REVIEW OF RESEARCH
IMPACT FACTOR : 5.7631(UIF) UGC APPROVED JOURNAL NO. 48514 ISSN: 2249-894X
VOLUME - 7 | ISSUE - 12 | SEPTEMBER - 2018

CROPPING PATTERN OF BEED DISTRICT

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ABSTRACT

Farmer's perspectives on land acquisition and the factors that contribute to their use have been examined to formulate a view of farmer's views on these aspects for some strategic implementation. Farmers consider these aspects for some strategic effect. From land use, farmers specialize in one use and that can be achieved through land use. If the two aspects of expectations and perceptions are the same, then no problem will arise. If the level of comprehension is lower than expected, it can cause many problems. Therefore, the present study focuses on these factors as well.

KEY WORD: *strategic implementation , Farmer's perspectives.*

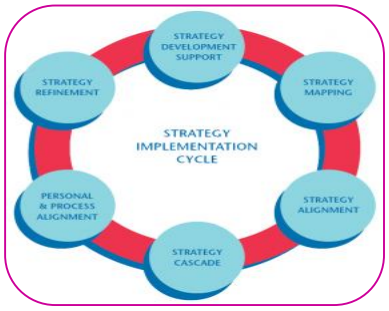
EVOLUTION OF LAND AND PLANNING OF LAND USE:

The purpose of land use planning is to select the land and land use pairs that will meet specific objectives. These goals can be related to social, economic, political or conservation. They are concerned with improving productivity, preventing existing or future land use disputes, or bringing new forms of land use. All of these goals or objectives can be tailored to the national, district, village or individual family level.

Land-use planning is the process of regulating land use in an effort to encourage more favourable social and environmental impacts as well as more efficient use of resources. Land use planning objectives can include environmental conservation, restraint on urban areas, reducing transportation costs, preventing land use conflicts, and reducing pollution exposure. To a large extent, land use determines the various socio-economic activities that occur in a particular area, the pattern of human behaviour they generate, and the impact on the environment.

In urban planning, land use planning seeks to order and regulate land use in a competent and ethical way, thereby preventing land use disputes. Governments use land use planning to manage the development of land in their jurisdiction. In doing so, the governing unit can plan for the needs of the community while protecting natural resources. For this, systematic assessments are made to select and adopt alternatives for optimal utilization of land and water potential, real estate options and economic and social conditions. One component of the most comprehensive plan, land use planning, provides a vision for the future potential of development in neighbourhoods, districts, cities or any defined planning area.

For various reasons, the land is in danger of being constantly disturbed and sunburned. In India, a total of 148.9 million hectares of land, which represents 45% of the total geographical area, is subjected to erosion and soil erosion. Due to the different types of sedimentation, it is estimated that there is a loss of 6.13 million tons of soil annually, which is about 5.68 to 8.7 million of the plant's nutrients. Nutrients are worth millions. Damage to the topsoil and loss of runoff is especially high in areas covered by small vegetation or forest cover. In addition, in an attempt to meet the demand for fuel and fodder, the human population erupts, destroys plant protection, and in drought-prone areas, such conditions are exacerbated and rainfall less



than 750 mm. About 35.3% of the area in Maharashtra is known as drought affected and it is tehsil in districts. In the Se-Zone, an urgent phase has arrived where appropriate soil and water conservation measures have been immediately warranted to reduce soil and water retention.

Land use planning is defined as: the process of considering the optimum forms of land use and management, considering the biophysical, technological, social, economic and political conditions of a particular region. The purpose of land use planning is to influence, control, or directly alter land use, so that it is devoted to the most profitable use while preserving the quality of the environment and promoting the conservation of land resources. Creates regional diagnostics and management and environmental protection options for land use planning, creates the essential knowledge needed to create usage strategies, and contributes to the exploration of competitive and sustainable producers and innovations and activities. The systematic process of land use planning contributes to: resolution of orientation and utilization disputes regarding the location of economic and social activities in relation to the suitability of land; Show the foundation of natural resources that should remain and be protected areas; Show areas facing natural hazards and their management; Identifying sustainable manufacturers and extraction activities and systems; Guide to land use planning and indicate the areas that require land adaptation or recovery projects.

CROPPING PATTERN CHANGES IN BEED DISTRICT:

Changes in crop pattern will affect the changes in areas under different crops. Change is an important feature of agricultural land, which deserves special effort in this study. Related to changing crop patterns, diversity is caused by agro-climatic differences and is in different regions of the state. Due to differences in the availability of irrigation facilities in different areas of the state, there is an abundance of land. Research on changes in crop patterns is of particular importance in understanding the soil-climatic factors and the crops grown in certain environments. The impact of changes in technological and economic factors can be realized only if the existing crop method is modified. In general, farmers have a tendency to adapt to a stable crop system in any agricultural climate, and they do not change much from this position, except to the extent that they can be determined by cost factors.

Within each tehsil, the individual cropland or a set of patterns determines the combined crop patterns. Farmers maximize their expected yields in the allocation of land resources. The production costs and crop yields in their field decisions are largely related to changes in the crop system. Farmers are restored due to lack of adequate credit facilities and some significant changes in their area allocation of uncertain future opportunities. There is ample evidence of the gradual rate of adoption of high yielding varieties programs from small farmers in the district. In the long run, there are changes in crop pattern. A study on the change in crop practices in the district has been undertaken. An overview of the change in the total crop method in the study area during the period from 1990 to 1991 to 2018 is presented briefly in Table 5.21. The average area under the different crops and the relative share of each crop with grass-crop are deployed to study the crop pattern.

Table 1.1 Cropping Pattern Changes in Beed District

Sr. No.	Crop	Year			
		1990-91	2000-01	20010-11	2018
1.	Rice	2.29	1.37	1.94	1.61
2.	Wheat	7.32	7.98	8.13	7.29
3.	Jawar	39.49	46.17	43.28	45.82
4.	Bajra	19.15	18.17	21.07	21.74
5.	Gram	6.12	5.93	6.10	2.17
6.	Mung	7.03	1.75	3.94	4.36
7.	Groundnuts	7.23	8.31	7.59	8.69
8.	Sunflower	5.84	6.12	3.95	4.81

9.	Cotton	5.14	4.36	3.98	3.74
10.	Sugarcane	0.38	0.74	1.35	1.84
11.	Condiments and Spices	0.64	0.71	1.34	4.28
12.	Fodder Crops	0.17	0.13	0.07	0.10
13.	Vegetable and Fruits	0.67	0.76	3.01	2.86
14.	Other Cereals	1.21	1.48	1.63	0.84
15.	Total Cereals	70.24	72.39	69.41	65.17
16.	Other Pulses	3.47	5.38	4.84	5.03
17.	Total Pulses	16.87	16.18	19.08	18.40
19.	Other Oil Seeds	3.74	0.24	8.71	11.28
20.	Total Oil Seeds	16.84	9.41	6.17	12.70

Source: Socio Economic Status of Beed District

1. **Cropping Pattern in 1990-91:** the gross cropping pattern area is hundred percent out of that 2.29 percent was under the rice crop, 7.32 percent was undet wheat area, highest area that is 39.49 percent was under Jawar crop, 19.15 percent of the area was under the Bajra, 6.12 area under Gram, 7.03 percent was under Mung, 7.23 percent area was under Groundnuts, the area under sunflower was 5.8 percent, 5.14 percent was under Cotton, 0.38 percent was under Sugarcane, 0.64 percent was under Condiments and spices, the area under vegetable and fruits was at 0.67 percent, area under other cereals was at 1.21 percent, 70.24 percent was under total cereals, 3.47 percent was under other pulses and the area under total pulses was 16.87 percent, area under other oilseeds was 3.74 percent and area under total oilseeds was 16.84 percent.
2. **Cropping Pattern in 2000-01:** the gross cropping pattern area is hundred percent out of that 1.37 percent was under the rice crop, 7.98 percent was undet wheat area, highest area that is 46.17 percent was under Jawar crop, 18.17 percent of the area was under the Bajra,5.93 area under Gram, 1.75 percent was under Mung which was drastically decreases by 5.28 percent as compared by 1990-91 year, 8.31 percent area was under Groundnuts, the area under sunflower was 6.12 percent, 4.36 percent was under Cotton, 0.74 percent was under Sugarcane, 0.71 percent was under Condiments and spices, the area under vegetable and fruits was at 0.76 percent, area under other cereals was at 1.48 percent, 72.39 percent was under total cereals, 5.38 percent was under other pulses and the area under total pulses was 16.18 percent, area under other oilseeds was 0.24 which was decreases by 3.50 percent as compared by year 1990-91 and area under total oilseeds was 9.41 percent which also big changes as compared by year 1990-91 with 7.43 percent.
3. **Cropping Pattern in 2010-11:** the gross cropping pattern area is hundred percent out of that 1.94 percent was under the Rice crop, 8.13 percent was under wheat area, highest area that is 43.28 percent was under Jawar crop, 21.07 percent of the area was under the Bajra, 6.10 percent area under Gram, 3.94 percent was under Mung which was again increases by 2.19 percent by year 2000-01, 7.59 percent area was under Groundnuts, the area under sunflower was 3.95 percent which was decreases by 2.17 percent by year 2000-01, 3.98 percent was under Cotton, 1.35 percent was under Sugarcane, 1.35 percent was under Condiments and spices, the area under vegetable and fruits was at 3.01 percent which increase by 2.25 percent as compared by 2000-01, area under other cereals was at 1.63 percent, 69.41 percent was under total cereals, 4.84 percent was under other pulses and the area under total pulses was 19.08 percent, area under other oilseeds was 8.71 percent which was highly increases by 8.47 percent as compared by year 2000-01 and area under total oilseeds was 6.17 percent which also big changes as compared by year 1990-91 with 7.43 percent.
4. **Cropping Pattern:** the gross cropping pattern area is hundred percent out of that 1.61 percent was under the Rice crop, 7.29 percent was under wheat area, highest area that is 45.82 percent was under Jawar crop, 21.74 percent of the area was under the Bajra, 2.17 percent which was decreases by 3.93

percent area under Gram, 4.36 percent was under Mung, 8.69 percent area was under Groundnuts, the area under sunflower was 8.69 percent, 3.74 percent was under Cotton, 1.84 percent was under Sugarcane, 4.28 percent was under Condiments and spices which was increases by 2.94 percent by year 2010-11, the area under vegetable and fruits was at 2.86 percent, area under other cereals was at 0.84 percent, 65.17 percent was under total cereals, 5.03 percent was under other pulses and the area under total pulses was 18.40 percent, area under other oilseeds was 11.28 percent which was increases by 2.57 percent as compared by year 2010-11 and area under total oilseeds was 12.70 percent which also big changes as compared by year 1990-91 with 6.53 percent.

1.2 Tehsil wise Crop Concentration Pattern

Sr. No	Tehsil	year	Crop						
			Rice	Wheat	Jawar	Bajra	Gram	Tur	Mung
1.	Ashti	1990-91	0.27	0.53	1.79	1.10	0.78	0.51	1.27
		2018	1.02	0.72	1.73	0.95	1.19	0.49	0.73
2.	Pathoda	1990-91	2.93	0.83	0.96	1.56	0.93	0.96	0.71
		2018	1.46	0.88	1.09	1.63	0.97	1.03	0.61
3.	Shirur	1990-91	0.31	0.43	0.91	0.95	0.19	0.11	0.56
		2018	0.49	0.51	1.03	0.83	0.27	0.53	0.68
4.	Georai	1990-91	0.38	0.96	1.15	1.59	1.14	1.17	1.93
		2018	0.91	1.63	1.03	1.11	1.42	1.43	1.81
5.	Majalgaon	1990-91	0.71	0.79	1.12	0.83	0.87	0.87	0.42
		2018	2.13	1.29	0.76	1.59	0.71	0.71	2.05
6.	Wadwani	1990-91	0.71	0.52	0.93	0.86	0.18	0.79	0.81
		2018	0.63	0.43	0.86	0.49	0.13	0.51	0.61
7.	Beed	1990-91	0.89	0.91	0.91	1.43	0.97	0.95	1.13
		2018	1.48	0.86	1.15	1.12	0.71	0.53	0.52
8.	Kaij	1990-91	2.37	1.51	0.94	0.97	1.76	1.79	1.23
		2018	0.73	1.67	1.09	0.77	1.70	1.73	1.35
9.	Dharur	1990-91	0.31	0.93	0.39	0.40	0.19	0.28	0.83
		2018	0.42	0.31	0.16	0.48	0.21	0.32	0.57
10.	Parli	1990-91	0.28	0.51	0.72	0.32	0.24	0.43	0.68
		2018	0.39	0.57	0.81	0.48	0.58	0.55	0.45
11.	Ambejogai	1990-91	0.43	1.93	1.28	0.48	0.95	0.96	0.91
		2018	0.38	0.84	1.05	0.98	0.84	0.86	1.38

Source: Socio Economic Status of Beed District

The above table describes about the tehsil wise crop concentration pattern and it was shows all crops details as follows….

1. **Rice:** The tehsils of Ambejogai, Asti, Manjalgaon and Jirai tehsil recorded lower density than rice, whereas in Beed tehsil, the average proportion of rice was recorded in 1991-2018. During the period 1991-2018, Kaij and Patoda Tehsils had a high concentration. After 28 years, low to medium changes have been observed in Asti, Gyorai, Shirur, Wadvani, Dharur and Parli tehsils. During the course of the inspection, Kaij has reported very little to no change. Beed tehsils have recorded moderate to high concentration of during 1990-91 to 2018. There has been no change in the other tehsils between the periods of 1990-91 to 2018.
2. **Wheat:** Ambajogai and Kaij Tehsil have shown high levels of concentration in 1990-91. A moderate degree of concentration has been reported in Beed and Giroi tehsils. Wheat production has been low in Patoda, Shirur Wadvani, Dharur, Parli and Ashti Tehsil during 2010-11. Tehsils like Asti, Patoda and Kaij in

Beed did not show any change between the years 990-91 to 2018. Ambajogai Tehsil reported high to low change. Low to high change was reported in Majalgaon and moderate to high degree of change was observed in Georai during interrogation.

3. **Jawar:** The highest concentration of Jawar has been recorded in Jowar, Asti, Majalgaon and Ambajogai tehsils, whereas in Beed and Kaij tehsils, sorghum has declined in 1990-1991. In Patoda, Shirur, Wadvani, Dharur and Parli tehsils, the lowest concentration of Jawar was recorded in 1990-91. The two tehsils, such as Ashti and Ambejogai, were not involved in the period between 1990-1991 and 2018. During the 28 years there was a shift from low to medium in Patoda, Shirour after a period of 28 years. Kaij, Dharur, Wadvani and Beed tehsils showed moderate to high tide density. Shirur recorded high to moderate shifts during the inspection period and Majalgaon, Parli high to low degree.
4. **Bajra:** During the period 1990-91, Beed, Patoda, Shirur, Vadwani and Giroi tehsils had high concentration of Bajra concentration and moderate concentration of Bajra was found in Ashti, Dharur, Parli and Cage tehsil. In Ambajogai during 1990-91. The concentration of millet was low 1990-91. Majalgaon tehsil has shown an outward shift from low to high concentration in the market area, and Ambejogai showed moderate to low concentration in the market area in Tehsil like Cage and Ashti between years 1990-91 and 2018 Period of inspection.
5. **Gram:** Higher levels of rural concentration were found in Cage tehsil, while moderate to moderate rains were found in Beed, Jirai, Majalgaon, Ambajogai and Patoda, Shirur and Vadwani tehsils. In the 1990-91, the proportion of rural areas in the Aastiy was found. Beed, Ambejogai, Majalgaon and Ambejogai tehsil were moderately modest changes over a period of Gram years 1990. There is no change in the village concentration area between Patoda and Cage tehsil from 1990-91 to 2018. During the period 1990-91 to 2018, the Georai Tehsil recorded the highest receipt for medium to high concentration in the village area.
6. **Tur:** During the period 1990-91, high area of Tur area was recorded in Ambejogai, Shirur, Wadwani, Dharur, Parli Giorai and Kaij tehsils. A moderate degree of concentration of Tur area was found in Beed and Manjalgaon tehsils. The Lower Tur area was recorded in Patoda and Ashti Tehsil in 1990-91 during. 1990. Even the tehsils like Patoda, Asti, Kaij, Ambajogai and Georai did not show any change during the investigation. Beed Tehsil has registered a degree of moderate to low concentration for the Tourist Area. The Majalgaon tehsil showed an upward shift in the concentration of the middle to high degree of tourism in the period 1990-91 to 2018.
7. **Mung:** Due to favourable physiological conditions during the period 1990-91, the highest concentration of Mug area was reported in Georai, Asti, Kaij and Beed tehsils. In 1990-91, moderate levels of concentration of Mug area were recorded in Ambajogai in Patoda Tehsil. There was no change in tehsils like Georai, Shirur, Dharur, Wadwani, Parli, Patoda and Kaij during the period from 1990-91 to 2018. The lower shifts were recorded from the upper and lower degrees of concentration of Beed and Ashti Tahsil Mung area. During the period 1990-91 to 2018, Majalgaon recorded the upper shift of the low to high and Ambajogai medium to high Moog concentration. The physiological and non-determinants of agriculture are responsible for changes in crop concentration levels during the inspection period.

CONCLUSION:

crop cultivation shows close association with other cultivated land and net sowing area in Beed district. This means that if all other sown areas are changed then they will be shifted to this category and this may be due to the mainly urbanization of the cities, especially Beed, Ambajogai, Parli, Cage and Giorai. The land under this category cannot be cultivated but it can be cultivated for an extra cost. Out of total area below four percent are Beed and Georai tehsil, whereas four percent to eight percent are Beed district, Ambejogai, Kaij, Majalgaon, Shirur, Patoda and Ashti tehsils during the period of 2018 and above eight percent are Wadwani and Dharur tehsil in the period of 2018. Below two percent of negative changes not available for cultivation has observed in Shirur, Georai, Ambejogai and Beed district, whereas below two

percent positive changes land not available for cultivation ha observed Ashti, Patoda, Majalgaon, Wadwani, Dharur and Dharur tehsil in the period of 2018, whereas above two percent of negative changes are observed in Beed tehsil only and above two percent of positive changes of land not available for cultivation is observed in Kaij tehsil only.

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