

A Conceptual Study of Major Physiographical Domains of Karnataka

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Abstract - The etymology of 'Geography' states that it is derived from two Greek words, namely 'ge' meaning 'earth' and the other one is 'Graphia' meaning 'writing'. Therefore, Geography literally means studying about the earth. This paper tries to study different physical and geographical aspects of Karnataka state. Out of 28 states in India, Karnataka holds a unique distinction. It is the eighth largest state in the country in terms of geographical area and has pre-dominant position in the field of Information Technology (IT), Biotechnology (BT) and Nano Technology. Karnataka is home to over 3500 IT companies, contributing to over Rs. 2.20 lakh Crores of exports, giving direct employment to over 10 lakh professionals and creating over 30 lakh indirect jobs. The industry contributes to over 25% of the State's GDP. The share of Karnataka in Information Technology exports is nearly 38% of the country's exports. It has made it 'The Silicon State of India'. Karnataka's language 'Kannada' has over 2000 years of literature and culture which is equally old. It is considered to be 'Melting Pot' of many cultures and languages from across the globe. At present, the state has 10 city corporations, 41 City Municipal Councils (CMC's), 68 town municipal councils, 94 town panchayats, 30 Zilla Panchayats, 176 Taluk Panchayats, 747 hoblies and 6018 Gram Panchayats. The state has 59,532 rural habitations, including 27,397 inhabited revenue villages and 1,943 uninhabited villages. According to 2011 census, about 62% of the total population of 611 lakh lives in rural habitats. Having a birds-eye-view of different aspects of the state, such as, demographic, economic, geographical and agricultural profile of the state, Land use pattern of the state and industrial profile of the state is the main objective of this paper.

Index Terms - Economic, Land use pattern, Agricultural profile, Demographic, Industries.

INTRODUCTION

Karnataka state lies between 11.5° North and 18.50° North latitude and 74° East and 78.30° East longitudes

in the southern plateau. The state is bounded by Maharashtra and Goa in the North and North West; by the Arabian sea in the west; by Kerala and Tamil Nadu states in the South and by Andhra Pradesh in East. Karnataka extends to about 750 km from North to South and about 400 km from East to West. Its total land area is 1.92 lakh km², accounting for 5.83% of the total area of the country. It has been divided into four revenue divisions, 49 subdivisions, 30 districts and 176 taluks, for administrative purposes. As per 2011 census, the state population is 6.11 crore, making it the 9th most populated state with 319 density of population, which is lower than all India's density of population of 382 per km². The annual rainfall of the state varies roughly from 50 to 350 cm. In districts of Bijapur, Raichur, Bellary, Southern half of Gulbarga, the rainfall is the lowest varying from 50 to 60 cm. Karnataka is the largest producer of coffee, raw silk and sandal wood-based products like perfumes and 75% of the Indian floriculture industry is located in Karnataka. The state accounts for 59% of the country's coffee production, 47% of country's Ragi production. About 61% of the population lives in villages and about 39% of the population lives in cities. Karnataka is one of the fastest growing state in the country. During 2014-15, it contributed 5.68% to Gross GDP of India.

Demographic profile of the state:

Table 1

Parameters	Units	2001	2011
Total population	In 000's	52,851	61,095
Males	In 000's	26,899	30,967
Females	In 000's	25,952	30,128
Number of Households	---	1,04,01,918	1,33,57,027
Population residing in rural	In 000's	34,889	37,469
% of Rural Population	---	66	61.3

Population residing in Urban	In 000's	17,962	23626
% of Urban Population	---	34	38.67
Density of Population	Per Sq. Km	276	319
Literacy Rate	Percentage	66.60	75.40
Sex Ratio	Female per 1000 males	965	973
Birth Rate	In 000's	22.2	18.8
Death rate	In 000's	7.6	7.1
Infant Mortality Rate	Per 1000 live births	38	35

Source: Census of India, 2001 -2011.

The decadal growth of Karnataka's population is 15.7%. Density of population has increased from 276 in 2001 to 319 in 2011, depicting an increase of 15.6%. However, the birth rate has declined from 22.2 in the year 2001 to 19.2 in 2011, the death rate for the same year has declined from 7.6 in 2001 to 7.1 in 2011. This information clearly states that the state is passing through the 2nd stage of demographic transition, which is featured with High birth rate and low death rate. 50.80% of the state population is male with a child sex ratio of 943 female per 1000 male in 2011. Adult sex ratio for the same period is 968. State has 1,33,57,027 households in 2011 (1,04,01,918 in 2001), registering a growth of 28.41%. Karnataka has 14.91% (19.65 lakh) female headed households compared to national average of 10.9%. As stated in Social, Economic and Caste Census of Karnataka carried out in 2011, 83.94% of the total workers are main workers, who work for 183 days or more than that in a year and 16.06% of the total workers are marginal workers, who work for less than 183 days in a year.

Economic profile of the state:

Table 2

Parameters	2014-15
Gross State Domestic Product (GSDP) at constant price	3,44,106 crore
Growth rate of Primary sector	4.5%
Growth rate of Secondary sector	4.4%
Growth rate of Service sector	8.9%
Per Capita Income of the state at current price	Rs. 1,01,594
Per Capita Income of the state at constant price	Rs. 48,907
State's own tax revenue (budgetary estimate)	Rs. 69,870 crore
Share of development expenditure (BE)	13.74%
Share of interest Payment	1.42%
Per Capita development expenditure	Rs. 13,246
Plan outlay of the state	Rs. 65,600 crore

Share of plan expenditure in GSDP	9.79%
Share of Non-plan expenditure in GSDP	11.73%
Total liability of the state	Rs.1,57,681crore
Fiscal Deficit	2.92% of GSDP
FDI during April 2000 to November 2014	US \$ 14,174.
Gross Exports	Rs. 2,90,418 crore
Share of exports in GSDP	47.3%

Source: Economic Survey of Karnataka, 2014-15

Karnataka's Gross State Domestic Product (GSDP) at constant price (2004-05) was Rs. 3,21,455 crores in 2013-14 and increased to Rs. 3,44,106 crores in 2014-15, registering a growth of almost 7% per annum. Service sector growing at 8.9% per annum was responsible for the fostering growth. The GSDP of Primary sector registered a growth of 4.5% during 2014-15. The secondary sector and tertiary sector registered a growth of 4.4% and 8.9% respectively. Per Capita Income of the state at current price is estimated at Rs. 1,01,594 during 2014-15 as against Rs. 89,545 in 2013-14 an increase by 13.5%. At constant price (2004-05), the per capita income of the state was Rs. 48,907 during 2014-15 and Rs. 46,012 during 2013-14. The state's revenue resources were depicting a sign of recovery, with state's own tax revenue increasing from Rs. 27,646 crore in 2008-09 to Rs. 69,870 crore during 2014-15 (BE), with CAGR of 16.71%. The share of development expenditure has increased from 10.07% in 2008-09 to 13.74% in 2014-15 (BE), while the share of interest payment for the same period has reduced from 1.69% to 1.42%. The per capita development expenditure during 2013-14, was Rs. 13,246 compared to all state's average of Rs. 9,535. There has been a significant increase in the state's plan outlay with Rs. 65,600 crore in 2014-15 (BE) up from Rs. 48,450 crore in 2013-14 (RE). In terms of percentage of GSDP the plan expenditure was 9.79% in 2014-15 (BE), whereas non-plan expenditure as percentage of GSDP was 11.73% in 2014-15 (BE). The total liabilities of the state government were Rs. 1,57,681 crores in 2014-15 at a CAGR of 13.11%. However total liabilities are within 25% as prescribed by the 13th finance commission. Karnataka attracted FDI of US \$ 14,174 million during the period of April 2000 to November 2014, constituting 6% of all India FDI. During 2013-14, Karnataka's exports was valued at Rs.2,90,418 crores, which constituted about 12.37% of country's exports. Karnataka stands 4th in merchandise exports. The share of exports in GSDP, was 47.3% in 2013-14, out of which the share of electronics and computer software constitutes the

largest share in state exports, which was about 61% in 2013-14.

Geographical and Agricultural Profile of Karnataka
 The state of Karnataka is an important agrarian economy in India. In Karnataka 62% of the land is cultivable. The percentage of cultivable land in Karnataka is higher than any other state in India. The normal net cultivated area in the state is about 117.48 lakh hectares and accounts for 62% of the total geographical area. In Karnataka, soil and vegetation shows a varied feature with different kinds of soils spread in different regions like red clay, laterite soil, red soil mixed with clay and sand, black soil and split; owing to the availability of different kinds of soil in different region, the cropping pattern also changes. The soil and vegetation are always correlated and complementary to each other. The state is divided into 10 agro-climatic zones. As a result of varied agro-climatic features almost all cereals, pulses, oilseeds, and commercial crops are cultivated in different parts of the state. Classification of important crops of the state are: -

Food Crops: Ragi, Paddy, Jowar, Maize and Bajra.

Pulses: Red gram, Bengal Gram, Field been, Cow pea, Horse gram etc.,

Oil Seeds crops are: Ground nut, Sunflower, Safflower, Sesame.

Commercial Crops: Cotton, Sugar Cane, Coffee, Tobacco, Mulberry, Cashews, Cardamom, Betel nut (Arca).

Vegetable Crops: Potato, Carrot, Cabbage, Beet root, Raddish, Cauliflower, Brinjal, Beans and leafy vegetables.

Fruit Crops: Mango, Guava, Sapota, Grapes.

Flower Crops: Rose, Chrysanthemum, Crossandra, Aster, Jasmine, Champaka, Marigold.

The unique feature of Karnataka state is the existence of Sericulture from time immemorial. It is said that the Mysore ruler Tippu Sultan is responsible for the prominent growth of Sericulture in the state. Now, Karnataka accounts for more than 55% of raw silk produced in the country. The area under mulberry cultivation in the State was about 88,879 hectares at the end of December 2014. During 2013-14, the

estimated mulberry silk production in India was about 18,715 MTs of which Karnataka's share was 8,574 MTs. The Western Ghats of the state is well known for Coffee plantations, Rubber, Pepper and Fruits.

The Khariff crops (April to September) in Karnataka comprises of Millets, Paddy, Maize, Moong (Pulses), Ground nut, Red chilli, Cotton, Soya bean, Sugar cane, Turmeric. The major Rabi crops (October to January) are Barley, Mustard, Sesame, Peas.

Land use pattern in Karnataka State
 Table 3

Sl. No	Classification Area	Lakh hectare	Percentage
1.	Total Geographical Area	190.50	100
2.	Forest	30.73	16
3.	Not available for cultivation:		
	a) Land put to non-agri. Uses	14.36	7.54
	b) Barren & uncultivable land	7.87	4.13
4.	Cultivable waste land	4.13	2.17
5.	Uncultivated land excluding fallow land:		
	a) Permanent pastures & other grazing land	9.08	4.77
	b) Misc. Tree crops, Groves	2.83	1.49
6.	Fallow Land	23.57	12.37
7.	Net Area Sown	97.73	51.30
8.	Area sown more than once	19.55	10.26
9.	Total Cropped Area	117.48	62
10.	Cropping Intensity - %		120%

Source: Annual Season & Crop Reports of DE&S, Bangalore.

As a result of drought situation in 157 taluks during 2012-13, net sown area and area sown more than once has declined but the area under fallow land has increased from 16.72 lakh hectares to 18.22 lakh hectares. Karnataka Agricultural census reports and agricultural census 2010-11, shows that 78.32 lakh farm holdings operating 121.61 lakh hectares. Small and Marginal holdings account for 76.44% of total holdings and operate only 40.05% of the total operated area, while semi-medium, medium and large holdings account for 23.57% of the total holdings and their operational land holding is 59.95% out of the total operational area.

Table 4

Details of land holdings in Karnataka is as follows:

	No. of operational holdings ('000's)	Avg., size of operational holding ('000's)	Avg., size of operational holding (hectares)

Size-Class	2000-01	2010-11	2000-01	2010-11	2000-01	2010-11
Marginal Farmer (< than 1 hectare)	3,252	3,849	1,492	1,851	0.46	0.48
Small Farmer (1-2 hectare)	1909	2,138	2,742	3,020	1.44	1.41
Semi-Medium (2-4 hectare)	1,259	1,267	3,429	3,393	2.72	2.68
Medium Farmer (4-10 hectare)	569	511	3,317	2,904	5.83	5.69
Large Farmer (> than 10 hectare)	90	68	1,327	994	14.74	14.71
Total	7,079	7,832	12,307	12,161	1.74	1.55

Source: Karnataka Agricultural Census Reports and Agricultural Census 2010-11.

Industrial Profile of Karnataka

Karnataka enjoys a pre-dominant position in industrial development especially in the areas of electrical and electronics, Information and Communication Technology, Biotechnology and Nanotechnology. Industrial sector of the state depicts a perfect blend of modern high-tech capital goods and knowledge intensive industries on one hand and traditional consumer goods industries on the other. Industrial sector has been divided into four categories, namely (i) Basic goods (ii) Capital goods (iii) Intermediate goods (iv) Consumer goods consisting of durables and non-durables. As per the MSME act of 2006, during 2013-14, there are 25,966 MSME units have been registered in the state with an investment of 2,85,056 lakh providing an employment of 1,67,347 persons. Employment per unit is 6.44.

The state has 58 SEZ's to promote FDI and Exports. The State Government has implemented new Industrial Policy 2014-19 in 2014-15 with an objective to build a prosperous Karnataka through inclusive, sustainable, and balanced industrial development thereby creating large employment opportunities. The policy aims to maintain an industrial growth rate of 12% per annum and enhance the contribution of manufacturing sector to the state GDP from present level of 16.87% to 20% by end of policy period and spread industrial growth to every nook and corner of the State.

The State Government has implemented Minor Ports Development Policy 2014 in 2014-15. The objectives of the policy are. (i) To increase the share of Karnataka state in the export and import sector, in National and international Trade and commerce, in the post liberalisation and globalization era (ii) To cater to the needs of increasing traffic of Karnataka and its

neighbouring states by providing efficient facilities and services and to support the country's domestic and international trade (iii) To create sufficient infrastructure facilities by both Government and private efforts to handle 5-10% of India's total cargo in Karnataka maritime waters in the days to come (iv) To enhance the potential of ports, with public and private participation.

RESEARCH METHODOLOGY

Type of Research: Descriptive study

Locale of the study: Karnataka State

Nature of the data: The report is prepared using secondary data only. Hence it is a desk report.

Data Analysis: The collected information has been classified and tabulated for the convenience of study. Simple statistical tools such as percentages, averages have been used to arrive at the changes or growth rate. Based on the tabulated data, inferences have been arrived at.

LIMITATIONS OF THE STUDY

- The study is based on secondary data only.
- The study is limited to understanding some physiographic profile of the state.
- The locale of the study is limited to Karnataka only.
- Inferences were drawn based on tabulated information; no statistical tests were used.

CONCLUSION

Karnataka has vibrant automobile, agro, aerospace, textile and garment, biotech, and heavy engineering

industries. The state has sector specific Special Economic Zone (SEZs) for key industries such as IT, biotechnology, and engineering, food processing and aerospace. The state of Karnataka is an important agrarian economy in India. In Karnataka 62% of the land is cultivable. The percentage of cultivable land in Karnataka is higher than any other state in India. It is considered to be 'Melting Pot' of many cultures and languages from across the globe. Karnataka is the largest producer of coffee, raw silk, and sandal wood-based products like perfumes and 75% of the Indian floriculture industry is located in Karnataka. The state accounts for 59% of the country's coffee production, 47% of country's Ragi production. About 61% of the population lives in villages and about 39% of the population lives in cities. Karnataka is one of the fastest growing state in the country.

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