

Sustainable Development Goal 10: Reducing Inequality – Evidence from India and its States

Nilmadhab Das^{1*}, Debasish Mondal²

¹Research Scholar, Department of Economics, Vidyasagar University, Midnapore, India

²Professor, Department of Economics, Vidyasagar University, Midnapore, India

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*Corresponding author: Nilmadhab Das

Research Scholar, Department of Economics, Vidyasagar University, Midnapore, India

Abstract

Original Research Article

The United Nations Development Programme (UNDP) embraced seventeen Sustainable Development Goals (SDGs) in 2015, recognising the global imperative to address societal challenges. Among these goals, SDG 10 focuses on reducing inequalities within and among countries. Instead of examining inequalities within and among countries, our study assesses within-group inequality (within rural and urban) and between-group inequality (between rural and urban) of all India and its fifteen major states from 1983 to 2011–12. Our findings indicate that within-group inequality contributes most to overall or combined inequality. To effectively achieve the sustainable development goal in India, it is crucial to prioritise efforts towards reducing within-group inequality (within rural and urban). Additionally, it is essential to monitor the between-group inequality (between rural and urban) so that it does not increase excessively. Also, we have suggested some policies to achieve SDG 10 while fostering a more inclusive society.

Keywords: Sustainable Development, Sustainable Development Goal (SDGs) 10, Consumer Expenditure Inequality, Within-group Inequality, Between-group Inequalities.

JEL Classification: Q01, E21, I24, D63.

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INTRODUCTION

The Millennium Development Goals (MDGs) constituted a comprehensive collection of eight worldwide objectives in the realm of global development. Their primary focus was addressing key issues such as poverty, hunger, maternal and child mortality, infectious diseases, education, gender disparity, and environmental decline, as well as promoting a more robust global collaboration. Initially slated for accomplishment by 2015, the MDGs achieved a degree of success yet fell short in addressing regional and global income inequality (Lomazzi *et al.*, 2014). Consequently, contemporary times have witnessed a surge in income and wealth inequality across numerous nations and the chief driver of this inequality is the uneven distribution of capital ownership. According to the United Nations Development Programme (UNDP), the richest ten percent of the population have more than 40 percent of global income, whereas the poorest 10 percent earn only 2 to 7 percent and they further mentioned that inequality has increased everywhere in the current decades. Therefore, the United Nations adopted seventeen goals under the Sustainable

Development Goals (SDGs) in 2015 as part of a global agenda to reform society (Doyle & Stiglitz, 2014). Specifically, SDG Goal 10 has to be set to 'reduce inequalities within and among countries'.

Moreover, UNDP has set 10 targets under this goal to reduce inequality by achieving income growth for the bottom 40 percent of the people and by promoting social, economic and political inclusion of all. However, after the 1990s, in the era of globalisation, it has been shown that inequality is increasing among developed and developing countries (Chambers & Dhongde, 2016). Some studies have found that the uneven distribution of natural resources has a heterogeneous impact on income inequality (Alvarado *et al.*, 2021). Another argument is that the treatment of inequality in the Sustainable Development Goals (SDGs) is severely inadequate because it fails to acknowledge the widening gap between income from labour and income capital, as well as the increasing wealth disparity among the super-rich, which strains a country's social fabric (Bergeijk *et al.*, 2017). It makes the case that in order to achieve the Sustainable Development Goals, governments must play

a more significant role in supporting education for sustainable development and global citizenship (Gough, 2018). In some countries like Thailand, education quality management has played a crucial role in reducing societal inequality (Jermstittiparsert K, 2020).

Sustainable Development Goal 10 for Reducing Inequality

In the agenda, the United Nations Development Programme (UNDP) has set forth 17 Development Goals (SDGs) to address various global challenges (Roy & Roy, 2019). Notably, SDG 10 emphasises "reducing inequality within and among countries". Emphasises the need for inclusivity with the rallying call "no one leaves

behind" (Saiz & Donald, 2017). Although tackling inequality is widespread, it remains a priority for all 193 nations committed to achieving the Sustainable Development Goals (Kuhn, 2020). Nevertheless, SDG 10 has defined ten targets that necessitate careful attention and viable solutions. The goal and its targets recognise the pressing need to address various forms of inequalities within and among countries, including income disparities, social exclusion, and lack of access to essential services, and discrimination based on components such as age, gender, disability, race, ethnicity, and economic status. The box below displays SDG 10 and the targets set by UNDP.

Box1: Sustainable Development Goal 10: Reducing Inequality
<i>Target 1: By 2030, progressively achieve and sustain income growth of the bottom 40 percent of the population at a rate higher than the national average.</i>
<i>Target 2: By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion, economic or other status.</i>
<i>Target 3: Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard.</i>
<i>Target 4: Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality.</i>
<i>Target 5: Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations.</i>
<i>Target 6: Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions.</i>
<i>Target 7: Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies.</i>
<i>Target 8: Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements.</i>
<i>Target 9: Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, Small Island developing States and landlocked developing countries, in accordance with their national plans and programmes.</i>
<i>Target 10.A: By 2030, reduce to less than 3 percent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 percent.</i>

Source: Sustainable Development Goals, Knowledge Platform, United Nations

As per NITI Aayog, India has committed to achieving three (targets 1, 2, and 4) out of the specified ten targets by 2030. Distinct indicators have been established to attain these three targets. Target 1 entails equalizing the economic status of the bottom 40% and the top 10% of individuals in both rural and urban sectors across India. Achieving gender parity in the rates of labour force participation between male and female workers is the goal of Target 2. Furthermore, Target 3 involves ensuring the full utilization of funds for the benefit of Scheduled Castes and Scheduled Tribes communities.

The Relevance of SDG 10 on the Indian Economy

According to the most recent world inequality report released by the World Inequality Lab, India is currently facing one of the most significant rises in income and wealth inequality observed globally. Presently, the uppermost 1% of India's population possesses a significant 21.7% share of the total income and an even more pronounced 33% stake in the total wealth. In stark contrast, the lower half of the population

holds a mere 13.1% of the total income and only 5.9% ownership of the total wealth. Oxfam International's data adds to this narrative, revealing the presence of 119 billionaires in India—an impressive increase from a mere 9 billionaires in 2000 to a staggering 101 in 2017. This trend will continue, with projections indicating the emergence of 70 new millionaires daily between 2018 and 2022. Unfortunately, this phenomenon coincides with a disheartening reality: Following the era of globalisation, the wage growth rate for regular workers displayed a negative trajectory, affecting those in the lower percentiles of up to 50% (Sarkar & Mehta, 2010). This evidence indicates the existence of income and wealth disparity in the Indian economy.

Furthermore, when we examine the average distribution of individual income among India's bottom 50 percent (depicted in figure 1) and the top 1 percent (depicted in figure 2) with comparison of World, South Asian, European, European Union (EU), and Middle Eastern average income distribution data. It shows that, in 2000, India's bottom 50 percent held a comparatively

higher share of income than others. However, this trend gradually declined over the next decade, eventually aligning with the South Asian average and remaining

stable in subsequent periods. Notably, it consistently exceeded both the global average and the average of Middle Eastern countries.

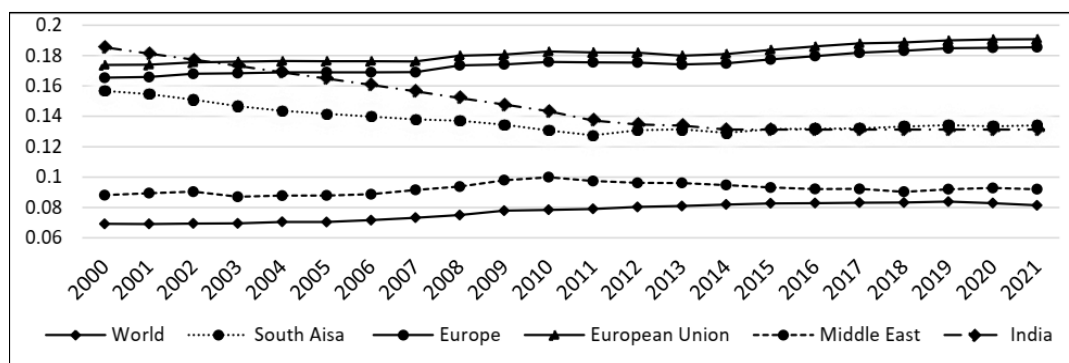


Figure 1: National income share of the bottom 50% (World Inequality Database)

Source: Author's calculation using data from the World Inequality Database (WID)

Conversely, the average income share of India's top 1 percent of individuals in 2000 was initially lower but displayed a noticeable upward trend. Subsequently, it reached a stable level. Notably, this share surpassed the averages observed in the EU, Europe, South Asia, and

the World average, although it remained lower than the average income shares in Middle Eastern countries. This comparison clearly shows that the income disparity between the poorest 50% and the top 1% widened after 2009.

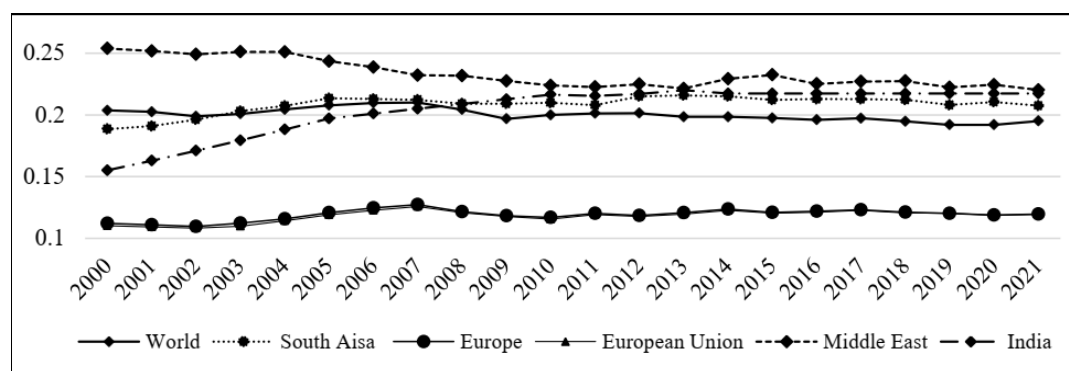


Figure 2: National income shares of the bottom 1% (World Inequality Database)

Source: Author's calculation using data from the World Inequality Database (WID)

It is important to note that comprehensive individual income data is not consistently accessible in India. Consequently, the National Sample Survey Office (NSSO) initiated consumer expenditure surveys dating back to 1951-52, with the most recent survey conducted in 2011-12. According to 2011-12 NSSO report, the Palma Ratio, a measure of inequality, was recorded at 1.41 for rural India and 0.92 for urban India. This ratio calculates the disparity in consumer expenditure between the top 10% and the bottom 40% of the population in India. The Gini coefficient is 0.238 in the rural sector and 0.363 in the urban sector respectively in this period. Though consumer expenditure inequality is highest in the urban sector in India, but caste and geographical regions also play a crucial role in rural inequality (Singh *et al.*, 2021).

Moreover, consumer expenditure inequality has increased for both rural and urban sectors after the post-reform periods (Sen *et al.*, 2018). Another study

indicates that consumer expenditure inequality is high due to the high growth rate during the last three decades (Vakulabharanam, 2016). However, in this paper, we mainly concentrate on within-group inequality (within rural and urban) and between-group inequality (between rural and urban) for all India and its fifteen major states, focusing on achieving SDG 10.

Objective of the Paper

The primary objective of this research paper is to examine the pattern and trend of within-group and between-group consumer expenditure inequality for fifteen major states and all India from 1983 to 2011-12. Moreover, we have calculated rural, urban and combined (combining rural and urban) inequality to understand the nature of consumer expenditure for these regions.

Our analysis aims to uncover valuable insights into how consumer expenditure inequality has evolved over time in different geographical areas within India. By

the decomposition of combined inequality among rural and urban population subgroups, we can gain an in-depth understanding of inequality of rural and urban sector. By undertaking such an analysis, we contribute towards assessing how effectively India is progressing towards achieving its sustainable development goals (SDGs). In particular, our inquiry is identifying the appropriate policies for mitigating within-group and between-group consumer expenditure inequalities.

Data Source

The National Sample Survey Organisation (NSSO) is responsible for conducting surveys to collect data on consumer expenditure in India. Specifically, the Household Consumption Expenditure Surveys (HCES) are conducted by the NSSO to gather this data. The NSSO employs a multi-stage, stratified random sampling technique to select households for the survey. The survey aims to be representative of the population at the national, state, and district levels. NSSO conducted the first round of surveys on consumer expenditure at the household level in 1951-52. Subsequent rounds were conducted in 1972-73, 1987-88, 1983, 1987-88, 1993-94, 1999-00, 2004-05, 2009-10, 2011-12 and 2015-16. However, the 2015-16 survey data has yet to be published. In this paper, we employed data from 1983 to 2011-12.

Furthermore, the National Sample Survey Office (NSSO) provides valuable consumer spending data that is disaggregated for rural and urban regions. This data is presented as frequency distribution, categorised by monthly per capita expenditure (MPCE) into different classes. It is important to note that the number of expenditure classes within this distribution varies across different years. For instance, in 1983, there were 13 expenditure classes utilised to represent the MPCE distribution. From 1987-1988 to 2004-2005, there were 12 expenditure classes used. Subsequently, for the years 2009-10 and 2011-12, data has been published at a decile class on the level of population distribution. In more detail regarding these two last years (2009-10 and 2011-12), the data includes further subdivisions within each decile class. Specifically, it incorporates two additional fractile classes representing the bottom and top deciles divided into two equal or quintile parts. These expenditure classifications are used to calculate the inequality in the distribution of consumer expenditures. For decomposition, we have subgroups of the rural and urban populations, designated as jth subgroups, where j=1,2, with 1 representing the rural and 2 representing the urban populations.

METHODOLOGY

Theil (1976) published a seminal book, "Economics and Information Theory" and introduced a measure of inequality based on information theory. He used the concept of entropy, which measures the uncertainty or randomness in a system. In the context of

measuring inequality, entropy is used to measure the degree of inequality in income/consumer expenditure distribution.

If there are N individuals and each individual has a nonnegative fraction income/consumer expenditure y_i , ($i = 1, \dots, N$), of total income/consumer expenditure and $\sum_{i=1}^N y_i = 1, y_i \geq 0$ for $i = 1, \dots, N$.

Then, the entropy of the income/consumer expenditure share of the individual is

$$H(y) = \sum_{i=1}^N y_i \log \left(\frac{1}{y_i} \right) \dots \dots \dots (1)$$

When total income/consumer expenditure is enjoyed by one individual or for the case of complete inequality, and there is no uncertainty, H(y) is zero. On the other hand, when all individuals have the same fraction of income/consumer expenditure or, in the case of complete equality, there is complete certainty, then H(y) is the maximum or LogN. By subtracting the entropy value or H(y) from the maximum value or LogN, we can easily calculate income/consumer expenditure inequality (Theil Entropy measure or T).

$$T = \text{Log}N - H(y) = \sum_{i=1}^N y_i \log (Ny_i) \dots \dots \dots (2)$$

Now, it can be easily decomposable between j-th population subgroups,

$$T = \sum_j P_j \left(\frac{\mu_j}{\mu} \right) T_j + \sum_j P_j \left(\frac{\mu_j}{\mu} \right) \log \left(\frac{\mu_j}{\mu} \right) \dots \dots \dots (3)$$

Where 'j' implies the subgroup of the population, Pj is the population share of subgroup j, μ_j refers to the mean income of subgroup j, and Tj is the respective income/consumer expenditure inequality of the j-th population subgroup.

In this paper, we used the Theil entropy measure to estimate the within-group and between-group consumer expenditure inequality between rural and urban regions of all India and its fifteen major states from 1983 to 2011-12.

Consumer Expenditure Inequality in India and Its States

Table 1 reveals the rural inequality trend for all India and its fifteen major states, which appears unstable and uneven. In 1987-88, most states and all of India showed an upward trend, except for Gujarat, Kerala, Rajasthan, Uttar Pradesh, and West Bengal. After the subsequent two periods following liberalisation, rural inequality decreased for most states and all India, except for Gujarat, Haryana, Uttar Pradesh, West Bengal in 1993-94, and Assam in 1999-00. During 1993-94, Assam had the lowest rural inequality, while Kerala had the highest in 2011-12 among all the years and states.

Overall, during the observed period, rural inequality in India increased. This trend is most prominent in Kerala, where rural inequality rise from 0.088 to 0.183, followed by Karnataka, Gujarat, Punjab, Maharashtra, Assam, and Haryana. On the contrary, rural

inequality significantly decreased in Rajasthan from 0.090 to 0.051, followed by West Bengal, Uttar Pradesh, Bihar, Tamil Nadu, Odisha, Madhya Pradesh, and Andhra Pradesh.

Table 1: Rural inequality in the distribution of consumer expenditure across all India and its fifteen major states from 1983 to 2011-12

State	1983	1987-88	1993-94	1999-00	2004-05	2009-10	2011-12
Andhra Pradesh	0.066	0.072	0.066	0.042	0.067	0.058	0.063
Assam	0.029	0.038	0.024	0.030	0.028	0.045	0.037
Bihar	0.051	0.058	0.042	0.033	0.032	0.036	0.040
Gujarat	0.051	0.042	0.045	0.040	0.054	0.049	0.068
Haryana	0.054	0.060	0.068	0.040	0.080	0.067	0.056
Karnataka	0.067	0.069	0.056	0.044	0.064	0.040	0.096
Kerala	0.088	0.081	0.062	0.052	0.086	0.150	0.183
Madhya Pradesh	0.067	0.067	0.063	0.045	0.055	0.064	0.061
Maharashtra	0.061	0.103	0.076	0.049	0.074	0.053	0.070
Odisha	0.054	0.058	0.051	0.044	0.063	0.049	0.049
Punjab	0.058	0.065	0.052	0.040	0.056	0.062	0.071
Rajasthan	0.090	0.075	0.055	0.032	0.049	0.037	0.051
Tamil Nadu	0.083	0.083	0.076	0.060	0.088	0.052	0.073
Uttar Pradesh	0.066	0.061	0.063	0.046	0.068	0.052	0.055
West Bengal	0.060	0.052	0.057	0.038	0.061	0.042	0.048
All India	0.069	0.072	0.065	0.051	0.073	0.064	0.076

Source: Author's calculation using NSSO data

Table 2 illustrates the urban inequality in all of India and fifteen major states. Notably, urban inequality surpasses rural inequality over all India and its states. However, from 1983 to 2011-12, urban inequality increased in all states and India except Bihar. Notably, some states, including Assam, Haryana, Karnataka, Madhya Pradesh, Uttar Pradesh, and West Bengal,

experienced nearly a twofold rise in urban inequality compared to their initial periods.

Most states observed a surge in urban inequality after 2004-05, and specifically, Kerala witnessed a sudden jump in urban inequality during 2009-10, which was efficiently controlled the following year. In contrast, Punjab had the lowest urban inequality during 1993-94, but it subsequently started rising.

Table 2: Urban inequality in the distribution of consumer expenditure across all India and its fifteen major states from 1983 to 2011-12

State	1983	1987-88	1993-94	1999-00	2004-05	2009-10	2011-12
Andhra Pradesh	0.070	0.113	0.081	0.072	0.114	0.111	0.089
Assam	0.047	0.119	0.060	0.069	0.079	0.074	0.095
Bihar	0.066	0.076	0.079	0.079	0.086	0.082	0.066
Gujarat	0.053	0.064	0.065	0.061	0.071	0.080	0.063
Haryana	0.065	0.069	0.063	0.060	0.102	0.094	0.128
Karnataka	0.078	0.093	0.079	0.077	0.100	0.079	0.159
Kerala	0.106	0.115	0.104	0.075	0.125	0.218	0.165
Madhya Pradesh	0.064	0.083	0.097	0.080	0.128	0.099	0.142
Maharashtra	0.077	0.095	0.088	0.090	0.107	0.131	0.109
Odisha	0.065	0.081	0.077	0.067	0.093	0.118	0.095
Punjab	0.075	0.056	0.055	0.063	0.138	0.104	0.088
Rajasthan	0.067	0.108	0.070	0.061	0.114	0.119	0.087
Tamil Nadu	0.092	0.101	0.109	0.126	0.097	0.080	0.086
Uttar Pradesh	0.073	0.084	0.086	0.082	0.110	0.097	0.149
West Bengal	0.079	0.098	0.077	0.092	0.108	0.110	0.135
All India	0.078	0.101	0.092	0.089	0.107	0.110	0.118

Source: Author's calculation using NSSO data

In addition, we have calculated a combined expenditure data. We have employed this combined inequality by combining rural and urban consumer inequality to perform a decomposition analysis to

calculate within-group (within rural and urban) and between-group (between rural and urban) inequalities. However, the combined inequality is calculated by combining rural and urban consumption expenditure classes and it is expected that it will lie within rural and

urban inequality. Nevertheless, some states combined inequality suppressed both rural and urban inequality, which is attributed to high between-group inequality. In the next section, we have a detailed discussion about within-group and between-group inequality.

Table 3: Combined inequality in the distribution of consumer expenditure across all India and its fifteen major states from 1983 to 2011-12

State	1983	1987-88	1993-94	1999-00	2004-05	2009-10	2011-12
Andhra Pradesh	0.077	0.096	0.079	0.072	0.099	0.107	0.088
Assam	0.038	0.065	0.045	0.055	0.053	0.063	0.066
Bihar	0.062	0.065	0.053	0.047	0.047	0.050	0.047
Gujarat	0.064	0.064	0.066	0.066	0.081	0.088	0.078
Haryana	0.064	0.065	0.067	0.052	0.091	0.083	0.106
Karnataka	0.087	0.091	0.079	0.083	0.106	0.093	0.162
Kerala	0.099	0.096	0.077	0.062	0.103	0.195	0.175
Madhya Pradesh	0.080	0.089	0.088	0.076	0.108	0.097	0.115
Maharashtra	0.096	0.120	0.114	0.102	0.117	0.136	0.115
Odisha	0.068	0.077	0.069	0.060	0.084	0.091	0.082
Punjab	0.067	0.064	0.057	0.052	0.102	0.085	0.082
Rajasthan	0.091	0.090	0.061	0.049	0.080	0.078	0.072
Tamil Nadu	0.104	0.108	0.099	0.125	0.109	0.085	0.092
Uttar Pradesh	0.076	0.076	0.073	0.065	0.089	0.078	0.103
West Bengal	0.091	0.088	0.085	0.087	0.104	0.102	0.122
All India	0.087	0.096	0.089	0.086	0.105	0.108	0.116

Source: Author's calculation using NSSO data

Table 3 presents the combined inequality figures for all of India and its states over the reference period. The combined inequality increased from 1983 to 2011-12 for most states and all India except Bihar, Rajasthan, and Tamil Nadu. The combined inequality has significantly increased in some states like Kerala, Haryana, and Assam.

Decomposition of Combined Consumer Expenditure Inequality for India and Its States

According to Bourguignon (1979), "A decomposable inequality measure is defined as a measure such that the total inequality of a population can be broken down into a weighted average of the inequality existing within subgroups of the population and the inequality existing between them (Bourguignon, 1979). By decomposing an inequality measure, we can analyse the within-group (within rural and urban) and between-group (between rural and urban) inequality. Table 3 presents the percentage values of between-group inequality for all India and its fifteen major states over the specified period. The remainder of the percentage

value represents within-group inequality. Furthermore, we have used bold formatting to emphasize particular states where the between-group inequality surpasses all India level and also included the corresponding state rankings from lowest to highest within brackets.

Table 3 shows that between-group inequality is lower than within-group inequality for all India and its states. Moreover, we observe that most of the state between-group increase after 1987-88 and a further increase in 1993-94. After 1993-94, in the era of globalisation, between-group inequality dresses and the process continued. In 2009-10 and 2011-12, we observed mixed trends of between-group inequality, which increased in some states, and some states followed negative growth. Notably, the between-group inequality in Kerala is the lowest, which implies that rural and urban consumer expenditure disparity is the lowest in Kerala. On the other hand, the between-group inequality is highest in West Bengal, followed by Odisha and Assam in 2011-12.

Table 4: Percentage value of the between-group inequality of all India and its fifteen major states for the referred period

State	1983	1987-88	1993-94	1999-00	2004-05	2009-10	2011-12
Andhra Pradesh	13.44(6)	9.88(6)	13.5(5)	24.12(11)	13.42(7)	21.81(10)	14.3(6)
Assam	16.64(9)	18.29(13)	37.38(15)	29.74(15)	24.98(15)	18.12(7)	23.36(13)
Bihar	14.25(7)	5.83(4)	21.7(8)	13.7(5)	12.68(6)	11.96(4)	6.32(3)
Gujarat	18.46(13)	18.98(14)	21.74(9)	23.14(10)	22.78(14)	23.97(11)	16.4(9)
Haryana	10.34(4)	4.24(2)	8.92(1)	8.24(3)	3.14(2)	5.91(3)	14.86(7)

State	1983	1987-88	1993-94	1999-00	2004-05	2009-10	2011-12
Karnataka	17.26(10)	12.87(8)	23.79(11)	27.32(12)	22.63(13)	32.94(15)	18.34(11)
Kerala	6.07(2)	4.44(3)	9.52(3)	4.49(1)	1.96(1)	3.7(1)	1.23(1)
Madhya Pradesh	17.39(11)	18.23(12)	22.03(10)	22.95(9)	21.28(12)	19.31(9)	17.57(10)
Maharashtra	27.72(15)	18.11(11)	30.17(14)	27.59(13)	20.16(10)	24.07(13)	18.67(12)
Odisha	17.48(12)	17.89(10)	28.88(13)	17.92(7)	15.92(9)	23.97(11)	23.58(14)
Punjab	5.26(1)	2.42(1)	9.21(2)	5.77(2)	8.73(3)	5.46(2)	3.59(2)
Rajasthan	8.29(3)	6.57(5)	12.53(4)	16.17(6)	11.56(5)	15.55(6)	11.78(4)
Tamil Nadu	16.4(8)	15.75(9)	14.53(7)	20.26(8)	14.56(8)	18.77(8)	12.17(5)
Uttar Pradesh	10.57(5)	11.19(7)	14.08(6)	12.6(4)	9.08(4)	14.23(5)	15.31(8)
West Bengal	25.12(14)	19.5(15)	28.08(12)	28.58(14)	21.19(11)	26.01(14)	25.12(15)
All India	17.3	14.49	22.12	22.12	16.9	20.79	17.78

Source: Author's own calculation using NSSO data

Concluding Remark

The UNDP has set SGD goal 10 to reduce within-group and between-group inequalities; through this analysis, we have seen that in India and its states, the within-group is most significant, and some states, like Kerala and Punjab, have more than 95% within-group inequality. However, it indicates less consumer expenditure disparity between rural and urban individuals. Especially in Kerala, the within-group inequality touches the ceiling. Although the between-group inequality is small, it should not be ignored, as an increase in between-group inequality beyond a certain limit can result in social disharmony and instability in the nation (Kanbur, 2008). Some states like West Bengal, Assam, and Odisha need proper care to reduce rural and urban disparity or between-group inequality.

Considering the COVID-19 pandemic, India has demonstrated notable growth across all sectors, signaling a positive trajectory. However, it is crucial for India to address the consumer expenditure inequality to achieve sustainable development goals (SDGs). It can be accomplished through several key measures. Firstly, implementing a policy framework to increase the income of individuals dependent on agriculture and unorganised sectors is essential. By uplifting these segments of society economically, we can reduce inequality. Secondly, providing access to education for all individuals plays a significant role in mitigating inequality. Ensuring equal educational opportunities empowers individuals with the necessary skills and knowledge for economic advancement. Thirdly, efforts should be made to reduce family size in rural and urban areas. Addressing population growth can alleviate strain on resources while promoting more equitable distribution within households. By adopting these strategies and prioritising inclusive policies focused on income enhancement, education provision, and family planning initiatives, India can substantially reduce consumer expenditure inequality and work towards achieving Sustainable Development Goal 10.

REFERENCE

- P, S., & Vakulabharanam, V. (2016). High growth and rising inequality in Kerala since the 1980s. *Oxford Development Studies*, 44(4), 367-383.
- Alvarado, R., Tillaguango, B., López-Sánchez, M., Ponce, P., & Işık, C. (2021). Heterogeneous impact of natural resources on income inequality: the role of the shadow economy and human capital index. *Economic Analysis and Policy*, 69, 690-704. <https://doi.org/10.1016/J.EAP.2021.01.015>.
- Anderson, E. (2016). Equality as a global goal. *Ethics & International Affairs*, 30(2), 189-200.
- Bergeijk, P., & Hoeven, R. (2017). Sustainable Development Goals and Income Inequality. <https://doi.org/10.4337/9781788110280>.
- Bourguignon, F. (1979). Decomposable income inequality measures. *Econometrica: Journal of the Econometric Society*, 901-920.
- Chambers, D., & Dhongde, S. (2016). Convergence in income distributions: Evidence from a panel of countries. *Economic Modelling*, 59, 262-270. <https://doi.org/10.1016/J.ECONMOD.2016.07.019>.
- Chancel, L., Hough, A., & Voituriez, T. (2018). Reducing inequalities within countries: assessing the potential of the sustainable development goals. *Global Policy*, 9(1), 5-16.
- Doyle, M. W., & Stiglitz, J. E. (2014). Eliminating extreme inequality: A sustainable development goal, 2015-2030. *Ethics & International Affairs*, 28(1), 5-13.
- Elbers, C., Lanjouw, P., Mistiaen, J. A., & Özler, B. (2008). Reinterpreting between-group inequality. *The Journal of Economic Inequality*, 6, 231-245.
- Freistein, K., & Mahler, B. (2016). The potential for tackling inequality in the Sustainable Development Goals. *Third World Quarterly*, 37(12), 2139-2155.
- Gough, A. (2018). Sustainable development and global citizenship education: Challenging imperatives. *The Palgrave handbook of global citizenship and education*, 295-312. https://doi.org/10.1057/978-1-137-59733-5_19.
- Jermisittiparsert, K. (2020). Education Quality Management: A Way Forward to Promote Sustainable Development Goals by Encouraging Wellbeing's and Discouraging Inequality Among the Societies. IOP Conference Series: *Materials*

Science and Engineering.
<https://doi.org/10.1088/1742-6596/1467/1/012077>.

- Kuhn, H. (2020). Reducing inequality within and among countries: Realizing SDG 10—A developmental perspective. *Sustainable development goals and human rights*, 5, 137-153.
- Leal Filho, W., Tripathi, S. K., Andrade Guerra, J. B. S. O. D., Giné-Garriga, R., Orlovic Lovren, V., & Willats, J. (2019). Using the sustainable development goals towards a better understanding of sustainability challenges. *International Journal of Sustainable Development & World Ecology*, 26(2), 179-190.
- Lomazzi, M., Borisch, B., & Laaser, U. (2014). The Millennium Development Goals: experiences, achievements and what's next. *Global health action*, 7(1), 23695.
- Mondal, D., & Kayet, A. (2018). Trends and Patterns of Combined Inequality in India: An analysis across Major States from 1983 to 2011-12'. *Sarvekshana Vol. PDOS*, 57, 69-95.
- NITI Aayog (2018). SDG India index: baseline report 2018. NITI Aayog, New Delhi.
- Roy, R. P., & Sinha Roy, S. (2019). SDG 10—A probe into the factors underlying differences in inequality: Evidence at the sub-national level in India. *2030 Agenda and India: Moving from Quantity to Quality: Exploring Convergence and Transcendence*, 149-164. https://doi.org/10.1007/978-981-32-9091-4_7.
- Saiz, I., & Donald, K. (2017). Tackling inequality through the Sustainable Development Goals: human rights in practice. *The International Journal of Human Rights*, 21(8), 1029-1049.
- Sarkar, S., & Mehta, B. S. (2010). Income inequality in India: Pre-and post-reform periods. *Economic and Political Weekly*, 45-55.
- Sen, J., & Das, D. (2018). Consumer expenditure inequality in India: a source decomposition analysis. *International Journal of Development Issues*, 17(2), 157-167. <https://doi.org/10.1108/IJDI-08-2017-0131>.
- Singh, A. (2012). Inequality of opportunity in earnings and consumption expenditure: The case of Indian men. *Review of Income and Wealth*, 58(1), 79-106. <https://doi.org/10.1111/j.1475-4991.2011.00485.x>.