

Seat
No.

--	--	--	--	--	--



आभास - 051

406 - SPECIALIZATION - VII (MAJOR) 446 F
Agro Business Management
(Case Studies in Agro-Business Management)

P. Pages : 10

Time : Three Hours

Max. Marks : 60

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Solve **any three** cases out of five cases.
5. All questions carry equal marks.

1. Case - 01 Green Revolution in India : A Case Study
Why Green Revolution ?

The world's worst recorded food disaster happened in 1943 in British-ruled India . Known as the Bengal Famine, an estimated *four million people died* of hunger that year alone in eastern India (that included today's Bangladesh). The initial theory put forward to 'explain' that catastrophe was that there as an acute shortfall in food production in the area. However, Indian economist Amartya Sen (recipient of the Nobel Prize for Economics, 1998) has established that while food shortage was a contributor to the problem, a more potent factor was the result of hysteria related to World War II which made food supply a low priority for the British rulers. The hysteria was further exploited by Indian traders who hoarded food in order to sell at higher prices.

Nevertheless, when the British left India four years later in 1947, India continued to be haunted by memories of the Bengal Famine. It was therefore natural that food security was a paramount item on free India 's agenda. This awareness led, on one hand, to the Green Revolution in India and, on the other, legislative measures to ensure that businessmen would never again be able to hoard food for reasons of profit.

However, the term "Green Revolution" is applied to the period from 1967 to 1978 and even into today. Between 1947 and 1967, efforts at achieving food self-sufficiency were not entirely successful. Efforts until 1967 largely concentrated on expanding the farming areas. But starvation deaths were still being reported in the newspapers. In a perfect case of Malthusian economics, population was growing at a much faster rate than food production. This called for drastic action to increase yield. The action came in the form of the Green Revolution.

The term "Green Revolution" is a general one that is applied to successful agricultural experiments in many Third World countries. It is NOT specific to India . But it was perhaps most successful in India .

What was the Green Revolution in India ?

There were three basic elements in the method of the Green Revolution:

- 1) Continued expansion of farming areas;
- 2) Double-cropping existing farmland;
- 3) Using seeds with improved genetics.

Continued expansion of farming areas

As mentioned above, the area of land under cultivation was being increased right from 1947. But this was not enough in meeting with rising demand. Other methods were required. Yet, the expansion of cultivable land also had to continue. So, the Green Revolution continued with this quantitative expansion of farmlands. However, this is NOT the most striking feature of the Revolution.

Double-cropping existing farmland

Double-cropping was a primary feature of the Green Revolution. Instead of one crop season per year, the decision was made to have two crop seasons per year. The one-season-per-year practice was based on the fact that there is only natural monsoon per year. This was correct. So, there had to be two "monsoons" per year. One would be the natural monsoon and the other an artificial 'monsoon.'

The artificial monsoon came in the form of huge irrigation facilities. Dams were built to arrest large volumes of natural monsoon water which were earlier being wasted. Simple irrigation techniques were also adopted.

Using seeds with superior genetics

This was the scientific aspect of the Green Revolution. The Indian Council for Agricultural Research (which was established by the British in 1929 but was not known to have done any significant research) was re-organized in 1965 and then again in 1973. It developed new strains of high yield value (HYV) seeds, mainly wheat and rice but also millet and corn. The most noteworthy HYV seed was the K68 variety for wheat. The credit for developing this strain goes to Dr. M.P. Singh who is also regarded as the hero of India's Green revolution.

Statistical Results of the Green Revolution

- 1) The Green Revolution resulted in a record grain output of 131 million tons in 1978-79. This established India as one of the world's biggest agricultural producers. No other country in the world, which attempted the Green Revolution recorded such level of success. India also became an exporter of food grains around that time.
- 2) Yield per unit of farmland improved by more than 30 per cent between 1947 (when India gained political independence) and 1979 when the Green Revolution was considered to have delivered its goods.
- 3) The crop area under HYV varieties grew from seven per cent to 22 per cent of the total cultivated area during the 10 years of the Green Revolution. More than 70 per cent of the

wheat crop area, 35 per cent of the rice crop area and 20 per cent of the millet and corn crop area, used the HYV seeds.

Economic results of the Green Revolution

- 1) Crop areas under high-yield varieties needed more water, more fertilizer, more pesticides, fungicides and certain other chemicals. This spurred the growth of the local manufacturing sector. Such industrial growth created new jobs and contributed to the country's GDP.
- 2) The increase in irrigation created need for new dams to harness monsoon water. The water stored was used to create hydroelectric power. This in turn boosted industrial growth, created jobs and improved the quality of life of the people in villages.
- 3) India paid back all loans it had taken from the World Bank and its affiliates for the purpose of the Green Revolution. This improved India's creditworthiness in the eyes of the lending agencies.
- 4) Some developed countries, especially Canada, which were facing a shortage in agricultural labor, were so impressed by the results of India's Green Revolution that they asked the Indian government to supply them with farmers experienced in the methods of the Green Revolution. Many farmers from Punjab and Haryana states in northern India were thus sent to Canada where they settled (That's why Canada today has many Punjabi-speaking citizens of Indian origin). These people remitted part of their incomes to their relatives in India. This not only helped the relatives but also added, albeit modestly, to India's foreign exchange earnings.

Sociological results of the Green Revolution

The Green Revolution created plenty of jobs not only for agricultural workers but also industrial workers by the creation of lateral facilities such as factories and hydro-electric power stations as explained above.

Political results of the Green Revolution

- 1) India transformed itself from a starving nation to an exporter of food. This earned admiration for India in the comity of nations, especially in the Third World.
- 2) The Green Revolution was one factor that made Mrs Indira Gandhi (1917-84) and her party, the Indian National Congress, a very powerful political force in India (*it would however be wrong to say that it was the only reason*).

Limitations of the Green Revolution

- 1) Even today, India's agricultural output sometimes falls short of demand. The Green Revolution, howsoever impressive, has thus NOT succeeded in making India totally and

permanently self-sufficient in food. In 1979 and 1987, India faced severe drought conditions due to poor monsoon; this raised questions about the whether the Green Revolution was really a long-term achievement. In 1998, India had to import onions. Last year, India imported sugar. However, in today's globalized economic scenario, 100 per cent self-sufficiency is not considered as vital a target as it was when the world political climate was more dangerous due to the Cold War.

2) India has failed to extend the concept of high-yield value seeds to all crops or all regions. In terms of crops, it remains largely confined to foodgrains only, not to all kinds of agricultural produce. In regional terms, only Punjab and Haryana states showed the best results of the Green Revolution. The eastern plains of the River Ganges in West Bengal state also showed reasonably good results. But results were less impressive in other parts of India .

3) Nothing like the Bengal Famine can happen in India again. But it is disturbing to note that even today, there are places like Kalahandi (in India 's eastern state of Orissa) where famine-like conditions have existed for many years and where some starvation deaths have also been reported. Of course, this is due to reasons other than availability of food in India , but the very fact that some people are still starving in India (whatever the reason may be), brings into question whether the Green Revolution has failed in its overall social objectives though it has been a resounding success in terms of agricultural production.

4) The Green Revolution cannot therefore be considered to be a 100 per cent success.

Questions:

1. What were the causes and results of the Bengal Famine in 1943?
2. Briefly describe the three basic elements of the Green Revolution in India:
3. List two positive results of the Green Revolution in India:
4. List three positive economic, sociologic, or political results of the Green revolution in India:
5. Briefly describe two limitations of the Green revolution in India:

Case Study - 02**Title – Should farmers promote their products?**

Nazir Hasan was a second year Agriculture Science student. Hasan got a tough assignment from his lecturer to participate in a debate next week. The topic was “Resolve: Farmers should promote their products”. Hasan had to prepare to debate both for the motion and against it.

Hasan's father was a rice producer. He helped him for that day to make a list of arguments against farmer advertising. Next day Hasan met Manager of Mother Dairy and asked why Mother Dairy and dairy farmer's cooperatives heavily sponsor the largest sponsored advertising programme and propagating drinking milk “Doodh, Doodh, Doodh – Doodh wonderful” slogan. The Manager said he thought milk advertising is a successful story. He could not give any facts and figures for his success story. Hasan discussed the topic with large grocer. The grocer said “Kohinoor is big brand name in Basmati Rice. Kohinoor advertises in all media including TV and Cinema”. The grocer also said further “Farmer have to advertise and promote their products just like any other product”. Hasan was confused. Should farmers advertise or not? Does it play or not?

Questions :

- 1) Under what circumstances what should farmers advertise their products?
- 2) What are the purposes of such promotional advertisement?
- 3) How should farmers know the benefits of such promotions cover their cost?
- 4) Should the Indian farmer only concentrate on production and not worry about agri-marketing? Discuss issues.

Case Study - 03**Title - How to manage agricultural risk?**

Ashok Chaudhary (A) , Balbir Singh(B) and Chandra Kumar (C) were residents of a village near Bhatinda, Punjab. They were rich landlords and farmers. They were friends. All three mechanized their farming activities to extend possible, planned cropping and helped each other in farm activities.

A,B and C used to meet regularly and at least once a week discussed common farming problems and exchanged ideas. And may be complain a little about weather. Lately all they seem to talk about was low prices.

"There is nothing we can do about these terrible prices". Said A. " Agri farming is a risky job and a tough business of uncertainties and you have to take your chances". B agreed. "It has always been that way, and I don't see how to change it. We do not control the weather, the insects, the rodents, the supply of our products to the end user or anything else that determines our prices" .

C agreed and said "You take what you get in this business, and you don't always get what you want or need".

A interjected to add, "No risk no gain in business. But I am worried how much risk to be taken? When and how?"

Sharma, a local grain marketer and marketing advisor overheard the group conversation and asked: "What would you give me if I advise you to set your prices in advance and be sure that you covered your costs and made a profit?"

"We will have a grand dinner party", said A,B and C together. " You got a deal," said Sharma.

Questions :

- 1) How can the three farmers forward price their products? What marketing tools can help them do this?
- 2) Can the three farmers plan and act for risk reduction?
- 3) Can one take risk on himself?
- 4) Can the farmer go to the insurance company and make an insurance cover?
- 5) Should they enter forward markets such as forward market, futures contracts and options?

Case - 04 : TATA TEA LTD

This global tea major, along with its subsidiary companies, now has a significant presence in over 35 countries worldwide, making it one of the first truly Indian multinational corporations. It spans the entire value chain in tea, including research and development, tea cultivation, manufacture of black and instant tea, blending, packaging, branding, marketing and sales and distribution. It owns 55 tea estates in India, with an area of 26,500 hectares under cultivation. It produces over 60 million kg of black tea and 2 million kg of instant tea annually. It operates 11 modern packaging units across the country.

Tata Tea has built one of the finest brand portfolios in the Indian consumer goods marketplace — Tata Tea, Agni, Kanan Devan, Chakra Gold and Gemini. Tata Tea and Agni are today the largest brands in their segments of packed tea in the country. Subsidiary Tetley group, headquartered in the UK, owns and markets Tetley, the second-largest tea bags brand worldwide.

With acquisition of Tetley Tata Tea, which was the largest integrated tea company in the world, has now become one of the largest tea marketing companies in the world. It has a 21 percent share (in volume terms) of the Indian packaged tea market.

Tata Tea also owns subsidiary companies with diverse business activities and interests. The scope of its operations now extends to the US, the UK, Canada, Australia, Poland, Russia, France, Japan and Sri Lanka. It has built a strong, multi-disciplinary research and development base with comprehensive labour welfare programmes.

Areas of Business

Apart from being a branded tea company of international stature, Tata Tea has expanded its operations to enter the coffee segment. Consolidated Coffee Ltd, a subsidiary, processes about 15 percent of the coffee beans produced in India, and is a leading player in the local and overseas coffee markets. With the recent merger of Asian Coffee Ltd, the company has emerged as the largest coffee conglomerate in Asia with facilities to produce all kinds of coffee, such as instant coffee, roast and ground coffee, chicory-based coffee etc.

Tata Tea also has a substantial presence in the US through its international subsidiary, Tata Tea Inc, which is one of the largest suppliers of instant tea in the US.

Tata Tea is also a leading producer and exporter of spices such as black and green pepper and cardamom. It has had a strong presence in the international shipping arena, through its tie-up with NYK of Japan. Besides this, the company has had a century-old presence in the insurance sector through its association with Lloyds.

Research and Development

Tata Tea has state-of-the-art, in-house research and development facilities. These include two high-tech laboratories in Kerala and Assam, and a product development cell at Bangalore. R&D efforts focus on agronomy, botany, plant nutrition, tissue culture and biotechnology, irrigation and water management, engineering, new product and process development, energy conservation and satellite imagery studies.

Tata Tea has covered the premium end of the market with its Tetley and Tata Tea Temptation, while the popular segment has Tata Tea Premium. And as part of its strategy to be present across price points has rolled out its new brand of packaged tea, Agni Sholay. It is targeted at the price-sensitive middle and lower middle-income customers, and is priced at Rs 31.50, Rs 13 and Rs 6.50 respectively for 250 gm, 100 gm and 50 gm packs. The rollout will initially cover the northern and eastern markets, across Delhi, Bihar, Uttar Pradesh, Haryana, Punjab and Himachal Pradesh covering the entire domestic market by the end of 2003. Rural markets, which are a major part of the tea-consuming population, account for a major part of Tata Tea's revenues.

There is no merger with Tetley on the cards. However, more Tetley brands would be brought into the country, in line with the maturity of the market.

Questions

1. *Tata Tea has already established itself in the western and northern parts of rural India. It now wants to target the rural markets in the south. What can be its positioning plank?*
2. *HLL already has a product portfolio for rural markets like Brooke Bond AI, and also has a good distribution network. Taking this into consideration, how can Tata Tea enhance its presence in rural markets in the four corners of India?*
3. *Is it advisable for Tata Tea to launch a low-end product in order to convert loose tea users to branded tea? If so, suggest a brand name and pricing for this product.*

Case - 05 : TO CONTRACT OR NOT TO CONTRACT ?

Rural India and Corporate India, two distinct entities. One drawing labour and food from the other. The other supplying everything to grow that food, to clothe and house that labour. A symbiotic complementary, but two distinct entities nevertheless. Towards the close of this report, we raze down this firewall and present the actors on either side, on common ground... Where corporates become farmers and farmers co-operate.

Corporate farming or captive farming in India is limited by land ceiling laws and can be practiced to the extent these laws provide certain exemptions such as, in the case of plantations, degraded or waste lands and so on. It is not surprising then that corporate farming has not really taken off in India despite sporadic pleas from corporates to repeal the Land Ceiling Act. So far, land ceilings in different states, being quite low, have not allowed the large scale consolidation of farms that is required in corporate farming. However relaxing ceilings is politically quite tough and may not happen in the foreseeable future. Also the government is unlikely to accept the corporate farming model because of apprehensions about its social implications.

The major social issue involved in such models is the fact that the corporate displaces the farmer in ownership, converting the latter into a wage-earning labourer. The corporate farming model thus involves alienation of the farmer's land rights and their transfer to a corporate identity in a scenario where land is scarce.

Contract Farming

Forward contracts in contract farming involve the production and supply of agricultural and horticultural produce for an industrial partner. The contract can include a commitment from the farmer to provide a particular agricultural commodity at a specified time, in specified quantities and of a particular quality. The purchaser provides a commitment to procure the produce at a specified price. Usually the purchaser also agrees to provide certain critical inputs/seeds, fertilisers, technology and credit. The provision of such inputs is in the interest of the purchaser also, because it ensures the quality of the agricultural produce supplied.

International Experience

Contract farming emerged in a major way in the developed countries of the West during the 1950s and the 1960s. The model was brought to the developing

countries in the late 1970s and early 1980s by multinational corporations.

Contract Farming in India

So far, contract farming exists only in certain pockets of India. Some examples are: tomatoes (HLL, Pepsi and Nijjer), mustard (Markfed, a parastatal cooperative body), potatoes (McDonalds) in Punjab, wheat in Madhya Pradesh (Rallis and HLL), milk in Maharashtra (Dynamix dairy), maize (Venkateshwara Hatcheries), horticulture and floriculture (ACE) and gherkins (VST Industries).

McDonald's signed a contract with a small farmer in Ooty and provided him with the required inputs and technical advice for cultivating lettuce. The same farmer then became a supplier of lettuce to five major hotel chains in the country, which previously used to import lettuce. Realising the potential of lettuce and its profitability, other farmers too entered the race and soon 300 farmers in Ooty were growing lettuce.

Sometimes, companies face problems in enforcing contracts. When the open market price is significantly higher than the contract price, farmers may default on the contract and try to sell it in the market. It is interesting to note that, quite often, the contracts themselves are only verbal commitments, with no written proof. Companies say that taking the legal route in case of a default by farmers is quite cumbersome and so they find it easier to enforce the contracts through more informal ways. Usually, the companies simply boycott the defaulting farmers or even the entire group.

However, not everybody thinks contract farming is a good idea. Some rural economists say farmers could be exploited by the corporates.

Questions

1. *Do you think contract farming will work in a country like India?*
2. *As per the information in the case, do you believe that corporates are making profits at the expense of farmers?*
