

AGRICULTURAL DEVELOPMENT IN BEED DISTRICT MAHARASHTRA



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ABSTRACT

Agricultural change cannot be understood separately from general process of development. Agricultural change could be achieved only through the level of technological development. Agricultural developments is a process of application of modern inputs in farming related to the reliable sources of irrigation. Agro-technological determinants like fertilizers, high yielding varieties of seeds, and agricultural mechanization together form a developed kind of agricultural. Landscape and provide a frame of parameter to measure the level of a agricultural, development of a region. (Rajapati Ram, 1979).

Introduction:

India is predominantly an agricultural country where roughly 70 percent of its population has remained engaged in agriculture. Agriculture forms a backbone of our economy and it also supports the agro-based industries. Figures supplied by the National income committee and central statistical organisation show clearly that agriculture contributed 68 percent of the national income 2004-05 but contributed how around 41 percent of the national income (Economic and political weekly). The share of agriculture in national income, however, has been decreasing continuously and the shares of the Manufacturing and service sectors are increasing. The economy, as a whole, continues to vitally hinge on agriculture (Nadkarni - 1996). The natural phenomena and their effective environment, socio-economic-political dimensions structural situations.

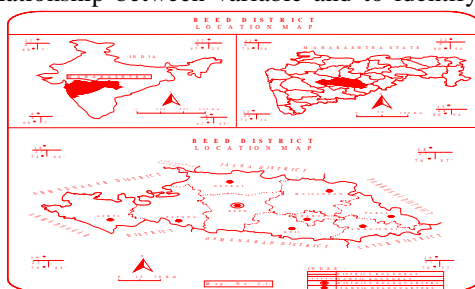
The regional institutional set-up varying over geographical area together provide a climate for a particular nature of agricultural development. A deterioration of environment adversely affects development itself and harms human beings. Particularly the process in whose name development is undertaken. In the wake of population explosion and food security, the green revolution technologies appeared to be all answer but they are associated with low sustainability and low/medium equitability (Adcliff, 1992). The planning commission specified the various programmes for increasing agricultural production such as irrigation, soil conservation, dry farming and land reclamation, supply of fertilizers and manures, better ploughs and improved agricultural implements, adoption of scientific practices etc. The Government gave considerable attention to

institutional changes such as the setting up of community development programmes and agricultural extension services throughout the country. The use of land reforms expansion of transportation facilities, improvement of the system of co-operative credit etc. From third plan onwards, the greatest emphasis was laid on new fertilizers seed technology. Agriculture including soil conservation, minor irrigation.

Study Area: Beed district is located in the central part of the Marathwada division is situated on the Balaghat in Maharashtra and lies between 18°28' and 19°27' north latitudes and 74°54' to 76°57' east longitudes (map No. 1). The east-west stretch of the study region is 268 kilometres and north-south extension of the region is 127 kilometers. But for the projection of Ashtitahsil towards Ahmednagar in the west, the district assumes the shape of trapezium with southern and northern sides running almost parallel. It is bounded by Aurangabad and Jalna district on the north, Parbhani on the north-east, Parbhani and Latur on the east, Osmanabad and Latur on the south and Ahmednagar on the south-west. Osmanabad and The Godavari forms the boundary of the district northern border. The southern boundary mostly coincides with the course of the Manjara but makes a considerable number of deviations from it, some to the north and others to the south. The southern boundary similarly follows the course of the river with three deviations away from the river. Geographical area of this district as per 2001 census is 10615.30 square kilometers and its proportion as compared with Maharashtra state area is about 3.44 percent. The proportion of the area of the Beed district in Marathwada division is 18.55 percent. For administration the district is divided into eleven tahsils. Old seven tahsils are divided into eleven

tahsils. Old seven tahsils are Beed, Geori, Majalgaon, Ambejogai, Kaij, Patoda, Ashti and Wadwani, Shirur, Dharure and Parli are newly declared tahsils. Out of the total geographical area 10615 sq. kms. is rural 10380 sq. kms and 234.9 sq. kms is Urban. 2001 census there were 1280 villages in the Beed district. In 2001 there are 2161412 people living in this district who accounts for 2.23 percent of the total population of the state. Sex-ratio is 936 female per thousand male. The percentage of literates in the area has gone up from 52.3 percent in 1981 to 67.6 percent in 2001.

Objective : The main objective of the present investigation is to assess the spatial-temporal relationship between variable and to identify the



levels of the agricultural development in Beed district of Maharashtra.

Data Base and Methodology : The entire data used for the present study have been obtained from secondary sources published by the Directorate of Economics and statistics, Government of Maharashtra with the only reason that the latest data for all the selected indicators were available only up to this year. There are several methods used for synthesizing different types of indicators. These can be grouped into two broad types. Firstly unweighted index and secondly those weighted by some standardized value. Example of the first type is the ranking coefficient technique of Kendall (1939). While there is not widely accepted work of second type. It is primarily based on the principle of score there are a number of studies dealing with the measurement of agricultural development. These studies have included different indicators for analyzing the levels of development. (P.s. Sharma 1972). For analyzing the spatial pattern of agricultural development in other method has been adopted here, which can be termed as weighted composite index of agricultural development. These indicators have been grouped in to two classes output and input factors. The input factors has been combining into a common index on the principle of relative weightings. The results of both output and input have been combining by adding them after converting block scores into percentages of their respect means for the district the

resultant scores thus arrived incorporates both levels of input and output giving them equal weightage.

Landuse pattern : Landuse is the surface utilization of all developed and vacant land on a specific point, at a given time and space. "This leads one back to the village farm and the farmer to the fields, gardens, pastures fallow land, forests and to the isolated farmstead" (Freeman 1968). Among the land resources, agricultural land resources have played a vital role since time immemorial engaging the largest percentage of the inhabitants of the world (majeed, 1992). Geography deals with the spatial relationship between these aspects and planning land utilization shows a reciprocal relationship between the prevailing ecological conditions of a particular region and man. The importance of Landuse studies is increasing with the continuous increase in population. The diversity of topography and soils should be studied carefully in order to put land to the most efficient use and the development programme should be properly used and implemented. Shows that five years average data for 1981-85 and 2001-05 is used for computing the percentage of area under each category of land to total geographical area. About 708200 hectares or 63.40 percent of the geographical area of the region was under net sown area during 1981-85. Net sown area has increase 20.20 percent during the period 1981-85 to 2001-05. Forest area has decreased 0.22 percent and land put to area available for cultivation has decreased 0.44 percent. Fallow land area has very high decrease 17.60 percent. 1.99 percent hectares area under forest in the region during 2001-05. This brings total cultivable area to 83.60 percent of total geographical area in 2001-05. **See Table No.1**

Cropping pattern :

Cropping pattern means the proportion of area under various crops at a time. Difference in attitude towards rural land in the level of prosperity and in technology have product significant changes which are only gradually coming to be appreciated, without in the long run their effects in both landscape and landuse studies are likely to be for reaching (Coppock J.T.1968). It reveals that in trends cropping pattern, food crops occupied the largest area. In the year 1981-85 the area under food crops was 69.14 percent in the region. Which decreased to 62.57 percent in 2001-05. Jowar is the leading crop of the region followed by bajra and wheat. Other food grains (pulses) occupied small proportion of area, Among the non-food crops cotton occupies dominant place. About 21.64 percent area under cotton in the year 1981-85 which increased to 34.18 percent of total

cropped area under cotton. Other non-food crops area not significant in the cropping pattern of the study region. Area under other pulses and tur, grams and urad noticed slight increasing trend but area under gram has shown decreasing trend during the period under investigation.

Area under sugarcane has noticed increasing trend during 1981-85 to 2001-05. Investigations pertaining to study of changes in cropping pattern assume special importance in taking cognizance of soil climate factors and the crops that could be cultivated within particular environment (Pandit Somnath 1983). Impact of changes in technology, economy and institutional factors can be felt only when the existing cropping pattern undergoes a change. Generally the farmers have a tendency to stick to a stable cropping pattern under any given agroclimatic region. Cropping intensity is defined as the extent to which the net area sown has been cropped or resown. The total cropped area or gross area sown as percentage to net area sown gives a measure of land use efficiency, which really means the intensity of cropping (Singh, 1972). The effect of irrigation facilities and cultivators per 100 hectares of the cultivated area the impact of the nature of soil. Meager rainfall and size of holding were the most direct explanations of the variation in the area distribution of cropping intensity. The intensity of cropping of the study region was 108.52 and 114.65 percent during the year's 1981-85 and 2001-05 respectively. It is revealed that most of the tahsils having 110 percent during 1981-85. Out of three tahsils namely Patoda, Beed and Keja tahsils low cropping intensity. Indicated that Georai tahsil recorded cropping intensity in the range 110 to 115 percent. Three tahsils namely Ashti, Manjalgaon and Ambejogai showed a better position and came under the range of 115 to 120 percent cropping intensity. During the period 2001-05 there is variation in cropping intensity. Most of tahsils namely Keja tahsil registered cropping intensity varied from below 110 percent. Remaining tahsils Georai Patoda and Beed have registered improvement in cropping intensity. Georai tahsil shows in above 120 percent is very high cropping intensity. While the tahsil Beed Ashti, Manjalgaon and Ambejogai has slightly improved in the cropping intensity. Most of the lands of these areas cover balaghat region. It leads to intensity of cropping in areas with moderately good and good land by increasing the irrigation facilities and socio-economic cultural raising the perception behaviors and cultural pursuits of the tribal people of the region. Which is also essential for

popularizing modern farm technology, and raising productivity.

Spatial pattern of development :

The use of high yielding varieties of seed is comparatively very limited in the district. Use of modern agricultural innovation has proved panacea for raising the production. These innovations include new and improved inputs, such as high yielding varieties of seeds. Irrigation, fertilizers, chemicals for pest and disease control: tools and implements improved Agricultural practices and methods for the management and marketing system. **See Table No. 2**

i) High level of Agricultural Development:

Two tahsils viz, Manjalgaon and Ashti have recorded high level of agricultural development in the study region as they have more favorable physical and non-physical environment. Nearly 11650 irrigational wells found in Ashti tahsil. During 2001-05 out of the total net sown area nearly 61 percent area was under irrigation in this tahsil, River Mekhari and Sina plays important role in the development of agriculture in Ashti tahsil. In Manjalgaon tahsil Godavari river flows at the northern border Saswati, Kundalika and Sindhphana rivers are also flowing through Manjalgaon tahsil. Black and alluvial soils supports to the agriculture. Manjalgaon Major irrigation project also played important role in the development of agriculture.

ii) Medium level of Agricultural Development :

Georai, Beed, Ambejogai, Sirurkar, and Parli tahsils have shown medium level of agricultural development. Georai is agriculturally developed but as far as entire tahsil is concerned it comes medium of agricultural development. Beed tahsil has more benefit of Bendsura project. There are 130 minor irrigation schemes and 9467 irrigation wells in Beed tahsil. During 2001-05 about 42.06 percent net sown area was recorded under irrigation Ambejogai has van, Bodhegaon and Borla medium irrigation projects, Manjara Major irrigation projects provides provides water to the south west part of Ambejogai tahsil, sirurkar and Parli tahsils medium agricultural development there are minor irrigation schemes and irrigation wells in this tahsils.

iii) Low level of Agricultural development :

Patoda, Kaij, Wadwani and Durur tahsils have shown low level of agricultural development in the study region. Environmental conditions of this area are not favorable, both in respect of adoption of innovations and in productivity also in lower side. Infrastructural facilities are very low. Therefore peoples of these areas do not get avail the security, prestige and minimum living standard for their life.

Table No. 1

Sr.No.	Major land use categories	Are in Hectares 1981-85	Are in Percent	Are in Hectares 2001-05	Are in Percent	Are in change Hectares.
1	Forest land	24700	2.21	21217	1.99	-0.22
2	Land put to area not available for cultivation	47100	4.22	40422	3.78	-0.44
3	Other uncultivated land	65100	8.83	41591	3.89	-1.94
4	Fallow land	271900	24.34	72035	6.74	-17.60
5	Net Sown area	708200	63.40	893235	83.60	+20.20
6	Total Geographical area	1117000	100	1068500	100	20.20

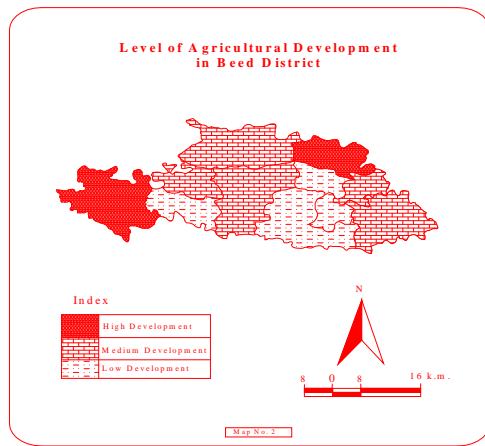
Table - 2: Status of Adoption of modern Green technology and level of development.

Tahsil	Irrigated area	Credit facilities	Agricultural implements	High Yielding seed	Chemical fertilizers	Composite Index Variety
Ashti	140.72	105.15	114.54	181.20	106.41	131.27
Patoda	90.14	89.3	102.14	64.12	70.16	92.72
Beed	81.14	113.89	108.61	54.03	114.20	118.27
Georai	90.86	102.54	120.16	62.71	89.17	114.16
Kaij	95.26	111.53	90.15	126.31	86.42	80.67
Majalgaon	197.65	68.65	126.88	170.21	160.58	144.32
Ambejogai	80.70	110.62	89.62	140.20	135.64	116.26
Sirurkasar	64.16	90.18	116.24	121.28	67.48	104.06
Wadwani	70.43	88.12	91.54	109.45	80.17	92.86
Parli	60.09	69.56	98.81	141.72	118.90	124.62
Darur	78.82	95.36	144.56	109.20	105.24	98.74
Dist	103.63	95.02	109.39	116.40	103.12	110.72

Source : Computed by the Author.

Conclusion :

The conclusion that may be derived from the preceding analysis. The level of agricultural development is not uniform in all tahsils. The tahsils, which have high level of agricultural development, do not need any spatial efforts. In moderately developed tahsils the present planning strategies need to be slightly modified and the tahsils with low level of agricultural development could be raised as a sustained, ecologically with socially desirable and they may come up at par with developed areas in the district. Such deprived regions settled with deprived people require special attention for their well being in the region. To avoid the situation from worsening, therefore, these tahsils must be kept at par in planning for sustainable rural development. Further it is pre-requisite to create awareness in the people and to motivate them to utilize the opportunities.



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