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STRUCTURAL CHANGE IN WESTERN STATES OF INDIA

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ABSTRACT

Structural transformation is a gradual change in the basic structure of an economy. It is linked with the development process and prevails in mostly all economies of the world. The present paper attempts to study structural change in addition to certain socio-economic indicators in the western states of India. Time period of the study is from 1980-81 to 2010-11. A distinguishing characteristic of structural change in these states has been a decline in the share of primary sector in the NSDP and an increase in the share of secondary and tertiary sectors in the NSDP. Urbanisation, an important indicator of structural transformation was found in all western states but in varying levels. It was highest for Maharashtra initially and was taken over by Goa in the succeeding years, whereas Rajasthan showed the least rate of urbanization throughout so much so that it showed figures below the All India level at all points of time. Some degree of inequality was also found in the western states with urban inequality being greater than rural during all points of time. Highest level of inequality was found in Maharashtra majority of time. Gujarat, Rajasthan and Goa interchangeably showed the least levels throughout the time period. The socio-economic indicator of population below poverty line has witnessed Goa performing well by showing the least rates amongst the rest of western states. In the demographic indicators of sex ratio and literacy, Goa has performed much better than rest of states in the West in both the indicators.

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KEYWORDS

Primary sector, secondary sector, structural change, structural transformation, tertiary sector.

1. INTRODUCTION

Structural transformation is a unique feature prevailing in mostly all economies of the world. The economies may be national or regional in nature. India too has observed a gradual structural change in the past decades. The present study is of structural change and certain socio-economic indicators of the western states of India. An attempt is made to study the manner in which the adjoining states located in the West are transforming with time. The time period of the study is from 1980-81 to 2010-11. Major sources of data have been CSO, RBI publications, Planning Commission and Socio-economic Review of States.

The western states have performed well in the last few years with some degree of disparity among them. Rajasthan attributes its growth to the primary sector with a fairly strong tertiary sector. Performance of Goa and Maharashtra was dependent on their secondary and tertiary sectors while that of Gujarat was spread reasonably over the three sub-sectors i.e. primary, secondary and tertiary.

Structural transformation in an economy is defined as the reallocation of economic activity across three broad sectors (agriculture, manufacturing, and services) that accompany the process of modern economic growth. Major structural shifts in output and employment accompany a sustained and rapid growth of per capita output of a country has been a well-known fact since the original studies of economic growth by Fisher, Clark and Kuznets. Such structural shifts have been seen as mechanisms influencing the pace of growth as well as being the result of growth. Either of two tripartite divisions of the economy closely resembling each other—the primary-secondary-tertiary or agriculture-industry-services divisions—have been used to describe the typical pattern of structural change associated with what Kuznets called modern economic growth.

2. REVIEW OF LITERATURE

Research has been conducted since long across the world to study the process of structural change/transformation in various economies. **Choliz and Duarte (2004)** analysed the structural and technological changes in the Spanish economy between 1980 and 1994; **Giesecke (2005)** investigated the sources of growth and change in the Australian economy over the period 1996/97 – 2001/02 relying on the results from historical and decomposition simulations with the MONASH model. **Memedovic and Iapadre (2009)** in their paper presented a quantitative analysis of sectoral trends in the global economy and the historical evolution of agriculture, industry and services in terms of their share of world value added. The analysis referred to six continental regions and covers a period of 40 years. All studies found the occurrence of structural transformation in these economies. Moving closer, the prevalence of structural transformation has also been witnessed in the Indian sub-continent. **Venkatramaiah, Kulkarni and Argade (1984)** in their study have examined the structural changes that have taken place in the Indian economy covering the time period 1951 to 1963 i.e. the initial decade of the plan period using the input-output tables. **Sastry, Singh, Bhattacharya and Unnikrishnan (2003)** examined the growth of linkage among the agriculture, industry and services sectors in the economy, using both an input-output framework and a simultaneous equation framework during the period 1970-71 to 2000-01. Looking at the sub-national level too, **Singh and Joshi (1989)** have examined the structural changes in the economy of Uttar Pradesh for the period 1970-71 to 1977-78 by using the input-output analysis. **Kannan (2005)** has attempted to place the debate on Kerala's lopsided development in a balanced perspective by analysing the turnaround in growth. The above studies highlight the prevalence of structural transformation in all economies; at national or state level thus suggesting a firm base to the present study of structural change and certain socio-economic indicators of West India.

3. STATEMENT OF THE PROBLEM

The present paper attempts to study structural change/transformation in addition to certain socio-economic indicators in the western states of India. It determines the relative performance of the western states viz-a- via each other in various indicators of structural change in the last few decades.

4. OBJECTIVES

1. To find whether the state economies of West India are undergoing any structural change/transformation.
2. To determine the relative performance of the states of West India on various socio-economic indicators.

5. DATA ANALYSIS, RESULTS AND DISCUSSION

5.1 COMPOSITION OF NSDP OF WESTERN STATES

Table 1 presents the estimates of the shares of primary, secondary and tertiary sectors in NSDP for the years 1980-81, 1990-91, 2000-01 and 2010-11. It is observed that structural transformation has taken place in all the four states of West India with prominent interstate differences.

During 1980-81, Rajasthan held the first and Gujarat held the second position in the primary sector each having a share of 52.26% and 40.80% in the NSDP. They were followed by Goa whose share was 28.54% which was followed by Maharashtra with a share of 28.10% in the NSDP. All four states witnessed a decline in

the share of primary sector in NSDP with Rajasthan showing a steep fall of around 20% where its primary sector's share decreased from 49.18% in 1990-91 to 28.51% in 2000-01. The decline was witnessed by all four states at all points of time with the exception of the last decade where Rajasthan, Gujarat and Goa saw a marginal increase in the share of their primary sectors in the NSDP. It was only Maharashtra which saw a continuous and gradual decline in the primary sector's share in NSDP.

The declined share of primary sector in NSDP in the Western States has been absorbed by a rise in the secondary and tertiary sectors. The share of secondary sector did not show a significant increase in these states rather tended to decline at some points of time. The highest share of secondary sector in NSDP in 1980-81 was shown by Maharashtra (35.09%) followed by Goa (29.66%) and Gujarat (27.24%). Rajasthan showed the least share of 18.02% for the same year and rose to 23.22% in 2010-11. The years following 1980-81 saw Maharashtra and Goa show varying shares of secondary sector in NSDP. It was only Gujarat to have shown a gradual increase of secondary sector from 27.24% in 1980-81 to 30.91% in 1990-91 to 32.63% in 2000-01 and finally to 33.60% in 2011.

A unique feature of these economies has been the increasing importance of the tertiary sector. The economies dominated by the primary sector initially have transformed to be predominantly service sector based. Maharashtra and Goa have shown highest share of tertiary sector in NSDP through all points of time. For Maharashtra it was 36.80% in 1980-81, rose to 43.01% in 1990-91, 57.92% in 2000-01 and finally to 58.52% in 2010-11. Similarly, for Goa it was 41.78% in 1980-81, increased to 47.84% in 1990-91, rose to 53.17% in 2000-01 and declined marginally to 46.24% in 2010-11. Next in line was Gujarat followed by Rajasthan. The share of tertiary sector in NSDP has shown an increase for Maharashtra and Rajasthan throughout whereas it tended to fall slightly in the last decade for Goa and Gujarat.

TABLE 1: COMPOSITION OF NSDP OF WESTERN STATES (In Percent)

		1980-81	1990-91	2000-01	2010-11
RAJASTHAN	Primary Sector	52.26	49.18	28.51	31.71
	Secondary Sector	18.02	17.79	26.57	23.22
	Tertiary Sector	29.70	33.02	44.90	45.06
GUJARAT	Primary Sector	40.80	33.31	19.01	23.51
	Secondary Sector	27.24	30.91	32.63	33.60
	Tertiary Sector	31.95	35.76	48.34	42.88
MAHARASHTRA	Primary Sector	28.10	23.47	17.28	13.42
	Secondary Sector	35.09	33.52	24.79	28.05
	Tertiary Sector	36.80	43.01	57.92	58.52
GOA	Primary Sector	28.54	21.71	14.85	23.66
	Secondary Sector	29.66	30.44	31.97	30.09
	Tertiary Sector	41.78	47.84	53.17	46.24

Source: CSO

5.2 URBANISATION

The period under study saw a rise in the process of urbanisation in all the western states of India. As depicted in **Table 2** it was seen that the rate of urbanization was highest for Maharashtra in 1981 being 35.03% which was taken over by Goa in the succeeding years. Goa showed an urbanization rate of 41.01% in 1991 which rose to 49.76% in 2001 and finally with a major increase of 12% became 62.17% in 2011. It was followed by Maharashtra and Gujarat in the respective years with Rajasthan on the fourth place throughout bearing the least figures of 21.05% in 1981, 22.88% in 1991, 23.39% in 2001 and 24.89% in 2011. Rajasthan was the only western state to have shown urbanization rates below the All India level at all points of time of the study.

TABLE 2: URBANISATION (In Percent)

States	1981	1991	2001	2011
RAJASTHAN	21.05	22.88	23.39	24.89
GUJARAT	31.10	34.49	37.36	42.58
MAHARASHTRA	35.03	38.69	42.43	45.23
GOA	32.03	41.01	49.76	62.17
ALL INDIA	23.34	25.71	27.81	31.16

Source: Socio Economic Review of Gujarat

5.3 GINI CO-EFFICIENT

Table 3 shows the Ginni Co-efficient values for West India. Ginni Co-efficient measures the level of inequality in population. Lower the Ginni Co-efficient greater is the level of equal distribution with 0 corresponding to complete equality. Higher the Ginni Co-efficient higher is the level of unequal distribution with 1 corresponding to complete inequality.

All states of West India showed a greater level of inequality in the urban areas as compared to the rural for all points of time. Gujarat showed the minimum in the rural sector in the years 1983-84 (0.25) and 1993-94 (0.23) while Rajasthan showed the least values in 1999-00 (0.20) and 2004-05 (0.24). However, the lowest level of inequality was taken over by Goa in 2009-10 by showing the least Ginni Co-efficient of (0.21) as compared to the rest of western states. In case of urban sector, Gujarat showed the least values for the majority of the years being 0.26 in 1983-84, 0.28 in 1993-94, 0.28 in 1999-00, 0.30 in 2004-05 and finally 0.32 in 2009-10. Maharashtra shows the highest level of inequality for the major time period in both rural and urban sectors with the exception in 1983-84 where Rajasthan showed the maximum in the rural sector (0.34) and in 2004-05 where Goa showed the maximum in the urban sector (0.40).

The Ginni Co-efficient of the Western States was less than the All India level at various points of time (with the exception of Maharashtra, Goa and Rajasthan in certain years) thereby representing a greater level of equality in West India than seen at the national level.

TABLE 3: GINI COEFFICIENT

	Rural	Urban
1983-84		
RAJASTHAN	0.34	0.30
GUJARAT	0.25	0.26
MAHARASHTRA	0.28	0.32
GOA	N.A.	N.A.
ALL INDIA	0.29	0.32
1993-94		
RAJASTHAN	0.26	0.29
GUJARAT	0.23	0.28
MAHARASHTRA	0.30	0.35
GOA	N.A.	N.A.
ALL INDIA	0.28	0.34
1999-2000		
RAJASTHAN	0.20	0.28
GUJARAT	0.23	0.28
MAHARASHTRA	0.25	0.34
GOA	N.A.	N.A.
ALL INDIA	0.26	0.34
2004-05		
RAJASTHAN	0.24	0.36
GUJARAT	0.26	0.30
MAHARASHTRA	0.30	0.37
GOA	0.29	0.40
ALL INDIA	0.30	0.37
2009-10		
RAJASTHAN	0.22	0.37
GUJARAT	0.25	0.32
MAHARASHTRA	0.26	0.41
GOA	0.21	0.40
ALL INDIA	0.29	0.38

Source: Planning Commission

5.4 POPULATION BELOW POVERTY LINE

Population below poverty line is depicted in **Table 4** for western states of India and it shows that Maharashtra had the highest level of poverty in 1983-84 (43.44%). It fell to 36.86% in 1993-94 and further to 25.02% in 1999-2000. However it showed a slight increase of around 5% in 2004-05 and became 30.7%. Maharashtra was followed by Rajasthan which showed poverty rate of 34.46% in 1983-84 and fell to 22.1% in 2004-05. Similarly, Gujarat also witnessed a fall in its poverty level from 32.79% in 1983-84 to nearly its half (16.8%) in 2004-05. Goa performed the best by showing least poverty levels of 18.9% in 1983-84. It fell further to 14.92% in 1993-94 and to 4.40% in 1999-00. However like all other western states, Goa also witnessed an increase in poverty levels in 2004-05. Besides Maharashtra all western states showed poverty levels below the national level at all points of time.

TABLE 4: POPULATION BELOW POVERTY LINE (In Percent)

States	1983-84	1993-94	1999-2000	2004-05
RAJASTHAN	34.46	27.41	15.28	22.10
GUJARAT	32.79	24.21	14.07	16.8
MAHARASHTRA	43.44	36.86	25.02	30.70
GOA	18.90	14.92	04.40	13.80
ALL INDIA	44.48	35.97	26.10	27.50

Source: Planning Commission

5.5 SEX RATIOS

In the present indicator of sex ratio (**Table 5**), Goa has performed well viz- a via the rest of the western states at all points of time having values of 975, 967, 960 and 968 in 1981, 1991, 2001 and 2011 respectively which are much higher than the national level during the same time period. Goa has been the only saving grace to have pulled off well as compared to the other western states but has shown a downward trend in its values from 1981 to 2001. It was only in 2011 that it showed a rise in the sex ratio to 968. It was followed by Gujarat where the sex ratio was 942 in 1981 and slipped to 918 in 2011 not showing a very impressive picture. Similarly, Maharashtra showed a figure of 937 in 1981 and dropped to 925 in 2011. Rajasthan was the only state which managed to show a little increase in the sex ratio overtime. It rose from 919 in 1981 to 926 in 2011.

TABLE 5: SEX RATIOS

States	1981	1991	2001	2011
RAJASTHAN	919	910	922	926
GUJARAT	942	934	921	918
MAHARASHTRA	937	934	922	925
GOA	975	967	960	968
ALL INDIA	934	927	933	940

Source: Planning Commission

5.6 LITERACY RATES

The state of Goa showed the highest figures in the literacy rates too which gradually increased through the entire time period. It showed literacy rates of 65.71%, 75.51%, 82.01% and 87.40% in 1981, 1991, 2001 and 2011 respectively which were much higher than the national figures of 43.57%, 52.21%, 64.84% and 74.04% for the same time period. It was followed by Maharashtra and Gujarat whose rates increased over time. Rajasthan showed a dismal state here too by showing the least rates at all points of time. The rates rose from 30.11% in 1981 to 38.55% in 1991, with a huge leap of 22% in 2001 it reached to a figure of

60.41% and finally to 67.06% in 2011. Rajasthan was the only state to have figures well below the national level. Gujarat and Maharashtra, even though having figures lower than Goa managed to remain above the All India level.

TABLE 6: LITERACY RATES (Percent)

States	1981	1991	2001	2011
RAJASTHAN	30.11	38.55	60.41	67.06
GUJARAT	44.92	61.29	69.14	79.31
MAHARASHTRA	57.24	64.87	76.88	82.91
GOA	65.71	75.51	82.01	87.40
ALL INDIA	43.57	52.21	64.84	74.04

Source: Planning Commission

6. CONCLUSION

The present study throws light on various interconnected factors which determine the process of structural transformation in the states of West India. A distinctive characteristic of structural change in these states has been seen in the declining share of primary sector in the NSDP and the increasing share of secondary and tertiary sectors in NSDP during the time period of the study. Maharashtra followed by Goa have shown the highest shares of services sector in the NSDP followed by Gujarat. Rajasthan, although being an agriculturally dominated state has also witnessed a rise in the services sector.

One of the important indicators of structural transformation is urbanization which was found in all western states but in varying levels. It was seen that the rate of urbanization was highest for Maharashtra in 1981 initially and was taken over by Goa in the succeeding years. Whereas Rajasthan had the least rate of urbanization throughout the period under study so much so that it was the only western state to have shown figures below the All India level at all points of time.

Inequality was also witnessed in the western states with urban inequality being greater than rural during all points of time. Gujarat, Rajasthan and Goa interchangeably showed the least levels throughout the time period. Highest level of inequality was found in Maharashtra at majority of time. The Ginni Co-efficient of the Western States was less than the All India level at various points of time (with the exception of Maharashtra, Goa and Rajasthan in certain years) thereby representing a greater level of equality in West India than seen at the national level.

The socio-economic indicator of population below poverty line has witnessed Goa outperforming the other western states by showing the least rates in population below poverty line throughout the time period. Maharashtra on the other hand, witnessed the maximum poverty levels and the only western state to show poverty rates above the national level at all points of time.

In case of demographic indicator of sex ratio, Goa has shown the highest figures with Rajasthan showing the least. Goa showed the highest rates of literacy too followed by Maharashtra. It was Rajasthan to have fared the worst amongst the rest.

Thus, structural transformation is taking place which is an important feature of development with Goa leading in majority of indicators followed by Maharashtra in the other few than rest of West India on various indicators. Appropriate steps need to be taken so that these states may develop in a progressive manner so as to achieve balanced growth and development and be in harmony with each other.

7. SCOPE OF THE FUTURE RESEARCH

The present study was conducted taking into consideration only the western states of India. It can be further extended to study structural change by including various other states of India and India as a whole. Apart from this structural change in nations other than India can be studied individually or in comparative terms. Taking into consideration the limitations of the study, as the data were mainly collected from secondary sources, certain gaps in data were found in few indicators due to the non-availability of data for specific years from the same source.

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