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ANALYSIS OF THE LEVELS OF AGRICULTURAL DEVELOPMENT IN BELAGAVI DISTRICT OF KARNATAKA

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ABSTRACT

Agricultural development is defined as the process of improving agricultural productivity and the economic well-being of rural population, which in turn reduces poverty, stimulates national economic growth and ensures sustainable management of natural resources. Agriculture development plays an important role in the global economy and it plays a vital role in increasing food security and generating export earnings. Agricultural development is a type of ecological change, closely related to responding the new ideas and innovations. It accounts nearly 75.00 per cent of the total income of Belagavi district. It is fundamental occupation of the people and provides the raw material to industries and goods of trade. In Belagavi district about 74.66 percent of population lives in rural areas and out of which more than 70.00 per cent of the people directly depend on agriculture. Out of 25.34 per cent of urban population about 10 percent of population directly depends on agriculture.

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INTRODUCTION:

Agricultural development has long been linked to increased food production and availability, improved farming productivity, and increased incomes for small farmers, the changing global landscape has resulted in agriculture playing a larger role in many other areas of human well-being, including reducing poverty, providing adequate nutrition, improving environmental sustainability, and promoting equity and equality among genders.

Agricultural development is a type of ecological change, closely related to responding the new ideas and innovations. It accounts nearly 75.00 per cent of the total income of Belagavi district. It is fundamental occupation of the people and provides the raw material to industries and goods of trade. In Belagavi district about 74.66 percent of population lives in rural areas and out of which more than 70.00 per cent of the people directly depend on agriculture. Out of 25.34 per cent of urban population about 10 percent of population directly depends on agriculture.

STADY AREA:

Belagavi is a district and also the headquarters of the Belgaum Revenue Division in the state of Karnataka and the city of Belagavi is the district headquarters located in North Karnataka It is also called as the second capital of Karnataka state, as it houses the second legislative building "Suvarn souda", where the Karnataka Legislature will meet once a year. According to the 2011 Census of India, it has 4,778,439 total population of which 24.03% living in urban areas, making it the second most populous district in Karnataka. The district has 13,415 sq. kms. of geographical area, lies between 15° 23' and 16° 58' northern latitude and 74° 05' and 75° 28' eastern longitude and administratively Belagavi district has been divided into 10 thasils.

OBJECTIVES:

The main objectives are:

- to identify the major indicators of agricultural development of the study area
- to analyze the levels of agricultural development in Belagavi district.

DATA BASE:

The secondary data have been collected from various published reports, district statistical report of Belagavi District to analyse the levels of agricultural development.

METHODOLOGY:

The following method is used to study the levels of agricultural development of Belagavi district.

First a correlation matrix for the 12 indicators of agriculture development

have been built-up with the help of computerisation of data to show the inter-variable

relationships which are represented in the form of a matrix. Further to estimate the relative importance at these variables, the relative weights of these variables have been calculated by the following formula:

$$\frac{\Sigma\, r^2}{\Sigma\, \Sigma\, r^2}$$

Further, an attempt is made to examine the tahsil-wise variations in different groups of indicators. For this purpose the correlation coefficients of ten tahsils are considered. Therefore, standard scores of each variable and each tahsil are calculated. Thereafter, scores of the ten tahsils are divided into three different development groups (high, medium and low). Then, we get the spatial variation of levels of agricultural development of ten tahsils of Belagavi district.

INDICATORS OF AGRICULTURAL DEVELOPMENT

The correlation matrix reveals the importance of particular factors (out of 12) in deciding the positive/negative role in the agricultural development. Among the twelve factors (listed below) of agricultural sector four factors viz., **(**X_8) percentage of cultivators to total main workers percentage of cultivators to total main workers,(X_3) percentage of area under commercial crops to total cropped area, (X_7) percentage of electric pumpsets (IP) to total agriculture implements', and(X_{12}) percentage of rural population to total population are highly correlated with the agriculture development. Four factors namely, (X_2) percentage of net- irrigated area to net-sown area, (X_5) fertilizers consumption (NPK) per hectare of net-sown area (in kg), (X_{10}) number of agriculture co-operative societies to per 1000 cultivators and(X_9) percentage of agricultural labours to total main workers are medium correlated to the agricultural development. While, number of tractors per 1000 hectare area, (X_6), percentage of net-sown area to total geographical area (X_1), agriculture loan advanced by agriculture co-operative societies to per 1000 cultivators (X_{11}) and percentage of area sown more than once to net-sown area (X_4) is low correlated to the agricultural development in Belagavi district.

X_1 Percentage of net-sown area to total geographical area.

X_2 Percentage of net-irrigated area to net-sown area.

X_3 Percentage of area under commercial crops to total cropped area.

X_4 Percentage of area sown-more than once to net-sown area.

X_5 Fertilizer consumption per hector of net-sown area (in kg).

X_6 Number of tractors per 1000 hector area.

X_7 Percentage of electric pump sets (IP) to total agriculture implements.

X_8 Percentage of cultivators to total main workers.

X_9 Percentage of agriculture labourers to total main workers.

X_{10} Number of agriculture co-operative societies per 1000 cultivators.

X_{11} Agriculture loan advanced by agriculture co-operative societies Per 1000 cultivator (in rupees).

X_{12} Percentage of rural population to total population.

Table-1: Levels of Agricultural Development in Belagavi District

Levels of Development	Score Values	No. of Tahsils	Name of Tahsils
High	1.75 to 0.81	1	Raibag.
Medium	0.80 to -0.14	5	Athani, Chikkodi, Hukkeri, Gokak and Bailhongal.
Low	-0.15 to -1.08	4	Ramadurg, Savadatti, Khanapur and Belagavi.

Source: Calculated by Author.

Table-1 and Figure-1 reveal that in Belagavi district only Raibag tahsil was agriculturally high developed. percentage of cultivators to total main workers (X_8), percentage of electric pumpsets (IP) to total agriculture implements'(X_7), number of tractors per 1000 hectare area (X_6), fertilizers consumption (NPK) per hectare of net-sown area (in kg) (X_5), percentage of area under commercial crops to total cropped area (X_3) and number of agriculture co-operative societies to per 1000 cultivators (X_{10}) are highly correlated to the high level of agricultural development.

Five tahsils namely Athani, Chikkodi, Hukkeri, Gokak and Bailhongal are mediumly developed in agriculture sector. In Athani tahsil percentage of cultivators to total main workers (X_8),percentage of area under commercial crops to total cropped area (X_3) and percentage of electric pumpsets (IP) to total agriculture implements'(X_7) are mediumly correlated to the agricultural development.

In Chikkodi tahsil percentage of area under commercial crops to total cropped area (X_3), percentage of net-sown area to total geographical area (X_1) and percentage of cultivators to total main workers (X_8) are mediumly correlated to the agricultural development. Whereas in Hukkeri tahsil percentage of net- irrigated area to net-sown area (X_2), percentage of area sown more than once to net-sown area (X_4) and percentage of area under commercial crops to total cropped area (X_3) are mediumly

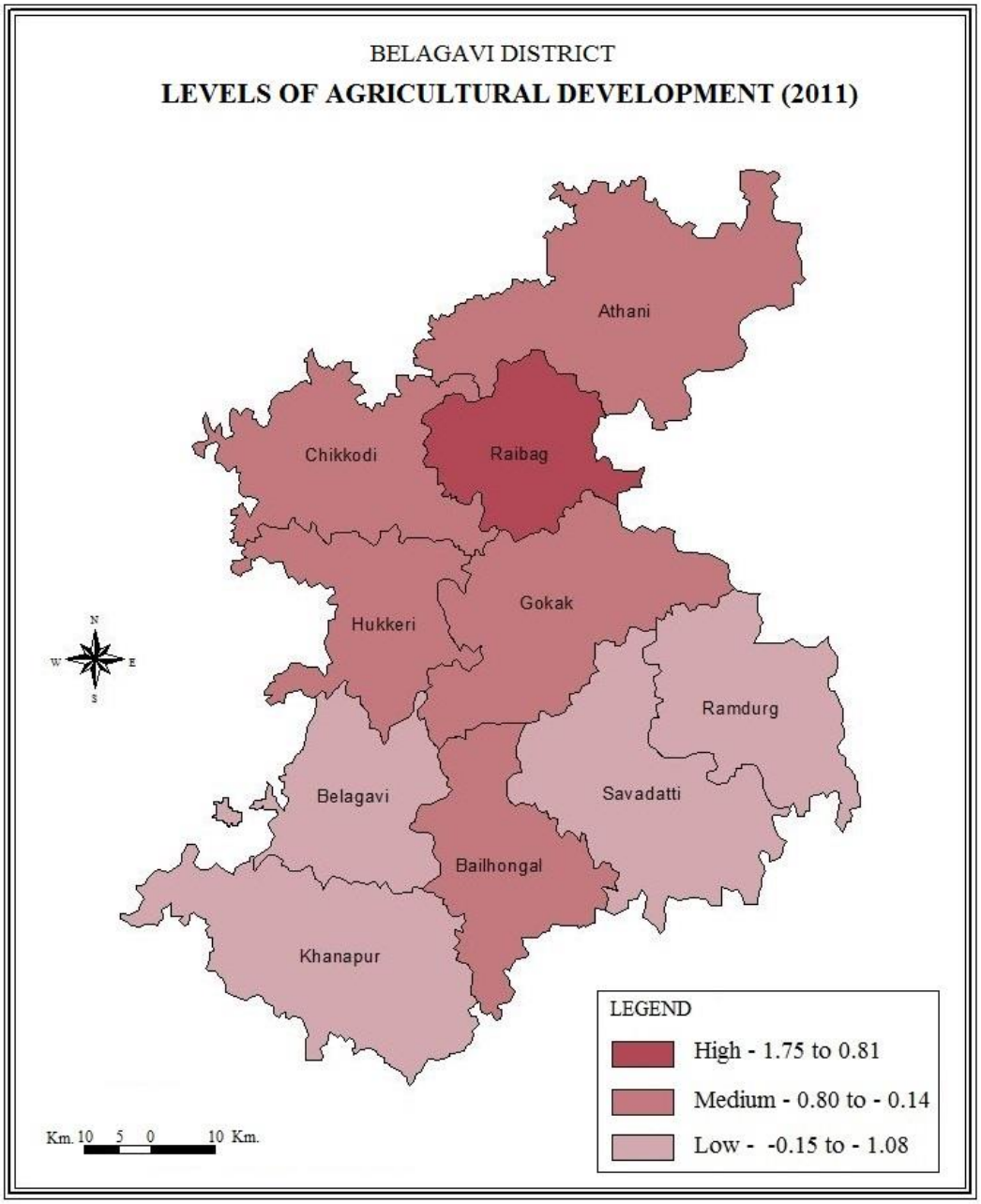


Fig- 1

correlated to the agricultural development and Gokak tahsil percentage of cultivators to total main workers (X_8),percentage of net-sown area to total geographical area (X_1), percentage of area under commercial crops to total cropped area (X_3), percentage of rural population to total population(X_{12}), and agriculture loan advanced by agriculture co-operative societies to per 1000 cultivators (X_{11}) are medium development category in Bailhongal tahsil number of agriculture co-operative societies to per 1000 cultivators (X_{10}), percentage of agricultural labours to total main workers (X_9), percentage of net-sown area to total geographical area (X_1), agriculture loan advanced by agriculture co-operative societies to per 1000 cultivators (X_{11}) and percentage of area sown more than once to net-sown area (X_4) are moderately correlated to the agricultural development.

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