

# Agricultural Development in North-East India: Problems, Prospects and Challenges

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## INTRODUCTION

The North-Eastern Region (NER) comprises Eight States (including Sikkim) namely, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim. The region having more than 98 percent international border sharing international borders with Bhutan and China in the North, Myanmar in the East and Bangladesh in the South West has several unique and unparalleled features; fertile land, abundant water resources, evergreen dense forests, high and dependable rainfall, mega biodiversity, flora and fauna and a mixture of socio-economic, political, ethnic and cultural biodiversity. The temperature/climate is suitable for agriculture, which is the major occupation of the people of the region. But, rather than converting these strengths optimally into opportunities, the weaknesses threaten the regional economies, which adversely affected the livelihood. The population of the NER has quadrupled to 40 million during the past half century, which has rendered the land-man ratio increasingly adverse. The preponderance of the small and marginal farmer is the common feature of the agricultural economy of the NER. The increasing proportion of small and marginal farmers trapped in the traditional low output agricultural practices, is subjected to economically unviable production systems. Low and uncertain agricultural productivity due to vulnerability to flood, drought, soil erosion and heavy siltation, the worst form of 'hidden poverty', lack of market opportunities and remoteness and isolation, also expose them to high production risk as well as income risk. Low usage of the growth augmenting inputs such as irrigation, HYV seeds, chemical fertilizers, pesticides, positive measures, etc. contributed to the dismal performance and low income, a precursor to agrarian distress. As a result, the past model of regional economic development has failed resulting in lack of smooth growth of the economies. The contribution of the largest sector, agriculture and allied sector to the State Domestic Product remained meager. Therefore, revitalizing economies by promoting growth and rebuilding the models for agricultural development is a great challenge. In view of the coexistence of diverse ethnicity, geo-physical, socio economic and cultural factors, the issues of developmental deficiencies are

more complicated and thus require more in-depth understanding and strategies for long term economic solution.

The primary objective of the paper is to identify the problems of regional agricultural sector in particular and regional economies in line with the changing scenario and to find out solution for future prospects, identify the sources of agricultural growth and the constraining factors, and suggest innovative people-centric policy interventions for sustainable agricultural and economic development as well. It is a matter of great concern, though the region's economy is agrarian in character, till then the agricultural sector is backward due to poor performance of agricultural. Major reasons for poor agricultural performance need to be carried out and in doing so, we must consider the geographical situation of the region.

## PROBLEMS

Geographically, as compared to agriculturally advanced states of the country the land structure of NER can be divided into Plains and Hills. Out of the total geographical area of the region about 70 percent is hills and the rest of 30 percent in plains. The plain area is available mostly in Assam, Tripura, and Manipur. In the hills, agriculture is generally practised through shifting cultivation (jhumming) which has a negative impact on the hill economy and ecology. Shifting cultivation or jhumming is responsible for soil erosion, flood, drought, climate changes and destruction and extinction of many rare species of flora and fauna. Terracing, an alternative to jhumming is only popularized among the tribes of Arunachal Pradesh and Nagaland. But it fails to attract even 1 per cent of the total tribal population in the region. On the other hand, in plain area a majority of the people are practicing settled agriculture almost alike in the region as a whole.

Institutionally, the land tenure system create problems inappropriate for development. For instance, in some areas of the North-Eastern hills region, the land belongs to the community or the village chief, who distributes various portions of the hill slopes to

individual farmers for cultivation. In such cases, there is no incentive for the farmers to improve upon the land or even a permanent interest in the land. Fragmentation and small size of land holdings are also responsible for low agricultural productivity in plain areas of the region. Shrinking farm size is a critical factor affecting the livelihood of rural households. The average size of operational holding is smaller ranging from 0.60 hectares in Tripura to 1.33 ha in Meghalaya as compared to 1.42 ha at all India level in 1995-1996. The condition got worsened with increasing population pressure on land. The percent of small and marginal farmers in Tripura was phenomenally high at 95 percent of the total numbers of farmers, while the same was 83 percent in Assam 82 percent each in Manipur and Mizoram.

Many technological problems too have been facing the agricultural sector of the region. Various agricultural inputs like tools and implements, seeds, fertilizers and pesticides, etc. are low quality and inefficient. One of the reasons of the low rate use of fertilizers is that the use of fertilizers under flood prone or drought prone condition is found to be unprofitable. The use of H.Y.V seeds is also limited and sometimes farmers may not get these seeds in time and the ultimate result is only about 30 percent of the net sown area brought under modern varieties of H.Y.V seeds. Another technological problem is that the distribution system of various agricultural inputs like pesticides, chemical fertilizer are very unsatisfactory. The use of modern tools and implements are also very much limited. Sometimes agricultural product prices do not cover costs of production because of low productivity and high cost of credit.

Socio-economically, most of the farmers in the region are poor and marginal farmers. The poor and marginal farmers cannot have the capacity to purchase sufficient quantity of chemical fertilizers, pesticides, tools, etc. The old systems of shifting cultivation in the hills and frequent occurrence of flood and drought in the plains are two other special problems of the region. In addition to the difficult terrain and inaccessible area as well as problem of cultivation in the hills, socio-economic problems of various ethnic groups inhabiting the regions and varieties of dialects that they speak create problems in extension of technology. Thus, the NER has generally not benefitted from modern technology and has not registered any significant increase in productivity. Practice of old method of farming, low productivity seed, low technology, lack of capital and infrastructure, etc. are the major hindrances for increasing agricultural productivity in NER. All these factors together hampering the development pulses of NER severely and therefore, the region is caught under 'vicious circle of under development.'

One such problem faced by the cultivators in the region is poor irrigation facilities. About five-sixth of the net cropped area is still cultivated under certain monsoon condition. Only about 22 percent of the total cultivable

land in the region was irrigated in 1986 ranging from 10.4 percent in Mizoram to 46.4 per cent in Manipur. But the irrigation facilities utilized in the region is less than irrigation potential created because of defective irrigation management. As there is lack of proper irrigation facilities and flood control measures, most of the cultivable land of the region are single crop.

## PROSPECTS

Prospects and potentialities of agriculture in the whole region are very vast. Besides, most of the food crops and cereals potentialities exist for growing a large number of other cash crops and plants. Rubber and bamboo are among the important agricultural produces which can attract a lot of investment opportunities. Tripura is the chief production hub and has been declared as the 'second rubber capital of India's right after Kerala by the Indian Rubber Board. Mizoram and Assam are two other states which produces rubber in the region. Coupled with rubber production the NE states also produces a substantial percentage of bamboo, accounting for 65 percent of India's production values and 20 percent of the global production value. Mizoram alone contributes around 40 percent of the country's bamboo production. The region has great advantages in producing fruits, vegetables and other horticulture products, also suitable climate for cultivating Ginger, Mustards Seeds, Chillies, etc., which can be processed and marketed locally. These products can be tapped by setting up small-scale processing units for the local market which also boost rural employment. This set-up is economically viable as well as doable as a small processing unit requires little capital.

Arunachal Pradesh has taken up the cultivation of horticulture produced especially of sub-tropical fruits on a large scale with assistance from the Government. Mizoram accounts for 12 percent of the total fruits produced in the North-East. Organic farming is the most sought-after practice in the hill areas in Manipur. The state Government has given social impetus to farming for pineapple, passion fruit, mushroom, etc. on a massive scale. With proper processing, many of the agro-cultural crops of the regions look promising for export. Another focus area for the agro-based industry is the processing for extracts of spices, medicinal and herbal plants. There is also scope for dried fish in the region, processing of which is not capital intensive. Animal husbandry is another area for development in the region. Processing for dairy products can be developed without making huge investment in the region.

## CHALLENGES

In spite of the efforts of the many regional development organizations, challenges remain in realizing the full potential of the region's agricultural resources. Fragmented land holdings by small and marginal farmers which dominate the landholdings pattern in the

North-East region is uneconomical. The region has low proportion of irrigated area and investment in building irrigation capacity has been insufficient and ineffective. The use of agricultural inputs in the region is also low compared to the rest of the country. The on-going economic reform process has thrown up several opportunities as well as challenges. But, in order to capture the advantages of the untapped potential the Region need to re-orient their development strategy within the overall macro-economic framework. This is essential to achieve the broader developmental goal because the stronger States make a strong nation. Unfortunately, most of the states in the NER lag behind under the grab of resources constraint and infrastructure hiccups. Therefore, a conscientious developmental strategy is essential to understand and improve the lagging and leading sectors or accelerating the process of developments, which is the need of the day.

Utilizing abundant natural resources (land, water, forest, biodiversity, fossil fuel and minerals), congenial climate and rich human capital and converting the inherent weaknesses to opportunities in the NER is a challenge. In reality, the agricultural economies have been falling back to the vicious cycle of low productivity, unemployment, low income and increasing mass poverty giving rise to growing social threat perceptions. It has also perpetuated sheer wastage of resources and agro products. Although rich in fruits and vegetables, ginger, turmeric, garlic, other innovative crops such as orchid, passion fruits, aromatic and medicinal plants; but due to lack of agro-processing and marketing facility, the producers have failed to reap their benefits. It is a matter of concern that the abundant resources, gamut of crop production possibilities, and rich biodiversity remained an unexploited storehouse of natural resources. Moreover, the traditional agricultural practices, lack of proper technology interventions and ineffective state policies have inhibited the agricultural growth, resulting in a clear developmental divide between the North-Eastern Region and the rest of the country. This complexity needs to be understood in proper perspectives. While the share of agricultural sector to State Domestic Product (SDP) varied from 16.26 percent in Mizoram to 27 percent in Assam during the year 2013-2014, the growth rates of state domestic product have been decelerating across the States. The decadal growth rate of the SDP in two important states of Arunachal Pradesh and Assam during 2013-14 was 2.47 percent and 2.3 percent respectively, which is far behinds the national level. However, Tripura, Nagaland, Manipur and Meghalaya registered higher.

The growth rate of agricultural sector during the period was much lower than expected at 0.4 and 1.3 percent in Assam and Arunachal Pradesh respectively while the same in other constituent states however, is relatively better in statistical terms. Ironically, the growth of per capita income has been at snail speed, hovering around

1 per cent which is lower than the population growth rate. In fact, the declining overall growth rates, since the 1980's is not all adequate to generate surpluses for investment and purchasing power, not to speak of providing additional employment potential.

The region is actually caught in the various cycle of low agricultural productivity leading to smaller market size and perpetuating poverty culminating at social unrest. The large income gap is also pushing the region to a position of the poorest in the country. An examination of the rank of Human Poverty Index (HPI) shows that 6 out of 8 States (including Sikkim) in the NER lie amongst the group of the poorest States in the country. The absolute number of population below that is exactly 10 percentage points higher than the all India level in 2001. The situation of unemployment is at an increasing rate of 4.6 percent in Assam, which is double the all India rate. The same is also unfavourably high in other States. The Human Development Index (HDI) also shows abysmal picture in the North-Eastern Region (Government of India, 2001). The values of HDI shows that four out of seven States in the NER lie among the last ten infrastructure deficient States in the country, having their relative rank at 28<sup>th</sup> in Arunachal Pradesh, 26<sup>th</sup> in Assam, 24<sup>th</sup> in Meghalaya and 20<sup>th</sup> in Tripura. The picture is slightly better in Mizoram and Manipur. Since, infrastructure is a pre-requisite to economic development and its deficiency explains the backwardness of the region.

The issues related to the pattern of growth of food production, intra-regional food security, employment opportunities both in farm and non-farm sectors, pattern of growth of infrastructure, including marketing organization need to be understood. The sources of further growth need to be identified while scoping revitalization of agricultural diversification.

In recent years, the central and state governments have undertaken several initiatives to stimulate regional economy and promote agricultural growth. A large number of studies have also dealt with the issues of agricultural development in the NER. However, the answer to the question on developmental impact remained feeble and its gain unequal. Low productivity and risky agricultural production possibilities of a wide range of fruit and vegetables, flowers and herbs, spices and plantation crops (i.e. tea, coffee, rubber) in the region; much of these could be processed and gainfully traded in the rest of the country and worldwide.

The Smaller size of total cultivable area prohibits horizontal expansion of agricultural production practices, It is found that the percentage of net sown area (per cent of geographical area) is as small as 2 percent in Arunachal Pradesh and less than one-tenth



of total area in Mizoram and Manipur while in Nagaland and Meghalaya it is 13 per cent each. At the regional level Assam occupies the highest share accounting for 78 per cent of the total cultivable area. Among the crops, the cereals occupy, on an average, 74 per cent of the gross cropped area, which varies from 62 percent in Manipur to 95 percent in Nagaland. Rice is the major staple crop commonly grown in all the states. But the existing rice based production system failed to provide adequate household income support. On the whole, agriculture in the NER is characterized by uneven land, high and variable rainfall pattern and ethnicity. Inter-state disparity in most economic indicators is highly conspicuous. Rice dominates agriculture, but the productivity is low and production risky. Further expansion of cultivable land is constrained by geo-physical limitation.

## CONCLUSION:

Despite the abundant natural resources, congenial climate and rich human capital, the NER has failed to reap the benefits of huge opportunities for societal welfare. In effect, the agricultural economies are falling back to the vicious cycle of low productivity, unemployment, low income and poverty and continue to limp, and this has increased the social threat perceptions. Institutional change supporting economic enhancement and growth at a social level requires economic incentives, supported by political will. With India moving into a new era of economic liberalization, the region should not be left out. To solve the problems of the region, a single factor solution is not sufficient but on a complex set comprising socio-economic, geo-political, biophysical, technological and good governance. Therefore, a synergy is needed among the interdisciplinary research community, policy planners and implementers, along with civil society to deal with the multifaceted situation. It is felt that the region needs appropriate policy and investment to boost development process. This necessitates forming a policy dialogue forum for suggesting effective policy communication by involving the stakeholders. The forum should help formulate actionable plans and develop mechanism to monitor the progress on regular intervals. Rebuilding the image of the North Eastern Region and concomitant corrections through effective public-private participation is required urgently to attract entrepreneurs and capital. It is observed that there is highly positive correlations between economic development and agricultural development. Unless and until we make a major breakthrough, the region will remain in the state of vicious circle of underdevelopment.

## REFERENCES

- Baishya, P., et al. (1997), *Developmental Issues of North East India*, Prof. P C Goswami Memorial
- Banerjee, A., (2006), "Economic Growth and sustainability of North Eastern States", in P.M. Passah (Ed.) (2006), *In Defence of Regional Economic Development in India: A case for the North East*, Akansha Publishing House, New Delhi.
- Barah, B.C. (1993), *Constraints to Agricultural Development in Assam*, Journal, NEICCSR
- Barah, B.C. (2005), *Prioritisation of Strategies for Agricultural Development in the North-Eastern India*, Proceeding Series, No. NCAP, New Delhi
- Barah, B.C. and Pratap Singh Borthal (2006), *Agricultural Diversification and Sources of Growth in the North-East India: Role for High value Agriculture*, NCAP Research Project, New Delhi
- Bardoloi, G. and A. K. Neog (1986), *Economy of North Eastern India*, LBS Publication, Guwahati.
- Baruah, A. (Ed) (2005), *India's North East: Developmental Issues in a Historical Perspective*, Manohar Publications, New Delhi
- Borthal, P.S., A.K Jha, P.K Joshi and D.K Singh (2006), "Agricultural Diversification In North Eastern Region of India: Implication for Growth and Equity", *Indian Journal of Agricultural Economics*, Vol 61, No.3, July – September pp. 328-340. Centre for Monitoring Indian Economy, 2004, 2005, *Agriculture*, Mumbai.
- Borthal, P.S. (2006), *Promoting Growth and Equity in Agriculture in North-Eastern Region of India: Is There a Role for High value Crops ?*, NCAP, New Delhi (mimeo.).
- Dev, Bimal J. and B. Datta ray (2006), *Changing Agricultural Scenario In North East India*, Concept Publishing Company, New Delhi
- Government of India (2003), *Integrated Mission for Horticulture Technology*, Department of Agriculture and Cooperation, New Delhi.
- Government Of India (2005), *Approach Paper for the Eleventh Five Year Plan*, Planning Commission, New Delhi.
- National Academy of Agricultural Sciences (NAAS), 2006, *Draft Vision 2020 of North East India*. North Eastern Region Vision 2020, Ministry of Development of North Eastern Region, North East Council.
- Passah, P.M. (2006) (Ed.), *In Defence of Regional Economic Development in India: A Case for the North East*, Akansha Publishing House, New Delhi.

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