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UNBALANCED AGRICULTURAL DEVELOPMENT IN NORTH-EAST INDIA

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Unbalanced development and regional disparities are very ubiquitous phenomena both in developed and developing economies. But these problems are more acute and dangerous in developing economies like that of India due to her overwhelming nature of backwardness. Before independence when the Indian economy watched a very slow rate of growth, it was also not free from glaring unevenness and disparities due to half-hearted and whimsical approach to the concept of development by the British Government. This unevenness got more intensified and was on the rise only after independence when the National Government started its planned development programmes through Five Year Plans since 1951. In the early phases of India's planned economic development efforts were mainly confined to sectoral economic development with greater emphasis on rising the per capita income of the people. As a result, certain areas went ahead leaving others lagging behind and thereby creating disparity among the different states in India. The economy as whole also faced the problems of sectoral imbalance and widening gap between the rich and the poor. To face all these challenges successive five year plans stressed on *balanced regional development* as one of the objectives of development policy. In the First Five Year Plan, it was mentioned that the pattern of development would take due 'considerations of regional balance and sustained growth'. But due to lack of adequate resources no deliberate attempt was made to correct regional disparities. The regional disparities in the first plan were increased rather due to the wide gap in the per capita development expenditure of different states. The Second Plan, however, declared: "In any comprehensive plan of development, it is axiomatic that the special needs of the less developed area should receive attention. The pattern of investment must be so devised as to lead to balanced regional development" (Vaidyanathan, 1986). The Plan also aimed at reducing the regional disparities through the identification of backward areas for the purpose of locating new enterprises (Tripathi and Tewari, 1993). In the Third Plan not only emphasis was given on balanced sectoral development based on locally available resources but also on balanced regional development, extension of

the benefits of development to less developed regions and widespread diffusion of industry in the country. In the Fourth Plan, special programmes were undertaken to develop the hilly and tribal areas. It also introduced a number of schemes for the benefit of the rural poor such as Small Farmers' Development Agency (SFDA), Marginal Farmers' and Agricultural Labourers Development Agency (MFALDA) etc. These policies and programmes were continued in the Fifth Plan as well. Besides, some specific steps such as emphasis on rural electrification, local planning, concessional finance and tax holidays for backward areas etc were suggested for accelerating the economic development of these areas. The Sixth Plan placed great emphasis on most of these on-going programmes including the emphasis on diffusion of skills and technology to backward areas so as to increase productivity. In the subsequent Plans similar attempts were also undertaken to remove poverty and inequality between the rich and the poor. But all these attempts could not yield much result as was expected. As a result, the economy is facing at present widespread imbalances inn all fronts leading to social unrest, political instability, insurgency and above all discontentment among all sections of the society.

The entire North Eastern Region like the Eastern India is at the low level of economic development although it has a tremendous potential to develop. Agriculture has been the leading sector of the economy in the region. It is playing a significant role in determining varying nature of agro-economic activities. More than 70 percent of the population in the region directly or indirectly is involved in agricultural activities for earning their livelihood. Although agriculture is the mainstay of the economy of this region its agricultural base is very poor. However, it has made great strides during the plan periods and these have been made possible through the organised efforts of improving the physical base and socio-economic infrastructure of agricultural production. Improved methods of cultivation including the adoption of high technology have been able to raise the yield of crops. The most promising high yielding varieties (HYV) technology of mid-sixties has widened the gaps inter-personally and intra-regionally (Singh and Chauhan, 1993). In fact the benefits of HYV technology have been reaped by the big farmers at large. The areas with higher levels of economic development and social consciousness have been able to take the advantage of high technology through its rapid

implementation of plans and programmes, thus intensifying the gaps inter-personally and intra-regionally.

The present paper in this regard is an attempt to focus the extent of unevenness that exists in the agricultural sector among the different states in North East India. While focusing the extent of unevenness some of the indicators in the form of few important inputs and outputs are taken into consideration for establishing the hypothesis that is proposed in the present study.

UNEVEN DISTRIBUTION OF LAND

The north eastern region comprising seven states covers an area of 25,509 thousand hectares of land which is only 7.8 percent of the total geographical area of the country as a whole (Table 1). Each state in the region is not equally endowed by the nature with their geographical areas. Arunachal Pradesh and Assam are the two big states covering more than 63 percent of the total area in the region. Tripura is the smallest state possessing only 4.1 percent as against the maximum of 32.8 percent in case of Arunachal Pradesh. Although Assam is the second biggest state in the region it takes the first position as far as net sown area is concerned. More than 72 percent of the net sown area is in this state only. Tripura being the smallest state possesses 270 thousand hectares of net sown area and relatively in much better position compared to other five states in the region. There also exists widespread unevenness among the different states in respect per capita holding of net sown area. It varies from the lowest of 0.868 hectare of land in Tripura to the highest of 1.753 hectares in Arunachal Pradesh. The percentage of cultivable waste-land which is lying unused throws some light on the further scope of agricultural development in the region. It is estimated that if cultivable waste-land is brought under cultivation the net sown area in the region can be increased by more than 20 percent. Though there is not enough scope in increasing the percentage of net sown area in each state, yet it can be increased to a considerable extent in some of the states such as Meghalaya, Mizoram and Nagaland by 244 percent, 113.8 percent and 52.1 percent respectively.

UNEVEN AGRICULTURAL DEVELOPMENT: SOME INDICATORS

Cropping intensity is one of the important indicators of development in agriculture. It measures the number of times a piece of land is cultivated during an agricultural year. In the present paper it is measured as the ratio of gross cropped area to the net sown area. It works out to be 1.396 on an average in the region which is not quite a high figure for the all round development in agriculture (Table 1). However, the estimated figures work out to be satisfactory, i.e., 1.658 and 1.648 in the states of Arunachal Pradesh and Tripura respectively in sharp contrast to 1.046 and 1.100 in the states of Mizoram and Nagaland. This not only indicates the existence of state-wise wide variations in cropping intensity but also the greater possibilities of their increase in many of the states in the region.

Irrigation in spite of being a crucial component of agricultural development has all along been neglected in the region. The present study reveals that it is yet to create a satisfactory level of irrigation facilities. It is estimated that only 22.1 percent of the net sown area are brought under irrigation. Out of 822 thousand hectares of irrigated land in the region about 70 percent of it is in the State of Assam alone as against less than 1 percent in Mizoram. There exist also wide variations in the percentage of net irrigated area to the net sown area from one state to another. Though Assam has created relatively maximum irrigation facilities in the region it accounted for merely 21.1 percent of its net sown area as against a maximum of 46.4 percent in Manipur and a minimum of 12.3 percent in Mizoram (Table 1). Thus there is a long way to go for creating impacts of irrigation on the overall productivity in agriculture to narrow down the disparities that exist among the different states.

As far as the introduction of improved seed is concerned the region has achieved remarkable progress. Table 1 reveals that a measure of 41.3 percent of the net sown area in the region is brought under HYV. More importantly, the performance of Tripura in this regard is not only highly satisfactory but also the best in the region and the followers being Manipur and Assam. There exists also glaring disparities in the percentage of area under HYV to the net sown area among the different states with the lowest being 16 percent in Mizoram and the highest being 78.9 percent in Tripura.

The most important point that needs to be highlighted is that there exists a mismatch between the net irrigated area and the area under HYV. This reflects only the incorrect proportion that is maintained among the two important inputs which probably does not create positive impact on total production and productivity in agriculture in the region.

The north eastern region is not only suffering from problems of small holdings, low cropping intensity and inadequate irrigation facilities it s also yet to take full advantage of fertilizers in raising agricultural productivity. Fertiliser consumption is observed to as low as 11.6 kg/ha in the region as against the all India average of more than 70 kg/ha. Excepting Manipur and Tripura consumption of fertilizer in all other states is below the region's average and in particular it is almost insignificant in the states of Arunachal Pradesh and Nagaland. Variation of figures from the lowest of 1.8 kg/ha to the highest of 45.7 kg/ha is simply an indication of greater unevenness in the consumption fertilizers in different states in the region.

Analysis of Table 2 reveals that the process of agricultural development is very slow in the north eastern region. Virtually there has been no progress in the form of irrigation facilities. The increases in cropping intensity, the percentage of area under HYV to the net sown area and per hectare consumption of fertilizers are marginal. However, in some states attempts have been made to increase the cropping intensity, per hectare fertiliser consumption and the area under HYV in order to achieve higher level of production. Tripura is the bright example in this regard. Arunachal Pradesh has also not lagging behind so far as increasing the cropping intensity is concerned. The performances of Arunachal Pradesh, Tripura, Nagaland and Mizoram in bringing more area under HYV are relatively much better in comparison to other three states in the region although there exists wide variations in their performance levels. As regards the increase in the consumption of fertiliser is concerned Manipur and Tripura have faired well.

The importance of agriculture in thes of State Governments has also deteriorated over time (Table 3). The data reveals that there has been a consistent decrease in the percentage of plan allocation to agricultural sector in the region. Looking at the figures from Fifth Plan onwards it can be said that there has been unequal emphasis on agriculture by the different states in the region in the form of percentage of plan

allocation. Towards the end of 1993-94, all the states in the region except Tripura have shown the negative attitude of giving less but equal emphasis on agriculture. Tripura Government is observed to be the best in giving more importance to agriculture in comparison to the other state governments in the region.

In spite of having poor agricultural base, inadequate infrastructure and the negative attitude of the state governments there has been remarkable progress in production and productivity of food grains in the region. Total production of food grains has increased by 27.6 percent and the yield by 17.8 percent over a period of 10 years from 1980-81 to 1990-91 (Table 4). This is mainly due to the impacts of HYV and application of fertiliser in some of the states in the region. This is very much reflected through the differential increase in production and yield of food grains in some of the states and thereby widening the gaps among them. Production of maize, rice and pulses has also increased to a considerable extent and in particular remarkable achievement has been made in the yield of pulses. The result also gives us enough warning to take immediate steps to improve the performance of wheat crop which is highly neglected in the region.

CONCLUSION

The process of agricultural development in the north eastern region as the study reveals is slow and unbalanced over time and space. This imbalance has been reflected through differential increase in the application of modern inputs of production, uneven increase in cropping intensity and infrastructure on the one hand and production and productivity of food grains on the other. Thus, there is a need for taking some immediate steps to put a check on this unbalanced and lop-sided growth of the regional economy and thus calling for a holistic approach to the concept of balanced development for the overall development of the region and the country as a whole.

Table 1

Geographical Area and Its Uses in N.E. India
(1990-91)

('000 hectares)

State	GA	NSA	NOH*	PHNSA	GCA	CI	% of NIA to NSA	% of AUHYV to NSA	CWL
A. Pradesh	8374	149	80	1.753	247	1.658	20.80	30.20	-
Assam	7844	2706	311	1.141	3797	1.403	21.14	40.21	104
Manipur	2233	140	56	1.136	180	1.286	46.43	64.28	N
Meghalaya	2243	202	171	1.743	243	1.203	22.77	25.25	493
Mizoram	2108	65	52	1.538	74	1.138	12.31	16.00	74
Nagaland	1658	190	125	1.488	210	1.105	31.05	20.53	99
Tripura	1049	270	120	0.868	445	1.648	15.18	78.89	1
N.E. India	25509	3722	915	1.182	5196	1.396	22.08	41.28	771

Source: Basic Statistics of N.E. Region

GA – Geographical Area, NSA – Net Sown Area, NOH – No. of Holdings for the Year 1985-86, PHNSA – Per Holding NSA, GCA – Gross Cropped Area, CI – Cropping Intensity, AUHYV – Area under HYV, CWL – Cultivable Waste Land, and N - Inclusion of figures under Land in the miscellaneous Tree Crops and Groves etc.

Table 2

Change in
Cropping Intensity, Area under Irrigation, HYV and Fertiliser Consumption

State	Cropping Intensity		% of Net Irrigated Area to NSA		% of Area under HYV to NSA		Per Hectare Fertiliser Consumption (Kg.)	
	1981 -82	1990 -91	1981 -82	1990 -91	1981 -82	1990 -91	1981 -82	1990 -91
A. Pradesh	1.357	1.658	21.4	20.8	Nil	30.2	0.66	1.78
Assam	1.276	1.403	21.2	21.1	41.4	40.2	3.14	9.92
Manipur	1.714	1.286	46.4	46.4	62.9	64.3	13.75	45.67
Meghalaya	1.052	1.203	25.9	22.8	20.7	25.2	10.84	10.91
Mizoram	1.046	1.138	12.3	12.3	Nil	16.0	0.72	11.22
Nagaland	1.072	1.105	40.5	31.1	11.9	20.5	2.13	5.29
Tripura	1.545	1.648	11.8	15.2	62.6	78.9	7.05	20.72
N.E. India	1.289	1.396	22.5	22.1	38.9	41.3	4.19	11.57

Source: Basic Statistics of N.E. Region

Table 3

Plan Allocation to Agriculture in N.E. India
(figures in percentage)

State	FIVE YEAR PLANS			1990-91 to 1993-94
	Fifth Plan	Sixth Plan	Seventh Plan	
A. Pradesh	25.0	18.3	21.6	14.2
Assam	18.7	15.9	19.0	14.6
Manipur	16.2	15.6	15.8	11.1
Meghalaya	22.1	20.7	18.5	16.2
Mizoram	32.5	20.0	19.9	14.2
Nagaland	26.6	23.6	22.2	14.0
Tripura	29.2	27.3	22.7	21.8
N.E. India	21.1	16.9	17.9	13.9

Source: Basic Statistics of N.E. Region

Table 4

Percentage Increase in Production and Yield of Some Important Crops
(1980-81 to 1990-91)

State	Rice	Maize	Wheat	Pulses	Total Food Grains
A. Pradesh	61.6 (10.6)	88.8 (8.5)	76.3 (NA)	- (-)	63.6 (11.6)
Assam	29.6 (18.4)	-3.7 (-5.6)	-11.4 (-7.8)	2.9 (2.9)	27.2 (17.9)
Manipur	0.4 (20.3)	-35.9 (-37.8)	- (-)	NA (NA)	-2.3 (-21.7)
Meghalaya	-9.6 (-13.7)	57.1 (47.8)	43.9 (NA)	140.0 (NA)	-1.5 (-19.5)
Mizoram	125.4 (27.4)	79.0 (NA)	- (-)	1600.0 (NA)	121.4 (24.0)
Nagaland	71.4 (36.6)	88.9 (36.8)	- (-)	373.9 (NA)	87.5 (36.4)
Tripura	28.5 (34.9)	- (-)	-33.0 (NA)	173.9 (NA)	27.8 (32.1)
N.E. India	28.4 (18.3)	43.5 (27.9)	-8.9 (-23.5)	25.3 (41.9)	27.6 (17.8)

Source: Basic Statistics of N.E. Region
NA: Non-availability of information
Blank spaces (-) refer to non-growing of crop

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