

PEOPLE, SOCIETY AND ECONOMY: ISSUES & PERSPECTIVES



Editors

Dr. PRAVEED NINKILERI
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31. CHANGES IN AGRICULTURAL LAND USE AND CROPPING INTENSITY - A STUDY IN BELGAUM DISTRICT

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ABSTRACT

The study of crop intensity is of utmost importance because of the fact that the land resources are finite and extracting the maximum returns from the available land has become imperative. Of late it has become more a necessary so as to feed the rapidly growing population, it is more so in all the third world agrarian countries. Since the early days of 'Green Revolution' there are signs of imbalance in cropping pattern. Technological changes of mid-sixties caused significant shifts, in land utilization, in favour of crops like wheat and rice at the cost of area under coarse cereals, pulses and oil seeds. The objective of the present study is to know the land use pattern of the Belgaum district and to investigate the spatio-temporal variations of cropping intensity in district at taluka level for the period 1966 -67 and 2016 -17. The present analysis is to assess the changing scenario of agricultural land use pattern in the district in respect of cultivable waste, current fallow land, other fallow land, net sown area, area sown more than once and total cropped area to the total reporting area of the district. The study is structured on the basis of the above said six-land use categories. The cropping intensity has direct correlation with assured irrigation which enables farmers to go for multiple cropping and use higher dose of fertilizers and HYV seeds. Hence, besides irrigation fertilisers, early maturing high yielding variety of seeds, selective mechanization such as the use of tractors, pumping sets and seed drills, etc., plant, protection measures showing the use of insecticides, pesticides etc. do have role in affecting the intensity of cropping. It is clear indication that, the talukas which have tremendous development in agriculture scene were showing relatively higher intensity than compared with agriculturally less developed talukas. Cropping intensity was showed fluctuations over a period of time, due to unfavourable rainfall and drastic decline in irrigated area.

Key words: *Cropping intensity, land use, cropping pattern, net sown area, gross cropped area, food security, disparity.*

INTRODUCTION:

The study of crop intensity is of utmost importance because of the fact that the land resources are finite and extracting the maximum returns from the available land has become imperative. Of late it has become more necessary so as to feed the rapidly growing population, it is more so in all the developing agrarian countries (Abba Laxmi Singh et al. 1981). In India since the early days of 'Green Revolution' there are signs of imbalance in cropping pattern. Technological changes of mid-sixties caused significant shifts, in land utilization, in favour of crops like wheat and rice at the cost of area under coarse cereals, pulses and oil seeds. Distortions in cropping pattern were reflected in relatively abundant supply of the same crops (like wheat of which the Government had surplus stocks) and acute shortage of others (like pulses and edible oils which had to be imported at huge

cost in terms of foreign exchange). Change in cropping pattern is determined by factors like agro-climatic conditions, technological, infrastructural and institutional environment and profitability signals. The single most important element in crop production strategy in the post-green revolution period is improved agricultural technology. This technology is in the form of high yielding plant varieties, intensive cultivation and greater use of fertilizers, increased irrigation, better techniques for ploughing, harvesting and plant protection. High yielding varieties have been developed for a number of crops but their impact on production, productivity and costs varies across crops and regions (Das K. N. 1973). Thus there are only two ways to satisfy the increasing food and other agricultural demands of the country's rising population: either expanding the net area under cultivation or intensifying cropping over the existing area. The net sown area of the country has risen by about 20 per cent since independence and has reached a point where it is not possible to make any appreciable increase. Thus; raising the cropping intensity is the only viable option left. Cropping intensity is defined as a ratio between net sown area (NSA) and gross cropped area (GCA). It thus indicates the additional percentage share of the area sown more than once to NSA. In the mid of the current decade, the index of cropping for the country as a whole was 136 per cent. It shows great spatial variations with higher levels in northern plains. Punjab has the highest cropping intensity of (176 per cent), followed by Himachal Pradesh (169 per cent), West Bengal (157 per cent), Haryana (145 per cent) and Uttar Pradesh (143 per cent). The intensity is low in dry, rain fed regions of Rajasthan, Gujarat, Maharashtra and Karnataka (110-125 per cent).

OBJECTIVE DATABASE AND METHODOLOGY

The objective of the present study is to know the land use pattern of the Belgaum district and to investigate the spatio-temporal variations of cropping intensity in district as a whole and at taluka level for the period 1966 -67 and 2016 -17. The cropping intensity is the ratio between net sown area (NSA) and gross or total cropped area (TCA) and it is the index of multiple cropping, which expressed statistically as follows:

$$IC = \frac{TCA}{NSA} \times 100$$

Wherein,

IC = Intensity of cropping or index of intensity, TCA = Total cropped area, NSA = Net sown area.

Thus intensity of cropping, therefore, refers to raising a number of crops from the same field during one agricultural year. The index of cropping intensity is 100 if one crop has been grown in a year and it is 200 if two crops are raised. Higher the index, greater is the efficiency of land use. Thus, higher cropping intensity means that a higher portion of the net area is being cropped more than once during one agricultural year. This also implies higher productivity per unit of arable land during one agricultural year.

The assessment of cropping intensity has direct correlation with assured irrigation which enables farmers to go for multiple cropping and use higher dose of fertilizers and HYV seeds. Hence, besides irrigation, fertilisers, early maturing high yielding variety of seeds, selective mechanization such as the use of tractors, pumping sets and seed drills, etc., plant protection measures through the use of insecticides, pesticides etc. do have role in affecting the intensity of cropping (Rangaswamy Y. V. et al. 1988).

The total geographical area of Belgaum district is 13,415 Sq Km, which is 6.99 percent of the total geographical area of the Karnataka State. As per the 2011 Census report, the total population of Belgaum district is about 47,78, 439 persons with a density of 356 persons per sq km. The district is drained by three important rivers namely Krishna, Ghataprabha and Malaprabha and their tributaries. The climate of Belgaum District is characterized by general dryness except during monsoon season.

The data for present study used is entirely secondary in nature and is obtained from sources like, district at a glance, annual abstract of district statistical office and district agricultural office.

LAND USE PATTERN IN BELGAUM DISTRICT:

The present analysis is to assess the changing scenario of agricultural land use pattern in the district in respect of **cultivable waste, current fallow land, other fallow land, net sown area, area sown more than once and total cropped area** to the total reporting area of the district. The study is structured on the basis of the above said six-land use categories Table No 1 and 2 which indicates the proportion of each of the components of agricultural land use pattern and volume of change during the study period i.e. 1966-67 to 2016-17 at taluka level. To know and analyze the change in agricultural land use, the year 1966-67 has been taken as base year and the year 2016-17 is considered as current year. The analysis of land use is as follows.

A. Cultivable waste:

Belgaum district had an area of about 50,671 (3.77%) hectares as cultivable waste during 1966-67, and this has decreased to 38,769 (2.88%) hectares to the total reporting area of the district during 2016-17. This trend is positive for the development of agriculture in the district. The highest increase in cultivable waste was observed in Hukkeri taluka (i.e. 2.15%) whereas the highest decrease was observed in Raibag (-4.93%).

B. Current fallow land:

In Belgaum district current fallow land occupied about 55,238 (4.10%) hectares during 1966-67 and this has increased to 1,95,514 (14.54%) hectares in the year 2016-17, of the total reporting area of the district. This type of land is relatively of high percentage and is observed in the irrigated tracks, because of salinity and alkalinity condition and the net increase of current fallow is about 10.44 percent during the study period (1966-67 to 2016-17).

The study reveals that, the district experiences increase in current fallow land during study period (1966-67 to 2016-17) but there are only two talukas showed decrease in current fallow land viz-Belgaum (-3.51%) and Raibag (-2.99%). This decrease is due to the fact that the area is very productive and fertile, where the uses of manures, irrigational facilities and other socio-economic facilities have led to the agricultural practices to the farthest extent in the district.

C. Other fallow land:

In Belgaum district other fallow land covered an area about 49,026 (3.64%) hectares during 1966-67 and it has decreased to 6,992 (0.52%) hectares in 2016-17 of the total reporting area of the district. The net decrease is amounted to 3.12 percent and this trend is favourable for cultivation, Table 1a & b. The overall change in the other fallow land during study period (1966-67 to 2016-17) varied from one taluka to another. Almost all talukas showed declines trend of other fallow land

except Ramdurg taluka, which has experienced positive trend of other fallow land in the district. The decline trend of other fallow land is mainly due to assured rainfall condition, socio-economic facilities and improvement in irrigation facilities, the land is kept vacant temporarily out of cultivation has been brought under agricultural use recently.

D. Net Sown Area:

Out of the total reporting area of the district, 9,29,041 (69.10%) hectares is classified as the net sown area of the district during the decades 1966-67 and 1986-87. Whereas, the proportion of area under net sown has decreased to 7,99,097 (59.43%) hectares during the decades 1996-97 and 2016-17 of the total reporting area of the district. The net decrease of the net-sown area in the region is about -9.67 percent during the study period, Table No.1a &b. The overall change of net sown area during the study period (1966-67 to 2016-17) varied from one taluka to another. The highest percentage of increase is seen only in Chikkodi (14.81%) taluka. The lowest percentage of increase was seen only in Khanapur (3.24%) taluka. (Fig.No.1). The highest decrease is observed in Athani (-35.68%) and lowest decrease is observed in Belgaum (-3.73%) taluka during 1966-67 to 2016-17.

E. Area sown more than once:

The area sown more than once in Belgaum district is generally conformed to the area of intense irrigation and fertile soil besides infra structural facilities. The area sown more than once has undergone a considerable change during recent years. Out of the total reporting area of the district, this category of land shared about 12,294 (0.91%) hectares during 1966-67 and it has increased to 2,61,920 (19.48%) hectares of the total reporting area of the district during 2016-17 and it contributes about 18.57 percent of the total cultivated area of the district. The net increase of this category of land is about 6.86 percent during the study period (1966-67 to 2016-17). Table No.1a &b. The overall changes of area sown more than once during the study period (1966-67 to 2016-17) is observed with highest percentage of increase is observed in Athani (33.55%) and lowest is observed in Khanapur(0.01%).

F. Total cropped area:

The total cropped land includes the net sown area plus area sown more than once. The area under this category of land is about 9,32,929 (69.39%) hectares during 1966-67 and it is slightly increased to 10,61,017 (78.92%) hectares of the total reporting area of the district. The net increase of this category of land is about 9.53 percent during the study period (1966-67 to 2016-17). The overall change of the total cropped area in Belgaum district during the study period (1966-67 to 2016-17) is observed with highest percentage Raibag (31.51%) and the lowest increase was observed in Belgaum (0.76%). Only in Chikodi and Athani talukas have reported decrease in total cropped area during the study period i.e. Chikkodi with -3.3% and Athani with -2.13%

CROPPING INTENSITY ANALYSIS:

Table No. 2 explains that the intensity of cropping in the district. The study reveals the fact that, the cropping intensity has increased during the study period i.e. from 1966-67 to 2016-17. The region as a whole recorded 100.41 percent of intensity during the year 1966-67 and it increased to 108.57 percent in 1986-87, where as in third and fourth decade up to 2016-17, it increased tremendously to 132.77 percent in the district. The intensity of land use in Belgaum district is extremely complex in some talukas and nearer to specialization in some talukas. The extension of

irrigation from canals, wells bore wells and other sources; the district has improved the rate of agricultural land. The improved farming system, multiple cropping and area sown more than once gained more importance and there is an imperative change in the agriculture of the district during the study period.

SPATIAL PATTERN OF INTENSITY OF CROPPING (1966-67 TO 2016-17):

Table No. 2 depicts that the taluka wise distribution of cropping intensity in the district. Fig. No 1 also explains that almost all the decades Number of talukas remain the same and shifted its position from one taluka to another. For the year 1966-67, the high (>101%) percentage of cropping intensity was observed in Bailhongal (103.15%), Belgaum (102.91%) and Ramdurg (101.11%) talukas. It is because of more area under cultivation during the first decade of 1966-67. The medium (100.50 to 101%) percentage of intensity of cropping was observed in five talukas, viz-Chikkodi (100.97%), Hukkeri (100.81%), Soundatti (100.78%), Gokak (100.63%) and Raibag (100.62%) talukas. The low (<100.50%) of intensity of cropping was confined to two talukas of the district, viz-Athani (100.37%) and Khanapur (86.70%) talukas. This was mainly due to fluctuation in the amount of rainfall and rugged topography. Fig No. 1. During the decade of 2016-17, the high (>140%) percentage of intensity of cropping was experienced by three talukas, viz-Athani (166.14%), Soundatti (147.50%) and Bailhongal (144.61%). This was mainly due to large area besides irrigation facilities. Whereas, the medium (120 to 140%) percentage of intensity of cropping was seen in three talukas namely, Gokak (133.62%), Raibag (132.45%) and Hukkeri (126.55%) talukas. It is because of irrigation, these talukas experienced more area under sown more than once. (Fig No. 1). The low (<120%) percentage was confined to four talukas, viz-Chikkodi (118.75%), Ramdurg (113.71%), Belgaum (110.63%) and Khanapur (101.77%) talukas. This fluctuation of intensity of irrigation was due to large area under cultivation, more area sown more than once and irrigation and development socio-economic facilities.

VOLUME OF CHANGE:

After comparing the intensity of cropping for three points of time (1966-67, 1986-87 and 2016-17), the study reveals that, the intensity of cropping varies from one decade to another. This was mainly due to extension of irrigation facilities by different sources of irrigation the area under sown more than once in the district, the cropping intensity has changed significantly. During 1966-67, the area under sown more than once was 12,294 (0.91%) hectares and it has increased to 2, 61,920 hectares (5.87%) during the second decade of 1986-87. But it has steeply increased to 2, 61,920 hectares (19.48%) during the decade of 2016-17.

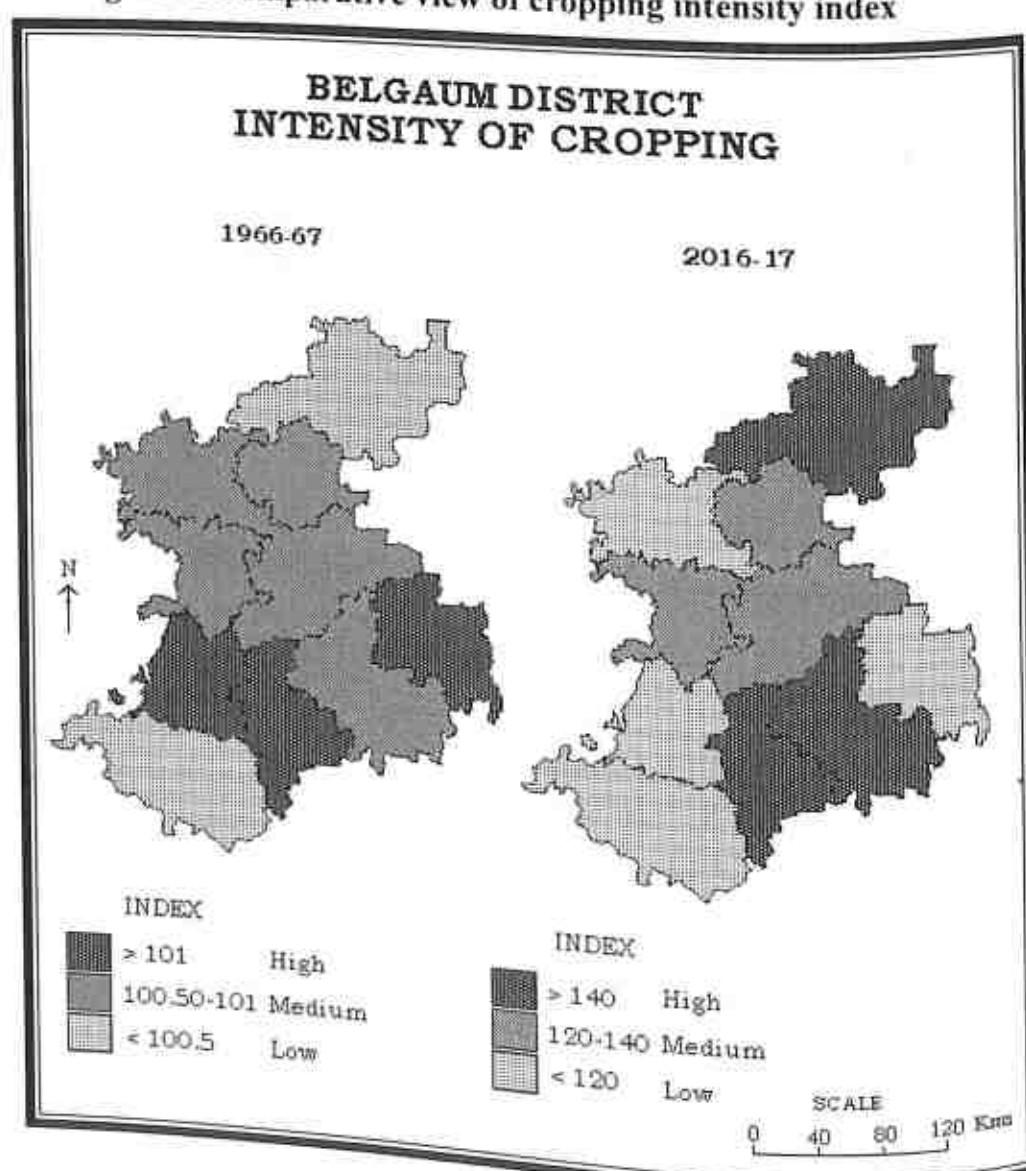
It is clear from the table No.2 that the district shows a positive change in the intensity of cropping during the study period. Figure No. 1 also explains that the taluka wise distribution of positive change of the intensity of cropping in the district. The high (>40%) percentage of positive change was observed in three talukas viz-Athani (+65.77%), Soundatti (+46.72%) and Bailhongal (+41.46%) it is because these talukas have experienced canal irrigation from Malaprabha and Ghataprabha project and more number of bore well irrigation. Whereas Gokak (+32.99%), Raibag (+31.83%) and Hukkeri (+25.74%) talukas have confined to medium (20to40%) percentage of positive change in the intensity of cropping in the district. The low (<20%) percentage of positive change in intensity of cropping was observed in Chikkodi (+17.78%), Khanapur (+15.07%), Ramdurg (+12.60%) and Belgaum (+7.72%) talukas. This variation was mainly due to the variation

in the amount of rainfall, irrigation facilities, topography and socio-economic facilities in the district.

CONCLUSION

The cropping intensity has direct correlation with assured irrigation which enables farmers to go for multiple cropping and use higher dose of fertilizers and HYV seeds. Hence, besides irrigation fertilisers, early maturing high yielding variety of seeds, selective mechanization such as the use of tractors, pumping sets and seed drills, etc., plant, protection measures through the use of insecticides, pesticides etc. do have role in affecting the intensity of cropping. It is clear indication that, the talukas which have tremendous development in agriculture scene were showing relatively higher intensity than compared with agriculturally less developed talukas. Cropping intensity was showed fluctuations over a period of time, due to unfavourable rainfall and drastic decline in irrigated area.

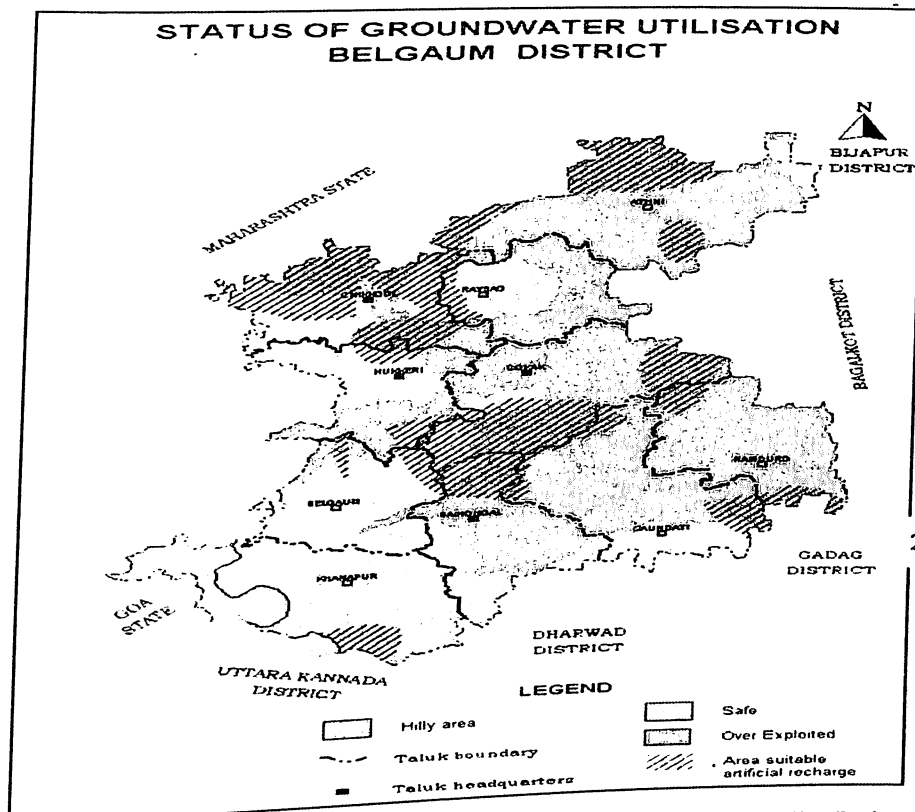
Figure 1. Comparative view of cropping intensity index



Source: Computed by the researcher

A comparative analysis of figure 1 and 2 shows that the talukas which are in moderate and high intensity zone are the same in over exploitation of water resource zone. Problems associated with regular irrigation system such as siltation, less water storage compels them to suck more water.

Fig 2. Status of groundwater utilisation in Belgaum District



Source: Ground Water Survey Department, Govt. of India, Belgaum.

Table No. 1a.

Pattern of Agriculture Land Use In Belgaum District (1966-67 to 2016 – 17)

Talukas	Cultivable Waste			Current Fallow Land			Other fallow land		
	1966-67	2016-17	1966-67 to 2016-17		1966-67	2016-17	1966-67 to 2016-17		1966-67
Athani	8721 (4.37)	5434 (2.72)	-1.65	Athani	8721 (4.37)	5434 (2.72)	-1.65	Athani	8721 (4.37)
Bailhongal	2064 (1.83)	1415 (1.26)	-0.57	Bailhongal	2064 (1.83)	1415 (1.26)	-0.57	Bailhongal	2064 (1.83)
Belgaum	5523 (5.23)	6799 (6.55)	1.23	Belgaum	5523 (5.23)	6799 (6.55)	1.23	Belgaum	5523 (5.23)
Chikkodi	8646 (6.81)	4571 (3.60)	-3.21	Chikkodi	8646 (6.81)	4571 (3.60)	-3.21	Chikkodi	8646 (6.81)
Gokak	2190 (1.41)	1771 (1.14)	-0.27	Gokak	2190 (1.41)	1771 (1.14)	-0.27	Gokak	2190 (1.41)

Hukkeri	599 (0.60)	2730 (2.75)	2.15	Hukkeri	599 (0.60)	2730 (2.75)	2.15	Hukkeri	599 (0.60)
Khanapur	6747 (3.9)	6901 (3.99)	0.09	Khanapur	6747 (3.9)	6901 (3.99)	0.09	Khanapur	6747 (3.9)
Raibag	8364 (8.72)	3643 (3.79)	-4.93	Raibag	8364 (8.72)	3643 (3.79)	-4.93	Raibag	8364 (8.72)
Ramdurg	2415 (1.98)	1192 (0.98)	-1	Ramdurg	2415 (1.98)	1192 (0.98)	-1	Ramdurg	2415 (1.98)
Soundatti	6051 (3.82)	4313 (2.72)	-1.1	Soundatti	6051 (3.82)	4313 (2.72)	-1.1	Soundatti	6051 (3.82)
Dist. Total	50671 (3.76)	38769 (2.88)	-0.88	Dist. Total	50671 (3.76)	38769 (2.88)	-0.88	Dist. Total	50671 (3.76)

Source: Belgaum District at a Glance, District Statistical Office, Belgaum.

Table No. 1b.

Volume Of Change In Land Usage (1966-67 to 2016-17)

Talukas	Net sown area			Area sown more than once			Total cropped area		
	1966-67	2016-17	1966-67 to 2016-17	1966-67	2016-07	1966-67 to 2016-07	1966-67	2016-17	1966-67 to 2016-17
Athani	173384 (86.90)	102193 (51.22)	-35.68	658 (0.32)	67595 (33.87)	33.55	174042 (87.23)	169788 (85.10)	-2.13
Bailhongal	90266 (80.42)	84268 (75.08)	-5.34	2852 (2.54)	37599 (33.50)	30.96	93118 (82.96)	121867 (108.58)	25.62
Belgaum	65617 (63.26)	61746 (59.53)	-3.73	1912 (1.84)	6565 (6.32)	4.48	67529 (65.10)	68311 (65.86)	0.76
Chikkodi	102035 (80.37)	83238 (65.56)	14.81	999 (0.78)	15615 (12.30)	11.52	103034 (81.16)	98853 (77.86)	-3.30
Gokak	110407 (71.54)	84542 (54.78)	-16.76	705 (0.45)	28425 (18.42)	17.97	111112 (72.00)	112967 (73.20)	1.20
Hukkeri	69810 (70.41)	58675 (59.18)	-11.23	599 (0.57)	15584 (15.71)	15.14	70376 (70.98)	74259 (74.90)	3.92
Khanapur	45911 (26.54)	51520 (29.78)	3.24	894 (0.51)	912 (0.52)	0.01	39805 (23.01)	52432 (30.31)	7.30
Raibag	72142 (75.24)	77614 (80.95)	5.71	454 (0.47)	25193 (26.27)	25.8	72596 (75.72)	102807 (107.23)	31.51
Ramdurg	74883 (61.61)	83883 (69.01)	7.4	835 (0.68)	11506 (9.46)	8.78	75718 (62.29)	95389 (78.48)	16.19
Soundatti	124616 (78.79)	111418 (70.45)	-8.34	2419 (1.52)	52926 (33.46)	31.94	125599 (79.41)	164344 (103.91)	24.50
Dist. Total	929041 (69.10)	799097 (59.43)	9.67	12294 (0.91)	261920 (19.48)	18.57	932929 (69.39)	1061017 (78.92)	9.53

Source: Belgaum District at a Glance, District Statistical Office, Belgaum.

Table No.2

Categories of Intensity of Cropping in Belgaum District (1966-67 to 2016-17)

Category	1966-67			2016-17		
	Range of intensity of cropping	No. of Talukas		Range of intensity of cropping	No. of Talukas	
Low	<100.50	02	Low	<100.50	02	Low
Medium	100.50 to 101	05	Medium	100.50 to 101	05	Medium
High	>101	03	High	>101	03	High

Source: Computed by researcher

REFERENCES

- **Abba Laxmi Singh and Tazin Wape (1981)** :Changing patterns of crop land use in Aligarh district, "*The Geographers*", Vol-28, No-1, pp-37 to 47.
- **Arunachalam B. (1959)**: Landuse, Land classification and possibilities of the re-planning of landuse in Vanamadevi village, Bombay geographical magazine, vol. 6 and 7 (1).
- **Belgaum District at a Glance**: Various issues published annually by the Belgaum District Statistical Office, Government of Karnataka.
- **Das K. N. (1973)**: Population pressure and intensity cropping in the Kosi area, Bihar, *Geographical Review of India*, vol. 35, No. 4, December, pp. 309-24.
- **Giri R. (1966)**: Changes in land use pattern in India, *Indian Journal of Agricultural Economics*, vol. 21, No. 3, pp. 23 to 32.
- **Nandini Chatterjee (1990)**: Impact of irrigation on cropping intensity in West-Bengal, *Trans. Inst. Of Indian Geographers*, vol. 12, No. 2, pp. 111 to 120.
- **Rangaswamy Y. V. & Sinnarkar J. M. (1988)**: Irrigation and agricultural landuse, Haripura –A case study, Shinde S. D. (ed), Vishwanil Publication, Pune, pp. 199 to 203.
- **Sharma T. C. and O. Countinho (1988)**: Growth of irrigation and its impact on crop landuse and crop productivity in Karnataka 1960-61 to 1976-77
- **Shinde S. D. (ed)**, Readings in irrigated farming Vishwanil publication Pune, pp. 181 to 198.
- **Tyagi B. S. (1972)**:Agricultural intensity in Chunar Tahsil Distric Mirzapur, U. P., *The National Geographical Journal of India*, vol. 18, Part –I, March, pp. 42-43.