

CHAPTER 6

SECTOR-WISE DECOMPOSITION OF REGIONAL DISPARITIES IN INDIA

Although, the Indian economy has experienced higher growth rate after the economic reforms on the one hand, but on other hand regional inequality has increased. The production shares also shifted directly from primary to tertiary sector, whereas the share of the secondary sector remains almost the same. Therefore, it is necessary to know the contribution of each sector in increasing the income inequality. So, in this chapter find out the trends and contribution of each sector in increasing the income inequality. Moreover, this chapter also shows the trend of disparity in development expenditure among the states after reforms. So, in this section of the study firstly discusses the decomposition of inequality in the sectors and then the disparity in development expenditure among the states.

6.1 Decomposition of Inequality in India

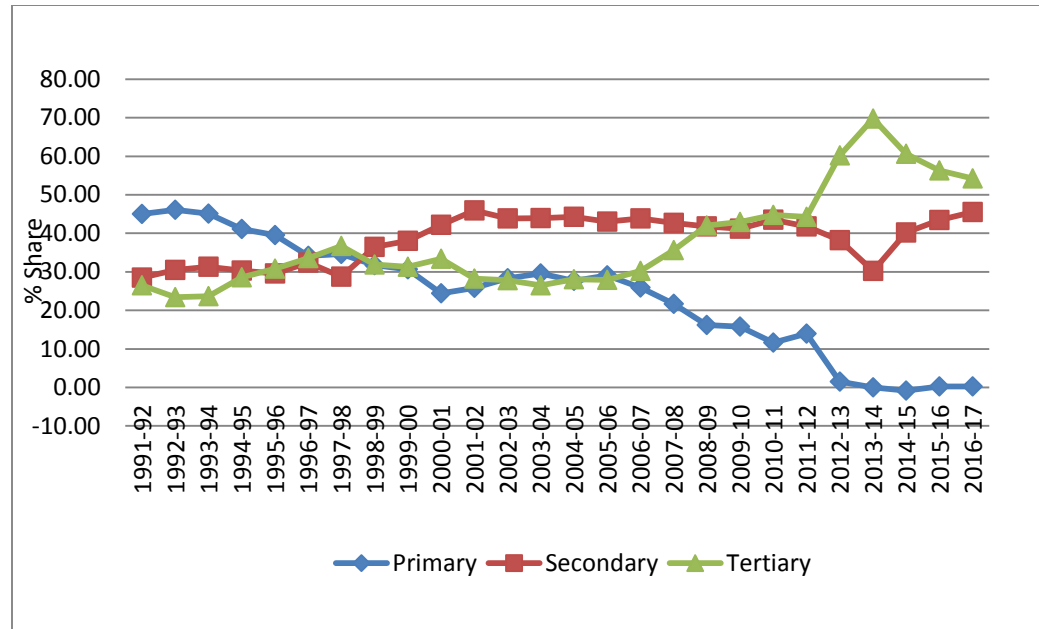
In this section the study tries to find the contribution of the all three sectors of the economy in the total inequality and their percentage share after economic reforms. Table 6.1.1 presents a picture of the sectoral decomposition of income inequality in India. The results of the analysis reveals that the contribution of the primary sector in total inequality down fallen whereas the contribution of secondary and tertiary has increased throughout the study period. The contribution of tertiary sector has increased more than the secondary sector in inequality. The percentage share to inequality among the sector has almost the same trend as the decomposition of inequality among the sectors. In the year 1991-92 primary

sector contributes around 45% to the total inequality which decreased to 0.26% in 2016-17, it decreased more after 2011-12. While the contribution of secondary and tertiary sector increased from 28% and 26% to 45% and 54% respectively. The share of tertiary sector increased more than twice over the time in inequality.

Years	Sectoral Decomposition of Inequality				%age Share of Sectoral Inequality		
	Primary	Secondary	Tertiary	Total	Primary	Secondary	Tertiary
1991-92	0.2605	0.1650	0.1533	0.5788	45.00	28.52	26.48
1992-93	0.2853	0.1889	0.1451	0.6193	46.07	30.50	23.43
1993-94	0.2654	0.1842	0.1393	0.5889	45.06	31.29	23.65
1994-95	0.2218	0.1637	0.1539	0.5394	41.12	30.35	28.53
1995-96	0.2075	0.1551	0.1617	0.5244	39.57	29.58	30.85
1996-97	0.1744	0.1654	0.1713	0.5111	34.11	32.36	33.52
1997-98	0.1784	0.1480	0.1891	0.5156	34.60	28.71	36.69
1998-99	0.1744	0.2004	0.1755	0.5502	31.69	36.42	31.89
1999-00	0.1639	0.2037	0.1674	0.5350	30.64	38.07	31.29
2000-01	0.1252	0.2162	0.1713	0.5127	24.42	42.17	33.41
2001-02	0.1518	0.2698	0.1656	0.5872	25.85	45.95	28.20
2002-03	0.1723	0.2669	0.1691	0.6083	28.33	43.87	27.80
2003-04	0.1744	0.2589	0.1563	0.5896	29.58	43.92	26.51
2004-05	0.1632	0.2611	0.1653	0.5896	27.67	44.28	28.04
2005-06	0.1736	0.2572	0.1669	0.5977	29.04	43.04	27.93
2006-07	0.1509	0.2551	0.1760	0.5820	25.93	43.84	30.23
2007-08	0.1186	0.2342	0.1955	0.5483	21.64	42.71	35.65
2008-09	0.0866	0.2237	0.2253	0.5356	16.16	41.77	42.06
2009-10	0.0845	0.2203	0.2296	0.5343	15.81	41.23	42.96
2010-11	0.0615	0.2300	0.2366	0.5281	11.65	43.55	44.80
2011-12	0.0883	0.2648	0.2808	0.6339	13.92	41.78	44.30
2012-13	0.0070	0.1762	0.2776	0.4608	1.53	38.24	60.23
2013-14	0.0001	0.1277	0.2947	0.4225	0.01	30.22	69.76
2014-15	-0.0037	0.1841	0.2775	0.4579	-0.81	40.21	60.60
2015-16	0.0013	0.2021	0.2622	0.4656	0.28	43.40	56.32
2016-17	0.0012	0.2133	0.2539	0.4684	0.27	45.53	54.20

Source: Researcher's Calculation

Figure 6.1.1 Percentage Share of the Sector's in Total Inequality



Source: Researcher's calculation

6.2 Role of Primary Sector in Inequality

The primary sector is the mainstay of the masses in India. The contribution of the primary sector to total inequality has declined over the time. But the inequality within the sector doesn't decrease as much as the percentage share decreased in inequality. Though both the relative size and inter-linkage have declined for this sector but inter-linkage changed more drastically from 0.69 to 0.02 since 2011-12 to 2016-17. This resulted the share in total inequality has also declined speedily from 14% in 2011-12 to 0.26% in 2016-17. The reason of declining of inter-linkage is yet to be ascertained and hence becomes the matter for further research.

Table 6.2.1: Primary Sector's Contribution to Overall Inequality and its Components				
Years	Intra Sectoral Inequality	Relative Size	Inter Linkage	Sectoral Contribution
1991-92	0.71	0.42	0.87	0.26
1992-93	0.75	0.43	0.89	0.29
1993-94	0.75	0.41	0.85	0.27
1994-95	0.73	0.40	0.76	0.22
1995-96	0.72	0.38	0.76	0.21
1996-97	0.65	0.37	0.72	0.17
1997-98	0.72	0.36	0.69	0.18
1998-99	0.67	0.35	0.75	0.17
1999-00	0.67	0.33	0.74	0.16
2000-01	0.58	0.32	0.68	0.13
2001-02	0.64	0.32	0.75	0.15
2002-03	0.75	0.30	0.77	0.17
2003-04	0.74	0.31	0.77	0.17
2004-05	0.74	0.29	0.76	0.16
2005-06	0.80	0.28	0.77	0.17
2006-07	0.76	0.27	0.74	0.15
2007-08	0.68	0.25	0.68	0.12
2008-09	0.61	0.24	0.60	0.09
2009-10	0.62	0.22	0.61	0.08
2010-11	0.51	0.21	0.56	0.06
2011-12	0.62	0.21	0.69	0.09
2012-13	0.38	0.19	0.10	0.01
2013-14	0.40	0.19	0.00	0.00
2014-15	0.39	0.17	-0.05	0.01
2015-16	0.40	0.17	0.02	0.00
2016-17	0.42	0.16	0.02	0.00
<i>Source:</i> Researcher's Calculation				

6.3: Role of Secondary Sector in Inequality

The following 6.3.1 table shows that the sectoral contribution of the secondary sector in overall inequality has increased after reforms. Though the relative size of the sector has not increased significantly, it means secondary sector's share in total output after reforms period did not increase as much as the share of the tertiary sector. The inter-linkage effect has marginally reduced throughout the

study period. While the inequality within the sector has increased, as resultant the share of secondary sector in total inequality has increased.

Table 6.3.1: Secondary Sector's Contribution to Overall Inequality and its Components				
Years	Intra Sectoral Inequality	Relative Size	Inter Linkage	Sectoral Contribution
1991-92	0.69	0.26	0.93	0.17
1992-93	0.77	0.26	0.94	0.19
1993-94	0.73	0.26	0.95	0.18
1994-95	0.63	0.27	0.95	0.16
1995-96	0.61	0.28	0.93	0.16
1996-97	0.67	0.27	0.92	0.17
1997-98	0.59	0.27	0.92	0.15
1998-99	0.76	0.28	0.93	0.20
1999-00	0.79	0.29	0.90	0.20
2000-01	0.85	0.29	0.89	0.22
2001-02	1.03	0.29	0.92	0.27
2002-03	0.97	0.30	0.92	0.27
2003-04	0.95	0.30	0.92	0.26
2004-05	0.91	0.31	0.92	0.26
2005-06	0.90	0.31	0.93	0.26
2006-07	0.88	0.32	0.92	0.26
2007-08	0.84	0.32	0.89	0.23
2008-09	0.84	0.31	0.85	0.22
2009-10	0.84	0.31	0.84	0.22
2010-11	0.88	0.31	0.83	0.23
2011-12	0.99	0.30	0.88	0.26
2012-13	0.76	0.30	0.79	0.18
2013-14	0.61	0.29	0.73	0.13
2014-15	0.81	0.30	0.76	0.18
2015-16	0.84	0.31	0.79	0.20
2016-17	0.87	0.31	0.80	0.21
<i>Source:</i> Researcher's Calculation				

6.4: Role of Tertiary Sector in Inequality

Increasing relative size of the tertiary sector shows that the output of the tertiary sector has been continuously increasing after reforms. The inter-linkage effect has

also rising trend which indicates that the linkage of tertiary sector with the whole economy's output has increased. The application of the mobile communication to agriculture and the application of banking services, transport-storage etc. are playing an important role in increasing the linkage of this sector with both the sectors. Although, the inequality within the sector has decreased from 71 percent to 59 percent but both the relative size and inter-linkage of the tertiary sector has increased as resultant the share of tertiary sector in total inequality has increased.

Table 6.4.1: Tertiary Sector's Contribution to Overall Inequality and its Components				
Years	Intra Sectoral Inequality	Relative Size	Inter Linkage	Sectoral Contribution
1991-92	0.71	0.32	0.67	0.15
1992-93	0.73	0.31	0.64	0.15
1993-94	0.70	0.32	0.62	0.14
1994-95	0.73	0.33	0.64	0.15
1995-96	0.73	0.35	0.64	0.16
1996-97	0.74	0.36	0.65	0.17
1997-98	0.76	0.37	0.67	0.19
1998-99	0.73	0.37	0.65	0.18
1999-00	0.70	0.38	0.62	0.17
2000-01	0.68	0.40	0.63	0.17
2001-02	0.70	0.40	0.60	0.17
2002-03	0.69	0.40	0.60	0.17
2003-04	0.68	0.40	0.57	0.16
2004-05	0.68	0.40	0.60	0.17
2005-06	0.68	0.41	0.60	0.17
2006-07	0.69	0.42	0.61	0.18
2007-08	0.70	0.43	0.65	0.20
2008-09	0.71	0.45	0.70	0.23
2009-10	0.70	0.46	0.71	0.23
2010-11	0.68	0.47	0.73	0.24
2011-12	0.74	0.49	0.78	0.28
2012-13	0.64	0.51	0.84	0.28
2013-14	0.63	0.53	0.89	0.29
2014-15	0.63	0.53	0.84	0.28
2015-16	0.60	0.53	0.83	0.26
2016-17	0.59	0.53	0.82	0.25
<i>Source: Researcher's Calculation</i>				

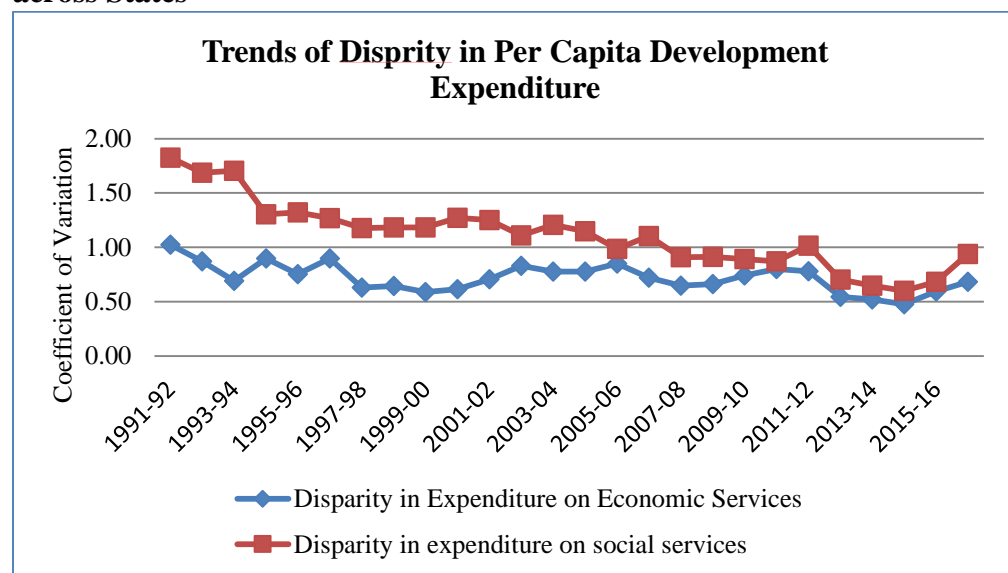
6.5: Role of Development Expenditure in Regional Disparity

The issue of disparity in income level and development expenditure (horizontal imbalance) among the states has always remained a serious subject of discussion. Development expenditure is basically divided into two parts: (i) Expenditure on economic services (ii) Expenditure on social services. Economic services include the expenditure on agriculture and allied activities, rural development, special area programmes, energy, transport, communication, transportation etc. Whereas social services include expenditure on education, sports, art & culture, medical & public health, housing, urban development, social security & welfare etc.

Table 6.5.1: Regional Disparity in Per Capita Development Expenditures for the Period 1991-92 to 2016-17					
Year	CVES	CVSS	Year	CVES	CVSS
1991-92	1.02	1.83	2004-05	0.78	1.15
1992-93	0.87	1.69	2005-06	0.85	0.99
1993-94	0.69	1.71	2006-07	0.72	1.10
1994-95	0.90	1.30	2007-08	0.65	0.91
1995-96	0.75	1.32	2008-09	0.66	0.91
1996-97	0.90	1.27	2009-10	0.74	0.89
1997-98	0.63	1.18	2010-11	0.80	0.87
1998-99	0.64	1.18	2011-12	0.78	1.01
1999-00	0.59	1.18	2012-13	0.54	0.70
2000-01	0.61	1.27	2013-14	0.52	0.65
2001-02	0.71	1.25	2014-15	0.48	0.60
2002-03	0.83	1.11	2015-16	0.59	0.68
2003-04	0.78	1.21	2016-17	0.68	0.94
<p><i>Source:</i> Researcher's Calculation from EPW Research Foundation</p> <p><i>Note:</i></p> <p>(1) CVES indicates coefficient of variation of per capita development expenditure on economic services.</p> <p>(2) CVSS indicates coefficient of variation of per capita development expenditure on social services.</p>					

The above table shows the regional disparity in per capita development expenditures across states for the period 1991-92 to 2016-17, which is measured by using the coefficient of variation. It can be seen that the value of the CV of per capita development expenditure on social services has been declined from 1.83 to 0.94 and the CV of expenditure on economic services also declined from 1.02 to 0.68. It reveals that the disparity decreased more in expenditure on social services as compared to expenditure on economic services but still it is high. Although, the disparity in per capita development expenditure is decreasing in economic and social services but on the other hand disparity in income at aggregate level is increasing. It means decreasing disparity in development expenditure is not sufficient to eradicate the disparity in income among the states. The poorer states receive more development funds compare than richer states but regional disparity is increasing may be due to inefficient use of public funds and infrastructure disparity among the states (Ghosh, 1998).

Figure 6.5.1: Trends of Disparity in Per Capita Development Expenditure across States



Source: Researcher's Calculation

6.6 Concluding Remarks:

This chapter measures the sectoral contributions to overall inequality and the trend of disparity in per capita development expenditure in India in the post-reform period. The results reveal that the share of secondary and tertiary sector has increased in total inequality whereas the share of primary sector has decreased over the time. The share of primary sector declined because of the decline in the value of the all components of inequality. The secondary sector's contribution to total inequality increased because of the increase in intra sectoral inequality and due to the slow increase in its relative size whereas the inter-linkage has slowly declined. The share of tertiary sector has also increased due to the increase in its relative size and inter-linkage with the other sectors, although the intra sectoral inequality has decreased in this sector. Moreover, the disparity in per capita development expenditure has decreased in both economic & social services while the disparity exists more in case of economic services.