

CROPPING PATTERNS AND ISSUES IN AGRICULTURAL DEVELOPMENT

The agricultural land devoted to different crops in a region or state or country at a particular point of time is called the cropping pattern. The cropping pattern of a region is an outcome of a long term agricultural practices, social customs and traditions, physical conditions and historical factors. Features of changing crop-pattern Changing crop pattern in India is as under:-A. Dominance of food crops over non-food crops

□ At the time of Independence, more than 75 per cent of the total area sown in the country was devoted to the production of food crops. Gradually with commercialization of agriculture, farmers in India have started shifting area to non-food crops. Now, relative share of area under food crops has declined from 76.7% during 1950-51 to 65.8% during 1999-2000. This trend shows commercialisation of agriculture in India.

B. Variety of crops grown Almost every kind of crops are grown in India as it is endowed with a variety of soils. These crops can be grouped into (a) Food crops (b) Fibre crops (c) Oilseeds (d) Medicinal plants and spices. Food crops are of two types-cereal and non-cereal. Among the cereals rice, wheat and millet are important. Pulses come next and then oilseeds. Similarly a number of spices and medicinal plants are also cultivated throughout the country. Emphasis is placed now on production of oilseeds, because a large amount of foreign exchange is spent on import of edible oils. Special attention is also given to production of medicinal plants, fruits, flowers and vegetables.

C. Dominance of cereals among food crops: Within broad group of food crops cereals like wheat and rice dominate. About 82 per cent of the area under food crops has been put to cultivation of cereals. This is due to better prices, less risk in production and the availability of better seeds.

D. Decline in coarse cereals Jwar, Bajra, Maize, Millets, Barley etc. are called coarse or inferior cereals. The area under these crops to the total area under cereal crops has declined significantly from 48 per cent in 1950-51 to about 29 per cent in 2001. This is due to spread of irrigation facilities, improved inputs and a shift in consumption patterns of the people.

E. Declining importance of Kharif crops There are mainly three cropping seasons in India (i) Kharif (ii) Rabi (iii) Zaid. The Kharif season corresponds to the rainy season, while Rabi season with the winter. The short period in between the harvest of the Rabi crops and the sowing of the Kharif crops is called the Zaid season.

Till recently, Kharif crops have been contributing the large share in the crop production in India. But this dominance is on the decline. The share of Kharif has declined from 71 per cent in the 1970's to 49 percent in 2003-2004. This makes a significant change in Indian agricultural practices after Green Revolution. This change is important because it would lessen uncertainty in crops production, as Rabi crops are more reliable than Kharif ones. The Kharif crops are not reliable because they are mostly dependent on rainfall.

The most parts of India get rainfall from monsoon which is unreliable. Contrary to this, mostly Rabi crops in India are raised on irrigation which is comparatively reliable. Climate-rainfall, temperature, humidity; soils, size of farms, availability of fertilizer, good quality of seeds, irrigational facilities and price incentives are the factors which effect cropping patterns.

ISSUES IN AGRICULTURAL DEVELOPMENT

Agriculture contributes a significant share to the national income (26%) but more importantly it is a major source of livelihood for majority of work force in the countryside. However, the per hectare production of different principal crops in the country is relatively low. In some cases it is as low as 1/4th to 1/5th as compared to other countries due to traditional methods of cultivation, small farms size, low investment, low input, poor health and lack of education among the farmers, lack of linkages between agriculture and industry, and poor condition of infrastructure. Limited availability of cultivable land and ever increasing population has left no alternative but to increase productivity of crops. It is this sector that continues to have great potential for reducing poverty and hunger in rural areas. Following issues are important for the development of agriculture in India:-

A. The Use of Farm Inputs

For high growth rate, farm inputs like seeds, fertilizers, and irrigational facilities play an important role. The use of high yielding varieties of seeds, chemical fertilizers have increased particularly in Green Revolution areas of Punjab, Haryana, western Uttar Pradesh, coastal Andhra Pradesh and Tamil Nadu.

However, in several other parts of the country the use of chemical fertilizers is much below the national average. In regard to irrigation, the irrigated land in the country is less than 50 per cent of the potential. Hence, there is a need for equitable and efficient use of inputs in the country so that regional disparities in its use can be minimized. Another important factor associated with use of chemical fertilizers is their im balanced use. Nitrogen, phasporous and calcium required by the plants for balanced growth and good health of the soils are not used by most of the Indian farmers. There is over emphases on the use of nitrogen, resulting in damage to fertility of soils and adverse effect on crop productivity.

B. Small Size of Land holdings

About 89 per cent of operational farm holdings in the country are below two hectares in size. Over 70 per cent of agricultural production comes from the subsistence agriculture. Unless small farmers are helped to improve the productivity and profitability of their farms, the agriculture in India will not develop in its true sense. This can be possible by optimum use of available land, water, credit facilities and labour resources.

C. Farm Mechanization

The use of improved agricultural implements and machines such as the plough, tractor, trolley, harvester, thrasher, water pump, sprinkler etc. are important to modernize Indian agriculture. These machines are being used in some parts of the country. Diffusion of modern farm technology and techniques is both necessary as well as a big challenge. To increase productivity, some agricultural implements are being made available to the farmers through Development Blocks and Co-operative Societies.

D. Consolidation of Holdings

Small and scattered holdings of land are one of the reasons of low agricultural productivity in India. This is an obstacle in the way of modern agriculture in which machines, improved equipments and techniques are used. These problems are being minimized through consolidation of land holdings. However, in many parts of the country it is still a big problem. For example, apart from hill states, Rajasthan and Bihar are two states in the northern plain where land consolidation is yet to be implemented. This problem needs to be addressed on priority basis by the re-spective governments.

E. Diversification of Agriculture

Diversification of agriculture means a shift of resources from farm to allied activities, e.g. shift to dairy farming. Also, there is a need to give more importance to higher value crops in comparison to lower value. The diversification will improve income, generate employment, alleviate poverty, increase productivity, food security, and will also promote exports. Although, impressive gains have been made in agricultural production by diversifying agriculture in some parts of the country like in Punjab, Haryana and western Uttar Pradesh, remaining parts of the country, still needs much attention.

F. Agriculture and Industry Interface For the better development of agriculture, it must be linked with the industry. It will increase investment in agriculture and boost agricultural productivity. It will also increase industrialisation and employment opportunities. Although, the inter-dependence of agriculture and industry has increased over the years, yet much is required to be done in time to come. The agriculture and agriculture based industries need helping hand for over all development of rural areas.

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