

Cropping Pattern in North East India

A cropping pattern is the proportion of area under various crops at a point as it changes over space and time. In simple words, a cropping pattern means the area's production under various crops at a point in time. It is a dynamic concept because no cropping pattern can be ideal for all times to a particular region. It changes in space and time intending to meet requirements and is governed largely by physical, cultural, and technological factors. Nevertheless, the changes in cropping patterns in a particular span of time clearly indicate the changes that have taken place in agricultural development.

Except for Sikkim, the cropping pattern in the region is characterised by the predominance of rice as the lead crop. In Sikkim, maize is the dominant crop. Food crops account for more than 80 per cent of the gross cropped area, which suggests the prevalence of subsistence agriculture and lack of crop diversification. About 70 per cent of the gross cropped area is accounted for by cereals alone. Within the region, however, there are exceptions. Sikkim records 9.3 per cent, and Tripura 6.2 per cent of the gross cropped area under oilseeds. These state-level variations are a manifestation of the differences in the status of agricultural development prevailing in the constituent units of the region. A remarkable feature of shifting cultivation is that many crops are grown in the jhum fields. Jhum paddy is the dominant crop and is mixed with maize, vegetables. The production units are more or less self-contained, each family growing crops according to its needs. Major food crops of the region are cereals and pulses cultivated in 78.03 per cent of the cropped area.

The Cropping pattern of North East India tends towards the specialisation of rice cultivation in the Kharif season and wheat, maize and gram in the Rabi season. Rice and wheat are the two principal crops in the respective season. Assam is the most dominant producer of Wheat and rice, while Nagaland is the largest producer of maize. Since rice and maize farming is the mainstay of agriculture, no apparent improvement (from 2001 to 2010) in land productivity. Environmental constraints and natural resources are dominant factors affecting crop combination with very low and unequal distribution of modern infrastructures and facilities in the region. Cultural and physical influences are responsible for the changes in North-East India. The region needs infrastructural development- transportation, inputs, credit supply, irrigation, storage, marketing,, and technological development for different agro-ecological situations- upland, hill,, and flood-affected areas.

Foodgrains and Pulses: Foodgrain crops include the production of cereal and pulses mainly. Like the trend in all India level, the progress of produfood-grain productionhe northeast region has been quite encouraging during the preceding decades. In fact, the percentage increase in total food-grain production in the region has been recorded to be around 23.62% increase during 2000-01 to 2010-11. On the other hand, pulse production in North-East India is not encouraging. In North-East Chickpea, pigeon pea, green gram, black gram, lentil and field pea are important

pulse crops contributing to the total production of pulses in the country. In addition, North East India soils are acidic in nature, and this region can contribute considerably to pulses production.

Fruits: The northeastern region is well known for producing several high-value fruits across the various states, mainly Banana, Citrus, and Pineapple, Papaya, Passion fruits, Strawberry and several underutilized fruit crops. All the northeastern states except Sikkim have recorded a substantial increase in fruit production. In addition, Manipur, Nagaland and Arunachal Pradesh have recorded a substantial increase in production. However, the real concern for the fruit crops in the northeastern states is the low productivity (7.69 tones/ha) which is far below the national level (10 tones/ha).

Vegetables: The northeastern states are congenial for producing several important vegetables, and the market value of these products becomes significantly higher when produced during the off-season. Major vegetables grown with substantial area in the region are Potato, Cabbage, Cauliflower, Tomato, Radish, and Brinjal. However, the progress in vegetable production has not gained momentum as it has been observed for fruit production. Sikkim, Meghalaya and Nagaland have recorded a substantial increase in area and production. However, for other states, vegetable production has been observed to be either marginal increase or declining.

Spices: The northeastern states have a distinct advantage in the production of several high-value spices such as Ginger, Turmeric, Large Cardamom, Chilly, and Black Pepper etc. which have substantial demand in domestic as well as international markets. The export potential of these crops area enormous, and usually, these crops are considered the major cash crops for the livelihood of the farmers. Ginger is the most important crop among the spices and condiments irrespective of states in the northeast region and accounted for more than half of the total areas under all spices and condiments, followed by Chilly and Turmeric.

Livestock: The integrated farming system is mostly used in the hilly farming system where a combination of crop, livestock and fishery farming through which the resources are well managed economically to have more and steady income. Pigs are the most common and preferred livestock species in all the states of the North-East. Almost 60% of households rear livestock mainly for nutritional, manure and additional income generation purpose. The production system in the villages is very traditional, mainly based on indigenous breeds.