This annex offers an analysis of price dynamics in the Honduran maize market as well as a benchmark (expected) price against which the significance of actual price changes are judged.

Major findings

- **Domestic prices increased significantly in 2011**
- **In December 2010 prices were 14% below their four year average, at the end of September 2011 they are 18% above it**
- **Prices are expected to be 412, 408, and 405 USD/ton in October, November and December respectively**

Five Year Overview of Price of Maize in Honduras (October 2006- September 2011)

Real price of maize (i.e. adjusted for inflation) has been rising in 2011. Prices were flat and had returned to their low levels of 2006. In September 2011, prices are 44% higher than September 2010. The recent increase in prices could be a response to the increase in world prices in the latter part of last year and earlier this year.

Volatility measured by coefficient of variation (CV) has been the highest for the past 12 months (October 2010 to September 2011). The CV was 22% for the aforementioned period was 22%, while it was only 4% for the preceding 12 months. The current volatility is even higher than the one in the crisis periods of 2006-07 (17%)

Figure 1: 12 Monthly Real White Maize prices in Honduras
(National Average price USD/ton)
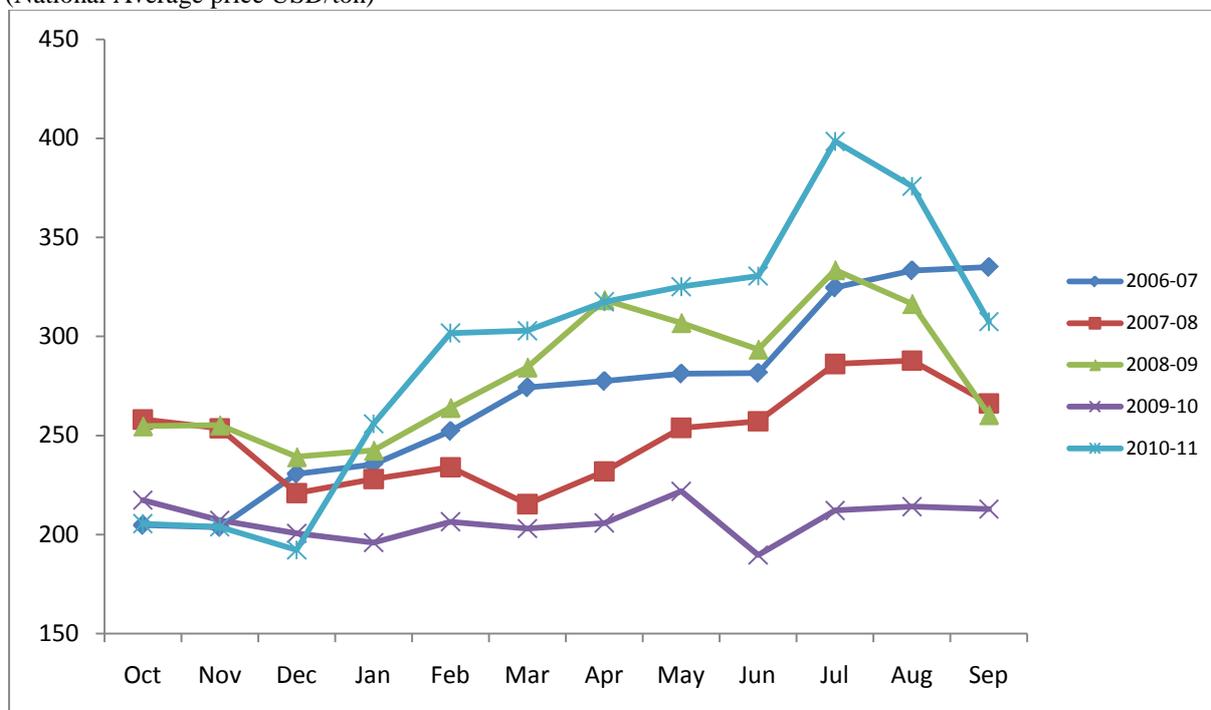
Comparison of Actual Prices with Benchmark (Expected) Prices

Commodity future markets can be helpful predictors of what grain prices will be in the next few months (short-term). Unfortunately, there are no future markets for staple grains in the majority of developing countries. The ESA Price Monitoring Model is a simple tool designed to assist policy makers, farmers and traders in assessing whether recent price trends are in line with those typically observed in the past.

ESA Price Monitoring Model: The purpose of the model is to determine whether short term price movements of a commodity exceed a benchmark which takes into consideration seasonality, inflation and historic variability. The model uses only data on past prices and the consumer price index (CPI) to capture these characteristics. It establishes an expected level of price for the following month along with a range of uncertainty generated by past deviations from that expected price level. Price movements can be interpreted as "excessive" if they fall above or below the uncertainty band.

An additional feature of the model is to show the current level of prices relative to an average of past prices (adjusted for inflation). In other words, the model demonstrates whether current prices are higher or lower than past average prices (for details on the model please see: http://www.foodsec.org/web/publications/briefs)

Results: In September 2011 maize prices in Honduras were about 69 USD/ ton (18%) higher than their average of the past four years.

Actual prices fell substantially in September and were below the lower band of the benchmark substantially. Prices in September were more than 11% below the benchmark. The recent price decrease is following the sharp increase in July when prices were 14% above the benchmark. These changes should have drawn attention to the maize market in Honduras as prices are outside (above) the uncertainty band inside which 70% of previous deviations had fallen. They are marked red by the model to indicate that these deviations from the expected price are extreme relative to 70% of previous deviations.

The price in October is expected to be near the 412 USD/ton level with about a 70% chance that the deviation will be less than or equal to $\pm$ 6.9%. Prices are expected to be slightly lower in November and December, if normal seasonal patterns hold. There should be concerns (if not already), if prices are above 440 USD/ton in October.

Figure 2: Price Monitoring Model (prices USD/ton)