look good and is smaller

no money to invest in irrigation and oxen

no time to work on the farm

I do not trust it enough to convert my whole farm yet

communication with CEDAC shop (because no mobile phone to arrange orders), and taxi cost.

packing and cleaning vegetables

pest control on organic plot (especially for mice)

land too small

association lacks money to buy store house and pre-finance farmer members

seed type (cannot grow because I have lowland)

no stall so cannot get good prices for vegetables

supply inconsistent and not enough to properly support stall

not enough training

no savings group

CCRD [D2] lacks the transport to collect our rice, so farmers in the group sell to Vietnamese traders

Source: Author

Constraints identified by farmers were similar to those identified in focus groups, although there was a bigger focus on factors affecting individual farms (including lack of water, pest control, lack of compost materials and difficulty transporting compost to fields). Farmers were also more critical of the supporting organisation during one-on-one interviews; this was especially evident amongst V2 farmers, who criticised the lack of savings groups and ongoing training as well as inadequate transport facilities. V4 farmers also criticised the transport arrangements with the CEDAC shop, and the lack of training or packaging they received to ensure the produce did not spoil in the truck. There did not appear to be any specific relationship between gender and constraints experienced. There

did, however, appear to be a relationship between farmers from a particular initiative and the constraints identified. For example, all farmers from V2 said that ‘lack of water’ was a primary constraint; this is most likely due to the isolated, upland geography of the area, which means that the area is prone to drought, and has not benefitted from government and donor irrigation and water projects as have other villages closer to roads.

In order to learn more about *who* benefited from the organics initiatives and what constraints existed for other non-member farmers, I asked participants why other farmers did not join the group. Responses from most to least mentioned are listed in Table 15 below.

Table 15: Reasons why other farmers do not join the organic producer’s group (in order of importance)

cannot pay shareholder fee
lowland farmers cannot get good yields
busy with other jobs; have to migrate for work
no cows or buffaloes
other farmers are lazy; just want presents from NGOs
need money now
no water resources
say it’s for old men
borrow money from other farmers, then have to work to pay it back
suspicious of joining – think they will lose land

Source: Author

Table 15 shows that farmers with limited resources (including water, animals for plowing, cash and credit facilities; amount and type of land) may not be able to benefit from the organics initiatives. While a number of farmers argued that others are ‘lazy’ or ‘just want presents’, there appears to be deeper tension between the need to gain resources in order to access the organics initiatives and the need to go out to work to earn immediate money.

An analysis of the data distilled three key factors that influence the extent to which farmers are empowered by the organics initiatives:

- 1) The farmer's individual level of resources;
- 2) the organisation, cohesion and long-term viability of the organics group; and
- 3) the development organisation's focus and marketing strategy

These three themes are discussed in-depth below in relation to how they affect the impact of the organics initiatives, and specifically, on who is empowered by organics and how and to what extent they benefit. This analysis is essential for understanding the key aim of this thesis—investigating the effectiveness of organic agriculture as a tool for rural development—because ‘elite capture’, whereby those who are not in most need benefit at the expense of those who are, is a significant concern in development initiatives (Platteau and Gaspart, 2003).

Individual level of resources

I observed that wealthy people did not generally join the organics groups. Poorer farmers were said to be more able to adapt to organic farming, as they had smaller fields and were more likely to use little or no chemicals before conversion (for example, V2F1). However, in almost all cases, the organics initiatives attracted the *poor* people in the community rather than the *poorest* people (V3 is an exception, *see* Box 9). One V6 farmer clearly described the situation that many farmers explained to me:

Some villagers are rich and produce more...They apply chemicals because they produce so much, so they cannot or will not change. The poorest people are busy with other jobs and have no cows, buffalos and no time to do compost. They have to work for others every day, so have no time to grow rice or join the organics group (V6F2).

More than twenty farmers and five organisation staff I talked with said that poorer farmers did not join the initiative because they were ‘lazy’. However, when I asked what this meant, I generally found underlying reasons for this laziness, most commonly related to inadequate access to resources, sickness, lack of available labour, and need for immediate income. One farmer from Takeo told me he had been lazy before joining the group, but he actually identified his former barriers as resource and skill barriers:

I started producing organic vegetables after a CEDAC course. Before I was too lazy! Because before I did not have enough money, and I learnt on the CEDAC course how to farm well (V5F11).

Box 9: Targeting the poorest through organic farming - D3

The D3 project in V3 was very different in its approach from other organics initiatives as it specifically targeted the poorest people in the village. To qualify for the D3 initiative, villagers had to be classified as ‘poorest’, which initially meant that they had either no personal land, or a small plot but no rice fields. D3 (with financial assistance from Oxfam) bought a plot of land which was divided into ten parts so the families could plant separate rice and vegetable plots. Each family is able to farm the land for three years; then is expected to pass the land onto another family. The project appeared to be particularly successful for five of the families I spoke to, who all said they would not have been able to feed their families without the resources now available to them through the ability to grow their own vegetables and rice.

However, there were several problems with the scheme; firstly, the uncertainty that the farming families felt because of the short-term (three year) contracts, and secondly the number of families that defected and did not farm the land. Some farmers in the village committee felt that the families would be allowed to extend the contracts beyond three years, but most of the families farming the land appeared concerned about what would happen, and said they did not know what they would do when the project finished (V3:F1,F7,F10). The D3 director said that although the original plan had been to pass all the land on to others so more people could benefit, cases would be decided on an individual basis and farmers who were dedicated to farming the land and did not have any other means of farming may be allowed to extend their contracts.

People who lacked resources such as fertile land, manure, seeds and labour were often unable to capture the benefits of the initiatives. All but one farmer I talked with, and all focus groups, said that a lack of resources was one of the main problems they faced in organic farming. Land owned by poor people is often far from roads and markets, and may be less fertile or easily flooded, while the poorest families may have no access to productive land. Many people felt that farmers with poor access to water resources could

not farm well organically, and therefore a number of organic projects targeted farmers with good access to water resources (V1; V2). One farmer criticised CEDAC for requiring farmers to use SRI in order to sell to the CEDAC shop, as it is possible that farmers with less access to stable water supplies may not be able to grow with SRI, and could then be denied the possible benefits of growing with organic methods and marketing their produce via the NGO (V1F3). A shortage of fertiliser materials was said to discourage some farmers from joining (V2F4), and to prevent partially-converted farmers from fully converting to organics (V5F3). Some farmers and development organisation staff felt that farmers with a lack of resources (particularly water) may have to wait for authorities to improve the rural infrastructure before they can engage in organic agriculture (D1.1).

Some organisation staff and government officials believed that the main barrier preventing adoption of organic techniques was not so much a problem of access to resources as a lack of knowledge of organic techniques. Some felt that farmers who complained about a lack of compost materials were too lazy to look for alternative materials such as leaves to use in compost, (D7.1; G6) while a central government representative felt that the farmers who said they were short of compost materials should learn other techniques such as green manure cropping (G4).

Despite this feeling amongst some officials that attitude was the main problem, many officials and organisation staff talked about the need to provide resources as well as techniques in order for poorer people to benefit from organics initiatives (for example, G4). One government official felt that the answer was to include both technique training and resources in organics initiatives; or as he put it *'we have to look at the software for the poor, but also the hardware otherwise it cannot work'* (G2).

Similarly, some farmers felt that some NGOs offering material resources ('hardware' in the above quote) had already created aid dependence in the communities. Some said this discouraged people from joining technique-based development initiatives, such as that of the organics initiatives, because they did not distribute material resources (V3F3). However, a few farmers, particularly in V3, said that they joined the organics group primarily because the organisation did not focus on the distribution of material resources (V3:F4,F5,F8):

I joined CEDAC because they came with nothing but techniques and ideas. Other NGOs give gifts and then leave after a short time, but with training we can do it in the future (V3F4).

Farmers in V3 and V7 initiatives, both of which supplied some resources to poor farmers, said they could not have gone organic without the assistance of resources as well as training (V3F1; V7:F2,F4). In fact, although almost all farmers said that they had to depend on themselves and hard work, approximately half answered that they needed resources to go organic. A V3 farmer felt that she did not want to depend on organisations, but she needed cows and a rice field so did not know what to do: *‘we have to help ourselves, but it’s difficult for poor people’* (V3F7). One V7 farmer asked *‘If we have training but no resources how can we produce?’* (V7F3).

Organisation, cohesion and long-term viability of the organics group

The organics groups differed markedly in their activities, reach and likelihood of long-term success, and these differences were found to impact significantly on the degree to which farmers were able to access and benefit from the initiatives. In this section, I illustrate the importance of these group differences by focusing on three aspects of group formation that impact on the viability of the initiatives—organisation, cohesion and long-term viability—in order to identify some guidelines for success.

All organics initiatives in this study had organised farmers into some form of producer group, with regular group meetings and a variety of other activities such as group-managed savings and loan facilities, technique dissemination, inspection, seed distribution, group selling at the local markets and coordination with regional buyers, amongst other activities. I term these activities aspects of **‘organisation’**, and where there were a number of activities that appeared to be successfully functioning, I label this ‘high organisation’. However, group functions go beyond organised activities; the social capital gained through informal work and knowledge sharing, motivation, and friendships developed amongst group members were a major benefit mentioned by many farmers; these I term aspects of **‘cohesion’**. The ability for the group to continue in the long-term is also important for ongoing empowerment, and therefore I asked farmers and organisation staff whether they felt the group would continue long-term and why, and my perception of this is described as **‘long-term viability’**. Table 16 describes the levels of

organisation, cohesion and long-term viability in each group, ranked ‘low’, ‘medium’ or ‘high’.³²

Table 16: Organic group organisation, cohesion, and long-term viability

Village	Group organisation	Group cohesion	Group long-term viability
V1	Low (focus on community building, no group selling or certification, little awareness and interaction with other groups, few networks with others in/beyond community).	Med (most farmers noted better relations with group members, Increased women’s voice)	Med (strong commitment from members, but few links with outside networks could jeopardise group sustainability).
V2	Med (export certified – previously high organisation, but now funding issues)	Low (most farmers said no change in relations with others)	Low (all farmers mentioned a concern of the group breaking up, and said that meetings were erratic)
V3	Med (focus on community building through gender training, health workshops, no marketing activities from development organisation (but group selling rice).	High (very strong feeling of community amongst all members)	Med (some concern over ongoing land-use policy, and savings groups)
V4	Med (new group with small membership, no certification but regular contract with CEDAC shop)	Med (positive relations noted by most members)	Med (farmers were confident that group would continue but said membership was too low)
V5	High (ICS system, rice to CEDAC shop; subcommittees for seed distribution)	High (positive relations noted by all, especially in conjunction with other farmer groups)	High (but currently reliant on extensive donor funding – moving to ‘user-pays’ model)
V6	High (export certification; trained in business skills)	High (five farmers said community feeling was better; committee members felt gains were higher than other non-committee member farmers)	Low (eight farmers felt that group would not continue when funding finishes this year)
V7	High (local group selling arranged with CEDAC and governor)	High (all experienced gains in self-esteem, friendships)	High (but dependent on governor policies/good will)

Source: Author

³² These rankings are based on my perceptions during interviews and observation. Group organisation is deemed ‘high’ where there were several activities that appeared to be functioning well, ‘medium’ where there were some problems, and ‘low’ where there were little to no group activities. Cohesion is deemed ‘high’ where farmers said (and showed) that they had a strong feeling of community amongst all organic group members, ‘medium’ where some farmers felt there was positive change and ‘low’ where there was said to be no change compared to prior to the organic initiative. ‘Long-term viability’ was ranked ‘high’ where I felt the group was likely to continue in the future, ‘medium’ where there were some doubts, and ‘low’ where I felt that the group was unlikely to continue.

I was surprised to find that the certified groups were not necessarily the most cohesive, as other literature suggests that groups with high levels of organisational structure such as certification agreements may experience greater levels of community spirit (Raynolds, 2002b). Three non-certified groups exhibited medium-strong organisation and cohesion: V3, V4 and V7. These groups reported higher social gains through strengthened knowledge-sharing, friendship, work sharing, group selling and communication both within the community and also an increased ability to communicate and negotiate with parties beyond the community. Some managed to gain price premiums through local group selling arrangements (V3 and V7). In less organised groups, it was clear that social networks had not strengthened to the same extent as in more organised groups, and in several communities many farmers were worried about the ability of the group to continue when funding finished (V2, V6). Farmers in less organised groups (especially those without certification or a strong reputation in the community and those who did not have a strong group selling structure) told me that their main problem was the lack of trust and awareness amongst traders and consumers (V1F1; V4F2; V5F1).

In terms of the third column, 'long-term viability', several issues were identified during focus group discussions, interviews, and observation of committee meetings that may be limiting the potential for the farmer groups to viable long-term (*see* Figure 7). These constraints may be problems internal to the specific organic initiative's farmer members and supporting organisation, including a lack of capital in the farmer group which prevents the group becoming independent, a lack of trust and poor management skills in the farmer group and a non-existent or poorly planned exit strategy from the supporting organisation. The constraints may also be related to weak networking with the wider community, which limits the amount of support the group may receive from 'gatekeepers', or influential people and organisations (Shepherd, 2007). In 'social capital' language (Putnam, 2000), these problems can be identified as a lack of 'bonding' within the network, and 'bridging' to other networks on both a local and global scale (*see* p. 44).

One of the main factors identified in Figure 7 is an insufficient exit strategy on the part of the development organisation; this is closely related to the short-term funding structure in development initiatives. All initiatives in this study were funded primarily through external funding of between 3-5 years; although this may be longer than some funding

cycles, many people felt this was not enough time to create strong producer groups capable of managing the initiatives:

The donors develop a very good project with millions of dollars for five years, then go home and they leave nothing there, it's not sustainable...people do not train the group to run by themselves when the project closes (G4).

That is the way the development industry works – we have two years of funding, or a couple more if we are lucky, to get results...we realise now that it takes much longer to create a sustainable group in this country (D5.3).

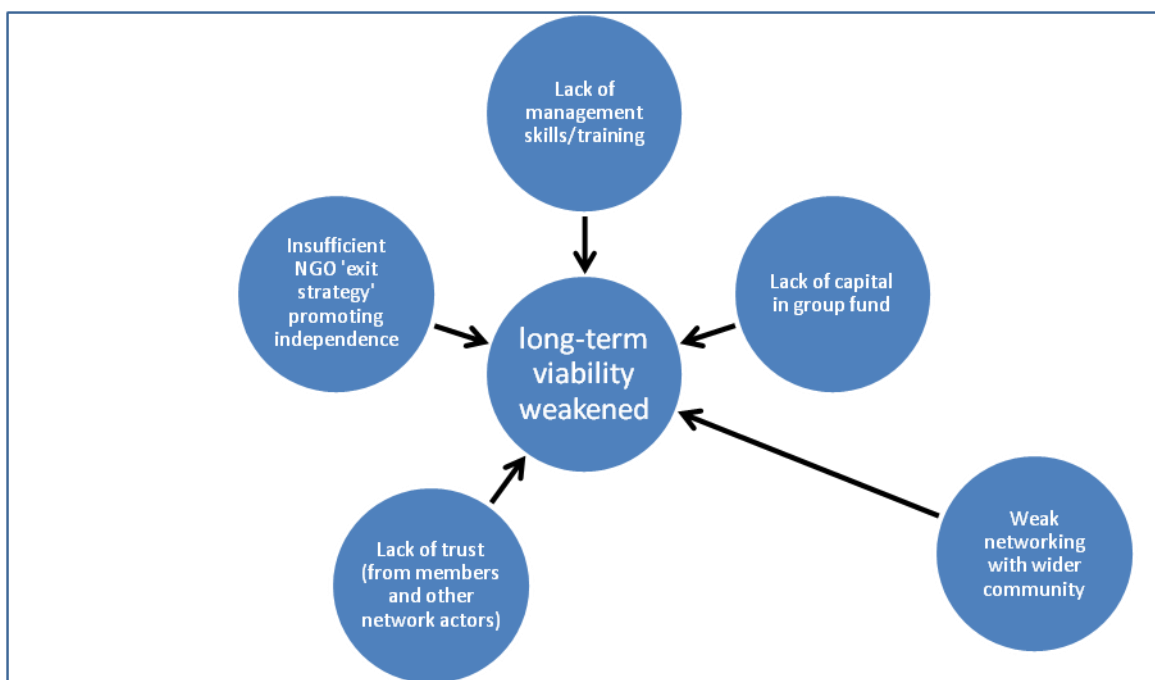


Figure 7: Factors weakening long-term viability in farmers groups

Source: Author

Organic systems are focused on long-term sustainability and may take up to three years to reach an optimal state after conversion (Halweil, 2006), so the short-term funding cycles were felt to be particularly inappropriate in this context:

Organics requires a different point of view. It is not about getting everything possible now and ruining the soil. It is the long-term, so it takes time to set up the system and to make people understand, the farmers and the buyers too, that it is a slow process (Cert1).

Farmers experienced quite different benefits from the organics initiatives depending on the stability of funding and the organisation's ongoing strategies to promote independence through a sound exit strategy. Overall, the export certified groups appeared to be more vulnerable to breaking up, due to the larger financial inputs required for certification and development of a marketing chain. For example, the V6 initiative had reached the end of its initial funding period, but many farmers were concerned that the group was not yet independent (V6:F2,F4,F6). The men's V6 focus group first said that 'self-reliance' was the most important attribute of their group, then later said they were not yet independent because: *'before GTZ always held our hand but we're still not confident; we think that if we take a step by ourselves we will fall'* (V6FG1).

I found several examples of the negative consequences of short-term funding; for example, D7 discontinued their organics initiative when EU funding ended in 2005. The director felt that the funding had been too brief to create an independent farmers group so some farmers reverted to conventional farming, and more funding was needed to continue the initiative and for ongoing monitoring (D7.1). The V2 initiative seemed to be heading down a similar path to D7 as they lost major Oxfam funding in 2006 due to concerns over management and lack of communication and the consequences of this for the organic group were serious. When I visited the village, farmers were no longer meeting regularly because they said the NGO did not have funding to organise meetings. Of three farmers that had been members for one year, one farmer said he did not talk to others in the group (V2F2), another said the members did not share techniques (V2F3), and a third said that he had attended only one meeting and training session since he had joined (V2F5). Farmers that had been members for two years or more (before funding ended) were considerably more enthusiastic about the social impacts of the initiative (V2:F1,F4), and three farmers told me they would continue to use the organic techniques even if training stopped. These farmers asked me to take a message to the NGO:

We want them to do the same as they did before – with the meetings and training. I have not received any more training since funds stopped, but now we know how to grow organic, so I will keep growing this way. But if inspections stop, we cannot control whether farmers produce organic or not (V2F1).

I asked organisation staff their thoughts on what can be done to ensure a project is sustainable when funding finishes. CEDAC staff in V5 and V7 described an exit strategy which involved phasing out field visits by staff and introducing more user-pays systems for training and marketing. I asked about the potential for this to exclude poor people, but some farmers, such as the group leader at V5 felt it was not a big issue, as the money could be paid off at harvest time (V5F3). The CCRD mill manager revealed that the NGO is considering giving the farmers a lower premium so that the organisation is able to use some of the premium to pay for the certification and associated costs now that the donor has pulled out. However, some farmers felt that a lower premium may cause the group to break up, because *'more farmers will sell to Vietnam...Farmers will just sell to the person that gives a higher price. It will destroy the group'* (V2F1).

Other than issues with donor funding, further factors causing the group to be unsustainable in the long-term include a lack of management skills/training and a lack of capital in the group fund. Research participants were divided over which of these two factors was a problem. For example, farmers in V1, 3, 4, 5 and 6 all talked about wanting to set up their own market stall but V3 and V7 were the only groups to organise a group selling strategy and there appeared to be a tendency in other groups to wait for the development organisation or the government to help them find markets (V1F1; V6F2). Several group committees believed a lack of capital was the main constraint to setting up a stall and to the group's long-term viability (V6FG1), while others felt that the supply was too inconsistent (V1F4). Some organisation staff and government officials believed the real problem with the organic groups was not capital so much as a lack of management skills. In fact, some people had a rather negative view of the farmers' ability to manage a stall long-term, shown in the remark: *'how can they run their own business if the management is not strong?'* (D5.1). A trade advisor felt that the management was not strong enough in the V6 group for the farmers to be independent:

If they had money, could they make contracts with farmers to provide rice for their stall? I don't think so, because they do not believe the price in the market. I think they will fail, then next year they won't have a business (G6).

Development organisation focus and marketing strategy

A third factor influencing impacts of the organics initiatives is the marketing strategy pursued by the supporting organisation. The organics initiatives can be categorised in terms of their trade strategies, firstly by the type of training and support offered— technique focused only (as in the case of D1), or some combination of technique and marketing intervention or assistance (all other initiatives). This marketing assistance could take all manner of forms (Figure 8), including a decision to pursue export certification, to develop a domestic certification, or to undertake a non-certified strategy based on reputation and trust. ‘Family’ is also included in Figure 8, as self-provisioning was a focus of all farmers in this study. Despite the family’s importance as a market, much social research on organics does not focus on family and local consumption adequately (Danse and Vellemer, 2007) and this research aims to rectify this imbalance.

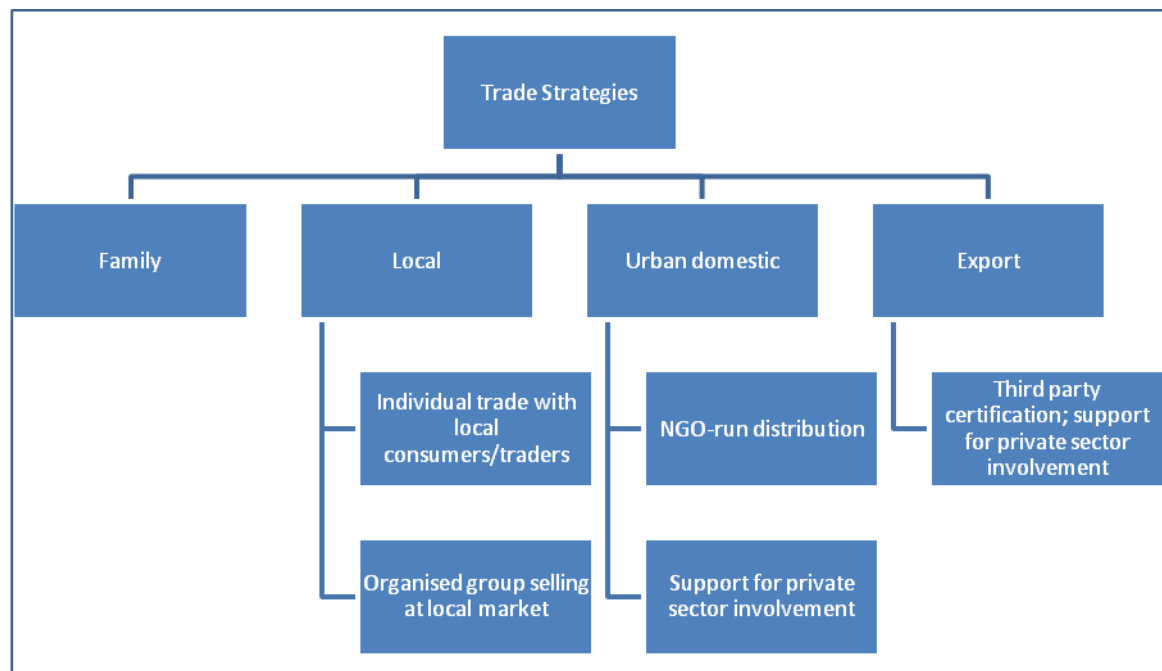


Figure 8: Trade strategies used by organic farmers in Cambodia

Source: Author

Particular differences were found to exist between groups with formal quality control strategies, including domestic and export certification, and groups that did not have certification. Certification was felt to be important for distant markets to increase consumer trust and ensure quality control, but its effects were less clear at regional and local levels. For local markets, the reputation of the organisation and farmers group was generally considered more important than certification. More than half of the farmers in

the export certified groups said they felt that certification was a benefit to them. Some farmers commented on the increased trust they felt they received with certification (V6F2); others felt that certified rice was better quality (V2F2). The annual external inspections required for export certification are expensive, but one farmer in V6 said that:

Even if GTZ did not give funds we would still have an external inspector even though it costs \$500/day, because then we have an external certificate for consumer trust (V6F2).

Internal inspections (carried out in villages practicing Internal Control Systems (ICS) certification) were felt by many farmers to be more effective than external inspections, due to perceived higher levels of trust between internal inspectors and farmers, and the ability to monitor the farm year-round (V2F5; V6F3). The internal inspector in the V5 group said the farmers received a number of benefits from having the inspections, including encouragement and communication between members, because *'we tell everyone in the group when one family has a good quality field and they can go and see it. So we have extension from inspector to farmer and then from farmer to farmer'* (V5F2). However, some farmers felt they would be able to maintain the integrity of the group without certification, as members could monitor each other (V2F4).

Some reports have identified the possibility that organic certification requirements for thorough documentation throughout the season may exclude uneducated and illiterate people (*see p. 16*). However, documentation required for certification did not seem to present a problem for farmers in this study, even for illiterate farmers. Of the farmers I spoke to, many were illiterate (especially the women, as shown by one focus group (V6FG2) where none of the nine women present could write), but all said they were able to ask the group leader for help with documentation if needed. Some farmers felt that the record-keeping required for certification actually helped them to be more organised in their farming management:

My daughter or I do [the recording]. This is good for me because now we know when we should transplant; we used to remember it anyway, but now it is more accurate (V6F3).

While this requirement was therefore shown not be exclusionary, there are a number of other issues that may exclude some farmers in certified initiatives. Two export certification requirements—the need to convert the entire farm to an organic system, and the construction of ‘buffer zones’ to prevent chemical pollution from other fields or environmental sources—were felt by many farmers to be the most difficult regulations to comply with (V2:F1,F3). In fact, when D2 decided to pursue organic export certification, they found that it was too difficult to fully convert conventional farmers, and so began working with farmers who had never used chemicals:

After trying to convert farmers who used chemicals and finding it too hard to convert most, we decided to focus on families who were not using chemicals – farmers near the mountains where chemicals had not reached (D2.3).

This approach has interesting implications for the equity of organics initiatives; the NGO gave its support to farmers who are in the mountains and therefore further away from markets and impeded from accessing these by poor infrastructure, and in this respect are worthy targets of the initiative. However, by choosing to focus on this group and ceasing work with the farmers who used chemicals, the NGO are excluding people that could benefit from the health improvements shown to occur when chemical-using farmers in this study stopped using chemicals (*see* p. 94).

A further aspect of some certified initiatives that could be considered exclusionary is a requirement for farmers to produce a certain variety of seed for urban domestic and export markets. All of the organisations working with certification (both domestic and export) are encouraging farmers to produce certain varieties of higher-yielding, aromatic seeds that are popular amongst consumers. The premium seeds are seen to be essential for entering quality markets (D5.2), and some farmers felt that the availability of these quality seeds was one of the biggest benefits of the organics initiatives because they fetched higher prices even on local markets. However, some farmers said they had problems growing the seed on lowland fields because the varieties are more vulnerable to flooding, and two farmers said they could not produce organic rice to sell to the association this season because the seed variety was not suited to their land (V5FG; V6F6).

A further potentially exclusionary aspect of certification is the issue of ‘who pays’? Certification comes with significant costs; for example, payment for an external inspector was estimated by different groups to be between \$500-\$2000USD/day for up to three days of inspection (D2.2; V4F3). Currently, the organisations are paying for these costs in all certified projects. However, as funding cycles end, the future of the certification status for farmers is uncertain. Some officials believe that small-scale farmers should not have to pay; rather the exporter, or a well-run farmer cooperative could take on certification costs (Cert1), while others felt that the farmers should find finance themselves for the project to be truly sustainable (G4). The trade advisor believed that certification is a marketing tool and that some costs should be involved for the farmers. He believes organics:

...makes sense for home consumption, because there are productivity and health benefits, but if you want a guarantee for sales, organic certification should be a service that you pay for because it brings you benefits in the form of market openings (G6).

Both export certified projects I visited were at the end of funding cycles. D5 considered switching to domestic certification and a former D5 employee felt rather pessimistically that ‘in future if nobody steps in to take over certification costs then it’s over’ (G6). However, during my study the organisation found a new donor to step in, and it appears that funding has been secured for a further three years.

Amongst the non-certified farmers, a minority felt that certification might provide them with the proof they needed to persuade consumers that their product was truly organic (V3F5), but the majority of non-certified farmers producing for local markets felt that certification was not needed. Many farmers felt that trust was built up through reputation and networking (V3F2; V7F5), or through recognition by local authorities (V7F1), while others said that even certification would not be trusted (V6F2). V1 farmers had not considered certification or labeling their produce at the market, and stated that people would not be interested, because they felt that consumers are only worried about appearance (V1FG). Some of the head chefs at premium hotels in Siem Reap, ostensibly a primary market for organic products, were distrustful of any certification from Cambodia. As noted in Chapter Five, they felt that it was better to have personal relationships because Cambodian standards could not be trusted (C2; C4).

The CEDAC shop manager felt that consumers trusted the CEDAC label because of the organisation's reputation and efforts in promotion, including opportunities for consumers to visit members' farms (T4). In contrast, the GTZ-RDP director believes that the CEDAC model is not effective on a large scale, and a national certification is necessary to gain consumer trust and ensure standards are in place:

National standards are important. You cannot say a product is organic unless you have some established criteria about what organic is. At the moment I do not entirely agree with CEDAC's approach; you need to think large (D5.3).

This quote reiterates the differing views adopted by the organics organisations in Cambodia (*see p.74*). On a wider scale, this debate between a focus on small, local distribution based on face-to-face promotion and large networks of traders and retailers is indicative of the questions faced by the organics movement globally, where critiques of the 'conventionalisation' of the rapidly growing organics industry stand alongside others insisting that the movement must remain relevant and grow in order to survive (Guthman, 2000; *see p. 20*).

Summary

This chapter has addressed all three key questions of this study through a discussion of the main fieldwork results. In terms of Key Question 1, concerning the impacts of the organics initiatives, key findings include all farmers reporting that their lives improved after joining the organics initiatives, with particular improvements in food security, health, incomes and social relations, amongst other positive impacts mentioned. In terms of Key Questions 2 and 3—the levels of empowerment experienced and the factors affecting this—the extent to which farmers were seen to be empowered by the organics initiatives was found to be influenced by three key factors: the farmer's individual level of resources; the organisation of the organic group; and the supporting organisation's focus and marketing strategy. The relationships between these impacts and the values described by farmers in Chapter 5 are further discussed in the following conclusions chapter.

Chapter Seven: Discussion and conclusions

Introduction

This thesis has examined the impacts of organic agriculture as a rural development strategy for small-scale farmers in Cambodia. As outlined in Chapter One, this thesis focuses on one key aim:

To contribute to an understanding of the effectiveness of organic agriculture as a tool for rural development in Cambodia.

Three key questions were investigated in order to fulfill the key aim:

Key Question 1: How do organic agriculture initiatives impact on the lives of small-scale farmers in Cambodia?

Key Question 2: Are farmers empowered by their involvement in organic agriculture initiatives to move towards their own vision of development?

Key Question 3: What factors enable farmers to access and benefit from organic agriculture initiatives in the Cambodian context, and what constraints hinder success of organics initiatives?

This final chapter attempts to place the findings of the previous chapters into the context of the aim and key questions that were the original motivation for this study. Field work and data analysis uncovered other issues that are particularly pertinent to the study, although they did not specifically form part of the key research questions, and these too are discussed in this chapter. Finally, suggestions relating to future practice and research are put forth.

Key findings from Chapters 5 and 6 include:

- Farmers in this study felt that the main problems they face include: a dependence on agricultural chemicals (causing environmental, financial and health problems), post-conflict issues of knowledge breakdown and resource distribution, lack of training and debt.
- Improved health was the main motivation for joining the organics initiatives, with reduced expenses and the chance to earn higher incomes also large motivations.
- The most important value identified by more than half of all respondents is the ability to grow sufficient food for their families. Being in good health, having enough to eat and having enough money are also important.
- All farmers report that their lives are better after joining the organics initiatives; all farmers noted improvements in food security and incomes, and many farmers said they had improved their health, self-esteem, knowledge, negotiating power with buyers, and their relationships with family and the community.
- Farmers are empowered to move towards their notion of the Good Life in a number of ways. The utilisation of appropriate techniques and other activities associated with the organic farmers groups allowed all households to become more food secure through their own food production and also raised incomes, thereby lessening dependence on traders and moneylenders.
- Almost all farmers felt confident in their ability to continue farming organically. However, some farmers felt that problems beyond their control, such as government policy, water resources and extreme weather events, were a threat to long-term livelihood security.
- Key factors that influence the extent to which farmers are empowered by organics initiatives include: farmer's individual level of resources; the organisation of the organic group; and the supporting organisation's focus and marketing strategy.

A framework for empowerment

This thesis is based on a framework for empowerment that takes as its starting point the expressed values and desires of the people to be ‘empowered’ and integrates these within a discussion of the networks that may enhance or constrain empowerment. As this framework is the foundation upon which the thesis is based, this section will discuss the usefulness of this framework to the study and, in a wider sense, to the emerging literature on empowerment methodology.

As described in Chapter Three in the section ‘food frameworks’, relationships in agricultural initiatives can be described as ‘chains’ or ‘networks’ (amongst other theories not covered in this thesis). A comparison with the literature suggests that my decision to frame the Cambodian organics movement in the language of ‘food networks’ was appropriate for three main reasons. Firstly, it appears that the organics movement in Cambodia has developed as a social movement with several strands and has not evolved into a visible chain of actors; this is evidenced by the frustration of one of the main organics organisations, GTZ, at being unable to develop a chain of private sector participants (Schmerler, 2006; *see* p. 76). Also, during my fieldwork, early attempts to utilise chain methodology PRA activities with farmer participants did not go as planned because many producers did not know what happened to their produce after it left the hands of the person they gave it to (*see* p. 62). Although this does not discount the existence of a chain (and is in itself an interesting finding), it does mean that for the producers other aspects of production and consumption were perhaps more important for them (and therefore for their definitions of wellbeing and empowerment). Two points are salient here; the use of a framework developed largely in the business literature (Porter, 1990) and transplanted verbatim to the context of a development process led by civil society is questionable, and it is possible that this is a case of a ‘chain before it is a chain’, which some see as a network with different trajectories and different lives (Roche, 2007).

Second, in a subsistence-oriented system such as that practiced by all the farmers in my study, the unit of production is also the unit of consumption, and this is said to produce distinctive economic behaviour and values amongst farming families different to that of farmers engaged in commercially oriented production (Scott, 1976; Leslie and Reimer, 1999:46). Within the subsistence-focused system, rice is much more than a form of

energy or an economic entity for Cambodian small-scale farmers. It is the basis of the family unit, social organisation, self-esteem and identity as a farmer, as evidence by the importance of rice growing described by farmers in this study (*see* p. 83). Therefore an appropriate framework needs to recognise the multifunctionality of rice systems and the manner in which the ability to grow rice feeds into self-esteem and security (Groenfeldt, n.d).

Third, my methodology is based on a holistic investigation of empowerment that includes social, political and psychological realms, and therefore an appropriate framework should encompass all influences impacting on the organic farming family (not just the direct chain actors) and show the power relations between different actors (as noted in Dabbert et al.'s (2004) guidelines for holistic research; *see* p.54). While chain methodology is celebrated for bringing political issues to the fore, such as inequalities amongst members of the chain (Gereffi, 1994), critics have argued that it neglects power relations within chain nodes such as relations within the farming community and the family, although both are important sites for empowerment and exploitation or exclusion (Goodman, 2001). Network methodology, in comparison, is seen to handle more readily complex contexts and encompass different links both within family and community as well as more physically distant locations (Leslie and Reimer, 1999).

The framework used in this study combined network theory with a methodology that was based on a contextual notion of development. This type of methodology based on the expressed needs of the people involved is said to highlight particular values the community holds that could be underplayed or ignored in 'top-down' policy documents and research methodology (WED, 2006). A post-development critique of this framework might argue that the very presence of myself in this process means that the framework cannot be truly empowering, for empowerment is seen to come from within oneself (Rahnema, 1992), and although this framework is built on farmers' values, the basic concept was still developed by an outside researcher. However, in as much as this is an attempt to build a tool that can gauge the empowerment impact of development initiatives, it is felt to go some way to placing the aspirations of the participants at the forefront of development measurement, which Chambers (1994) believes should be an aim of participatory development.

A further criticism that could be aimed at empowerment frameworks that have as a starting point the desires of local people is that they will not be truly empowering because the larger institutions that are responsible for maintaining unequal power structures may be neglected (Corbridge, 2002). In this study, the empowerment framework was built on the needs identified by farmers, and as such, did not focus so much on other institutions unless these were identified by participants as important. Due to this potential for neglecting wider spheres of power, the inclusion of concepts from network theory that emphasise the importance of local and wider relationships was incorporated in the framework; the importance of including these different spheres is recognised in the literature (Raynolds, 2002b).

Organics as a rural development strategy – placing the study in context

This section aims to place the organics initiatives observed in this study in the context of the rural development timeline explored in Chapter Two (*see* p. 11). Organic agriculture in Cambodia is firmly engaged in the ‘new’ paradigms of rural development as put forth by Ellis and Biggs (2001), including environment and sustainability discourse, development organisation-led governance structures, poverty reduction focus and inclusion of services such as microcredit in initiatives. For example, the emphasis on poverty reduction is shown through a focus on appropriate technology that is available to almost all farmers, rather than the mechanisation and technology transfer focus of the green revolution (Altieri, 1989). The initiatives can be seen to be ‘participatory’ (in line with guidelines for participation in rural development outlined by the FAO (van Heck, 2003)), as they all focused on encouraging participation from farmers to some extent, by creating and supporting farmer groups, holding meetings and group training sessions, and managing group microcredit and savings funds. However, the level of participation varied depending on the status of the farmer involved (i.e. committee members often had a strong awareness and knowledge of initiatives, while other members often lacked this knowledge). The organic initiatives also emphasised the creation and maintenance of sustainable livelihoods by diversifying markets and products, with the focus still strongly on agriculture-based livelihoods.

While Ellis and Biggs (2001) suggest that the small farm focus may no longer be the most appropriate development strategy, the small farm is the target for all organics initiatives in this study, and while farmers in most areas said larger farms were not excluded from the organics group, small-scale farmers were naturally more suited to the higher labour requirements of organic production. In fact, Ashley and Maxwell's (2001) claim that small farms may not be viable in 'new-style rural spaces' (*see p. 12*) was shown to be unsubstantiated in the Cambodian context, as the organics initiatives allowed farmers to:

- Enhance the value of staples and enhance self-sufficiency (cf. Ashley and Maxwell (2001) point 1);
- use appropriate technology, as all farmers said they could utilise the organic techniques to some extent (cf. Ashley and Maxwell (2001) points 2 and 3);
- cut down on the use of dangerous chemicals and therefore of input costs (cf. Ashley and Maxwell (2001) points 4 and 6); and
- manage quality requirements (cf. Ashley and Maxwell (2001) point 5), although this was challenging for some lowland dwellers whose land became contaminated by chemical run-off from other fields (*see Plate 6*).

A potential contradiction in this discussion of the value of organics for empowering small-scale farmers is that while in general the organic initiatives were inclusive and were not captured by elites (a situation that is said By Platteau and Gasper (2003) to occur frequently in rural development initiatives), the requirement that particular types of seeds must be grown for inclusion in some initiatives were felt to exclude some farmers. This was the case for two initiatives in my study, where some poorer farmers and those with lesser-quality land said that they could not sell rice to the farmers group because their land was not suited to the type of aromatic seed required by the organisation. This finding supports evidence from Pingali and Rosegrant (1994) and also Dao (2004), who contended that poorer farmers with lower quality land may find the seeds chosen for organics initiatives unsuitable for their farming systems and this could undermine farmer autonomy. By favouring particular aromatic varieties ahead of other traditional seeds, some initiatives could also be accused of undermining several principles of organic agriculture, including the principle of ecology which encompasses biodiversity and the

preservation of traditional varieties, and the third key principle of fairness, which includes the concept of social justice (IFOAM, 2005).

This issue is complex, for while some farmers in this study felt that the new seed was difficult to grow in lowland areas where traditional varieties grew successfully, others said that the higher yields, shorter cultivation periods and better prices received for the new seed were one of the biggest benefits of the initiative. All initiatives also encouraged the saving of the new seeds, thereby working towards farmer autonomy through seed ownership, which is seen as a vital aspect of food sovereignty (Ferrante et al. 2002). However, the important point to take from this, as noted by Grain (2008), is that organics initiatives are in danger of being exclusionary unless there is provision made for farmers that are unable to grow the particular variety of seed chosen for organic markets; these farmers should still be able to benefit from the organic techniques and social networks afforded by affiliation with the group.

Discussion of Key Question 1

How do organic agriculture initiatives impact on the lives of small-scale farmers in Cambodia?

The results of this study support evidence from FAO (2002), Lampkin (2002), Parrott and Wright (2007) and others about the development potential for organics. Specifically, the health impact of organic conversion is evident in this study and complements studies by IFAD (2005) showing a large reduction in pesticide poisoning-related symptoms after conversion to organics (56 of 57 farmers in this study reported better health), and Parrott and Wright (2007), who found that medical expenditure decreased. Interestingly, some farmers in this study reported an increase in medical expenditure because they could now afford to visit the hospital, showing perhaps that the initiatives managed to reach poorer people. The results also support work on economic empowerment by Rosegrant and Ringler (2005), who found that overall production costs were lower under an organic system; this study extended this finding by showing that even farmers converting from traditional systems, whose expenses did not reduce, still experienced net income gain through increased yield, diversity and premium prices. Yield increases were experienced by 43 of 54 farmers, not only for those converting from traditional systems but also those

converting from conventional systems. This contradicts findings from FAO (2002) that suggested yields in conventional systems would generally decrease. Price empowerment was more variable. For the majority of farmers that could not access organisation-sourced markets, empowerment in negotiation proceedings with traders was limited due primarily to the low awareness of organics amongst the private sector. However, those farmers who had organised into groups for selling to traders or at the market were able to command higher prices, supporting evidence by Reynolds (2002b) showing the power of group selling in alternative food networks.

This study presents a fresh perspective on gender and family impacts of organic conversion, as it shows that the creation of farmer groups and member savings initiatives allowed women to gain power in decision making and income security (supporting research by CGAP, 2005), although this appeared to depend on the initial gender relations and the presence of some type of gender training in organics initiatives. Women's work burden did increase in most cases as labour requirements increased under the organic systems (supporting anecdotal evidence by Dolan and Sorby, 2003), but all women farmers said that organics is worth the extra labour requirements due to other benefits received. Also, family work sharing was shown to increase for a number of farmers in this study, supporting work by Setboonsarng (2006) that showed a more even distribution of work under an organic system.

Community benefits including strengthened social bonds were experienced by almost all farmers. This demonstrated ability of farmers to organise as a group contests assertions that a lack of social cohesion in Khmer society is incompatible with social empowerment (Mehmet, 1997), and that villagers with high percentages of refugees and migrants may be less able to organise for socioeconomic development (Ledgerwood, 1998); in this study one of the communities showing high levels of social organisation and cohesion was the community with the highest poverty levels and the highest proportion of new migrants (V3). In fact, this village was the only area to demonstrate decreased incidences of rural-urban migration, as the organics initiative was specifically targeted at the poorest villagers. In other cases assertions that organics initiatives may reduce need for migration (Setboonsarng, 2006) were not substantiated, primarily because resource and risk issues prevented the poorest villagers from joining.

A further important finding is that all but three farmers said they are committed to growing organically, and will continue to do so even if the organisation leaves the village, and/or the premium price markets become inaccessible. This strong commitment demonstrates the large non-price benefits that motivate farmers to continue, and supports evidence from Scialabba and Hattam (2002) that shows farmers are converting to organic systems even without price premiums.

Discussion of Key Question 2

Are farmers empowered by their involvement in organic agriculture initiatives to move towards their own vision of development?

Based on the framework of empowerment developed for this study that was introduced in Chapter Three and evaluated previously in this chapter, the organics initiatives were found (in varying degrees) to be an empowering development strategy for all farmers involved. Although the extent to which individual farmers were empowered through the organic initiatives is variable, Figure 9 (below) gives a simple graphical representation showing that all farmers were observed to have gained from the initiative in ways which related to their self-defined concepts of development, and therefore to have gained some level of empowerment, using the definition of empowerment adopted for this study (*see* p. 37). Related to the original conceptual empowerment framework introduced in Chapter Three, Figure 9 is adapted to represent the values outlined by farmers (bottom circle) and the impacts of the organics initiatives at both the community level (second circle) and wider levels (third circle), with the overall impact of a positive move toward the contextual notions of development shown in the top circle.

Farmers in this study felt that growing enough rice to feed their family was the most important objective for them (as discussed in Chapter Five). This supports evidence from Moore et al. (1998) and WED (2006) on the importance of food security in rural people's depictions of the Good Life, but in contrast to these studies, the emphasis was on growing one's own food, and therefore reaching self-sufficiency as well as food security. There are two insights here that have implications for development interventions aimed at empowering these farmers: firstly, the desire expressed by most participants was to *grow* their own rice on their own land, and farmers articulated a desire to stay on the land that was bound up with cultural meanings of success and security, and individual feelings of

self-esteem and worth (*see* p. 84). Therefore any development initiative should derive from recognition of rice and rice production as an integral aspect of cultural life, and toward enabling people to stay on their land (supporting work by McAndrew, 1998). Interestingly, though, this does not mean that an ‘anti-rural-urban migration’ policy is warranted for all development interventions; migration remittances were a key aspect of farmer’s livelihoods for many families I spoke with and these were sometimes seen to allow families to stay on their land. Many farmers also expressed a desire for their children to go to school so that they could get a job in the city. Therefore, an important lesson from the farmers’ dialogue is the need for choice, a concept now widely promoted in development literature as integral to empowerment (Kabeer, 1999). In this context, enlarged choice could include enhancing the ability of people to choose whether their future is urban or rural based rather than feeling as though they are forced to urban areas because they are unable to support their families; the dialogue of some farmers in this study who said that the organics initiatives allowed them to stay in the countryside (*see* p. 98) suggests that the initiatives fulfilled this aim for some families, but barriers to participation prevented all farmers from benefitting, as described in the following section.

Intertwined with the idea of being able to grow one’s own food, the second aspect integral to the concept of the Good Life for these farmers was a desire to feed their families. As noted in the findings, growing sufficient rice for the family was seen as the most important objective and regardless of the opportunity for premium prices, many people sought to ensure their family and community were food secure (*see* p. 103). Although food security may seem to be an obvious objective for a development intervention, many projects in the past have failed to respect this aim (Ashley and Maxwell, 2001). As discussed in Chapter Three, development strategies based entirely on export cash crops for higher incomes may in fact increase farmer risk and reduce the ability of the farming family to support themselves (Danse and Vellemer, 2007). Organic agriculture has the potential to either increase or undermine family food security depending on how it is promoted; if the high-value export potential is pushed without acknowledging the primary need for food security, organic systems may damage the livelihoods of farmers (Kotschi, 2003). However, this does not preclude the need for exploration of increased network linkages with high value markets, as GTZ aim to do (Schmerler, 2006), for these wider linkages are also important (Raynolds, 2002b) as long as this strategy does not come at the expense of lower risk options.

The organics initiatives investigated in this thesis can be seen to support, to varying degrees, both of the objectives outlined above; that is, growing one's own food and being able to feed one's family. The primacy of rice as a food source and cultural symbol, as outlined by Latham (1998), is maintained and in some cases enhanced by making rice production a central aspect of the initiatives and focusing on production techniques that were generally able to be implemented with farmers' current levels of technology and expertise. The promotion of diversification into other forms of production in most initiatives was seen to enhance the core production of rice (by utilising fields in the off-season), rather than undermine this, and was important for spreading risk, increasing nutrition, and raising incomes. This finding supports literature by Setboonsarng (2006), which argues that organic systems that promote diversification can reduce risk because pest build-up can be limited and a fall in prices is likely to affect only part of the operation.

Many underlying factors also enabled farmers in this study to increase self-sufficiency and have more control over the production of sufficient food for their family, and therefore move toward their notion of a Good Life. For example, the marked increases in health are central, as people are likely to be able to work more productively on their farms and enjoy a fuller quality of life (Kerr, 2000). The increased knowledge of new farming techniques allowed many farmers to minimise use of outside inputs and, in many cases, to raise yields. The minimisation of outside inputs is particularly important for gaining control over the land, as farmers articulated a dependence on chemicals resulting in ongoing debt as one of the key problems they faced (*see* p. 94). The agricultural industry in Cambodia is understood as concentrated in the hands of a powerful few who often control the markets for seed, fertiliser and pesticides, money lending and rice trading (JICA, 2001). Therefore, farmers that are able to rely less on inputs, and find alternative means of seed provision, markets and money lending, may be able to break free of this control and move toward food sovereignty (NEDC, 2006).

Other impacts of the organics initiatives were also important for empowerment; for example, farmers said that psychological aspects of empowerment including self-esteem, commitment and perceived ability to support the family were important benefits, supporting work by Diener and Biwas-Diener (2003), who suggest that these aspects of empowerment are just as important for overall wellbeing as the actual ability to control

one's environment. Aspects of enhanced collective empowerment, an empowerment category developed by Friedmann (1992) to encompass the power of a group in raising political voice and agency, could also be observed at different levels in all communities through the creation of organic farmer groups. These groups enabled farmers to share techniques and motivation with other members, and in some instances, to lobby authorities for resources and negotiate higher prices with traders. Increased community bonding (as explained by Woolcock, 1998) between members of the organics groups was vital to achieve collective empowerment, and in circumstances where networks were weaker, the groups expressed concern that the weak bonds may break.

Despite the varied examples of empowerment discussed above, all farmers expressed some concerns or problems that they felt unable to solve. Many of these concerns related to a further aspect of empowerment articulated in the social capital literature—the concept of ‘bridging’, or building up strong network linkages beyond the immediate group and community (Putnam, 2000). For example, farmers expressed frustrations at the lack of infrastructure, particularly irrigation resources, but most did not feel that they had the power to do anything about this and suggested that assistance from the government or development organisations was necessary. It is also possible that other barriers not mentioned by farmers may be barriers to empowerment at a wider level; for example, the power that the farmers have gained may be seen to be minimal in the face of global trading agreements such as Cambodia's accession to the WTO, which people see as negatively affecting the livelihoods of Cambodian farmers (ANU, 2005). In order to gain power in this type of unequal relationship, it may be necessary to cultivate wider international networks for support (Rayonds, 2002a). In this regard, the NEDC network of farmer groups at national level in Cambodia and its participation in the Asian Farmers Association (AFA) and the international food sovereignty movement may provide a means of linking with ever-wider networks of people to influence power relations on a wider scale, but it is difficult to know at this stage as this movement is still developing.

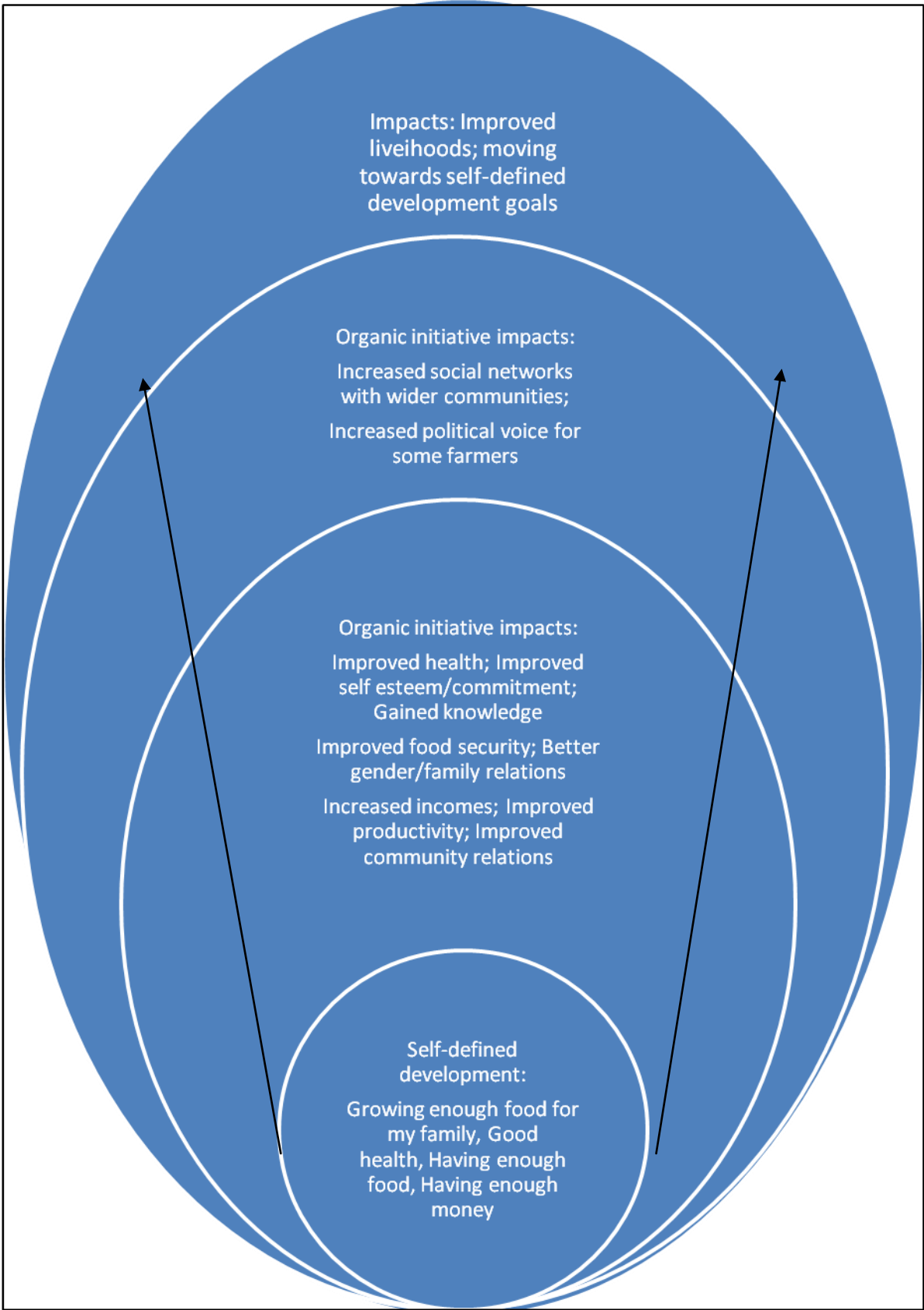


Figure 9: Self-defined development conceptual framework

The many meanings of economic empowerment

This study brings up some new aspects of empowerment in organics initiatives that are not currently given a lot of weight in the literature; in particular, it highlights the positive outcomes of a diversity of organics initiatives, including non-certified, domestic certified and export certified systems, and provides an interesting example of the complex nature of ‘economic empowerment’ (*see* p.34). While economic empowerment may be seen as best promoted through high value exports (World Bank, 2006), farmers in this study expressed desire for, and positive outcomes through initiatives aimed at both urban domestic and export organic markets and also local community markets. Parrott and Wright (2007) argue that more attention needs to be given to the benefits of promoting organics for subsistence and local production-consumption networks, and this study contributes to this aim by showing that almost all farmers, whether certified or not, reported greater productivity and income, better health and strengthened social bonds. In fact, the ability to source long-term premium markets and create a sustainable trading system (which would be most likely to continue after the organisation pulled out) appeared to be based as much on the ability to organise a cohesive selling group as on certification status (*see* p. 116). Models such as the V7 group, which focused on increasing farmer capacity and promotion in local markets along with network-building amongst local and regional authorities and influential public figures, could be successfully replicated in other areas of Cambodia, and perhaps in other countries. In this way, the organic initiatives could indeed move beyond economic empowerment to encompass citizen engagement, as suggested by Delind (2002).

In contrast to the FAO’s (2002) assertion that diversification to high-value export organic markets can reduce risk by increasing market security and diversity, this study found that export-oriented initiatives appeared to be more risky, as export markets had not developed as hoped, and certification expenses and the necessity of management/business skills were prohibiting the creation of more independent farmer groups. However, this does not mean that export-oriented organics initiatives should be left entirely in favour of non-certified local linkages, for farmers also identified many positive aspects of certification. For example, suggestions that export-oriented organic strategies increase food insecurity at local levels (Danse and Vellemer, 2007; Kotschi, 2000) are disputed in this study. All farmers (certified and non-certified) said they were more food secure than

before joining the initiative, and all farmers placed family food needs above market needs. This focus on local networks is shown by the large proportion of farmers who were more interested in selling at least some of their product locally for lesser prices rather than selling all the harvest to lucrative export and urban domestic markets, and points to an opportunity for supporting institutions to assist farmers in creating viable local outlets as a sole focus or in tandem with more distant markets (Hinrichs, 2000).

A particularly interesting finding, which contradicts assertions that resource-poor farmers may be overwhelmed by the documentation demands of certification (Mutersbaugh, 2002; Kotschi, 2000) is the message from farmer's dialogue (including women and illiterate farmers) that documentation was not a problem because they completed it with help from the internal inspector and group members. This shows the benefits of ICS systems (which use internal inspectors) in contributing to empowerment and knowledge, supporting Lorenzen et al. (2004). However, ICS may come with a cost, as shown in this study by the number of ICS inspectors who said that their work was very time-demanding (*see* p. 96), supporting research by Harris et al. (2004) on the extensive human resource needs of ICS.

Discussion of Key Question 3

What factors enable farmers to access and benefit from organic agriculture initiatives in the Cambodian context; and what constraints hinder success of organic initiatives?

The civil society sector may seem perfectly placed to deliver empowering development interventions, situated as they are supposedly 'closer' to communities and therefore able to listen to people's real needs (Ledwith, 2005). However, the barriers to empowerment found in this study highlight two critical problems with this model of civil society-led empowerment; both are well known by the development community, and yet the resolution of these problems appears to remain beyond reach (Hira and Parfitt, 2004). This may undermine the long-term independence of farmers in the organics initiatives, despite the importance of independence in many conceptions of empowerment (Malhotra et al. 2004). Firstly, the dominant global structure of development funding and evaluation is biased towards short-term projects that can create measurable results based on stated objectives; this severely limits the ability of the civil sector to create organised, independent initiatives. Many of the development organisation representatives expressed

frustration at the incompatibility of development norms with organic systems and community requirements (*see p. 118*). All initiatives in this study were funded through outside funding of between 3-5 years; many people felt this was not enough time to create strong producer groups capable of managing the initiative, and evidence that suggests group independence requires between 2-15 years (Shepherd, 2007) would support this.

Secondly, poor communication amongst civil society groups, and also between civil society, government and the private sector appears to be limiting effectiveness and the ability to 'scale-up' the initiatives and undermining the 'partnership' notion (supporting critique by Storey et al. (2005)). In many communities, several organisations were involved in different initiatives, and there were claims of 'poaching' of member farmers by other organisations and different visions and values that prevented smooth partnerships between organisations. The tensions between organisations that attempt to partner with the private sector and others that attempt to create a parallel NGO-run market (*see p. 34*) illustrate the difficulty of partnership. However, while the local NGO strategy of taking on the roles of marketing and selling produce as well as training and organising farmers may be unsustainable long-term as it may create dependence amongst farmer groups (SDC, 2007), it is also clear that the strategy of recruiting private sector participants is not currently working. The development agency GTZ is in fact distributing produce from their farmers largely through national NGO networks and putting much effort into sourcing and assisting private sector buyers to become involved. This study is therefore in agreement with Shepherd's (2007) argument that private-sector friendly groups may turn from 'facilitators' to 'leaders' in situations where private-sector involvement is minimal. The consequence of this situation for GTZ is that an exit now could mean the end of the market relationships for farmers, as they rely on the organisation's assistance.

Other constraints to the empowerment of organic farmers expressed in this study are similar to those identified by Kristiansen and Merfield's (2006) analysis (*see p. 25*), although there are a number of differences. While Kristiansen and Merfield found that lack of knowledge about organics was the central constraint, farmers in this study most often mentioned extreme weather, a lack of water resources and composting materials as their main constraints, while pest control was also a common problem. It is possible (as contended by some government officials) that the problem is indeed primarily one of lack

of knowledge or techniques, because potential alternatives to composting, such as cover cropping and botanical pesticides, were not utilised by many farmers. However, this should not undermine the need for more extensive resource provision, such as community-driven irrigation systems, in order for the organics initiatives to be spread to farmers with lower quality land (Peter, 2004).

In terms of factors leading to the success of organics initiatives, this study supports the findings of Raynolds (2002b) who argues that political and economic conditions, networks and organisational capacity within groups, and individual characteristics of farmers, are central factors influencing the potential for empowerment. Specifically, the existing level of farmer resources was found to be most influential in this study, with the organisation and cohesion of the organic group (bonding networks), connections to the wider community (bridging networks), and organisation focus and marketing strategy also vital factors.

There is a large discrepancy between the high commitment to organic farming shown by individual farmers and the concern over the future of some of the organic farmer groups. This shows that the techniques and principles of organic farming are being spread and accepted successfully amongst member farmers, while other aims of creating long-term farmer-led associations that are able to access high-value markets for their farmer members and network on a national level are not so successful currently. Reasons for the possible lack of sustainability amongst farmer groups are diverse, but include a lack of capital and management skills, a lack of farmer commitment and trust, and poor communication with farmers and organisations. These results are seen to support studies that show the importance of farmer commitment and trust in order to secure and fulfill contracts and recruit members (Stringfellow et al., 1997), and the tendency to expand activities such as management duties beyond the capacity of the group (Roche et al., 2004). Also, this shows the vital role that access to finance plays in group sustainability (Shiferaw et al., 2006). Therefore, ongoing commitment by organisations, as suggested by Raynolds (2002a) may be needed to assist the organic farmers through and beyond the difficult conversion period, and support farmers to build up group membership, funds, management skills, networks both within and outside the community, and long-term strategies that reflect the members' preferences (whether this is to pursue high-value markets or local market options).

Conclusions

This research shows that in the Cambodian context organic agriculture is an effective development strategy that is able to benefit a variety of farmers and empower farmers to move towards their visions of the Good Life. The benefits of the organics initiatives were not captured by an elite class, supporting the FAO's (2002) claim that organics is an effective development strategy because the benefits inherently fall to those with high amounts of ready labour and more time; characteristics that are usually indicative of poorer families. However, if organics is seen as a poverty alleviation strategy for only the poorest villagers, it failed to achieve this aim in most of the cases in this study, because the poorest farmers were unable to join the organics group due primarily to resource constraints. In this respect, this study shows that if the participation of the poorest people is paramount, there is a case for organisations to place more focus on delivery of resources as well as training-based initiatives (although the KNKS experience (with families neglecting the land they received) shows that this strategy is not a panacea). This limitation of the organics initiatives should be acknowledged, but the development community's focus on 'poverty reduction' does itself a disservice if it focuses on only the poorest people without acknowledging the 'poor' class of vulnerable small-scale farmers who struggle to feed their families and maintain viable livelihoods on shrinking land and in the face of encroaching urbanisation (McNaughton, 2002), for it was poor farmers who were seen to benefit most in this study.

The farmers all benefited in some way through their involvement with organics, and most importantly, all farmers said their lives are now better than before they joined the initiatives. The creation of farmer groups for training and marketing was shown to be important for empowerment, but the long-term viability of some groups was found to be doubtful. Therefore, the potential for the initiatives to create not only more independent farmers, but interdependent networks of farmers, may not be realised unless more effort is given to long-term support.

Suggestions for future research

During the course of this study, I touched on several important themes that could only be covered in a superficial way due to time constraints. For organic agriculture to be a viable development strategy for Cambodia, further research should be undertaken in several areas:

- Investigating the reach of organics initiatives and ways to scale-up the initiatives in the future. The rate of farmer adoption of organics is low in some areas, and genuine questions are being asked about the viability of financing rural development initiatives that may only benefit a few people. There was evidence during this research, however, that many farmers who have not joined the organics initiatives are in fact using the organic techniques they have learnt from others in the villages, but further study into why these farmers do not join the initiative is warranted.
- Research into the clashing ideologies of private-sector partnerships for development versus the creation of alternative markets in the context of organic agriculture would be particularly useful for mediating relations between international agencies and local NGOs in development.
- Further investigation into the relative benefits of different trade strategies—local, urban domestic, export—and different certification options, would greatly add to current knowledge. In particular, factors enabling success in the marketing of organic products at the local level through trust-driven networks should be further documented to facilitate reproduction on a wider scale.
- Further study into facilitating access for poorer farmers into the organics initiatives is essential. This could include further discussion with farmers who felt they could not join the group about the factors preventing them from joining and how these may be overcome.
- This study was limited to farmers involved in organic agriculture initiatives and did not specifically target conventional farmers for comparison. Researchers who wish to gain more detailed data on the impacts of the initiatives could undertake a comparative study between organic/conventional farmers in the same area.
- This study was limited also by time. A longitudinal study of three years or more would greatly benefit the sector, as it would allow the full conversion process

(which takes approximately three years) to take place, and overall impacts on farmers and farming systems to be monitored.

As global natural resources become scarcer, the human population continues to grow, and power is further displaced away from local people, the issues with which this thesis grapples will become ever more important. Although focused on only a small area of the world and despite the complexity of these issues that cannot be easily solved, this thesis shows that there are alternatives to dominant agricultural paradigms and these may provide for a more sustainable future. One of these alternatives, organic agriculture, may not only be more environmentally sustainable, as discussed in other literature, but in this thesis is shown to have many positive impacts on human development also. At the very least, these findings should provide a challenge for more development organisations, donor agencies, governments and farmers to investigate organic agriculture as a development strategy and to put more resources into developing guidelines for organic agriculture initiatives in different contexts.

A final word from a farmer in Phteas Rong Village, Pursat (V2F5), who showed me the cart he uses to transport compost to his rice fields, decorated with the following words painted in large white letters: ‘Poom Saat, Srai Loor’ (‘Clean village, Good farmers’) (*see Plate 7*). He asked me to:

Tell everyone in your country about us. Now we are organic, our village is cleaner and healthier. We are better farmers. It is the future for us.

References

- AFA. (2004). Asian Farmers fight for Survival and Control of the Rice Industry. *AFA and ASIADHRRRA Issue Paper, 1*(1).
- Agarwal, B. (1997). *Bargaining and Gender Relations: Within and Beyond the Household*: International Food Policy Research Institute.
- Allen, P. (1999). Reweaving the Food Security Safety Net: Mediating Entitlement and Entrepreneurship. *Agriculture and Human Values, 16*, 117-129.
- Allen, P., and Sachs, C. (1992). The poverty of sustainability: An analysis of current positions. *Agriculture and Human Values, 9*(4), 29-35.
- Altieri, M. (1999). Agroecology: A New Research and Development Paradigm for World Agriculture. *Agriculture, Ecosystems and Environment, 27*, 37-46.
- Altieri, M. (2002). Non-certified organic agriculture in developing countries. In N. Scialabba & C. Hattam (Eds.), *Organic Agriculture, Environment and Food Security* (Environment and Natural Resources Series No. 4). Rome: Food and Agriculture Organisation of the United Nations.
- Anandkumar, S. (1998). Motivating farmers to convert to organic farming and strategies for organic extension. *Ecology and Farming, 18*, 21-22.
- Annear, P. (1998). Health and Development in Cambodia. *Asian Studies Review, 22*(2).
- ANU. (2005). *Asian Analysis*. Retrieved 15/9/2007, from www.aseanfocus.com
- Araya, H., & Edwards, S. (2005). *Successes in Sustainable Agriculture: Experiences from Tigray, Ethiopia*: Third World Network.
- Arce, A., & Marsden, T. (1993). The Social Construction of International Food: A New Research Agenda. *Economic Geography, 69*, 293-312.
- Arndt, C., Cornier, K., & Ryzanov, E. (2005). *Helvetas: Value chain management and poverty alleviation in rural areas: Experiences from Kyrgyzstan*. Retrieved 11/10/2007 from <http://www.sdc-ruraldevelopment.ch/resources/resourceen129.pdf>
- Ashley, C., & Maxwell, S. (2001). Rethinking Rural Development. *Development Policy Review, 19*(4), 395-425.
- Aturupane, H., Glewwe, P and Isenman, P. (1994). Poverty, Human Development, and Growth: An Emerging Consensus? *The American Economic Review, 84* (2). Papers and Proceedings of the Hundred and Sixth Annual Meeting of the American Economic Association (May, 1994), pp. 244-249.
- AusAid. (2007). *Diagnostic study Phase 1 of Design, Agriculture Programme Cambodia 2007-12, Programme Concept Document Final Report*: AusAid.

- Bacon, C. (2005). Confronting the Coffee Crisis: Can Fair trade, organic and specialty coffees reduce small-scale farmer vulnerability in Northern Nicaragua? *World Development*, 33(3), 497-511.
- Badgley, C., Moghtader, J., Quintero, E., Zakem, E., Chappell, M. J., Aviles-Vasquez, K., et al. (2007). Organic Agriculture and the Global Food Supply. *Renewable Agriculture and Food Systems*, 22(2), 86-108.
- Bebbington, A. (1999). Capitals and Capabilities: A Framework for Analyzing Peasant Viability, Rural Livelihoods and Poverty. *World Development*, 27(12), 2021-2044.
- Berg, L., & Mansvelt, J. (2000). Writing in, Speaking out: communicating qualitative research findings. In I. Hay (Ed.), *Qualitative Research Methods in Human Geography*. Melbourne: Oxford University Press.
- Bienabe, & Sautier. (n.d). *The role of small scale producer's associations to address market access*. Retrieved 20/10/2007, from <http://www.research4development.info/PDF/Outputs/CropPostHarvest>
- Booth, D. J., Holland, J., Hentschel, P., & Lanjouw. (1998). *Participation and Combined Methods in African Poverty Assessments: Renewing the Agenda*: DFID Social Development Division, Africa.
- Bora, B. (n.d). Market Access Barriers and Poverty in Developing East Asia. In *East Asia Integrates: A Trade Policy Agenda for Shared Growth* (pp. 101-117). Washington, D.C World Bank.
- Bourdieu, P. (1986). 'The forms of capital', in J.G Richardson (ed) *Handbook of theory and research for the sociology of education*. Greenwood: New York: 241-58.
- Bowler, I. (2002). Developing Sustainable Agriculture. *Geography*, 87(3), 205-212.
- Bryman, A., & Burgess, R. (1999). *Analysing Qualitative Data*. London: Sage.
- Cahn, M. (2006). *Sustainable rural livelihoods, micro-enterprise and culture in the Pacific Islands: case studies from Samoa*. Massey University, Palmerston North.
- Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). *The Quality of American Life: perceptions, evaluations and satisfactions*. New York: Russell Sage Foundation.
- CEDAC. (2006). *Strategic Plan 2006-2010*. Retrieved 20/3/2007, from <http://www.cedac.org.kh>
- CEDAC. (2007). *Campaign to Promote Ecological Agriculture and Local Products, Siem Reap, 21 to 23 December 2006*. Siem Reap: CEDAC.
- CGAP. (2005). *About Microfinance*. Retrieved 20/9/2007, from <http://www.cgap.org/about/faq03.htm>
- Chambers, R. (1994). The origins and practice of participatory rural appraisal. *World Development*, 22(7), 953-969.
- Chandler, D. (1996). *A History of Cambodia* (2nd ed.). Boulder, Colorado: Westview Press, Inc.

- CIA. (2007). *Cambodia small map*. The University of Texas at Austin. <http://www.lib.utexas.edu/maps/cambodia.html>.
- Clay, J. (2005). *Exploring the Links between wealth creation and poverty reduction: A case study of Unilever in Indonesia*. Retrieved 20/8/2007, from http://www.unilever.com/Images/es_Exploring_the_Links.html
- Coleman, J. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94:95-120.
- Courville, S. (2006). Organic Standards and Certification. In P. Kristiansen, A. Taji & J. Reganold (Eds.), *Organic Agriculture: A Global Perspective*. Australia: CSIRO.
- Cowen, M., & Shenton, R. (1996). *Doctrines of Development*. (1 ed.). London: Routledge.
- Corbridge, S. (2002). Programmed to fail? Development projects and the politics of participation. *Journal of Development Studies*, 39(2):73-103.
- Cresswell, T. (2000). Falling down: resistance as diagnostic. In J. P. Sharp, P. Routledge, C. Philo & R. Paddison (Eds.), *Entanglements of Power: Geographies of Domination/resistance* (pp. 256-268). London: Routledge.
- Crowe, S. (1998). Public-Private Partnerships- Business as Usual? *Lancet*, 352(9123).
- CTRP. (2000). *Cambodia Trust Rehabilitation Project Annual Report 1999-2000*.
- Dabbert, S., Haring, A., Zanolli, K. (2004). *Organic Farming: Policies and Prospects*. UK: Zed.
- Danse, M., & Vellema, S. (2007). Linking small-scale farmers to international agri-food chains. *Greener Management International*, 51, 38-52.
- Dao, C. (2004). Country Case Study on Environmental Requirements, Market Access/Entry and Export Competitiveness for Horticultural Products from Cambodia, *Sub-Regional Workshop on Environmental Requirements, market access/entry and export competitiveness in the Horticultural Sector*. Bangkok: ITD.
- Darnhofer, I. (2005). Organic Farming and Rural Development: Some Evidence from Austria *Sociologia Ruralis*, 45(4), 308-323.
- Declaration of Nyeleni. (2007). Paper presented at the Forum for Food Sovereignty, Selinue, Mali.
- DeLind, B. (2002). Place, work, and civic agriculture: Common fields for cultivation *Agriculture and Human Values*, 19(3), 217-224.
- Deutsch, J., Ramos, X., & Silber, J. (2003). Poverty and Inequality of Standard of Living and Quality of Life in Great Britain. In J. Sirgy, D. Rahtz & A. Coskun Samli (Eds.), *Advances in Quality of Life Theory and Research* (pp. 99-128). Dordrecht: Kluwer.
- DFID. (2003). *DFID and corporate social responsibility*. London: Department for International Development.

- Diener, E., & Biwas-Diener, R. (2004). Psychological Empowerment and Subjective Wellbeing. In D. Narayan (Ed.), *Measuring Empowerment: Cross-Disciplinary Perspectives* (pp. 125-140). Washington D.C: World Bank.
- Dolan, C., & Humphrey, J. (2001). Governance and Trade in Fresh Vegetables: The Impact of UK Supermarkets on the African Horticulture Industry. *Globalisation and Trade*, 147-166.
- Dolan, C., & Sorby, K. (2003). *Gender and employment in high-value agriculture industries*. Washington D.C: World Bank.
- Driessen, P. (2003). *Eco-Imperialism: Green Power Black Death*. Bellevue WA, USA: Merrill Press.
- Dupuis, E., & Goodman, D. (2004). Knowing food and growing food: Beyond the Production-Consumption debate in the sociology of agriculture. *Sociologia Ruralis*, 42(4), 5-22.
- Echo. (2002). *Household Food Security Assessment Report. October-December, 2002*: Echo, EC.
- Egziabher, T. B. G. (2005). Let local communities continue with organic agriculture to feed Africa. *Ecology and Farming Sept 2005-April 2006*, 37-41.
- EJF. (2002). *Death in Small Doses: Cambodia's Pesticides Problems and Solutions*. London: Environmental Justice Foundation.
- Ellen, R. (1984). *Ethnographic Research: A guide to general conduct*. New York: Academic Press.
- Ellis, F. (1988). *Peasant Economics: Farm Households and Agrarian Development*. Cambridge: Cambridge University Press.
- Ellis, F. (2000). *Rural livelihoods and diversity in developing countries*. New York: Oxford University Press.
- Ellis, F., & Biggs, S. (2001). Evolving themes in rural development 1950s-2000s. *Development Policy Review*, 19(4), 437-448.
- Escobar, A. (1997). Anthropology and Development. *International Social Science Journal*, 154(December 1997), 497-516.
- European Community (EC). (2005). *EC National Indicative Programme, 2005-6: Cambodia*: European Community.
- FAO. (1983). *Report of the Council of FAO, Eighty-third Session*. Rome: FAO, 13-24 June 1983.
- FAO. (2002). *Organic Agriculture and Food Security*. Rome: FAO.
- Farrington, J., Slater, R., & Holmes, R. (2004). *The Search for Synergies Between Social Protection and Livelihood Promotion: The Agriculture Case*: Overseas Development Institution.
- Ferrante, A., Viana, A., Paletti, L., Verado, E., Tronchin, A., Castelli, A. (2002). *Food Sovereignty*. Paper presented at the NGO/CSO Forum for Food Sovereignty: A right for all, Rome.

- Fine, B., & Leopold, E. (1994). *The World of Consumption*. London: Routledge.
- Forster, E. M. (1927 (new ed. July, 2000)). *Aspects of the Novel*. London: Penguin Modern Classics.
- Foucault, M. (1980). *Power/Knowledge: Selected Interviews and Other Writings*. New York: Pantheon.
- Freire, P. (1970). *Pedagogy of the Oppressed*. New York.
- Friedland, W. (1984). Commodity systems analysis: An approach to the sociology of agriculture. In Schwarzweller, H.K (ed.), *Research in rural sociology and development*. Greenwich, CT: JAI Press, pp. 221–235.
- Friedmann, J. (1992). *Empowerment: The Politics of Alternative Development*. Oxford: Blackwell.
- Garrett, J. (2005). *Beyond Rural-Urban: Keeping up with changing realities*. Washington D.C: International Food Policy Research Institute.
- Gegeo, D. (1998). Indigenous Knowledge and Empowerment: Rural Development Examined from Within. *The Contemporary Pacific*, 10(2), 289-315.
- Gereffi, G. (1994). The organisation of buyer-driven global commodity chains: How US retailers shape overseas production networks. In G. Gereffi & M. Korzeniewicz (Eds.), *Commodity Chains and Global Capitalism*. Westport, CT: Praeger.
- German NGO Forum. (2005). *Organic Farming: A contribution to sustainable poverty alleviation in developing countries?* Bonn: German NGO Forum Environment and Development.
- Gomez, L., Tovar, L., & Gomez, C. 1999. *Desafios de la Agricultura Organica*. Mexico DF, Mundi-Prensa.
- Goodman, D. (2001). Ontology matters: the relational materiality of nature and agro-food studies. *Sociologia Ruralis*, 41(2), 182-200.
- Goodman, D. (2002). Rethinking Food Production-Consumption Practices. *Sociologia Ruralis*, 42(4), 271-277.
- Goreham, G., Watt, D., & Jacobsen, R. (1992). *The Socioeconomics of Sustainable Agriculture: An Annotated Bibliography*. NY and London: Garland.
- Grain. (2008). *Whose Harvest? The Politics of Organic Seed Certification*. Grain Briefing, January 2008. See: www.grain.org.
- Groenfeldt, D. (n.d). Accounting for culture in paddy cultivation: toward a broader definition of “livelihood”. *Rice is life: scientific perspectives for the 21st century*. Proceedings of the World Rice Research Conference held in Tsukuba, Japan, 4-7 November 2004.
- GTZ. (n.d.) *Identification of Poor Households: Most Vulnerable Household List*. Community-Based Rural Development Programme, Phnom Penh. Retrieved 10/1/08 from: <http://www.gtz.de/de/dokumente/en-cambodia-poor-households.pdf>

- Guthman, J. (2000). *Agrarian Dreams: The Paradox of Organic Farming in California*. Berkeley: University of California Press.
- Halweil, B. (2005). Cambodia Goes Organic. *World Watch*, 18(2), 3-4
- Halweil, B. (2006). Can Organic Farming Feed Us All? *World Watch*, 19(3), 18-24.
- Harris, P., Browne, A., Barrett, H., & Cadoret, K. (2001). *Facilitating the Inclusion of the Resource-Poor in Organic Production and Trade: Opportunities and constraints Posed by Certification*. London: DFID.
- Hart, S. L., & Sharma, S. (2004). Engaging fringe stakeholders for competitive imagination. *Academy of Management Executive*, 18 February(1), 7-18.
- Hartwick, E. (1998). Geographies of consumption: a commodity-chain approach. *Environment and Planning D: Society and Space*, 16, 423-437.
- Hay, I. (2005). *Qualitative Research Methods in Human Geography* (Second ed.). Melbourne, Australia: Oxford University Press.
- Hazell, P. (2005). From Food Security to Market-Driven Growth in Indian Agriculture: Implications for Agricultural Policy, *Paper prepared for a special publication to celebrate the Centenary Year of the Agricultural College and Research Institute, Coimbatore, Tamil Nadu, India*.
- Hellin, J., Griffith, A., & Albu, M. (2005). *Mapping the Market: Market Literacy for Agricultural Research and Policy to Tackle Rural Poverty in Africa*. Paper presented at the Beyond Agriculture: Making Markets Work for the Poor, February 28th – March 1st, 2005.
- Heltberg, R. (1998). Rural Market Imperfections and the Farm Size-Productivity Relationship: Evidence from Pakistan. *World Development*, 26(10), 1807-1826.
- Henson, S and Loader, R. (2001). Barriers to Agricultural Exports from Developing Countries: the Role of Sanitary and Phytosanitary Requirements. *World Development*, 29(1), 85-102.
- Heuveline, P. (2001). Approaches to Measuring Genocide: Excess Mortality During the Khmer Rouge Period. In D. C. a. M. Seligman (Ed.), *Ethno political Warfare. Causes, Consequences and Possible Solutions*. Washington D.C: American Psychological Association.
- Hinrichs, C. (2000). Embeddedness and local food systems: notes on two types of direct agricultural market. *Journal of Rural Studies*, 16(3), 295-303
- Hira, A., & Parfitt, T. (2004). *Development projects for a new millennium*. Westport, C.T.: Greenwood.
- Holloway, L., Kneafsey, M., Venn, L., Cox, R., Dowler, E., & Tuomainen, H. (2007). Possible Food Economies: a Methodological Framework for Exploring Food Production-Consumption Relationships. *Sociologia Ruralis*, 47(1), 1-19.
- Holt, G., & Reed, M. (2006). *Sociological Perspectives of Organic Agriculture: From Pioneer to Policy*. London: CAB International.

- Hopkins, T., & Wallerstein, I. (1986). Commodity chains in the world-economy prior to 1800. *Review*, 10, 157-170.
- Hossain, M. Z. (2001). Farmers Views on Organic Matter Depletion and Its Management in Bangladesh. *Nutrient Cycling in Agro ecosystems*, 61(1/2).
- Howitt, R., & Stevens, S. (2005). Cross-cultural research: ethics, methods and relationships. In I. Hay (Ed.), *Qualitative Research Methods in Human Geography* (pp.30-50). Melbourne: Oxford University Press.
- Hughes, A. (2001). Global commodity networks and ethical trade and governmentality: organising business responsibility in the Kenyan cut flower industry. *Transactions of the Institute of British Geographers*, 26(390-406).
- Humphrey, J. (2006). *Horticulture: Responding to the Challenges of Poverty Reduction and Global Competition*. Paper presented at the 1st International Symposium on Supply Chains in Transitional Economies.
- IFAD. (2003). *The adoption of organic agriculture among small farmers in Latin America and the Caribbean: Thematic Evaluation*. Rome: IFAD.
- IFAD. (2005). *Organic Agriculture and Poverty Reduction in Asia*. Retrieved 19/11/07 from www.ifad.org
- IFOAM. (2000). *What is Organic Agriculture*. Retrieved 18/11/2006, from www.ifoam.org
- IFOAM. (2005). *Principles of Organic Agriculture*. Retrieved 5/3/2007, from http://www.ifoam.org/about_ifoam/principles/index.html
- IFOAM. (2006). *Organic Agriculture and Food Security Dossier*. Bonn: IFOAM.
- Ikerd, J. (2001). *The architecture of organic production* Paper presented at The Organic Challenge: Unity through Diversity. RIRDC's Inaugural National Organics Conference 2001, Sydney, Australia.
- ILO. (2006). *A guide for value chain analysis and upgrading*, from <http://www.Value-Chains.org>
- IMF. (2004). *Concluding Statement for the 2004 Article IV Consultation Discussions, July 15th, 2004*.
- IRRI. (2000). World Rice Statistics. In International Rice Research Institute (Ed.).
- IRRI (2007) *Rice Yield 2001-2006*. Prasat Bakakong District Government. See <http://ewbnycambodia.blogspot.com>.
- Janz, K., Shanxi, T., & Jacobi, P. (2003). *Development of Biological Agriculture in Poverty Stricken Areas of the P.R. of China. Report of a Final Evaluation Mission*. Bonn: GTZ.
- Jarosz, L. (2000). Understanding agri-food networks as social relations. *Agriculture and Human Values*, 17, 279-283.
- Jewkes, R., Levin, J., & Penn-Kekana, L. (2002). Risk factors for domestic violence: findings from a South African cross-sectional study. *Social Science & Medicine*, 55(9), 1603-1617.

- JICA. (2001). *The study on improvement of marketing system and post-harvest quality control of rice in Cambodia*. Phnom Penh: Japan International Cooperation Agency, Ministry of Commerce, Ministry of Agriculture, Fishery and Forestry.
- Johannsen, J., Wilhelm, B., Buntzel-Cano, R., Schorie, F., & Fleckenstein, M. (2005). *Organic Farming. A contribution to sustainable poverty alleviation in developing countries?* Bonn: German NGO Forum Environment and Development.
- Kabeer, N. (1999). *The Conditions and Consequences of Choice: Reflections on the Measurement of Women's Empowerment*. UNRISD Discussion Paper, 108, August 1999. Geneva: United Nations Research Institute for Social Development.
- Kaltoft, P. (1999). Values about nature in organic farming practice and knowledge. *Sociologia Ruralis*, 39(1), 39-53.
- Kaplinsky, R., & Morris, M. (2001). *A Handbook for Value Chain Research*: IDRC.
- Kerr, J. (2000). *Community health promotion: challenges for practice*. London: Royal College of Nursing and Bailliere Tindall.
- Kiernan, B. (1996). *The Pol Pot Regime*. New Haven and London: Yale University Press.
- Kilcher, L. (2001). Organic Agriculture in Cuba: The Revolution Goes Green. *Journal of Agriculture in the Tropics and Subtropics*, 102(2), 185-189.
- Kirby, R. (2006). *Laos Natural Agri Products Case Study: NPI*. Paper presented at the SEA Conference, 2006.
- KIT, Faida, & IRR. (2006). *Chain Empowerment: Supporting African Farmers to Develop Markets*: English Press Ltd
- Koehler, W. (2000). Projektkooperation zwischen GTZ und Mars in der Elfenbeinküste. *Entwicklung + Ländlicher Raum*, 6, 17-19.
- Koma, Y. S. (2002). Cambodia Rice Project: Sustainable Development in Action. In L. Malcolm (Ed.) Radio Show 'Earthbeat', 11/5/2002.
- Korten, D. (1990). *Getting to the Twenty-first Century: Voluntary Action and the Global Agenda*. West Hartford, CT: Kumarian.
- Kotschi, J. (2000). Poverty Alleviation in the South: Can Organic Farming Really Help? *AGRECOL*.
- Kotschi, J. (2003). Alter Organic – Local Agendas for Organic Agriculture in Rural Development. *AGRECOL*.
- Kristiansen, P., & Merfield, C. (2006). Overview of Organic Agriculture. In P. Kristiansen, A. Taji & J. Reganold (Eds.), *Organic Agriculture: A Global Perspective*. Collingwood, Australia: CSIRO.
- Lampkin, N. (2002). *Organic Farming*. UK: Old Pond.

- Lampkin, N., & Padel, S. (1994). *The economics of Organic Farming: An International Perspective*. Wallingford, U.K: CAB International.
- Larsen, L., Harlan, S., Bolin, B., Hackett, E., Hope, D., Kirby, A., Nelson, A., Rex, T. & Wolf, S. (2004). *Journal of Planning Education and Research*, 24(1), 64-77.
- Latham, A. (1998). *Rice: The primary Commodity*. New York: Routledge.
- Latour, B. (1993). *We have never been modern*. New York: Harvester Wheatsheaf.
- Lauret, F. (1983). Sur les etudes de filieres agro-alimentaires. *Economies et societes cahiers de L'ISMEA*, 17, 721-740.
- Ledgerwood, J. (1998). Rural Development in Cambodia: The View from the Village, *Asia Society*.
- Ledwith, M. (2005). *Community Development: A Critical Approach*. London: The Policy Press.
- Leslie, D., & Reimer, S. (1999). Spatializing commodity chains. *Progress in Human geography*, 23(3), 401-420.
- Lockeretz, W. (2000). *Organic farming research today and tomorrow*. Paper presented at the IFOAM 2000 - The World Grows Organic. Proceedings of the 13th IFOAM conference, Basel.
- Lockie, S., & Kitto, S. (2000). Beyond the Farm Gate: production-consumption networks and agri-food research. *Sociologia Ruralis*, 40(1), 3-19.
- Lofland, J., & Lofland, L. (1971). *Analyzing Social Settings*. Belmont, CA: Wadsworth.
- Lorenzen, R., Neil, C., Corbo, K., & Courville, S. (2004). *SASA Final Report on Social Standards and Social Auditing Methodologies*. Bonn: SASA.
- Lyson, T. (2000). Moving toward civic agriculture. *Choices*, 3/4, 42-45.
- Magdoff, F., Bellamy Foster, J., & Buttel, F. (Eds.). (2000). *Hungry for Profit: The Agribusiness Threat to Farmers, Food, and the Environment*. New York: Monthly Review Press.
- Malhotra, A., Schuler, S., & Boender, C. (2004). Measuring Women's Empowerment as a Variable in International Development *World Bank Workshop on Poverty and Gender: New Perspectives*.
- Mansvelt, J. (2005). *Geographies of Consumption*. London: Sage.
- Marten, L. (2005). Commercial sex workers: Victims, vectors or fighters of the HIV epidemic in Cambodia? *Asia Pacific Viewpoint*, 46(1), 21-34.
- Martinez-Torres, M. (2006). *Organic Coffee* Athens: Ohio University Press.
- Massey University Human Ethics Committee (MUHEC). (2006). *MUHEC Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants*. Revised 26/10/06. Available online at: <http://humanethics.massey.ac.nz/massey/fms//Human%20Ethics/Documents/MUHEC%20Code%20October%202006.pdf>.

- Maxwell, S. (2003). Heaven or Hubris? Reflections on the new 'New Poverty Agenda'. *Development Policy Review*, 21(1), 5-25.
- Mayers, J., & Vermeulen, S. (2005). *Stakeholder influence mapping*. London: International Institute for Environment and Development.
- McAndrew, J. P. (1998). *Interdependence in Household Livelihood Strategies in Two Cambodian Villages*.
- McCosker, H., Barnard, A., & Gerber, R. (2001). Undertaking Sensitive Research: Issues and Strategies for Meeting the Safety Needs of All Participants, *Forum: Qualitative Research*.
- McGillivray, M. (2006). *Inequality, Poverty and Wellbeing*. New York: Palgrave MacMillan.
- McNaughton, A. (2002). Domestic and International Trade in Organic Agricultural Products. Cambodia's Experience and Opportunities.
- Mehmet, O. (1997). Development in a Wartorn Society: What next in Cambodia? *Third World Quarterly*, 18(4), 673-686.
- Mertz, O., Wadley, R., & Christensen, A. (2005). Local land use strategies in a globalising world: Subsistence farming, cash crops and income diversification. *Agricultural Systems*, 89, 205-215.
- Miles, H., & Huberman, R. (1984). *Qualitative Data Analysis: A Sourcebook of New Methods*. California: Sage.
- Ministry of Commerce (MoC), Royal Government of Cambodia. (2006). *Cambodia National Export Strategy 2007-2010, Final-Draft Paper #2*. Phnom Penh.
- Moore, M., Choudhury, M., & Singh, N. (1998). *How Can We Know What They Want? Understanding Local Perceptions of Poverty and Ill-Being in Asia* University of Sussex, Brighton: Institute of Development Studies.
- Moore, O. (2006). What Farmers' Markets say about the Post-organic Movement in Ireland. In G. Holt & M. Reed (Eds.), *Sociological Perspectives of Organic Agriculture*. Wallingford, UK: CABI.
- Mulama, J. (2006). US Farm Subsidies Hurting Africa's Development. Common Dreams News Centre, April 16, 2006. Retrieved 20/11/07 from www.commondreams.org/headlines06/0416-06.htm
- Murdoch, J., Marsden, T., & Banks, J. (2000). Quality, Nature and Embeddedness: Some theoretical considerations in the context of the food sector. *Economic Geography*, 76, 107-125.
- Mutersbaugh, T. (2002). The Number is the Beast: A Political Economy of Organic Coffee Certification and Producer Unionism. *Environment and Planning A*.
- Myers, A. (2005). *Organic Futures: The Case for Organic Farming*. UK: Green Books.
- Mysliwiec, E. (2003). The case of Cambodia. In J. Olsson & L. Wohlgemuth (Eds.), *Dialogue in pursuit of development*. Stockholm: Almquist and Wicksell International.

- Nagasu, M. (2004). *Ownership in Cambodia: Review of Process of Preparing Poverty Reduction Strategy Paper*. Tokyo: Ritsumeikan University.
- Narayan, D. (2000). *Can Anyone Hear Us? Voices of the Poor study* (Vol. 1). New York: Oxford University Press for the World Bank.
- Narayan, D. (2002). *Empowerment and Poverty Reduction: A Sourcebook*. Washington, D.C.: World Bank.
- Narayan, D. (2004). *Measuring Empowerment: Cross-Disciplinary Perspectives*. Washington D.C.: World Bank.
- Nayakrishi. (2007). Nayakrishi, New (agri) Cultural Movement of Bangladesh, *International Conference on Organic Agriculture and Food Security*. Rome, Italy: FAO.
- NEDC. (2006). Campaign to Promote Ecological Agriculture and Local Product. See www.cedac.org.kh.
- Niggli, U., & Willer, H. (2000). Stimulating the potential for innovation in organic farming by research, *IFOAM 2000 – The World Grows Organic. 13th IFOAM Scientific Conference*. Zurich.
- Norse, D., & Tschirley, J. (2003). Agriculture and the environment: Changing pressures, solutions and trade-offs. In J. Bruinsma (Ed.), *World Agriculture: Towards 2015/2030: An FAO Perspective* (pp. 331-356). London: Earthscan publications and FAO.
- Nussbaum, M. (2000). *Women and Human Development: The Capabilities Approach*. Cambridge: Cambridge University Press.
- Offermann, F., & Nieberg, H. (2000). Economic Performance of Organic Farms in Europe. *Organic Farming in Europe: Economics and Policy*, 5.
- Okely, J. (2004). Thinking Through Fieldwork. In S. J. Yates (Ed.), *Doing Social Science Research*. London: Sage.
- Oliveira, D., & Santos, L. (2004). Certifacacao Participativa de Produtos Ecologicos. *Rede Ecovida de Agroecologia*.
- Oppermann, R., & Rahmann, G. (2005). Experiences of organic dairy farmers with ailing milk markets, a sociological study in Northern Germany. *Landbauforsch Völkenrode* 290, 35-55.
- Padel, S. (1999). Research in Organic Agriculture in Europe. In N. Lampkin, Carolyn Foster, Susanne Padel, and Peter Midmore (Ed.), *Organic Farming in Europe: Economics and Policy* (1). Stuttgart-Hohenheim: University of Hohenheim.
- Papanek, H. (1964). The woman fieldworker in purdah society. *Human Organisation*, 23(2), 160-163.
- Parameswaran, R. (2002). Reading Fictions of Romance: Gender, Sexuality, and Nationalism in Postcolonial India. *Journal of Communication*, 52(4), 832-851.
- Parrott, N., & Marsden, T. (2002). *The Real Green Revolution*: Greenpeace Environmental Trust.

- Parrott, N., & Wright, J. (2007). Influencing Attitudes of Public Institutions Towards Organic Agriculture as a Means of Promoting Food Security, *IFOAM Conference on Organic Agriculture and Food Security*.
- Patton, M. (2002). *Qualitative Research and Evaluation Methods* (3 ed.). California: Sage.
- Perecman, E., & Curran, S. (2006). *A Handbook for Social Science Field Research*. USA: Sage.
- Peter, R. (2004) Participatory Irrigation Management. *Participatory Irrigation Management (PIM) Newsletter*, 6. Retrieved 11/1/08 from <http://www.maff.go.jp/inwepf/documents/inaugural/inpim-note.pdf>
- Pingali, P., & Rosegrant, M. (1994). *Confronting the Environmental Consequences of the Green Revolution in Asia. EPTD Discussion Paper, 2*. Washington, D.C.: International Food Policy Research Institute.
- Platteau, J., & Gaspart, F. (2003). *The 'elite capture' problem in participatory development*. Belgium: Centre for research on the economics of development (CRED).
- Porter, M. (1990). *The Competitive Advantage of Nations*. New York: The Free Press/McMillan.
- Power, M. (2003) *Rethinking Development Geographies*. Routledge, London.
- Pretty, J. (2002). Lessons from certified and non-certified organic projects in developing countries. In N. Scialabba & C. Hattam (Eds.), *Organic Agriculture, Environment and Food Security*. Rome: FAO.
- Pretty, J., & Hine, R. (2001). *Reducing food poverty with sustainable agriculture; A summary of new evidence*: University of Essex.
- Putnam, R., with Leonardi, R. & Nanetti, R. (1993). *Making democracy work: civic traditions in modern Italy*. Princeton University: Princeton.
- Putnam, R. (2000). *Bowling alone: the collapse and revival of the American community*. Simon and Schuster: New York.
- Pyburn, R. (2003). *SASA Smallholder ICS Workshop Report*. Nuremberg: SASA Secretariat.
- Rahnema, M. (1992). Poverty. In W. Sachs (Ed.), *The Development Dictionary: A Guide to Knowledge as Power*. London: Zed.
- Raikes, P., Jensen, M., & Ponte, S. (2000). Global commodity chain analysis and the French filiere approach: Comparison and critique. *Economy and Society*, 29(3), 390-417.
- Rapley, J. (2004). Development Studies and The Post-Development Critique. *Progress in Development Studies*, 4(4), 350-354.
- Rapoport, R. (1970). Three Dilemmas in Action Research. *Human Relations*, 23(4), 499-513.
- Raynolds, L. (2002a). Consumer-producer links in fair trade coffee networks. *Sociologia Ruralis*, 42(4), 404-424.

Raynolds, L. (2002b). *Poverty Alleviation through Participation in Fair Trade Coffee Networks: Existing Research and Critical Issues*. New York: Ford Foundation.

RGC (Royal Government of Cambodia) Council for Social Development. (2002). Poverty Reduction Strategy 2002-2005. Retrieved 10/3/07 from www.imf.org/External/NP/prsp/2002/khm/01/122002.pdf

Rice, R. (2001). Noble Goals and Challenging Terrain: Organic And FairTrade Coffee Movements in the Global Marketplace. *Journal of Agriculture and Environmental Ethics*, 14(1), 39-66.

Roche, G., Deberdt, A., & Perez, R. (2004). *Organisations des producteurs et mise en marche de produits differencies - Le cas de la filiere de cacao "Bio-Equitable" en Equateur*". Paper presented at the Congreso internacional Agroindustria Rural y territorio, Toluca, Mexico.

Roche, M. (2007). Tung Oil Networks, *A lecture given for the geography department*. Massey University, Palmerston North, New Zealand, 18th August, 2007.

Roduner, D. (2004). *Analysis of Value Chains: Discussion of Existing theories, methodologies and discussions of value chain approaches within the development cooperation sector*. Bern: LBL.

Rosegrant, M., & Ringler, C. (2005). *Agriculture and achieving the Millennium Development Goals*. Washington D.C: Agriculture and Rural Development Department, World Bank.

Rowlands, J. (1997). *Questioning Empowerment: Working with Women in Honduras*. Oxford, U.K: Oxfam Publishing.

Rubin, H., & Rubin, I. S. (1995). *Qualitative interviewing: the art of hearing data*. Thousand Oaks USA: Sage.

Samson, I. (2006). *North/South Divide: Its Problem*. Paper presented at the annual meeting of the international studies association, Town and Country Resort and Convention Centre, San Diego, California, USA, March 22, 2006. Retrieved 4/1/08 from www.allacademic.com/meta/p99695_index.html

Saroeun, B. (2000). The greening of Cambodian farming begins. *Phnom Penh Post*.

Schalock, R. (1990). *Quality of life: Perspectives and issues* Washington, D.C: American Association on Mental Retardation.

Scherr, S.J. (2004). Building opportunities for small-farm agroforestry to supply domestic wood markets in developing countries. *Agroforestry Systems*, 61.

Scheyvens, R. (1995). *A quiet revolution: strategies for the empowerment and development of rural women in the Solomon Islands*. Massey University, Palmerston North.

Scheyvens, R., & Storey, D. (2003). *Development Fieldwork*. London: Sage.

Schmerler, C. (2006). *Value Chain Promotion: Experiences with Organic Rice from Cambodia*. Phnom Penh, Cambodia: GTZ Rural Development Programme.

- Schultz, T. W. (1964). *Transforming Traditional Agriculture*. New Haven, C.T: Yale University Press.
- Scialabba, N., & Hattam, C. (2002). *Organic Agriculture, Environment and Food Security* (Vol. 4). Rome: Food and Agriculture Organisation of the United Nations.
- Scott, J. (1976). *The moral economy of the peasant. Rebellion and Subsistence in Southeast Asia*. New Haven and London: Yale University Press.
- Scott, S., Miller, F., & Lloyd, K. (2006). Doing fieldwork in development geography: Research culture and research spaces in Vietnam. *Geographical Research*, 44(1), 28-40.
- SDC. (2007). *Donor interventions in value chain development*. Berne: Swiss Agency for Cooperation and Development.
- Sen, A. (1985). *Commodities and Capabilities*. Oxford: Elsevier Science Publishers.
- Setboonsarng, S. (2006). *Organic Agriculture, Poverty Reduction and the MDGs*.
- Shepherd, A. (2007). *Approaches to Linking Producers to Markets*. Rome: FAO.
- Shiferaw, B., Obare, G., & Muricho, G. (2006). *Rural institutions and producer organisations in imperfect markets: Experiences from producer marketing groups in semi-arid Eastern Kenya*. Paper presented at the Research Workshop on Collective Action and Market Access for Smallholders, Cali, Colombia.
- Simon, D. (2006). Separated by Common Ground? Bringing (Post) Development and (Post) Colonialism Together. *The Geographical Journal*, 172(1), 10-21.
- Smith, A., Rainnie, A., Dunford, M., Hardy, J., Hudson, R., & Sadler, D. (2002). Networks of value, commodities and regions: Reworking divisions of labour in macro-regional economies. *Progress in Human Geography*, 26(1), 41.
- Southworth, H. (1998). *Nonverbal communication in a cross-cultural context*. Retrieved 15/8/2007, from <http://www.usal.es/~nonverbal/nuevos.htm>
- Speer, P., Jackson, C., & Peterson, N. (2001). The relationship between social cohesion and empowerment: support and new implications for theory. *Health education and behaviour*, 28(6), 716-732.
- Stewart, F. (1985). *Planning to meet basic needs*. London: MacMillan.
- Stewart-Withers, R., and O'Brien, A. (2006). Suicide prevention and social capital: A Samoan perspective. *Health Sociology Review*, 15, 209-220.
- Stock, P. (2000). 'Good Farmers' as Reflexive Producers: an Examination of Family Organic Farmers in the US Midwest. *Sociologia Ruralis*, 47(2), 83-102.
- Storey, D. (1996). *Housing, the state and urban poor organisations in metro Manila* Massey University, Palmerston North.
- Storey, D., Bulloch, H. and Overton, J. (2005). The poverty consensus: Some limitations of the 'popular agenda'. *Progress in Development Studies* 5(1), 30-44.

Stringfellow, R., Coulter, J., Lucey, T., McKone, C., & Hussain, A. (1997). Improving the access of small-holders to agricultural services in sub-Saharan Africa: Farmer cooperatives and the role of the donor community. *Natural Resource Perspectives*, 20.

Sullivan, P. (2002). *Drought Resistant Soil*. Retrieved 28/10/2007, from <http://attra.ncat.org/attra-pub/PDF/drought.pdg>

Taylor, J. (2000). *So Now they are going to measure empowerment*: CDRA.

Thavat, M. (2005). *Cambodia's Pathways to International Trade*: Resource Management in Asia Pacific Programme, RSPAS.

The Economist. (1993). Thanks A Billion. *The Economist*, 328(7830).

Thevenot, L. (1995). Des marches aux normes. In G. Allaire & R. Boyer (Eds.), *Regulation et conventions dans l'agriculture et l'agro-alimentaire*. Paris: INRA.

Tinker, P. (2000). *Shades of Green*. Warwickshire, England: RASE.

Tovey, H. (1997). Food Environmentalism and Rural Sociology: on the organic movement in Ireland. *Sociologia Ruralis*, 37(1), 21-37.

Trauger, A. (2004). Because they can do the work: Women farmers in Sustainable Agriculture in Pennsylvania, U.S.A. *Gender, Place and Culture: A Journal of Feminist Geography*, 11(2), 289-302.

Trow, M. (1970). Comment on Participant Observation and Interviewing: A Comparison. In W. J. Filstead (Ed.), *Qualitative methodology: Firsthand involvement with the social world*. Chicago: Markham.

Truman, H. (1949). President H Truman's Inaugural Address, 20th January 1949. In W. Sachs (Ed.), *The Development Dictionary* (pp. 275-287). New York: Zed Books.

Turton, C. (2000). *The Sustainable Livelihoods Approach and Programme Development In Cambodia*: London: ODI.

UNCTAD. (2004). *Country Case Study on Environmental Requirements, Market access/entry and Export Competitiveness for Horticultural Produce from Cambodia*. Paper presented at the sub-regional workshop on environmental regulation, Bangkok, 29 September – 1 October, 2004.

UNDP. (2005). *Human Development Index 2005*. Retrieved 20/10/2007, from <http://www.undp.org>

UNESCAP. (2002). *Organic Agriculture and Rural Poverty Alleviation: Potential and best practices in Asia*. Bangkok: United Nations Economic and Social Commission for Asia and the Pacific.

Uphoff, N. (2004). *Report on SRI visit to Philippines, March 19-28th, 2004*. Cornell International Institute for Food, Agriculture and Development. Retrieved 28/1/08 from <http://ciifad.cornell.edu/sri/countries/philippines/philriwsp04.pdf>

Uzzi, B. (1997). Social structure and competition in interfirm networks: the paradox of embeddedness. *Administrative Science Quarterly*, 42, 35-67.

- van Elzakker, B., Parrott, N., Chonya, C., & Adimado, S. (2007). Organic farming in Africa. In Willer & Yusseffi (Eds.), *The World of Organic Agriculture: Statistics and Emerging Trends 2007*. Bonn: IFOAM.
- van Heck, B. (2003). *Participatory Development: Guidelines on Beneficiary Participation in Agricultural and Rural Development*. Rome: Rural Institutions and Participation Service, Rural Development Division, Food and Agriculture Organisation of the United Nations.
- Veluw, V. (2006). Voice from the other side: a Ghanaian view on organics. In P. Kristiansen, A. Taji & J. Reganold (Eds.), *Organic Agriculture: A Global Perspective*. Australia: CSIRO.
- Vickery, M. (1984). *Cambodia, 1975-1982*. Boston: South End Press.
- Visal, L. (2006). *Cambodia Agricultural Development Report*. Phnom Penh: Economic Institute of Cambodia.
- von Braun, J., Swaminathan, M. S., & Rosegrant, M. (2003). *2003-2004 IFPRI Annual Report Essay: Agriculture, Food security, Nutrition, and the Millennium Development Goals*. Washington, D.C: International Food Policy Research Institute.
- Warren, C. (1988). *Gender issues in field research*. California: Sage.
- Watson, C., Alroe, H., & Kristensen, E. (2006). Research to support the development of organic food and farming. In P. Kristiansen, A. Taji & J. Reganold (Eds.), *Organic Agriculture: A Global Perspective* (pp. 361-383). Australia: CSIRO.
- WED. (2006). *Wellbeing in Developing Countries: Conceptual Foundations of the WeD Programme*. Bath, U.K: ESRC Research Group on Wellbeing in Developing Countries.
- Whatmore, S., Stassart, P., & Renting, H. (2003). What's alternative about alternative food networks? *Environment and Planning*, 35, 389-391.
- Willer, H., & Zerger, U. (1999). *Demand of Research and Development in Organic Farming in Europe*. Paper presented at the First SREN Workshop on Research Methodologies in Organic Farming. Proceedings. Food and Agriculture Organisation Rome.
- Willis, K. (2005). *Theories And Practices Of Development*. Routledge: London.
- Winchester, H. (2005). Chapter 1: Qualitative Research and its Place in Human Geography. In I. Hay (Ed.), *Qualitative Research Methods in Human Geography* (pp. 3-18). Oxford: Oxford University Press.
- Woodward, L. (2002). *Science and Research in Organic Farming*. Newbury, England: Elm Farm Research Centre.
- Woolcock, M. (1998). Social Capital and Economic Development: Toward a Theoretical Synthesis and Policy Framework. *Theory and Society*, 27(151-208).
- World Bank. (2003). *Towards a Private Sector-Led Growth Strategy for Cambodia: Volume 1: Value Chain Analysis: A report prepared for the World Bank by Global Development Solutions, LLC*.

World Bank. (2004). *Globalization, Growth and Poverty: Building an Inclusive World Economy*. World Bank.

World Bank. (2006). *Cambodia: Halving Poverty by 2015? Poverty Assessment 2006*. Phnom Penh: World Bank

Wynen, E. (1998). *Evaluating the Potential contribution of Organic Agriculture to Sustainability Goals*. Rome: FAO.

Yates, S. J. (2004). *Doing Social Science Research*. London: Sage.

Zakowska-Biemas, S. (1998). Polish organic farmers' motives and attitudes. *Ecology and Farming*, 19(6).

Appendices

Appendix 1

Case study descriptions

Case One: Beungreang and Daksorsor village, Battambang

Battambang is traditionally known as the ‘rice bowl’ of Cambodia because of its rich soils and favourable growing conditions. However, the villages in this study suffer from drought and poor access to water sources, resulting in low yields. The organic initiative in Beungreang and Daksorsor villages is supported by NGO ‘Aphiwat S’tray’ (Community Development), which runs several different community development projects around Battambang. The organic initiative began in 2000, and the NGO has networked with CEDAC and NEDC since 2001, including receiving employee training through CEDAC. The initiative now operates in 38 villages, with key farmers chosen because of their high initial chemical use and interest in converting to organics. In Daksorsor village, there are twenty farmers organised into two smaller groups—one group includes 8 women and 2 men, and the other includes 5 men and 5 women. The Beungreang group includes approximately 14 members. The group currently does not hold any certification, and there is no organised marketing for the organic produce.

Case Two: Phteas Rong village, Pursat

Phteas Rong village is in an ‘upland’ village in the hills to the West of Pursat city. Growing conditions are favourable for rice, but the village suffers from poor road access to markets and severe drought problems. The organic initiative is supported by NGO CCRD, which runs four initiatives in the Pursat region (organic rice, animal raising (sow farm) micro finance, and castor oil production). The NGO began a conventional rice production initiative in 2001, supported by a five-year funding grant from Oxfam Quebec, and decided to promote only organic rice production from 2004. The organic group in Phteas Rong village currently has 60 members, with a total of 233 farmers from 8 villages involved in the organic rice initiative. The farmers hold export standard certification for their rice production, and the rice is currently marketed predominantly through the CEDAC NAP shop in Phnom Penh.

Case Three: Ou Thkov village, Pursat

Ou Thkov village lies to the South-west of Pursat city. Due to the village’s close proximity to the Thai border there are a high number of ‘migrants’ (primarily former refugees from Thai refugee camps) in the village, approximately 67 families out of a total of 441 families. Poverty levels in the village are high, with approximately 75 families without land. Soils are favourable for rice production, and water supplies are more plentiful than in other areas. However, road access is often flooded during the rainy season. There are two organics initiatives in Ou Thkov village that have both been running since 2005; one is supported by NGO KNKS, which is a local NGO working in 36 villages in the Pursat area, and the second is supported by CEDAC. The KNKS initiative has 10 member families and the CEDAC initiative has 18 member families, with

all 28 families trained by CEDAC field staff. The groups hold separate meetings but sometimes join for training and large meetings. Neither groups hold organic certification, and the produce is not marketed through any organised NGO outlet. However, the KNKS farmers have recently organised themselves into a group to sell rice together to local traders.

Case Four: Tmoa Riep village, Kampong Chn'ngang

Tmoa Riep village is located approximately 20 minutes from Kampong Chn'ngang city. Growing conditions for vegetables are favourable, with plentiful water supplies which allows year-round production. The organic vegetable producers group in Tmoa Riep is supported by the NGO CEDAC, and began in 2006 with a 5-year funding grant from JICA. The group currently has five members (3 women, 2 men). The group does not have organic certification, but CEDAC are developing a certification for vegetables currently, and the group members have developed their own system of checking each other's produce and fining those members who do not comply with the group's rules. The group combines with a second group in a nearby village to transport vegetables to the NAP shop in Phnom Penh city.

Case Five: Tropiang Sang Ai village, Takeo

Tropiang Sang Ai village is in the centre of Takeo province, near the southern border of Cambodia. The village has predominantly wet lowland fields, with reasonable soils but some flooding problems. The organic initiative is supported by CEDAC, with funding from JICA from 2006-2009. There are 17 families in the organic farmers group. The group has certification through the CEDAC 'Natural Agri-Products' ICS certification system (this is not export standard), and the certified rice is marketed through the CEDAC NAP shop in Phnom Penh.

Case Six: Kourk Ngourn village, Kampong Thom

Kourk Ngourn village is in the Kampong Svay district of Kampong Thom province, a predominantly lowland area with high occurrence of drought. The organic initiative, supported primarily by GTZ, began in 2003 and has secured funding until December 2007. GTZ partners with the local PDA for farmer production training, and with CEDAC for business training. There are currently 43 farmer members in the organic farmers group. The group is export certified for their rice production.

Case Seven: Tua Kupor village, Prey Veng

Tua Kupor village is located in Ba Phnom district, Prey Veng province, toward the south of Cambodia. The organic vegetable and rice production initiative supported by CEDAC began in 1999 and is due to finish in December 2007. There are currently 9 members of the organic group in Tua Kupor village; part of a network of more than 100 families producing for local markets around Prey Veng. The group does not have organic certification and do not produce for a CEDAC outlet; however, they hold a permanent stall position at the local market in their village.

Appendix 2

Participant coding descriptions

Table 1. Number of farmer interview participants by area and gender

Location	Total group membership	No. Farmers Interviewed	Code
1a	12	7 (5M*, 2F*)	F1.1-7
1b	9	5 (1M, 4F)	F1.8-12
2	14	6 (5M, 1F)	F2.1-6
3	10 KNKS 10 CEDAC	5 KNKS (4M, 1F) 5 CEDAC (4F, 1M)	F3.1-5 (KNKS) F3.6-10 (CEDAC)
4	5	5 (3M, 2F)	F4.1-5
5	15	15 (5M, 8F, 2C*)	F5.1-15
6	26	9 (3M, 5F, 1C)	F6.1-9
7	9 (5 active)	5 (1M, 4F)	F7.1-5

*(M = male, F = female, C = husband and wife couple)

Table 2. Number of development organisation staff interviewed by occupation

NGO	Position	Code
CEDAC	CEDAC marketing manager	D4.1
	Kampong Chn'nang Area Chief	D4.2
	Prey Veng Area Chief	D4.3
	Takeo Area Chief	D4.4
Aphiwat S'tray	Oumal commune extension chief	D1.1
GTZ	Training evaluator	D5.1
	Marketing manager	D5.2
	Programme director	D5.3
CCRD	Director	D2.1
	Agronomist	D2.2
	Mill manager	D2.3
KNKS	Director	D3.1
	Extension worker	D3.2
FIDAC	Director	D6.1
Srer Khmer	Director	D7.1
Natural Honey	Director	D8.1

Table 3. Number of government officials interviewed by position

Position	Code
Battambang PDA (mid)	G1
Battambang PDA (senior)	G2
Siem Reap PDA (senior)	G3
MAFF (senior)	G4
Kampong Thom PDA (mid)	G5
Trade Advisor (senior)	G6

Table 4. Number of traders interviewed by position

Position	Code
Beaugreang market (local)	T1
Beaugreang market (local)	T2
Ou Thkov Village (local)	T3
NAP (CEDAC funded) shop manager	T4
Triple F shop manager	T5
Triple F shop owner	T6
'Psa Thmey' market Organic rice stall owner	T7

Table 5. Number of chefs interviewed by position

Position	Code
Meridian Hotel Head Chef, Siem Reap	C1
Le Tigre de Papier Head Chef, Siem Reap	C2
Residence d' Angkor Head Chef, Siem Reap	C3
Hotel de la Paix Head Chef, Siem Reap	C4

Table 6. Other interview participants

Position	Code
Certification Advisor	Cert1

Appendix 3: Initial research questions

<u>Research Questions (farmers)</u>	<u>Justification for question</u>
Farming System	
What crops and animals do you have on your farm? (Type and number, both for sale and for family). How large is your farm?	(Background) Knowledge of the specific farming system is essential in order to appreciate the varying constraints/benefits faced by farmers with different systems. Also, the size of the farm can give some indication of the farmer's level of wealth.
Is the soil good for farming? How is the weather in this area? Any shortage of water/flooding/other problems with natural resources?	(Background) Johannsen et al. (2005) argue that it is important to distinguish groups of rural poor according to agro-ecological conditions, in order to determine whether benefits/constraints experienced are due to the project or external reasons.
Do you use any pesticides/fertilisers now? How much did you use before joining the organics group?	(Background) Research shows that farmers converting from traditional methods to organic methods may experience an easier transition and greater benefits in yield, income, control of resources, and social integration, than farmers converting from conventional systems (Rosset, 1999). The previous system employed may therefore impact on the extent of empowerment experienced.
Background/physical wellbeing	
How long have you been involved with the organic initiative?	(Background) Due to the long conversion period for organic systems, it is likely that farmers new to the project may not be experiencing the same gains as farmers that converted earlier; conversely, early-adopting farmers may have faced more constraints to adoption due to lack of awareness amongst others in the community and government extension workers.
What is your annual production now on this farm? How does this compare to your annual production before starting the project?	Quantitative measure of yield, in order to generate comparisons with pre and post conversion to organics.
Is the farm your family's main way of making a living? (Do you and your family have any other ways of making a living?)	Measure of wealth in order to understand reach of project to poorest people.
Values	
Why did you decide to get involved with the CEDAC project?	Farmer reasons for conversion will give an insight into their values and expectations for the project.
What is most important to you in your life?	The self-identification of values is essential for developing a relevant framework for identifying levels of wellbeing and empowerment; the answers given here will then be further developed in the following question on subjective empowerment.
Subjective empowerment	
Do you feel that you are able to ...provide for your family/ keep your family safe/ get enough cash to survive/maintain good relationships with friends etc in respect to previous question on values	The participant is asked to describe the quality of life they are experiencing in the areas of importance identified previously. This gives an indication of wellbeing based on self-identified indicators.
What would you like to see happen in your life in the next 5/10 years?	This series of two questions asking about the participant's hopes for the future contrasted with what they believe is likely to happen can give an indication of the degree to which the participant feels to be in control of what is happening and will happen in their life.
What do you think will really happen in your life in the next 5-10 years.	

How has your life changed since you joined the project?	This question is central to the study, and will likely be expanded upon during conversation; here, the participant is asked to describe qualitative changes in their quality of life since they joined the project.
Supply Chain Identification	
Do you sell your produce? To whom? Who does this person sell it to... (get as many names of others in the chain as possible).	Using a PRA supply-chain flow diagram for assistance, the participant will be asked to identify subsequent actors within the supply chain, from producer to end consumer (or as much of the chain as they are able to identify). The identification of utilised supply chains is essential for analysing the effect of different trading strategies, and also allows further questioning on the empowerment of supply chain actors.
What kind of contracts do you have for selling your produce? How does this compare to contracts prior to joining the project? Are you happy with the contracts you have? Why?	Quantitative measures of contract conditions enable a comparison with pre and post conversion to the project. The follow-up question asks the participant to evaluate their level of satisfaction with the current contract conditions, providing an idea of the level of power that the participant has gained in contract negotiations, and also a idea of the constraints faced.
Are you certified under organic or other labels? What does this certification involve? Who assesses you? How often?	The existence and role of certification and certifying agents in the supply chain is assessed.
Do you receive any support from government extension workers or others to help with your farm? Who? What do they do? How often?	The role of government in the supply chain is assessed.
Do you receive any support from NGOs to help with your farm? Who? What do they do? How often?	The role of NGOs in the supply chain is assessed.
Are you involved with any farmer's organisations or support groups? When did you become involved? How often do you meet? Are you happy with how the group is going?	The role of cooperatives and community support groups in the supply chain is assessed.
Trading Strategies	
Do you think that selling locally, in the city, or exporting is the best strategy for you? Why?	This question relates to key research question three: 'How do levels of wellbeing and empowerment achieved in relation to organic agriculture differ with different trade strategies employed?' It asks for the participant's subjective opinion on appropriate trading strategies, giving an idea of their satisfaction with current strategies and hopes for future directions.
Subjective Empowerment in Specific Agricultural Sphere	
What would you like to see happen with your farm in the next five-ten years? Will you continue with the project? With your current crops?	This series of two questions relates to the general questions asking about the participant's hopes for the future (above), but here the focus in on the agricultural sphere.
What do think will realistically happen to your farm in this time?	
Broader Opinions	
What do you think will happen to the organics industry in the next five-ten years? In Cambodia? In the world?	Empowerment can be evaluated by assessing people's knowledge of the wider context

Appendix 4

Appendix 5

Quality control approaches in Cambodian organic agriculture initiatives

Export certified initiatives

- The German federal development agency (GTZ) is the major player developing the export market, with projects involving 700 farmers in two provinces (Kampong Thom and Kampot).
- GTZ have linked with a Danish sponsored (DANIDA) project in Battambang and a group in Pursat organised by local NGO CCRD (with initial funding from Oxfam Quebec) to form an organic rice export group.
- Two private operations are also in place; the Angkor Kazekam private rice mill that promotes exports, and 'New Rain' organics that targets supermarkets in Phnom Penh.

Domestic certified initiatives

- Cambodian NGO 'CEDAC' is the biggest non-governmental agricultural organisation in Cambodia, supporting over 21,000 farmers in 13 provinces. They have developed their own certification using ICS inspection (*see* p. 17), and a brand, 'Natural Agri-Products' (NAP), which is sold through shops in Phnom Penh and Siem Reap.
- Siem Reap Provincial Department of Agriculture (PDA) has developed a 'Khmer Organic Certification' in conjunction with local trader 'Triple F Foods'.
- Srer Khmer NGO developed 'chemical free ICS certification' in 2001. However, they discontinued the project when major funding (from FAO) ended.
- Other initiatives offering 'chemical free' labeling that were not studied include PUAC (vegetables) and ADRA (vegetables).

Non-certified initiatives

- CEDAC runs non-certified initiatives for organic rice and vegetable/fruit production in several areas around the country.
- Several other smaller local organisations are actively involved in non-certified organics initiatives throughout the country. Those studied include: FIDAC (Siem Reap), Sanghkeum Centre (Siem Reap), PADEK (Siem Reap), Aphiwat S'Tray (Battambang), KNKS (Pursat). Several of these are 'partners' of CEDAC, and receive capacity building for staff and participating farmers through CEDAC.