

Types of farming in India

■ *Nikhil Raghavan*

Wheat may be the most widely grown crop in the world, but in India, rice is the most cultivated crop, making the country the second largest producer of rice in the world, behind China. In India, there are basically four types of crops – food crops which consist of wheat, maize, rice, millets, pulses, etc.; cash crops, which are made up of sugarcane, tobacco, cotton, jute, oilseeds, etc.; plantation crops, which comprise of coffee, coconut, tea, rubber, etc.; and horticultural crops, which contain fruits and vegetables.

BE spoke to two leading personalities in the field of agriculture on the topic of different types of farming – private, co-operative and contract farming.



Dr. K. Palanisamy

Director of the International Water Management Institute at Coimbatore. Formerly he was the Head of Department, Water Technology, TNAU, Coimbatore.

Q. How does the rising cost of fertilisers and seeds affect the farmers?

A. Rising input costs and labour costs make farming highly challenging, as the profit margin is declining. In particular, the cost of fertilisers and pesticides increased three times in the last 10 years whereas the labour cost increased five times. The profit margin has declined three times in real terms (constant prices).

Q. How does the lack of proper MSP affect the farmers?

A. Recently, the government has raised the 2018-19 MSP for 14 kharif crops by 13-18% over the previous year's prices, and by 50-97% over the cost of cultivation. But unfortunately, they are effective mostly for wheat and rice, compared to other crops. Small and marginal farmers who grow mostly other crops find it difficult to take it to the MSP centres where their transaction cost (incidental expenses are 1 to 2% of the value of the product) is high besides spending more time in the marketing centres. Moreover, the formalities are too cumbersome, hence, they prefer to sell to local merchants at the farm gate itself, thus getting lesser price.

Q. Do we have proper storage facilities?

A. As such no. Even if available it is not economical to

store and sell them. Big storage yards are mostly owned by the Food Corporation of India (FCI) where the procured commodities are stored. In the case of cold storage, except for few commodities like hill vegetables, tamarind, and apples, other commodities are not attractive (economical) for storage. Good communication and transport facilities make the product available from one location to another location in a very short period and hence, the price spread is not much. In future, low cost storage facilities (using solar) at block level will attract farmers to store their products for a shorter period. But again, post-harvest glut will discourage many to store it. Poor financial status and loans make the farmers to sell the products upon harvest.

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Q. Is there proper crop insurance?

A. Crop insurance programmes and crop insurance products have taken different forms over the years. Starting from crop insurance to weather-based crop insurance, many programmes have included crop insurance as a component when farmers get loan from commercial banks where state and central governments share most part of the premium and farmers pay only a small portion of the premium according to crops. However, the major problems faced by the insurance programmes are quantifying the level of crop damages in different locations to suit insurance norms. Further, the disbursement of insurance claims have been slow. Farmers get such disbursement after a long time and that too, with lesser amount compared to the sum assured. Hence, farmers lose interest in crop insurance products, even though the

government allocates lots of money on crop insurance schemes. Who benefits from such schemes is a big question.

Q. Largely dependent on the monsoons and water management, how effective is our meteorological department for guidance to farmers?

A. Weather forecasting is an emerging field and medium to long range forecasting is gaining success. However, for farmers particularly for their sowing/planting purposes, short term forecasting is still to be seen as a useful and reliable source. Such forecasting is not reaching all segments of the farming sector due to communication and awareness problems. Further, intensity of rains always plays a crucial role in water

management decisions (for e.g., 50 mm rain in one hour is good for an irrigation of 5 cm depth). But in several cases rains are intermittent, very much scattered and not reliable even though statistical rainfall data show normal rainfall in a given period. Hence, the rainfed agriculture is slowly declining due to rainfall uncertainties. We suggest more storage structures to arrest and store rainfall runoff during heavy rains in a short spell which are common now a days as a consequence of climate change. This will provide supplemental irrigations to rainfed crops. Groundwater will be emerging as a major source of irrigation and drip and sprinkler irrigation will help conserve the water for meeting future irrigation demand.



J. Balasubramanian

Former Assistant Director of Horticulture Government of Tamil Nadu and currently International Consultant on Medicinal and Aromatic plants for United Nations Industrial Development Organisation - UNIDO (African Countries)

Q. Which types of farming do you deal with?

A. I have been involved in the cultivation of medicinal and aromatic plants in many African countries, China and Vietnam for the past 15 years. Among the three types of farming, I had reasonable experience in dealing with contract farming not only in India but also in China and Vietnam.

Q. Could you please elaborate on your experience in India?

A. In India, I was involved in contract farming of Marigold and Rosemary for some Oleoresin extraction companies and Artemisia for some pharma companies. The terms and conditions for contract farmers are based on specific agreement between grower and buyer. We provided technical service to growers. There is a pre-fixed buy-back price based on the specifications of raw material. The grower should supply the entire produce to the buyer.

Q. What are the constraints and lessons learnt in India?

A. There were no issues in buying back the closed market raw material like Rosemary and Artemisia since there was no alternate buyers, though sometimes there used to be competition especially in the case of Artemisia, from other extraction companies making similar product.

The farmers growing Marigold on contract used to supply at higher prices to the flower markets. Though, there is an agreement, it is difficult to take legal action. The out-sourcing company is also reluctant to take legal action.

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In India, contract farming might be successful only on the crops where there is no alternate market than the buyer. These are called closed market crops.

Q. What about contract farming in China?

A. Contract farming is highly successful in China. There, we had cultivated Artemisia, an anti-malarial herb, extensively by contract farming. There was a tripartite agreement between grower, buying company and the government. The buying company is assured of getting all the produce as per agreement after paying the fixed amount.

If the prevailing market price is higher than the buy-back price, the government will compensate the difference of price. So, both growers and buyers are safe and hence, there are no malpractices.

Q. How is it in Vietnam?

A. In Vietnam, we had grown Artemisia in huge areas for five years. There also, there was a tripartite agreement between grower, buyer and local bodies representing the government. But the local bodies could not ensure the entire supply of raw

materials when there was price rise since they didn't have provision to compensate the growers.

So, in Vietnam, contract farming was almost a failure, although it was better than India.

Q. What's your views on cooperative farming?

A. I feel that cooperative farming is the best model for India,

provided all the farmers in that fold cooperate and there is an organising body in the form of a cooperative or NGO. Since the farming lands in India are subdivided and fragmented into small holdings, mechanisation is not possible. Now, most of the corporates in India have also ventured into successful farming activities to have in-house supply. Probably, the best organised and successful contract farming in India must be sugarcane.

Sl.No	Particulars	Private farming	Co-op farming	Contract farming
1	Rising cost of inputs	Adversely affect since the no corresponding price hike.	Risk shared among the members	If the buyer supply inputs, less risk to the growers.
2	Lack of MSP	Besides vagaries of climate, price is also highly fluctuating and agriculture real gamble.	Not affected much.	Since, there is a pre-fixed price, growers are reasonably safer.
3	Proper storage facilities	Inadequate. Village ware houses for name shake only.	They can use govt ware-houses.	Depending upon the out-growing company
4	Crop insurance	Complicated Many farmers are not aware.	Not for all crops	Lack of information and cumbersome procedure.
5	Meteorological department guidance	Lack of long term forecast of weather	Lack of long term forecast of weather	Lack of long term forecast of weather

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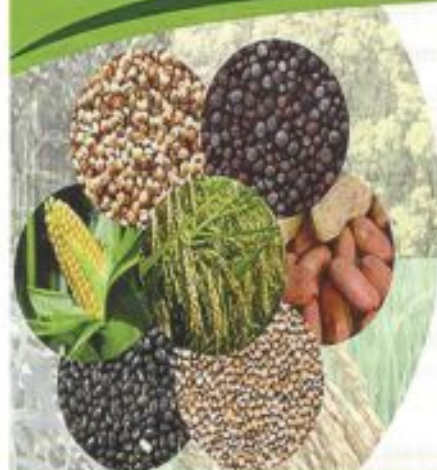
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