

Food Security for the Poor: Executive Summary

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Rice price is experiencing an upward trend at home and abroad. Existing high import parity price has diminished the scope for the private sector to play the same stabilizing role this time around.

In view of these changed circumstances, major objective of this study is to compare the impact of several government policy options on the food security of different income groups.

Two interconnected models (namely the "market model" and the "household food security model") have been developed where government policy instruments are present as the exogenous variables in the system. The idea is that a "market model" will solve for the equilibrium price in the food grain market (as this equilibrium price is determined, among a number of other factors, government interferences in this food grain market). The next point is that the equilibrium price in the food grain market will enter a "household food security model" where the determinants of household food security will be estimated, along with the equilibrium prices in the food grain market, given that the government intervenes directly through transfers and indirectly through the food grain market as well as the agricultural input market.

As expected, household characteristics are found strongly correlated with food security situation. Especially household infrastructure, land size and household head's employment characteristics are found to be strong indicators of food security situation. In order to devise policy action to help the subset of population which is food insecure, these results might have important implications.

The market model exhibits that equilibrium rice price in the market is decided in the market through the interactions of demand for rice, supply of rice and rice import. The model shows that rice production amount has a clear negative impact on the price of rice, controlling for all other variables. At the same time, expectation of a future high price of rice has a tendency to increase the current price of rice in the market. Therefore a high price of rice has a tendency to continue by itself, unless large supply of rice reduces the upward tendency of rice increase to some extent. The market model also finds that government policy instruments also have influences on rice prices, but, rather in a smaller scale.

The results show explicitly the impact of rice price increases on the household food security situation. Our results show that a ten percent increase in the price of coarse rice leads to around a fourteen percent reduction in the likelihood of a household being food secure. This coefficient gives a quantifiable measure of the impact of rice price on the overall food security situation of the households.

Among the employment categories, the effect of increases in price of rice is bearing heavily on the self-employed rather than wage or salary-employed. This is surprising given the fact that in terms of food security self-employed category has much lower percentage of households suffering than other categories. But our results are showing that these households have less coping ability than other households in case they face an external shock in terms of increases in price of rice.

About the safety net results, the results are not very explicit. The amount received as safety net does not seem to have statistically significant impact on the food security situation. This is a cause of concern since it does not help to establish a causal relationship between the safety net programs and food security situation. It requires further investigation in the food security situation to have a clearer idea on the implication of safety net programs on the food security situation.

After taking care of relevant factors that might influence the food security situation of the households, we are still unable to explain the shift in the food security situation for the worse in the five years from 2000 to 2005. Recent studies have shown that poverty level has decreased significantly in the same time period which does not match with the deteriorating food security situation. Since poverty is measured incorporating the non-food expenditures along with the food expenditures, it might convolute the food security situation. The analysis in the report is measuring food security situation in terms of calorie availability and might be more direct and accurate description of the food security situation. These results are of great importance in the sense that these imply improvement in the poverty level does not always indicate improvement in the food security situation.