

1.Title Price Forecasting and Development of Market Advisories to interface with e-Resource division of Agro Marketing Intelligence and Business Promotion Centre

2.Category Price Forecasting Scheme

3.Type Market Information and Market Intelligence

4. Challenge

In Western countries like UK and USA, the reliable and continuous time series data are available on desired frequency which enables the use of all the available linear and non linear econometric models for price forecasting. For country like India, getting reliable price data on a sustainable manner that too for a commodity specific reference market is a very rare phenomenon. Market arrivals are also much dependent upon the market and monsoon factors which in turn influence the price variability. Similarly, owing to the dependency of Indian agriculture to climatic variability, the crop production and stock position for various production and consumption centres vary along with the pricing policy and trade scope for the commodities of interest. Scenario of commodity futures markets is also under the frequent influence of government decisions for trading on electronic platform.

Identifying the central reference market for each commodity and its price dynamics with various regional markets located across the Indian states is the first crucial challenge and getting continuous price data for that reference market is the next challenge. Choosing appropriate forecasting models for the particular commodity is the third impediment and validation of it is the fourth challenge.

Fifth challenge remained in the dissemination of the market advisory based on the time and mode of dissemination.

Problems identified:

- Lack of accurate and relevant market information
- Marked asymmetry of access to market information in most farmers.
- Lack of market knowledge outside their local areas.
- Smaller traders, processors, consumers and small-scale farmers must rely on word-of-mouth accounts of commodity prices and market conditions.

Market intelligence covering product intelligence, place intelligence, price intelligence and time intelligence are needed to be developed and disseminated to farmers on a comprehensive manner because each one of them require talented professionals. For these reasons, market information and intelligence system service is needed to gather, process, analyze and disseminate information to all the stake holders

- ❖ Therefore, prediction of reliable market information especially short run and long run forecast of prices of agricultural commodities is the prerequisite for the overall development of the farming community.
- ❖ Such predictions are generally done with the aid of time series forecasting models.
- ❖ The scheme entitled “Price Forecasting and Development of Market Advisories to interface with e-Resource division of Agro Marketing Intelligence and Business Promotion Centre” funded under NADP, is

operating under Centre for Agricultural and Rural Development Studies, Tamil Nadu Agricultural University, Coimbatore.

- ❖ The objective of this NADP project is to give price forecast for 24 major agricultural and horticultural commodities and disseminating the same through Agro Marketing Intelligence- Business Promotion centre functioning at Tiruchirappalli.

5. Initiatives taken

Market information /intelligence are essential not only for farmers but also to the commodity value chain participants. To generate price forecast and market intelligence advisories, 24 major agricultural and horticultural crops of the States have been chosen. Time series data on prices of the mandatory crops are collected from the regulated markets / farmers shandies. The data are analyzed using statistical and econometric software packages. The price forecasts generated are validated by conducting market survey, referring global commodity outlooks as well as watching commodity futures markets. After validation, the generated forecasts with minimum standard error are once again verified with the inputs of commodity market survey and finally disseminated by both print and electronic media through newspapers in English and local language, Agricultural magazines, T.V., Radio etc., SMS, e-mail, web portal www.agritech.tnau.ac.in and e-magazines. Price forecasts are done before the sowing season and before harvesting.

6. Key result

- From the National Agriculture Development Programme (NADP) (Phase I & II) (2013-2017) 156 number of price forecasts for the major agricultural and horticultural commodities were delivered.

- The validation of the price forecast given was more than 95 per cent in millets, pulses, oilseeds, fiber crops, tubers, fruits and plantation crops.
- In case of vegetables, the validation of the price forecast given was more than 70 per cent.
- Impact study was conducted on 7 major crops (Maize, Groundnut, Coconut, Copra, Turmeric, Cotton and Banana).
- From National Agricultural Development Programme (2013-2017), 2,10,00,000 numbers of text SMS about the price forecast have been delivered to benefit the farmers.

7. Feedback from Farmers

The practical utility of these price forecasts to the farmers is also assessed. The results showed that the adopters of the market information advisory have given positive feedback on the market advisory they received and utilized. In case of Maize, sample farmers reported that they gained a profit of Rs. 100-200 / Qtl (Price forecasted was Rs.1600 – 1700 /Qtl during July 2016 and 95 per cent validity was observed) when compared to the non-adopters of this selling advisory. As far as groundnut price forecast (Rs. 5500-5900 / Qtl during April 2016), is concerned, 98 per cent of validation was observed. The sample farmers reported that they had a profit of Rs. 500/ Qtl and even some of them reported a profit of Rs.700-1000/Qtl by following forecast. The centre predicted that the price of coconut would prevail around Rs. 8-9 / nut during June 2016 which came out with 92 per cent validity and the farmers reported that they had a profit of Rs. 1-2 / nut and 30 per cent of the farmers stated that they received a reasonable price for their produce when compared to the non-adopters according to the selling advisory. In case of copra price forecast, 100 per cent of validity was recorded among the sample farmers.

Regarding cotton price forecast, Rs. 5500-5800 / Qtl during July 2016 was the prediction. 97 per cent of validation was observed and the farmers who sold the produce reported that they had a profit ranging between Rs. 100 - 400/ Qtl. Price forecast for 3 cultivars of banana namely Nenthran, Poovan and Karpooravalli were generated. The feedback revealed that there was 85, 87 and 90 per cent validity respectively in the case of banana forecasts. The profit margin was ranging from Rs. 5 – 10 / kg for all the cultivars. The centre has analyzed and forecasted the turmeric prices in the market and predicted that the price would be around Rs.10500 /Qtl during June 2016.

8. Lessons Learned

Forecast models are customized to the suit the nature and fundamentals of the commodity selected and cross-validated through markets/ traders survey periodically. Huge farmers mobile database to the tune of 2.5 million have been collected to disseminate the market advisories through SMS.

Periodical trainings and technical consultancies have been offered to SAUs and partnering institutes so that they are also empowered in the process of building Agricultural Market Intelligence System (AMIS) in India. A number of professionals and scientists are trained in the centre to generate systematic price forecast relevant for their states.

In general, the previous asymmetric price information on commodities prevailed in the pre-deployment scenario have been slowly transformed into transparent market inclusiveness and empowerment for the small and marginal poor farmers to benefit out of market intelligence generated and disseminated.

To study the impact of price forecasted in the scheme 30 beneficiaries and 30 non-beneficiaries were selected and interviewed randomly for each price forecast. The benefits realized by the sample farmers through survey are presented.

Maize (Pre Harvest)



The Price Forecasting Scheme forecasted that the Maize price will rule Rs 1300-1400 /Qtl during June 2016 in Udumalpet Regulated market and this information was disseminated through all mass media across the state. The adopted sample beneficiaries reported that they had a profit of Rs.100-200/ Qtl and 60 per cent of the farmers stated that they received a reasonable price for their produce due to the decision taken by them based on the price forecasted when compared to the non-adapters

Farmer Name : Sakthivel

Mobile No : 9976765338

Block : Palladam

District : Tiruppur

Crop : Maize

**Advice Given: Sell Immediately
@ Rs. 1300-1400/Q**

**Benefit : Sold @ Rs 1350/Q but
others stored and sold @
Rs 1150/Q**

Marketed surplus : 24 Q

Turmeric (Pre Harvest)



The Price Forecasting Scheme forecasted that the Turmeric price will rule Rs 8650 /Qtl during August 2016 in Perundurai regulated market and this information was disseminated through all mass media across the state. The adopted sample beneficiaries reported that they had a profit of Rs.1450 / Qtl and 70 per cent of the farmers stated that they received a reasonable price for their produce due to the decision taken by them based on the price forecasted when compared to the non-adapters.

Farmer Name : Gurusamy

Mobile No : 9976699095

Block : Anthiyur

District : Erode

Crop : Turmeric

Advise Given: Store & Sell

Benefit : Stored & sold @ Rs. 8650/Q but others realized Rs. 7200/Q

Marketed Surplus : 100 Q

Small Onion (Pre Harvest)



The Price Forecasting Scheme forecasted that the Small onion (shallot) price will rule Rs.3000/Qtl during May 2016 in Dindugal market and this information was disseminated through all mass media across the state. The adopted sample beneficiaries reported that they had a profit of Rs.700/ Qtl and 20 per cent of the farmers stated that they received a reasonable price for their produce due to the decision taken by them based on the price forecasted as compared to the non-adopters

Farmer Name : Senthil Kumar

Mobile No : 9865052025

Block : Udumalpet

District : Tiruppur

Crop : Shallot

Advice Given: Sell

**Immediately @ Rs 3000 -
3500/Q**

**Benefit: Sold @ Rs 3200/Q but
neighbours sold at Rs.2500/Q**

Marketed Surplus: 60 tonnes

Groundnut (Pre Harvest)



The forecasted groundnut price will rule Rs 6000-6500/Qtl during September - October 2016 in Tindivanam regulated market and this information was disseminated through all mass media across the state. The adopted sample beneficiaries reported that they had a profit of Rs. 600/ Qtl and 55 per cent of the farmers stated that they received a reasonable price for their produce due to the decision taken by them based on the price forecasted when compared to the non-adopters.

Farmer Name : Duraiswamy

Mobile No : 8489698846

Block : Senthamangalam

District :Tindivanam

Crop : Groundnut

**Advice Given: Sell Immediately
Rs 6000-6500/Q**

**Benefit: Sold @ Rs 6400/Q but
neighbours sold at Rs.5800/Q**

Marketed Surplus : 60 tonnes

Coconut (Pre Harvest)



The forecasted coconut price will rule Rs 9-10/nut during October 2016 in Avalpoondurai regulated market and this information was disseminated through all mass media across the state. The adopted sample beneficiaries reported that they had a profit of Rs. 2 / nut and 45 per cent of the farmers stated that they received a reasonable price for their produce due to the decision taken by them based on the price forecasted when compared to the non-adopters.



Farmer Name : Nandha Kumar

Mobile No : 9788557047

Block : Pollachi

District : Coimbatore

Crop : Coconut

**Advice Given: Store and Sell @
Rs 9-10/nut**

**Benefit: Sold @ Rs 9/nut but
neighbours sold at Rs.7/nut**

Marketed Surplus: 60 tonnes

9. Checklist

S.No.	Question to Consider	Yes	No
1	Is the Story interesting to the target audience of the project/activity report?	Yes	
2	Does the story explain what new insights the project brings? Does the story describe a key insight on what works and what doesn't and something that future project could build on	Yes	
3	Does the story describe the outcomes the project produced and the people who are benefitting? What changes-in	Yes	
4	Does the story make a compelling point that people will remember? Does the story how the project makes a difference to improving livelihoods and lessening poverty?	Yes	
5	Does the story provide an interesting fact that people will remember? For example, how much yields increased, how many hectares of land could become more productive from this innovation or technology?	Yes	
6	Does the story explain what kind of impact this innovation or technology could have if scaled up?	Yes	
7	Does the Story show which partners contributed and how?	Yes	
8	Does the story include quotes from stakeholder or beneficiaries?	Yes	
9	Have I provided links to other media (journal articles, websites news, newsletter, blogs, annual reports of other programme/project) that also feature this story?	Yes	
10	Have I provided the contact details of people who can provide more information?	Yes	