



Growth and structural change: An experience of Uttarakhand economy

Kailash Bharti Goswami¹, Padam Singh Bisht²

¹ Research Scholar, Department of Economics, D.S.B. Campus, Kumaun University Nainital, Uttarakhand India

² Professor, Department of Economics, D.S.B. Campus, Kumaun University Nainital, Uttarakhand India

Abstract

In any economy primary, secondary, tertiary and agriculture, industry, services are directly related to each other. This separation has been used the distinctive pattern of structural change in any economy. This is the most common phenomenon which hold true in all countries which is experiencing structural shift. In these countries the contribution of primary sector has registered a steady turn down in the total output, whereas that share in secondary sector is showing an increasing trend for a long time and after that it has declined and finally services sector has hold as economy developed in every economy as a common path of structural change.

The aim of this study is to analyze the structural transformation process in Uttarakhand economy using secondary data based on a range of parameter of structural transformation as share of different sector in State Gross Domestic Product, performance of their growth parts at aggregated and disaggregated level and employment scenario in Uttarakhand economy. The results shows that the economy of Uttarakhand shows the pattern of structural shift in sectoral share as well as occupation structure.

Keywords: structural change, Uttarakhand economy, state gross domestic product, work force participation

1. Introduction

The term 'structure' and 'structural change' have turn out to be frequently used in economic study, although with diverse meanings and interpretations. As an economy grows it will experience some structural changes. This model of structural change has not only been observed traditionally, but also across the countries with diverse levels of expansion. Structural shifts and changing sectoral shares are found to hold excellent for both the national product and the work-force. The premise of structural transformation has given chief place to the industrial sector and termed it as engine of growth because industrial sector has strongest forward and backward growth linkages, subject to increasing returns for longer duration and larger labour incorporation capability.

Economic growth and economic transformation have been the major developmental argue during the early era of economic development (Colin Clark, 1940, Chenery and Taylor, 1968; Rostow, 1960; etc) ^[1]. To speed up the process of economic growth in a continued manner has become the most important policy issue in contemporary scenario. There are many studies which hit upon out that acceleration in economic growth is due to their structural transformation (Nayyar 2006) ^[3]. According to the United Nations surveys, an examination of pattern of structural change over the past decades indicates that the speedy growing developing economies are clearly characterized by vibrant transformations.

It has been extensively asserted that structural change is an essential condition for the Indian economy to enjoy sustained economic growth at a satisfactory level. Indian economy like numerous other growing economies has also witnessed momentous structural changes in recent years. These structural changes indicate that the course of development which began in the early 1950s is still ongoing.

Among the sources of structural transformations, the literatures mainly revolves around two main dynamics: sectoral specialization, first, leads back to the classical argument that economies focus their activities on the most competitive sectors or more inclined to increase to increase gains in efficiency. Second, the changes in the structure of consumption, lead back to the pasinettian argument. The structure of the economics as well as their transformations are induced either by differences in the potential expansion of demand or by the emergence of new products or new sectors.

The distinguishing characteristic of India's growth has been the increasing function of services sector to GDP growth. Structural changes play an essential role in the path of economic growth and hence in raising the living standards of Indians. Indian economy when it embarked on the development process after Independence in 1950, with about 60 per cent of GDP accounted for by agriculture, industry contributing about 13 and services about 27 per cent, it was structurally comparable to the economy of the Great Britain in late eighteenth century, and of Germany at the beginning of the nineteenth century, of the United States and Italy of mid-nineteenth century and of Japan in 1900. Similar comparisons hold in respect of the share of labour force in different sectors: farming sector accounted for about 75 percent, industry for about 11 and services 16 percent of total employment in 1950, in India. This is comparable with the United States of 1841, with 72 percent workers in agriculture, 12 per cent in industry and 16 percent in services, or Japan of 1880 with the respective shares of employment in the three sectors being 65 percent, 15 percent and 20 percent.

The economy of Uttarakhand which is dominated by agrarian activities continues to be backward in agriculture growth in major parts of the state in the national context. The state being well-off in human and natural wealth and

having vast fertile plains has shown high growth performance over the years which remained above the national average. The state economy witnessed considerable structural changes in recent years in all the sectors of the state economy. This may at first glance be visualized from the changes in sectoral composition of the state income over the years. This is shown from the fact that state has 51.24 percent share in industrial output in 2015-16. The share of agriculture sector in state economy has been constantly decreasing, the share of this sector was 28.22 percent in 2000-01 and it decreased to 11.54 percent in 2015-16. The increasing share of secondary and tertiary sector shows the structural shift in state economy but this change is very slow. It has virtually given a fillip to traditional and stagnant state economy.

2. Review of Literature

Economists, agriculturalists, scholars etc. have done a momentous work on the Growth and Structural changes in different economy. Various fields like structural changes in agriculture, Patterns of growth have been largely undertaken by these Economists, agriculturalists of different fields from different institutions and universities. The thematic reviews of work done by scholars in the field Growth and structural changes are given below:

Modern reckoning of sectoral revolution originated with Fisher (1939) [9] and Clark (1940) [1], who negotiate with sectoral shifts in the concerto of the labour force. However, they were almost certainly the first to deal with the process of reallocation of the factors of production in the economic growth, and use the form of sectoral separation (primary, secondary & tertiary) which, in one way or another, is still with us these days. The most habitual events of economic structure are sectoral shares of the labour force.

Rangarajan (1982) [5] in his empirical study also highlighted the interdependence between farming & non farming growth in the economy. There are linkage between agriculture and industrial sectors as the former is supplier of wage goods & raw material to the latter. A one percent add to in agricultural output tends to lift up industrial manufacture by 0.5 percent & national income by 0.7 percent.

Datta (2001) [7] points out that the tertiary sector's contribution to GDP has increased steadily over time and establishes itself as the largest sector of the Indian economy. He examines the high growth in India and the role played by service sector. The study suggests the importance of service sector in Indian Economy.

Shetty (2003) [6] has made an effort to evaluate economic performance of the Indian states using SDP, per capita SDP and sectoral components of SDP as a measure of inter-state disparities for the period 1980-81 to 2000-01 and the results shows that the state where disparities are less has more shift from one sector to another sector.

Aggarwal & Moudgil (2015) [9] examine the structural change & growth of agriculture in Haryana, the study

observes that there is direct relationship between growth and structural change. The study reveals that this structural shift in Haryana is at faster rate as compare to Indian economy. The result shows that in the share of primary sector in SGDP of Haryana there is continuous decline since 1990.

Agarwal & Ghosh (2015) [10] examines the structural break analyses of several macroeconomic variables for the Indian economy from various dimensions. The study revelas that the Indian economy exhibits multiple structural breaks, in GDP & Per Capita Income and also in external sector of the economy but, there is no statistically structural break in growth rate and no acceleration of growth rate has occurred. The external sector of the economy has many multiple structural breaks.

3. Objectives of the Study

1. To study the structural changes and sectoral growth performance in the economy of Uttarakhand
2. To study the changes in the primary, secondary, tertiary sector and changes in occupation pattern in the state during the period of analysis

4. Research Methodology

Research Methodology is a way to solve the research problem systematically. This methodology section deals with the research techniques and the methods applied by the researcher in the collection and in the analysis of the data collected. The proposed study aims to analyzing the growth and structural changes in the economy of Uttarakhand. This research is both the descriptive and analytical by nature. The data on the net domestic product by the origin of industry as well as data on other aspects of the economy, has been taken from the estimates published in the statistical diaries, statistical abstracts, state income estimates etc. of various years, published by Economic and Statistical Directorate and other Statistical organizations of the State of Uttarakhand and India.

5. Analysis and Interpretation

The 'SDP' and 'per-capita' income level are key determinants of the economic well being and societal development in a state. The per capita income is the best indicator which shows the performance of state economy and living standard of the people and overall socio-economic growth of the state. The growth in Uttarakhand has always greater than that of the country as an entire during the study period. Uttarakhand attained decent growth in the GSDP with respect to the all India performance except three FY I.e. 2001-02, 2003-04 and 2014-15, where the growth rate of state economy lagged behind that of country. The state economy achieved highest growth rate in the FY 2009-10 of 18.13% and lowest of 5.29% in 2014-15. From the table 3.4 it is quite clear that the gap in the growth rates is still much wider in favor of state economy.

Table 1: Growth Rate of Income in India and Uttarakhand (Constant Prices)

Year		Percentage Increase over previous year		Gap
		Uttarakhand	India	
Base Year 1999-2000	2000-01	12.04	4.35	7.69
	2001-02	5.53	5.81	-0.28
	2002-03	9.92	3.84	6.08
	2003-04	7.62	8.52	-0.9
	2004-05	12.99	7.47	5.52

Base Year 2004-2005	2005-06	14.34	9.48	4.86
	2006-07	13.58	9.57	4.01
	2007-08	18.12	9.32	8.8
	2008-09	12.65	6.72	5.93
	2009-10	18.13	8.59	9.54
	2010-11	10.02	8.91	1.11
Base Year 2011-2012	2011-12	9.36	6.69	2.67
	2012-13	7.27	5.46	1.81
	2013-14	8.47	6.39	2.08
	2014-15	5.29	7.51	-2.22
	2015-16	7.71	8.01	-0.3

Source: Statistical Diary, Uttarakhand, (various years)

The gap states that in state economy there is structural shift from farming sector to other organized and unorganized sectors of the economy. The state economy of Uttarakhand grows faster than other states of the Indian economy.

5.1 Growth Trend in GSDP in Uttarakhand

The structural revolution that occurred in the state economy over the last fifteen years is a result of development process witnessed since the formation of state. This is reflected in the growth rate and in the varying sectoral composition of the State Gross Domestic Product (SGDP). The growth of secondary sector was 30.14% in 2000-01 which came down

to 9.44% in 2015-16 while the growth rate of primary sector also decreased from 5.03 percent to 0.59 percent and that of tertiary sector decreased from 9.52 percent to 6.53 percent. The highlights of the growth trends of different sectors in the Uttarakhand economy in the study period are given in the table 2 given below. From the table it can be concluded that while there is fluctuations in growth in all the three sectors namely primary, secondary and services sectors in the state. There is negative growth in primary sector of the state economy during few FY. The marginal decline in GSDP is recognized to deceleration in the growth performance in Primary sector.

Table 2: Growth Trend in GSDP in Uttarakhand (Constant Prices)

Year	Primary Sector	Secondary Sector	Tertiary Sector	
Base Year 1999-2000	2000-01	5.03	30.14	9.52
	2001-02	-4.85	13.37	7.96
	2002-03	4.09	21.39	7.57
	2003-04	8.54	5.61	8.22
	2004-05	4.94	26.60	10.02
Base Year 2004-05	2005-06	-1.38	27.09	14.84
	2006-07	4.01	21.47	12.72
	2007-08	2.06	23.86	20.41
	2008-09	-4.59	13.32	17.70
	2009-10	8.34	20.41	19.19
	2010-11	5.33	13.56	8.41
Base Year 2011-12	2011-12	4.22	12.10	8.67
	2012-13	1.38	8.91	6.89
	2013-14	6.46	6.72	11.01
	2014-15	-5.05	4.37	10.70
	2015-16	0.59	9.44	6.53

Source: Statistical Diary & Statistical Abstracts, Uttarakhand, (various years)

Table 3 examines the growth rate of GSDP under different sectors and subsectors at constant prices. During 2001-02, the annual growth rate of GSDP was 12.04 percent which increased to 12.99 percent in 2004-05 and declined to 12.65 percent in 2008-09. The growth rate of GSDP again declined to 9.36 percent and 5.29 percent in 2011-12 and 2014-15 respectively and the growth rate increased to 7.71 percent in 2015-16.

The Agriculture & Animal Husbandry sector recorded the negative growth rate of 2.46 percent and -2.47 percent and -6.02 percent in 2001-02 and 2004-05 respectively and registered highest growth rate of 22.56 percent in 2011-12. The Forestry & Logging sub sector of primary sector shows negative growth rate of -10.88 percent and -9.05 percent in 2011-12 and 2014-15 respectively, while the fishing recorded the growth of 3.64 percent, 29.38 percent and 6.73 percent in 2000-01, 2011-12 and 2015-16 respectively. Mining & Quarrying sector also registered negative annual growth rate in some FYs, it registered a growth of -22.64

percent, -21.29 percent and -31.08 percent in 2004-05, 2008-09 and 2014-15 respectively. It is however, noted that in primary sector the growth rate decelerated from the beginning of study period.

The sub sectors of secondary sector i.e. Manufacturing, Construction and Electricity, Gas & Water Supply achieved respectable growth rate except some FYs. The manufacturing sector recorded growth of -5.59 percent, 27.93 percent, 29.29 percent, 25.5 percent, 7.85 percent and 4.53 percent in 2000-01, 2004-05, 2008-09, 2011-12, 2014-15 and 2015-16 respectively. The construction sector registered a growth of 32.53 percent, 63.52 percent, 3.91 percent, 27.00 percent, 8.01 percent, and 36.51 percent in 2000-01, 2004-05, 2008-09, 2011-12, 2014-15 and 2015-16 respectively. Construction and manufacturing witnessed significant pick up in the growth after 2004-05 by establishment of many industries in the state. Electricity, Gas & Water Supply recorded a growth rate of 55.9 percent, -28.87 percent, 12.36 percent, 32.18 percent, 15.63 percent

and 24.75 percent in the same period. The secondary sector showed better performance during the study period. The sub sectors of services sector showed a shift in the growth rate in favour of services sector. Transport, Storage &

Communication registered a growth rate of 14.33 percent, 6.62 percent, 19.56 percent, 33.58 percent, 12.08 percent and 14.76 percent in 2000-01, 2004-05, 2008-09, 2011-12, 2014-15 and 2015-16 respectively.

Table 3: Annual Growth Rate of GSDP by Industrial Origin Uttarakhand At (Current Prices)

S. No.	Item	Year					
		2001-02	2004-05	2008-09	2011-12	2014-15	2015-16
1.	Agriculture & Animal Husbandry	-2.47	-6.02	17.43	22.56	4.64	6.66
2.	Forestry & Logging	5.81	18.21	13.59	-10.88	-9.05	8.69
3.	Fishing	3.64	2.33	16.00	29.38	6.64	6.73
4.	Mining & Quarrying	17.49	-22.64	-21.29	22.28	-31.08	21.93
5.	Manufacturing	-5.59	27.93	29.29	25.5	7.85	4.53
6.	Construction	32.53	63.52	3.91	27.00	8.01	36.51
7.	Electricity, Gas & Water Supply	55.9	-28.87	12.36	32.18	15.63	24.75
8.	Transport, Storage & Communication	14.33	6.62	19.56	33.58	12.08	14.76
9.	Trade, Hotels & Restaurants	5.72	22.22	29.88	-38.48	7.96	14.25
10.	Banking & Insurance	16.32	26.83	22.29	9.14	7.69	9.50
11.	Real Estate, Ownership of Dwellings & Business Services	15.67	19.95	16.77	44.77	12.46	12.51
12.	Public Administration	14.37	16.06	46.20	-18.43	19.74	22.87
13.	Other Services	22.90	18.62	17.97	-13.70	18.72	27.77
	GSDP	12.04	12.99	12.65	9.36	5.29	7.71

Source: Statistical Diary & Statistical Abstracts, Uttarakhand, (various years)

The sub sectors of services sector like Real Estate, Ownership of Dwellings & Business Services showed better performance in growth rate, the growth rate was registered as 15.67 percent, 19.95 percent, 16.77 percent, 44.77 percent, 12.46 percent and 12.51 percent in the same period. Public Administration recorded a growth rate of 14.37 percent, 16.06 percent, 46.20 percent, -18.43 percent, 19.74 percent and 22.87 percent 2000-01, 2004-05, 2008-09, 2011-12, 2014-15 and 2015-16 respectively. The high growth rate of public administration is due to increased expenditure of the government in the form of wage bill, which gets directly reflected in its value added even without any addition to services. It is because of such national income accounting procedures that value added in this sub-sector of non-marketed services is estimated on the basis of cost. Thus, higher salaries may not vouch for any increase in value added. The secondary and the tertiary sectors showed better performance during the study period. The per capita

income in Uttarakhand, which was almost equal to the national average in the beginning of the study Period, is now nearly double of the National Average. The table 3.6 shows the gap in the per capita income of the State and that of the country has been increasing, due to high economic growth in Uttarakhand. The per capita NSDP of Uttarakhand was Rs. 13516 in 1999-00 and it rises to Rs. 30644 in 2006-07 and again increased to Rs. 139435 in 2015-16. The per capita NSDP of India was Rs. 15881 in 1999-00 and it rises to Rs. 86668 in 2015-16.

5.2. Percentage Distribution of Sectoral Shares in Uttarakhand

Table 5.4 show the percentage distribution of GSDP of state economy at constant prices. GSDP is indicative of structural changes that are taking place in the state economy.

Table 4: Percentage Distribution of GSDP by Industrial Origin in Uttarakhand (Constant Prices)

Year	Primary Sector	Secondary Sector	Tertiary Sector	
Base Year 1999-2000	2000-01	28.22	21.82	49.96
	2001-02	25.44	23.44	51.12
	2002-03	24.10	25.89	50.01
	2003-04	24.30	25.40	50.30
	2004-05	23.48	27.02	49.50
Base Year 2004-05	2005-06	20.25	30.03	49.72
	2006-07	18.55	32.12	49.33
	2007-08	16.02	33.68	50.30
	2008-09	13.58	33.87	52.55
	2009-10	12.44	34.52	53.04
Base Year 2011-12	2010-11	11.92	35.64	52.44
	2011-12	13.97	52.03	34.00
	2012-13	13.20	53.16	33.64
	2013-14	13.04	52.20	34.76
	2014-15	11.74	52.18	36.08
2015-16	11.54	51.24	37.22	

Source: Statistical Diary & Statistical Abstracts Uttarakhand, (various years)

The share of primary sector in Uttarakhand GSDP declined from 28.22 percent in 2000-01 to 11.54 percent in 2015-16

indicating a gradual shift from primary sector to the other sectors. The share of tertiary sector change from 49.96

percent in 2000-01 to 53.04 percent in 2009-10 but the share declines to 37.22 percent in 2015-16.

The share of secondary sector state economy increased from 21.82 percent in 2000-01 to 27.02 percent in 2004-05. This shows a gradual structural shift in state economy. The percentage share of secondary sector increased to 51.24 percent to 2015-16 from 35.64 percent in 2010-11.

The table also reveals that the secondary sector is dominant sector in the state economy, while tertiary sector is also playing a dominant role in Uttarakhand. Close examination of the table depicts the fact that in Uttarakhand the share of tertiary sector has increased over the years, but the contribution of secondary sector is highest from last five years.

5.3 Percentage Distribution by of GSDP by Industrial Origin

Table 3.8 show the percentage distribution of GSDP at constant prices. The changing sectoral composition of

GSDP is indicative of structural changes that are taking place in the state economy. It can be noticed from the tables that at the state level the dominance of agriculture sector has reduced significantly. The share of agriculture in Uttarakhand SGDP declined from 22.52 percent in 2000-01 to 7.72 percent in 2015-16 indicating a gradual shift from agricultural to the non-agricultural sectors. The share of manufacturing sector changes from 11.44 percent to 38.26 percent and that of construction & electricity, gas & water supply changes from 8.46 percent to 9.35 and 1.93 percent to 3.63 percent respectively during the same period in state. The share of sub sectors of tertiary sector of Transport, Storage & Communication, Trade, Hotels & Restaurants, Banking & Insurance, Real Estate, Ownership of Dwellings & Business Services, Public Administration and Other Services in 2015-16 was 7.40%, 11.24%, 2.38%, 5.20%, 3.90% and 7.10 percent respectively. The percentage distribution of tertiary sector shows a fluctuating trend during the study period.

Table 5: Percentage Distribution by of GSDP by Industrial Origin Uttarakhand At (Constant Prices)

S. No.	Item	Year					
		2000-01	2004-05	2008-09	2011-12	2014-15	2015-16
1.	Agriculture & Animal Husbandary	22.52	16.60	9.21	9.70	8.06	7.72
2.	Forestry & Logging	1.98	5.63	3.61	2.53	2.18	2.14
3.	Fishing	0.05	0.03	0.03	0.03	0.02	0.02
4.	Mining & Quarrying	0.67	1.22	0.73	1.71	1.48	1.66
5.	Manufacturing	11.44	12.73	24.15	40.22	40.74	38.26
6.	Construction	8.46	12.74	8.30	8.14	7.84	9.35
7.	Electricity, Gas & Water Supply	1.92	1.55	1.42	3.67	3.60	3.63
8.	Transport, Storage & Communication	7.50	6.56	7.10	6.48	7.10	7.40
9.	Trade, Hotels & Restaurants	17.26	16.92	22.20	11.00	11.27	11.24
10.	Banking & Insurance	3.40	3.78	4.45	2.70	2.48	2.38
11.	Real Estate, Ownership of Dwellings & Business Services	6.14	6.46	4.52	5.42	5.20	5.20
12.	Public Administration	5.60	5.38	6.63	3.80	3.68	3.90
13.	Other Services	10.06	10.40	7.65	4.60	6.35	7.10

Source: Statistical Diary & Statistical Abstracts Uttarakhand, (various years)

The table depicts the fact that in Uttarakhand the share of secondary and tertiary sector has increased over the years. The table also reveals that the primary sector is still dominant sector in the state economy because nearly 50% population of state working in this sector.

5.4 Changes in the Share of the Service Sector and Its Sub-sectors

The share of tertiary sector in NSDP of state economy leaped up from 48.80 percent in 2000-01 to 50.48 percent in 2004-05. It further increased to 54.52 percent in 2010-11 and then decreased to 38.71 percent in 2012-13 and then increased to 42.56 percent in 2015-16. The sectors that have

shown an accelerating tendency are communications, other services and real estate ownership, etc (which includes the IT and ITES sectors). The share of other services in NSDP of state economy at current prices was 10.03 percent, 11 percent, 8.54 percent and 14.18 percent in 2000-01, 2004-05, 2008-09 and 2015-16 respectively. The share of other services fluctuates during the study period. The share of transport, storage & communication in NSDP of Uttarakhand economy was 5.21 percent, 5.42 percent, 6.42 percent, 6.53 percent, 6.55 percent, 6.65 percent, 5.44 percent, 5.53 percent and 6.15 percent in 2000-01, 2002-03, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13, 2014-15 and 2015-16 respectively.

Table 6: Percentage Share of Tertiary Sector and Its Sub-Sectors Uttarakhand

Economic Activity	2000-01	2002-03	2004-05	2006-07	2008-09	2010-11	2012-13	2014-15	2015-16
Transport, Storage & Communication	5.21	5.42	6.42	6.53	6.55	6.65	5.44	5.87	6.15
Trade, Hotels & Restaurants	18.33	17.35	18.36	20.40	24.05	26.17	11.49	11.88	11.84
Banking & Insurance	3.68	4.07	4.13	3.75	3.64	3.65	2.68	2.74	2.78
Real Estate, Ownership of Dwellings & Business Services	5.86	5.85	5.71	4.80	4.48	4.44	4.43	4.31	4.19
Public Administration	5.19	5.07	4.86	4.35	6.36	5.85	2.63	3.38	3.43
Other Services	10.03	10.98	11.00	9.74	8.54	7.68	12.04	13.54	14.18
Tertiary	48.80	48.74	50.48	49.57	50.92	54.52	38.71	40.72	42.56

Source: Calculated from NSDP Data (at Current Prices)

The share of trade, hotels & restaurants in NSDP of Uttarakhand economy was 18.33 percent, 17.35 percent, 18.36 percent, 20.40 percent, 24.05 percent, 26.17 percent, 11.88 percent and 11.84 percent in 2000-01, 2002-03, 2004-05, 2006-07, 2008-09, 2010-11, 2014-15 and 2015-16 respectively. The share of banking & insurance in 2000-01 was 3.68 percent, which was increased to 4.13 percent in 2004-05 and the share declined to 2.68 percent in 2012-13. The share in NSDP increased during the FY 2015-16 increased to 2.78 percent from 2.74 percent in 2014-15. The share of real estate & other business was 5.86 percent in 2000-01, which was declined to 4.80 percent in 2006-07 and again declined to 4.43 percent in 2012-13. The share of real estate and other business in NSDP was decline by 1.67 percentage points from 2000-01 to 2015-16. The share of public administration in NSDP declined by 1.76 percentage points from 2000-01 to 2015-16. In 2000-01 and 2015-16, the share of public administration in NSDP was 5.19 percent and 3.43 percent respectively. The share of other services in NSDP was 10.98 percent in 2002-03, which was declined to 8.54 percent in 2008-09. The share of other services was 12.04 percent in 2012-13, which was heaped to 14.18 percent.

5.5 Workforce Structure and Work Participation Rates in Uttarakhand

Any structural transformation is considered successful when changes in structure of output are accompanied by corresponding changes in the share of employment. Corresponding employment situation over time helps analyses the structural transformation of workforce. The table 7.1 shows that there has been a relatively faster movement of workforce (9 percentage points) away from

primary to other sectors from 1993-94 to 2004-05. There is 9 percentage points of movement from agriculture sector to other sectors from 2004-05 to 2009-10 and 8 percentage points from 2009-10 to 2011-12. This is true for both rural and urban locations. The overall share of agriculture sector has been 49 per cent in 2011-12 which is lower than that of all-India. Such diminution is welcome feature for any successful transformation.

Table 7: Occupational Structure in Uttarakhand

Sector	Year			
	1993-94	2004-05	2009-10	2011-12
Primary	75	66	57	49
Secondary	8	12	20	22
Services	17	22	23	29

Source: NSS Various Rounds

The share in secondary sector's employment is 22 per cent in 2011-12. Employment in this sector increased gradually during 1994-2011. The share of services sector increased to 29 percent from 17 percent in 2011-12 from 1993-94.

Primary sector still remains the predominant sector of the state economy. A large share of population in the state is dependent on agriculture of livelihood. Primary sector employs about 50 percent of the population of the state. It may be due to lack of opportunities in the non-agricultural sector, lack of mobility to other sectors, low level of mechanization in the agricultural sector etc.

The agriculture and animal husbandry shows a declining trend in workforce, the table 7.2 shows that there is shift in occupational structure in the state economy but the decline is not at the level which shows a huge structural shift in the state of Uttarakhand.

Table 8: Percentage of Workforce by industrial category in Uttarakhand

Sector	2004-05	2008-09	2011-12
Agriculture & Animal Husbandry	66.1	56.40	48.80
Mining & Quarrying	0.01	0.20	0.10
Manufacturing	5.00	6.60	9.30
Construction	0.40	0.60	0.60
Electricity, Gas & Water Supply	6.90	12.90	12.30
Transport, Storage & Communication	3.00	2.10	5.10
Trade, Hotels & Restaurants	8.60	10.40	14.10
Other Services	10.10	10.80	9.70

Source: NSS Various Rounds

Manufacturing saw a steady surge during 8 years but urban areas saw much higher stimulus in manufacturing employment share than the rural areas which stagnated during 2004-09 but later picked up during 2011-12. Manufacturing is a cause of serious concern at national level but Uttarakhand has shown a significant improvement during 2004-11. One can plausibly argue that industrial stimulus through concessional package provided by Government of India to establish industries in Uttarakhand spurred industrial activities in the state. In services sector most prominent sub-sector is trade, hotel and restaurants that contributes highest employment share in the sector. The other sub-sectors are 'Other' services and transport, storage & communication, respectively. Employment growth in secondary sector has increased but it is also above the national average bench mark. Electricity, Gas & Water Supply is growing more than double rate in this period. Tertiary sector is showing a mixed trend as

some sub-sector like financing, insurance, real estate and business services is showing increasing trend but growth rate is decreased in community, social and personal services at disaggregated level in this period.

6. Conclusion

In short in the process of economic development in different economies of world exhibit the different form of structural change. As Uttarakhand economy progress and gross domestic product basket enlarges, a shift in economic activity occurs away from agriculture toward secondary to tertiary sector. This process leads to structural shifts in Uttarakhand economy and consequent diminishing significance of primary activities and growing dominance of secondary and tertiary activities. This process brings the change in production consumption pattern in state economy. There is a huge shift in the composition of SGDP in Uttarakhand; in 2000-01 the share of primary sector in

SGDP was nearly 30 percent, which declined to 11 percent. This underlines a major structural shift in the Uttarakhand economy as economic growth becoming more vulnerable to the performance of the industrial and services sector and less to performance of primary sector.

Uttarakhand surely has the potential for faster growth and development than it has achieved in recent years. Its plentiful natural and human resources need to be efficiently utilized. Concerted effort is particularly needed for improvements in both the social sector i.e. health and education and economic structure in order to achieve increased economic growth of Uttarakhand.

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