

# Household level impacts of increasing food prices in Cambodia

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The Bioenergy and Food Security Project  
Food and Agriculture Organization of the United Nations



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## FOREWORD

The Bioenergy and Food Security (BEFS) project, with generous funding from the German Federal Ministry of Food, Agriculture and Consumer Protection (BMELV), was set up to assist countries with formulation and analysis surrounding bioenergy developments and potential food security impacts. During its term the BEFS has constructed an Analytical Framework (BEFS AF) that provides a basis for an examination of the costs and benefits that arise from bioenergy developments. The BEFS AF is comprised of four building blocks with a number of subcomponents. Each of these building blocks includes analytical tools and methods that have been developed by FAO and other organizations.

The household level food security analysis of the BEFS project for Thailand was in fact carried out in Cambodia. The reason for this was twofold: first the data required to carry out the analysis was not available for Thailand and second, applying the analytical tool to Cambodia permitted a demonstration on the use of the tool and also allowed an examination of how high food prices affect households in the Asian context.



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## ABSTRACT

There has been widespread concern regarding the surge in staple food prices over the last few years and biofuel developments have been widely recognized, although to a varying degree, as one of the key drivers of the recent price surge and increased price volatility. Within the Asian context, food security conditions are mostly related to rice production and the price of rice. The analysis presented in this paper sheds light on the impacts of the increase in the prices of key food staples on different household groups and identifies the vulnerable segments of the population. The analysis shows that generally Cambodia gains from an increase in the price of rice although particular segments of the poor stand to lose. The analysis concludes that from a food security perspective, the price of rice should be monitored closely while considering the identified vulnerable household groups.

### Household level impacts of increasing food prices in Cambodia by Irini Maltsoglou, David Dawe and Luca Tasciotti

#### Key words:

Household level welfare analysis, food price impacts, Cambodia

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There has been widespread concern regarding the surge in staple food prices. Many reasons explain the rise in prices of which bioenergy is one explanation. Importantly the food crisis experienced by many countries has led to increasing concerns as to whether ongoing bioenergy developments will or will not have a marked effect on food prices. Over the last few years biofuel developments have been widely recognized, although to a varying degree, as one of the key drivers of the recent price surge and increased price volatility. In this context first generation bioenergy developments represent an additional source of demand for crop production which can lead to price increases, unless followed by adequate investment in agriculture and related infrastructure to support a supply response that would maintain stability in prices. Within the Asian context, food security conditions are mostly related to rice as rice is the major staple in the region, especially important for poor households. Since rice itself is not a major source of feedstock for biofuel production, the main link between bioenergy production and food security would therefore be through land use change. If rice production areas were to be used for alternative agriculture production such as bioenergy feedstock production, this could impact the production and consequently the price of rice unless followed by suitable increases in rice production through yield increases. In the absence of yield increases, bioenergy developments would likely impact on the price of rice. The analysis presented in this paper will shed light on the impacts of the increase in the prices of key food staples on different household groups and help identify the vulnerable segments of the population

The potential rise in the price of rice could have both positive and negative impacts at the country and household level depending on the country's and household's net position. At the country level, the price increase can have a positive impact for net rice exporting countries and a negative impact for net importing countries. Similarly, at the household level, price increases will have negative effects for net rice consuming households (*net-buyers*), but positive effects for net rice producing households (*net-sellers*). The degree to which households will, overall, be made worse or better off is measured by the net welfare impact.

From a policy perspective, it is necessary to understand how these price changes can impact firstly the country as a whole and, secondly, household level food security, particularly for the poorer segments of the population. This will allow an identification of those commodity price movements to which the country is most vulnerable and



which segments, amongst the poor, are most at risk. In the context of rising food prices, awareness of the vulnerable groups will be key in ensuring an adequate monitoring system is put in place.

The analysis presented ranks the key food staples in Cambodia, identifies which price changes the country is most vulnerable to, analyzes the household level impacts of rising food prices, identifies vulnerable household groups and finally examines recent price movements in key food staples. The key crops for the analysis are based on their contribution to caloric intake, which in the case of Cambodia, is mainly rice. The investigation is based on country level trade data, domestic price data and the household level dataset of Cambodia, the Cambodia Socio-Economic Survey 2004 (CSES 2004).

In order to target the poorest segments of the population and identify the vulnerable groups, households are initially divided by income quintile and urban rural location. Household typologies are then constructed so as to identify the vulnerable groups within the poor segment of the population. The analysis can also be undertaken at the regional level but this is beyond the scope of this stage of the analysis. Nevertheless, some information on regions is also included as an illustration of how the analysis could be extended and applied to the regions.

Following the introduction, Section 2 ranks the food commodities and outlines the net trade position of the country based on the food security list. Section 3 provides an overview of the methodology applied for the household level impacts assessment. Section 4 illustrates the household data and Section 5 presents the household level welfare impacts and the impacts by household groups. Section 6 looks at recent domestic price trends. Section 7 concludes.