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7.1 Summary

Agriculture in a way is the result of human efforts applied in the exploitation of land resources towards the satisfaction of one of man’s basic needs, food. In spite of the rapid growth of industries and service sectors in India, agriculture still is an important economic activity, employing 62 percent of total workers in 2001 (Maharashtra 64 percent in 2001). As compared to India, Maharashtra occupies 9.4 percent of the area, 9.3 percent population, 12.6 percent NSA, 11.4 percent GCA and only 4.6 percent of the gross irrigated area. Among the major crops grown, Maharashtra accounts for about half of the acreage under Jowar and 1/3rd under cotton. Bajara is another important crop, which accounts 18 percent of area while sugarcane occupies 12.7 percent of the harvested area under that crop in India. Agriculture being an important occupation in India a lot of research has been carried out at national and at state level to find out cropland use, general land use, crop productivity, problems and prospects of agriculture. Baramati tahsil is selected for the present research work. On the basis of the study, following observations have been made for its planning and development of agriculture in Baramati tahsil of Pune district.

The Baramati tahsil lies in the eastern part of Pune district of Maharashtra. The river Nira flows west to east forming the southern boundary of the tahsil and the district. The river Karha flows northwest to south-east Baramati tahsil is bounded by Indapur tahsil towards the east, Satara district towards the south, Purandar tahsil towards the west and Daund Tahsil towards the north. Climatologically, it lies in the rain shadow zone of the Western ghats and geomorphologically, it is located in the Karha and Nira basin, a part of middle Bhima basin. There are three types of soil structures: deep black, medium black and coarse shallow which are identified in the study region. The region receives rainfall from the south-west monsoon. Monsoon sets in the month of June and lasts up to October. The average annual rainfall ranges between 400 and 500 mms. The study area receives average annual rainfall of 364 mm. The mean annual maximum temperature is
recorded in May (34.6°C centigrades) while the mean annual minimum temperature is in January (18.5°C centigrades).

The road transport support for collecting and distributing agricultural products. The major district roads and village roads link with Baramti-Nira and Baramati-Phaltan state highways. The total length of Baramati-Nira State highway No.66 in the study area is 45 kilometres. Baramati-Phaltan state highway No.68 runs in the southeast direction in the study region having the length of 22 kilometres. The study region is also served by a broad gauge railway line connecting Baramati-Daund. However, the railway track of only 40 km length comes in the study area. In Baramati tahsil, out of 117 villages 38 villages that is 1/3 area gets the benefit of Nira Left canal and the remaining 79 villages, that is 2/3 of the area, depend on uneven rainfall. All these villages fall under the drought-prone area. Nira and Karha rivers are the main sources of water for these regions. The study area, like other area has witnessed a steady growth of population with its upwards trend. The growth rate of population from 1991 to 2001 was 40.65 percent, due to the agro-industrial development.

The study region consists of 117 villages and has 372919 populations in 2001 and provisional 2011 census has 479690 populations. The average density of population is 270 persons per sq.km.in the region (2001). From spatial point of view, the population density increases towards south-east. Weekly market centres in Baramati tahsil mobilize rural local resources. There are eighteen weekly market centers in the study area which provide an opportunity to consumers, sellers, traders and mediators for exchanging goods. The market centres of Murti, Karanje, Vadgaon Nimbalkar, Pandare and Wanewadi lie on State Highway No. 66 and are easily accessible market centres throughout the year. Morgaon market centre has a slender connection with other market centres in the study area owing to its isolated location. Korhale Bk., Loni Bhapkar and Supe lie on State Highway No.62. Market centers, namely, Shirsuphal, Karhati, Katewadi, Songaon, Karkhel and Mekhali are linked with state highways and major district roads. Among these market centres, Baramati town is the largest market centre and is well known for cattle marketing in the study area. Of the total population, 84.89 percent working force is engaged in agricultural pursuits. The total working force accounts cultivators is 44.41 percent and agricultural laborers are 30.52 percent.
However, the other workers increased by 5.17 percent from 1991 to 2001 in the Baramati tahsil, due to the establishment of small scale industries and the introduction of new industries in Baramati M.I.D.C. The newly established service sector also contributed in the increase.

The temporal variation in landuse pattern of study area has been studied for the period of forty years (1960-61 to 2000-01) to find out the trend in general landuse. It is found that net sown area is steadily increasing from 1960-61 to 2000-01. In 1960-61 the total net sown area was registered as 98000 hectares accounting for 70.91 percent. After forty years i.e. in 2000-01 it was recorded as 104106 hectares (i.e. 75.30 percent). The highest net sown area in Baramati tahsil was recorded in 2000-01 as 104106 hectares accounting for 75.30 percent. This increase may be attributed to increasing awareness of improved agricultural techniques and introduction of the use of new improved seeds by farmers. From 1970-71 to 1990-91 and later decades, net sown area shows decline trend. There is an average 6.13 percent increase except for the decade 1990-91 to 2000-01. This significant increase in net sown area might have been registered due to the efforts of cultivation in which more land under trees and shrubs etc. was brought subsequently under cultivation. Other types of land previously considered cultivable waste is being used by the farmers for cultivation for growing crops. Moreover, increasing awareness, and mounting pressure of population on landuse pattern has brought this land under cultivation.

The land which is not available for cultivation has steadily declined from 1960-61 to 2000-01 in the study region. The total decline during the study period is 1.33 percent. There is a slight decline during the last decade. The land not available for cultivation has been decreasing due to the increase in the land under cultivation. The temporal variations are observed in land out of non-agricultural uses and barren and uncultivated land. Non-agricultural land has been substantially decreased for the period 1960-61 to 2000-01 (1.33 percent). The land that was put under non-agricultural use has been brought under cultivation in the study area whereas barren and uncultivated land has not been brought under cultivation due to the ‘barad’ soil. This soil is very poor in humus and naturally it is less fertile. This indicates that there is a tendency of farmers to bring more land under cultivation hence; cultivable waste has been increased in the study region. The cultivable
waste includes sub-types such as permanent pasture and other grazing land, miscellaneous tree crops and groves not included in net sown area and cultivable waste. The trend of increase in the cultivable waste has been marked in this region. The fallow land includes permanent fallow, current fallow and other fallow. The permanent fallow means the land kept uncultivated for the period of more than five years. It includes land under permanent pasture, other fodder land, miscellaneous trees and bushes. Current fallow land includes the land, which is kept uncultivated during one agricultural year or even less than that. This might have been caused due to the lack of capital, natural calamity like drought or to regain the soil fertility by keeping it uncultivated. Other fallow includes the land kept uncultivated for the period of 2 to 5 years due to various reasons like non-availability of capital, lack of agricultural knowledge, indebtedness of farmers etc.

Fallow land in Baramati tahsil covers 9783 hectares having 7.08 percent (2000-01). In 1960-61, this land was 16100 hectares accounting for 11.65 percent. During the study period, from 1960-61 to 2000-01 the fallow land shows fluctuations. It reveals up and down trends. Initially, fallow land was 11.65 percent in 1960-61 and it has been steadily decreased in the later two decades. It was decreased upto2.89 percent in 1980-81. Between 1980-81 and 1990-91, this land has increased by 11.72 percent in 1990-91 then fell down to 7.54 percent in 2000-01. This indicates the change in the area under this category as; farmers want to use every piece of land for growing crops in the study region. Baramati tahsil has 4929 hectares land under forest accounting for 3.56 percent to total geographical area (2000-01). Forest shows decreasing trend from 1960-61 to 2000-01 (1.57 percent).

The spatial variation in general landuse of the study area is the result of socio-economic, physical and cultural environment, amount of rainfall and its distribution. The net sown area is steadily increasing since 1990-91 to 2000-01. It is observed that 69.18 percent (95600 hectares) area was under cultivation in 1990-91 and it has been stepped to 75.30 percent (104106 hectares) area under cultivation in 2000-01, registering an increase by 6.12 percent. This increase may be attributed to increasing awareness of improved agricultural techniques and introduction of the use of new improved seeds by farmers. The highest net sown area is recorded at Ghadgewadi (more than 94 percent) in south-
east part in study region due to deep black soil and irrigation facility, whereas the lowest has been identified at Vadhanve village (39 percent). Non-agricultural land has been substantially decreased for the period 1961 to 2001 (1.33 percent). More land that in the past has been put to non-agricultural use brought under cultivation in the study area whereas barren and uncultivated land could not be brought under cultivation due to the ‘barad’ soils. This soil is very poor in humus and naturally it is less fertile. Cultivable waste has been remarkably increased in the study region. The general trend of declining fallow land towards north is observed due to the existence of fertile soil rising for cultivation. Thus, it has been marked that the forest cover is declining slowly (0.41 percent).

Kharif and rabbi are two major agricultural seasons in the study area. Kharif season begins in the month of June or July and ends in September. Jowar, Bajara and sunflower are the major kharif crops in the study area of Baramati tahsil. Rabbi season commences from September or October and ends in March or April. Wheat, jowar, gram, and maize are the major rabbi crops grown in the study region. Sugarcane and vegetables are sown both in kharif and rabbi seasons. Sugarcane is the main crop in the study area which requires a long duration for maturing (15 to 18 months). The temporal variations in cropping pattern in the study area of Baramati tahsil is also studied from 1990-91 to 2010-11. Among these crops, jowar shows during the study period (1990-91 to 2010-11) has steadily declined. The maximum hectarage of jowar is declined in 2010-11 by 7.91 percent to total aerial extent of the study region while towards the north and central parts sugarcane percentage is increased. Sugarcane wheat, fruits and vegetable crops shown increasing trend during study period. Increasing irrigation facility is the main cause of this change in the study region. Crops like Bajara, fodder crops, oilseeds and pulses are slightly decreasing in Baramati tahsil. The total reduction of Bajra crop in Baramati tahsil is 3.12 percent from 1990-91 to 2010-11. The variation in landuse relates to the extent of these nine crops with soil characteristics, irrigation, relief, proximity to the market places and accessibility. The relationship among these factors is well established through agricultural landuse analysis of the region.

Jowar is identified as first ranking crop occupying 22.44 percent to net sown area. This crop is mainly concentrated in north and central part due to inadequacy of irrigation,
undulating topography and soil retentivity. Jowar acreage has been found decreasing trends towards north as sugarcane percentage increases. Sugarcane occupies the second position after Jowar which is cultivated on 21.25 percent area. Wheat also has concentration in north on fertile, black and deep soil which favours the cultivation. Bajra is sown on 19984 hectares accounting for 19.2 percent to net sown area in the study region. The distribution of this crop is influenced by rainfall amount, terrain characteristics and soil types. Fodder crop occupies 12.71 percent and its cultivation is found in the areas of dairy farming and livestock raising activity developed in northwest, southwest and central parts in the study region. Oilseed covers 2.85 percent, fruits and vegetable contribute 1.98 and 1.02 percent respectively in the study region. It is grown close to Baramati urban market places both local as well as surrounding market centres. Crops like pulses occupy 3.08 percent in the study region. It has been noted that among all the factors, soil, irrigation facilities and proximity to the market centres, control the spatio-temporal distribution of crops in the study region.

Ranking of crop reveals the relative strength of nine crop percentage at village level which were taken into consideration for computing crop ranking. These nine crops are, namely, jowar, wheat, bajara, sugarcane, fodder crops, oilseeds, pulses, fruits and vegetables. The cultivation of these crops is the result of soil types and irrigation besides farmers’ decision in the study area. The ranking obtained for all these crops show the relative significance of individual crop in cropping pattern. Four crops have been identified as the first ranking crops. These four crops are jowar, wheat, bajra and sugarcane. Sugarcane is the major crop which stands as the first rank and is found to have largest coverage in 54 villages occupying 46.15 percent area in the study region. The application of Rafiullah’s method shows the realistic picture of crop combination. Three crop combination regions have been found in the study area. Monoculture is observed in eighty-nine villages. Jowar, sugarcane, bajara and wheat entered in this combination. Jowar, sugarcane, bajara and wheat are the monoculture crops. Jowar is cultivated in forty-six villages and sugarcane is cultivated in twenty-nine villages in the study area. Two-crop combination regions have been observed in twenty-six villages and three crop combinations have been observed in two villages. Sugarcane, wheat and fodder crops are grown in this region on irrigation. The crop combination has been computed by applying
Gibbs and Martin’s Index formula. The result of crop diversification established relationship with physical and socio-economic conditions. The largest area under cover is observed as high crop diversification in eighty-eight villages, and twenty-five villages have very high crop diversification. The high diversification of crops covering almost 75.21 percent of gross cropped area is an indication of agricultural development in the study region.

The population is rapidly increasing and this rapidly increasing population needs to feed properly. So, it is imperative to make comprehensive study of each crop and production. Here an attempt has been made to identify crop productivity regions and the factors involved in it. The term 'Productivity' is regarded as the measurement of production and inputs required for the production of that output is known as agricultural productivity. Agricultural productivity is the interplay of a multitude of many factors, such as environmental, socio-economic and technological factors. The agricultural productivity is closely related to the per hectare yields, whereas the agricultural efficiency is much more than agricultural productivity and conveys a more comprehensive meaning. Among all crops, the productivity shows increasing trend towards south to north in the study area. It is an indication of development in agriculture sector. In the northern part due to adverse relief condition, coarse shallow soil and non-availability of irrigation leads to low productivity. So there is need to get financial support and integrated efforts for development of agriculture to reduce regional disparities in Baramati tahsil.

However, some difficulties have been encountered during the collection of data such as unavailability of the productivity data at the village level etc. To overcome this difficulty of yield data, the data of each crop was collected during the fieldwork both on yield and acreage for the selected villages. This data has been utilized to obtain crop productivity for the following six villages: 1) Supe, 2) Undavadi Supe, 3) Loni Bhapkar, 4) Vadgaon Nimbalkar, 5) Malegaon Bk. and 6) Baramati Rural.

These six villages are representative of the entire tahsil. Enyedi’s method was chosen to compute crop productivity for Baramati tahsil because of its accuracy. Least productivity is recorded in the South part in the village Malegaon Bk. (59.70) where maximum area is
sugarcane cultivation belt and fodder crops and jowar mix crop cultivation in this area. Among the villages mentioned above the soil of Supe village is coarse shallow to medium black suitable to Jowar crop. Jowar is rabbi crop which requires less amount of water. It is a drought resistant crop. This village is situated in the northwest and east and shows high productivity i.e. 109.15 and 107.68 respectively. Highest productivity of Jowar is observed in Vadgaon Nimbalkar (149.27) in the south-west part of the study region. The productivity of Jowar is increasing south-west part due to plain topography, medium to deep black soil and irrigation.

Highest productivity of wheat is observed in Baramati Rural (120.48) in the south-east followed by Vadgaon Nimbalkar (108.18) in the south-west (Table-6.2). The lowest productivity is recorded in Loni Bhapkar (49.17) followed by Undavadi Supe (73.86) situated in the central and north respectively. The productivity of wheat is increasing towards south-west and south-eastern part due to plain topography, medium to deep black soil and irrigation. The central and northern parts have low productivity of wheat due to high relief, coarse shallow soil with low moisture retentive capacity and lack of irrigation facility. Moderate productivity (98.35) is observed in the southern part village, Malegaon Bk. due to the irrigation facility and also the availability of medium to deep black soil. The three revenue circles viz. Vadgaon Nimbalkar, Malegaon Bk. and Baramati Rural have found high productivity index.

Bajra, a drought resistant crop of kharif season, is grown on inferior quality soil having less commercial value. The lowest productivity is observed at Undavadi Supe which lies in northern part, Malegaon Bk. and Vadgaon Nimbalkar (83.82) in the south part of Baramati tahsil. The highest productivity of bajra is recorded at Baramati Rural (127.91) in the south-east part, followed by Supe (125.73) situated in the north-west respectively (Table 6.3 and Fig. 6.3). The general productivity pattern of bajra shows increasing trend towards north-west and eastern part of the tahsil. Sugarcane is a long duration crop grown in medium black and deep black soil with assured supply of irrigation. The highest productivity of sugarcane is in Baramati Rural (118.38) situated in the south-east part along with the bank of river Nira and Karha, followed by Vadgaon Nimbalkar (112.15) situated in the south part along the left Nira canal of the study region (Table 6.4 and Fig. 6.4). Lowest productivity of sugarcane is observed in the north-west
Northern and north-west parts have extensive coverage of high relief, rugged and stony surface of these villages found inferior soil and less productivity of expansion of net sown area. The rugged topography, coarse shallow soil and unavailability of irrigation in the northern part makes less productivity of sugarcane.

The quantitative evaluation of agricultural and general landuse of Baramati tahsil shows the correlation co-efficient among agricultural landuse and environmental variables and identification of unique variance among selected variables. Nineteen landuse variables have been identified to show the correlation. The net sown area exhibits positive correlation with jowar, bajara, wheat, sugarcane, irrigated land and population density. The strong positive correlation of net sown area has found with jowar 0.74 and positive correlation of irrigated area 0.33, yield of wheat, yield of sugarcane. The net sown area shows a moderate correlation with fallow land (0.42) and moderate with area not available for cultivation (0.47). Net sown area exhibits area under jowar has moderate positive correlation with fodder crops (0.68), oilseeds (0.55), pulses (0.66), yield of bajra (0.21) showing jowar crop’s proportionate increase with yield of bajra because jowar being a rabi crop followed by bajra as a kharif. Wheat crop has found a strong positive correlation with sugarcane (0.83), irrigated area (0.84), population density (0.73) and agricultural density (0.73). Area under wheat has moderate correlation with fruits (0.51), vegetables (0.45), yield of wheat (0.41), and yield of sugarcane (0.44). Wheat is mostly cultivated on medium to deep black soil. Hence negative correlation has exhibited with Bajra (-0.12) and area under pulses (-0.10). Sugarcane has also a strong positive correlation with total irrigation area (0.92), population density (0.74) and agricultural density (0.73) and moderate positive correlation with fruits (0.51) and vegetables (0.40). The negative correlation has established with yield of bajra (-0.04), oilseeds (-0.05) and moderate negative correlation with pulses (-0.35). Irrigated area has established strong positive correlation with area under agricultural density (0.71). The spatial distribution of population density is largely associated with agricultural density, total irrigated area, yield of wheat and yield of sugarcane. The strong positive correlation has established with agricultural density (1.00), yield of sugarcane (0.71) and total irrigated area (0.71). Moderate positive is observed correlation with yield of wheat (0.68), yield of Jowar (0.30)
and yield of Bajara (0.13) in the study region. Agricultural density distribution exhibits positive correlation with yield of jowar, yield of wheat, yield of bajara and yield of sugarcane. Strong positive correlation is exhibited with the yield of sugarcane (0.71) and yield of wheat (0.68) of Baramati tahsil.

7.2 Problems and Strategy

The geographical variations of the total area was divided into northern part and south part regions and these regions were studied to find out the problems and the solutions are suggested for better planning at the micro level. On the basis of physiography, soil types, irrigational facility, transport and population density the two regions have been identified as:

1) Northern part of the Baramati tahsil
2) Southern part of the Baramati tahsil

7.2.1 Northern part of the Baramati tahsil

Northern part of the Baramati tahsil covers three revenue circles i.e. Supe, Undavadi Supe and Loni Bhapkar. This region occupied 57 villages having low density of population and it has maximum fallow land in the study region. The Northern region has rugged topography and it extends from west to east having the steep slope towards north. It has a coarse shallow soil having low moisture retentivity. Irrigation facilities are least and hence the productivity is also less.

Problems

i) The coarse soil affects the yields which are observed as low.

ii) Jowar and Bajara are the only food crops which dominate the area creating monoculture cropping in the study region.

iii) The lack of irrigation has made the farmers depend on receiving rainfall.

iv) The road network is very low and hence the development is restricted.

v) Lack of market centers is another problem that restricts setting of agricultural product.
vi) Shortage of drinking water is problem of this region as this region belongs to the scarcity region.

**Strategy**

i) In this scarcity zone, the watershed management works like minor irrigation schemes, percolation tanks, contour bunding etc. should be taken up.

ii) Modern irrigation facilities like Drip system, Sprinkler system etc. should be installed. The Government should provide enough subsidy to the farmers in this region.

iii) Agricultural water tanks should be constructed so as to facilitate new crop systems in this region.

iv) Rain harvesting projects should be encouraged and implemented with the help of the Panchayat system and the schemes of the Government.

v) Due to steep slopes and rugged topography the soils are getting eroded so the conservation of the soil should be carried out by planting trees along the slopes.

vi) The maximum fallow land should be converted into social forestry region which could support agro-based allied industries like dairy, poultry, piggery, goat and sheep rearing, organic farming, etc. to help the region to develop economically.

vii) Priority should be given to construct all weathered roads to increase easy access to the surrounding region.

viii) New market centers should be established in the north part of the tahsil so that farmers may purchase the agricultural raw material like seeds, fertilizers, equipment etc. and which will also provide market facility to the agriculture commodity.

ix) Agricultural Counselling Centres should be opened in these areas to facilitate scientific approach among farmers.

**7.2.2 Southern part of Baramati tahsil**

Southern part of Baramati tahsil is mainly agrarian having 40 percent net sown area of the total geographical area. This region occupied three revenue circles viz.
Vadgaon Nimbalkar, Malegaon Bk. and Baramati Rural. This region occupied 61 villages having high density of population and plain topography with deep fertile soil and high agricultural productivity. This region is drained by Nira River and its tributaries. Nira River lies in the south part of Baramati tahsil. Nira and Karha rivers are non-perennial. The River Karha in Baramati tahsil demarcates the east boundary. The River Karha flows towards northwest to southeast and it joins Nira River in south-eastern part of Baramati tahsil. This area exhibits a rolling plain and its slope in south, northwest and southeast direction. The Southern part of Baramati tahsil has almost riverine plain topography with sugarcane region.

Problems

i) Though the region is fully irrigated, the over irrigation to the land resulted into the salination of soil.

ii) The revenue circle of Malegaon Bk. observed that over irrigation and salinization affected the crop productivity badly.

iii) The process of salination is increasing in a greater pace; however, the farmers are seen to be reluctant to take any measures.

iv) This has resulted into another severe problem i.e. the drinking water is being polluted in this region.

Strategy

i) Salinity of soil could be solved by preparing deep trenches in the agricultural fields to save the fertility of soil and the water.

ii) The rotation of crop will allow regaining soil fertility. This is mainly applicable for sugarcane belt in this zone. The sugarcane may be replaced by wheat.

iii) The agriculture produce needs better road network for speedy movement of agricultural activity.

iv) The proper use and management of water through irrigation can reduce the salination of soil.
v) The existence of sugarcane cultivation has reduced the soil fertility. If this cropping pattern is slowly shifted from sugarcane to wheat, vegetables and fruit crops, it could help to regain the soil fertility.

vi) The application of multiple cropping for short duration crops like, sunflower, safflower, pulses and vegetables will reduce the pressure on the soil.

vii) To support the agriculture, the subsidiary activities like dairy and poultry can make the region prosperous one.

viii) In the eastern part new market centres should be developed at M.I.D.C. in the east of Baramati tahsil on the basis of population criteria.

7.3 Suggestions

i) The process of soil salinization should be ceased through controlled irrigation. Saline agricultural fields should be drained by fresh water by cutting the deep trenches.

ii) Moreover, to conserve and reclaim the clean and marshy soil, water loving plants like castor and eucalyptus should be planted in this region.

iii) The cultivation of sugarcane crop should slowly be changed or replaced by vegetables and fruits as there is large scope for grapes, mango, and pomegranate in the study area.

iv) In the northern and southern regions, there is acute need to construct the village roads to mobilize agricultural resources from rural villages to market places and urban settlements in the study area.

v) Sub centers should be developed to link small villages for purchasing agricultural inputs like implements, seeds, fertilizers, insecticides and pesticides in the north and south regions for speedy development.

vi) Agro-based activities like dairy, poultry and along with household activities should be introduced. This activity should be started in the south part of the study area which would help to provide jobs for youth of rural area.
vii) Watershed management works namely, minor irrigation projects, contour bunding, nalla bunding, continuous contour trenches (C.C.T.) etc. should be introduced in northern region for conserving water and soil properly. This would help to increase ground water table.

viii) The fallow land lying in the north should be utilized for planting trees under social forestry programmes.

ix) Chilling milk plants should be installed in the interior parts of the north and south regions.

x) Floriculture activity should be introduced in the study region due to increasing demand of flowers throughout the year to Baramati city and Pune metropolitan region.

xi) The village roads should be constructed in north and south part in the study region for mobilizing agricultural products. Baramati is emerging as an industrial area as well. Therefore, grapes cultivation is the best option for sugarcane and it has certainly a great scope for providing raw material to the newly developing wine park industry at Baramati.

7.4 Concluding Remark

Baramati tahsil belongs to rain shadow region in Pune district where rainfall ranges between 400 to 500 mm. The study region has varied topography covering 60 percent area where land is fertile. The agricultural product of sugar is of prime importance in Baramati region where sugarcane is treated as a raw material ranking the first crop in the study region. The fertile soil and irrigation have added for higher production of sugarcane. This has resulted into cultivating sugarcane with highest acreages besides jowar and wheat. Due to the proximity to Pune, a metropolitan centre, the study region benefits in many folds and tries to improve the variety of seeds and production too. The region by its proximity to Pune improves agricultural practice and cultivates maximum area under crops. This has resulted into new planning strategy to improve and increase the yield from the land. Newly industries like Wine Park, Dairy products etc. would be proved as the additional dimension in the study region. The
farmer’s innovative ideas and availability of capital for better land use resulted into rational land use. With considering one industry at the center may come out with typical land use pattern in the study area. Such study may attract the attentions of planners, agriculturists, farmers and administrators to look into this sector by planning rationally for its proper development of agriculture and yield. Thus, there is ample scope for research, exploration, expansion and intensification.