



Tropentag 2010

ETH Zurich, September 14 - 16, 2010

Conference on International Research on Food Security, Natural
Resource Management and Rural Development

Global Price Changes and Local Livelihoods - The Impact of Agricultural Price Fluctuations on Rural Livelihoods in Cambodia

Schwab^a, Maria

a Universität Bonn, Geographisches Institut, Meckenheimer Allee 166, 53115 Bonn, Germany. Email: mariaschwab@gmx.net

Introduction

The present research paper is part of a country comparison study initiated and supported by the German Technical Cooperation (GTZ). It addresses the question of “How do agricultural price changes impact vulnerable peasant livelihoods?” This study is a reaction to exceptional developments in agricultural prices in 2008 (see e.g. IMF 2008). As food is at the centre of peasant livelihoods, especially in rural areas of developing countries, it is a highly relevant topic also for Cambodia. Food does not only fulfil the most existential needs, but sustains a living and gives meaning to people’s lives. It is part of their identity (CDRI 2008). Bearing this in mind attaches great importance to food access and its relevancy for making a living. Prices are decisive factors to determine both issues. Nevertheless, these are not the only factors that matter in this context. It is also people’s livelihoods, culture and characteristics of the food system that determine the impact of price fluctuations. A distinct vulnerability and impact analysis based on livelihood approaches in the context of vulnerable food systems provided an appropriate conceptual framework to address the research question. Methodologically, this subject matter was approached by a field study conducted in three villages in Cambodia.

Theoretical Background

A comprehension of the livelihood setting in the context of vulnerable food systems provides the basis for a profound understanding of peasant’s **vulnerability** towards agricultural price fluctuations. FRASER ET AL. (2005) provide in this context an appropriate framework to analyse a food system’s vulnerability also towards agricultural price changes. Relying on panarchy considerations, they argue that low wealth (of social systems) respectively high wealth (of ecological systems), low diversity and high connectivity make a socio-ecological system, such as a food system, vulnerable. In order to analyse the vulnerability of peasant farmers towards price changes, it has proven to be necessary to combine FRASER ET AL.’S framework with approaches referring to the dimensions of vulnerability, most commonly described as exposure, sensitivity and capacity of response (see e.g. GALLOPIN 2006). An assessment of vulnerability in the specific research context could therefore be adequately addressed by firstly considering *exposure* in form of the actual price developments in the location under investigation. Secondly, *sensitivity* towards these developments has to be analysed. Connectivity and diversity are the major variables within a food system making peasants sensitive towards agricultural price fluctuations. Connectivity gains its relevance through two main perspectives, first of all the dependence of a household to buy or sell products on the market, and secondly the transmission of prices for these products. The major determinants important in the context of diversity are the diversity of capital endowment (i.e. natural, physical, financial, human and social capital¹) and the diversity in the

¹ This categorisation of assets is based on the Sustainable Livelihood Framework (see e.g. DFID 1999)

different food subsystems (i.e. production, exchange, distribution and consumption²). In a third step, *capacity of response* has to be addressed. The wealth in form of a household's capital endowment plays here the most decisive role, as it enables households to better adapt and cope in the context of changing agricultural prices. All three determinants of vulnerability taken together then form the overall vulnerability and consequently also the impact on a peasant household towards agricultural price fluctuations (see figure 1).

Figure 1: Vulnerability indicators

Exposure	Adverse developments	of consumer, farm gate, input prices
Sensitivity	High connectivity regarding: <i>Market integration</i>	affecting consumer, farm gate, input price sensitivity
	Low diversity in: <i>Capital endowment</i> <i>Food system</i>	i.e. low natural, physical, financial , human and social capital i.e. production, exchange, distribution and consumption
Capacity of response	Little wealth	i.e. natural, physical, financial , human and social Capital

The **impacts** can be comprised from two sides: the impacts on social action and the outcomes resulting from these strategies. A classification according to the type (changes in agricultural production, diversification and migration³), intention⁴ and timing (coping and adaptation⁴) of intentional action can grasp strategies responding to agricultural price fluctuations; while an analysis of the sequence of strategy-types facilitates an understanding of the success of coping and adaptation and their consequences regarding its outcomes (see e.g. KORF 2002). These are comprised in their meaning for income, food security, environmental sustainability, well-being, and vulnerability (see DFID 1999).

Material and Methods

Beside a sound literature and data-base review, a field visit for acquiring a supplementary, locally specific data set was therefore undertaken from October until December 2009. Three villages were selected in order to grasp the impact of agricultural price changes on rural peasant households exemplarily. Ta Khoey, which is situated about 70 km south of Phnom Penh. Agricultural production here is predominantly characterised by peasant rice cultivation. Kork Deu, which is also primarily shaped by subsistence rice farming, lies close to the Tonle Sap. Siem Reap town and Angkor Wat, Cambodia's most important tourist attraction, are about 35 km away. Bor Huy is situated at the border to Thailand. In contrast to the other two villages farmers here mainly cultivate corn for export. In order to quantify the recent agricultural price developments, identify their causes and comprehend the measures taken, a sound secondary literature review and statistical data analysis was undertaken. An understanding of how these developments affect small-scale farmers required a wide spectrum of methods. The general geographical, institutional and structural context was grasped by reviewing relevant existing literature on Cambodia complemented by insights gained from participant observation, participatory and focused group discussions as well as expert and semi-structured household interviews on site. These were also the basis for comprehending a household's reality including its capital endowment, values and perspectives and grasp their strategies and outcomes.

² This classification relies on a concept of food systems promoted by CANNON (2002)

³ In accordance to SCOONES (1998: 9) classification of strategies

⁴ Relying on a categorization according to DAVIES (1996: 35)

Results and Discussion

It turns out that small-scale farmers, who already live in a highly vulnerable environment, were adversely affected by agricultural price changes and did not profit much from higher farm gate prices. This results from a high *vulnerability* towards these changes. Low capital endowment, a deficient institutional framework and a hazardous vulnerability context in combination with adverse structures within the food system induced a predominantly negative effect. Excessive depletion and restricted access to natural resources averted substitute sources of income and nutrition. This amplified sensitivity, inhibited an adaptation to high farm gate prices, and abated the coping capacity. A low financial capital endowment in combination with an insufficient public infrastructure resulted in small physical and human capital. The latter was further deteriorated by historical reasons and health risks. Both these capitals however crucially determine production possibilities and adaptation capacity. They thus increase adverse sensitivity and capacity of response towards agricultural price changes. Another decisive factor in this context is social capital, which was also found to be rather low. Bearing in mind that it is often the last eligible resort to sustain a living, a lack of it increases the exposure and sensitivity towards agricultural price changes significantly, and reduces their adaptive capacity. A deficient political framework and missing connection between authorities and civil society further increase sensitivity and vulnerability. On a national level, this is to be seen particularly in governance indicators like corruption. Locally, it is reflected in the food system within monopolistic structures in trade. The trader is in all villages the money lender, food conferrer and middleman at the same time. This reduces the agency of peasant households, appreciates consumer prices and often inhibits producers from profiting from high farm gate prices. Due to low capital endowment and a malfunctioning political setting, development cooperation and NGOs play a significant role. They provide immediate assistance, like food aid, but they also address structural deficits. Coordination amongst them and participatory processes are nevertheless still deficient. This prevents a sustainable and efficient strengthening of coping and adaptation capacity. Shocks and trends within the vulnerability context have deteriorated both food systems and livelihood settings. Crop- and livestock threatening events, aggravated access to resources and the economic crisis were most significant in this respect. Seasonality is another determining factor in the whole research area. It critically affected rural wage labour and especially the production and exchange cycle of food.

A high actual vulnerability indicates a detrimental effect of recent price developments on peasants and their livelihood *strategies*. Coping with these changes has substantially deteriorated food security for most households. Moreover, the dependency on the help of family, friends and the middlemen to sustain a living increased over the last three years. The overall vulnerability of households was further enhanced by an escalating indebtedness and greater risk to lose the land which forms the basis of peasant livelihoods in Cambodia. Opportunities for adaptation to these price changes were very limited. Aiming to improve their situation in the long-run, they mainly changed production or migrated. Only very few farmers reacted to rising farm gate prices by increasing their production, as they were unable to afford the required investments. In contrast to coping strategies, agricultural price changes were the predominant reason for the decision to adapt for merely a few households. An ever-increasing application of coping strategies and a comparably minor role of adaptation strategies imply that agricultural price fluctuations inhibited rather than initiated adaptation and induced a state of crisis for many households. Calamity, accompanied by a breakdown of coping capacity, was only observed for two households in the research area, many reported to be close to calamity at present, though.

In general, agricultural price fluctuations had a predominantly negative *impact* on the households in the research area. Most households reported to have a lower income than in preceding years. For some households this was a consequence of adverse exposure and high sensitivity, for others this resulted from a great portfolio of income earning activities entailing that higher agricultural returns did not automatically correspond to a higher income. Environmental sustainability was

only affected to a minor degree. Restricted access to and depletion of most of public natural resources before the crisis hindered referring more extensively to them in times of crisis; and a lack of adaptive capacity prohibited agricultural intensification in response to higher farm gate prices. Well-being and in particular food security of all households were in contrast severely affected by recent agricultural price fluctuations. A weak coping capacity was found to be the most decisive factor in this respect. The poorest households had to reduce their food consumption substantially and the need to rely on external help increased significantly even by minor exposure and sensitivity; whereas well endowed households were able to better withstand also major adverse events. The capacity of response itself was, in contrast to most households' sensitivity, also detrimentally affected in the course of changing agricultural prices. An erosion of capital endowment increased the baseline vulnerability so that future price fluctuations will threaten peasant livelihoods even more.

Conclusions and Outlook

"If we had gold we would change it into rice right away no matter what price gold had" (Interview with a household in Ta Khoey).

This quote of a woman in Ta Khoey illustrates the importance of food and its prices for the local population. However, the quote also shows that prices are not the only factor which matter in the present research context. It is people's livelihoods, characteristics of the food systems and their perception of both which make them vulnerable towards food price changes. Seeing a very challenging livelihood setting and adverse structures in the food system in the research area indicates that recent food price developments required the peasants to act. Their struggle to cope with these mainly negative trends deteriorated their food security, increased dependency on external help and raised indebtedness. In consequence, an ever-increasing application of coping strategies and a comparably minor role of adaptation strategies imply that agricultural price fluctuations had a detrimental effect on peasant livelihood outcomes and induced a state of crisis rather than adaptation for most households. In conclusion, it is therefore important to acknowledge the realities, perceptions and preferences of actors, as it is them shaping institutions and actions, which in their dynamic interplay tip the scales, give meaning to global prices in the context of local livelihoods, and consequently also transform food into gold 'no matter what price gold has'.

References

- CANNON, T. (2002): Food security, food systems and livelihoods: Competing explanations of hunger. *Die Erde* 133(4): 345-362.
- CDRI (2008): Impact of High Food Prices in Cambodia. *Survey Report*. Cambodia Development Resource Institute: Phnom Penh.
- DAVIES, S. (1996): Adaptable livelihoods: Coping with food insecurity in the Malian Sahel. (Macmillan) Basingstoke.
- DFID (1999): Sustainable livelihoods guidance sheets. Department for International Development: London.
- FRASER, E. D., MABEE, W. & FIGGE, F. (2005): A framework for assessing the vulnerability of food systems to future shocks. *Futures* 37(6): 465-479.
- GALLOPIN, G. C. (2006): Linkages between vulnerability, resilience, and adaptive capacity. *Global Environmental Change* 16(3): 293-303.
- GECAFS (2009): A Food Systems Approach to Food Security and Global Environmental Change Research. Global Environmental Change and Food Systems: Oxford.
- IMF (2008): Food and Fuel Prices—Recent Developments, Macroeconomic Impact, and Policy Responses. International Monetary Fund: Washington DC.
- KORF, B. (2002): Rural livelihoods at risk: Land use and coping strategies of war-affected communities in Sri Lanka. *Deutscher Tropentag 2002*, October 9-11. Witzhausen.
- SCOONES, I. (1998): Sustainable rural livelihoods: a framework for analysis. *IDS Working Paper* (72). Institute for Development Studies: Brighton.