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Assessing the augmentation of Social expenditure with human development and Poverty Reduction goals in Indian states: Implications for the SDGs

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Abstract
This article explores the implications of the findings for the United Nations Sustainable Development Goals(UN-SDGs) and aims to analyse the alignment of social expenditure with human development and poverty reduction goals in Indian states. Using the quantitative data, this paper has done some calculations and applied correlation to prove its point. The key objectives of this paper are firstly to analyze the relationship between different types of social expenditure and there outcomes in terms of the SDGs in Indian states, secondly to examine the relationship by using correlation between (HDI) Human Development Index and Social Expenditure over a decade, and thirdly To analyze the Multidimensional poverty index (MPI) and Gini index of Indian states, are linked to the attainment of SDGs & at last To develop recommendations for policy makers and practitioners on implementation of social expenditure in Indian states in order to maximize their impact on the SDGs. The key findings of this paper firstly show that among the various social sector expenditure categories, states place the highest priority on education, sports, the arts, and culture. These are then followed by Medicare, public health, Social Security, and welfare. Secondly with the help of correlation matrix it has been found that there is a distinct association between social sector expenditures and HDI, this shows that investments in fostering human capital, such as those in health and education, which comprise the HDI inclusive measure, lead to better growth. Over the years, state social spending has helped to improve SDG results, which justifies the necessity for increasing social sector spending. It has also been found that the % of social expenditure to total expenditure increases most in Madhya Pradesh and followed by Bihar, Assam and J&K. The % of social expenditure to total expenditure decreases most in Punjab, Chhattisgarh and followed by Maharashtra Tamil Nadu and Kerala. HDI increase most in Arunachal Pradesh followed by Manipur and Assam. HDI decrease in Kerala the most and followed by Delhi and Goa, although Jharkhand has the highest Gini coefficient followed by West Bengal, Meghalaya and Assam.
Key Words: *Social Expenditure, with Human Development, Sustainable Development Goals*

INTRODUCTION:

India now ranks among one of the fastest-growing major economy in the world, and further growth is anticipated in the coming years. Some experts believe that India has the potential to become an economic powerhouse by 2047, the 100th anniversary of India's independence(Goyal, 2022). There can be several factors like demographic advantage (James & Goli, 2016) , infrastructure development (Rao & Srinivasu, 2013), human capital (Abbas & Mujahid-Mukhtar, 2001) and political stability which can contribute to India's emergence. But with the policy ideology of neo liberalism which emphasizes the market and private enterprise non inclusive role in promoting economic growth. It has been argued that economic reforms have had some negative consequences for welfare, through the erosion of social protections and the exacerbation of income inequality and social exclusion(Patnaik, 2006). So it is important to ensure in this neo liberal era, growth benefits are equally distributed and that the long-term sustainability of the economy is considered. "Sustainable Development Goals (SDGs)" are a series of global objective that were established by United States in 2015 with the intention to eradicate poverty, safeguard the environment, as well as peace and prosperity for all by 2030. There are 17 SDGs, which address numerous concerns pertaining to economic and social development, such as gender equality, poverty , education, health, and climate change("United Nations, Department of Economic and Social Affairs(DESA), 2022"). Within the framework of the SDGs, the World Bank Group's (WBG) twin objectives set the institution's priorities. The WBG adopted the dual

objectives of reducing extreme poverty and fostering shared prosperity in 2013. The goals are to raise the income of the 40% of each nation's people by 2030 and to bring down percentage of the world's population that lives in extreme poverty to 3%. Uneven progress has been made toward the SDGs. During 1990 to 2015 there has been evident progress in several of the indicators monitored as part of the SDG framework. More than 1 billion individuals subsisted on less than $1.90 per day or severe poverty. (SDG1). Globally, there were around 95million stunted children in 2016 (SDG 2). Life expectancy at birth increased from 65.4 years in1990 to 72.2 years in 2017, which is an important indicator of good health and well-being (SDG3). In 2017, 89 percent of the world's population has access to electricity, up from 83 percent in2010. However, some places have not made enough progress to fulfill the 2030 targets. Around 1billion people currently live without electricity, primarily in rural areas. More than half of child around the world don't reach minimum reading and math competence criteria. 2.3 billion people were still without even the most basic sanitation services as of 2015. According to recent data, climate change has increased the number of individuals who are undernourished (United Nations2018) (SDG 7)(Vorisek & Yu, 2020).

India has achieved major strides in some areas, such as reducing poverty and increasing access to clean water and sanitation, but still faces many challenges in others, such as reducing income inequality and ensuring access to quality education and healthcare. Initiated by the government of India, numerous programs and projects are working towards this goal. For example, the Pradhan Mantri Jan Dhan Yojana aims to make financial services available to all households in the country, and the Swachh Bharat Abhiyan is focused on eliminating open defecation in India. On the other hand, some argue that India isn't doing enough to achieve certain goals, such those concerning climate change, air pollution, and biodiversity preservation. Consistently, implementing policies, initiates, and necessary revisions is essential for India and all other nations to work toward reaching the SDGs.Human development refers to the steps taken to improve the physical, social, emotional, and mental health of an individual or group. The includes a wide range of elements and aspects, such as access to resources and opportunities, income, education, and health. Mahbub ul Haq, an economist, first presented the idea of human development in the late1970s. The United Nations Development Program (UNDP) expanded on it in its Human Development Report, which has been released yearly since 1990. The Human Development Index (HDI), a combined indicator of human development used by the UNDP to rank nations according to their level of development. In order to promote the welfare of everyone, regardless of background, and to better the present generation without harming the next generation, the human development approach places equal emphasis on economic growth and GDP growth as well as on how growth can be inclusive and sustainable. Itis about enhancing the human condition so that people have the chance to lead complete lives and increasing the options available to them to lead lives they value. Programs that aim to improve people's health, educate them, and lessen their poverty receive a disproportionate share of funding from the Indian government. But there is often a discrepancy between the real impact on human development and poverty reduction and the allocation of these funds. Though a state may invest heavily in education, this can be for naught if the system is poorly managed and funds aren't reaching the students who require them the most.

As a percentage of a country's total budget "social expenditure" goes toward providing essential public services and goods including roads, hospitals, and schools. Many consider it a driving factor in societal and economic progress because of the positive effects it can have on people's standard of living. Spending on social programs appears to be a strong indicator of progress toward achieving the SDGs, according to a number of studies(Mittal,2016), as it shows how much money a government spends on programs and social services that helps its citizens grow and thrive. By monitoring social expenditure over time, we can access how seriously a government is taking the investment in social services and programs needed to achieve the SDGs.

REVIEW OF LITERATURE:

The literature that is currently available on the connection between social spending & Sustainable Development Goals (SDGs) has mainly concentrated on the different areas as Studies have assessed impact of government spending on education in achieving SDG 4, it aspires to make sure that all students must receive inclusive, equitable as well as high-quality education. As Assessing , difficulties facing the SDG of

quality education requires an understanding of the politics of educational change (Bruns et al., 2019).Studies have looked at the connection between public health spending and the accomplishment of SDG 3, which aspires to guarantee healthy lives and to improve the wellbeing for all people of all age. According to research, governments should invest more in healthcare and primary care, find ways to retain health care workers in rural areas, and modernize pre-service training programs to teach staff how to work together across spectrums and improve community engagement. The study also discovered that delivering health care services alone cannot accomplish the health-related SDGs.(Chotchoungchatchai et al., 2020). Since eradicating poverty is a primary objective of the SDGs, notably SDG 1 (no poverty) and SDG 10, studies also examined the relationship between social spending & poverty reduction (reduced inequalities). The study concluded that corporate strategies, public policy, and community development must all fully integrate economic inclusion in order to reduce global inequality realistically(Niekerk & J, 2020).(Cristóbala & Guillén-Gosálbez, 2021) found that there is a significant space for increase in public spending in low- and upper-middle-income countries. Studies have concentrated on the relationship between government spending on gender-specific programs and achieving SDG 5 (Gender equality). According to the report, which draws on the conversation surrounding poverty, more women are at danger because of the feminization of poverty, which makes it a critical problem for the SDGs. Results showed that overall progress has been shockingly sluggish, with several areas witnessing standstill or even while normative growth has been positive(Kaltenborn et al., 2020). Governments may increase the wellbeing of their population and accomplish the SDGs by investing in social programs. The development of the SDGs was examined nationally (Mate et al., 2018). They evaluate changes in state social sector investment and SDG outcomes, particularly in the fields of education and health, while diving further into regional distribution patterns. It has been demonstrated that investing in human capital encourages economic growth, and spending on health and education is a major factor in the rise in primary enrollment and decline in infant mortality. Spending through numerous government-sponsored programs has also improved SDG accomplishments, particularly during the last ten years.

Using data from 140 countries, The Authors (Guerrero & Castaeda, 2022) have projected the indicatorspecific development gaps that are expected to remain in place by the year 2030.Aside from the non-linear reactions to changes in the total amount of government spending, the development gaps show substantial varaiations.They showed that funding the present government programs won't be able to address these structural limits; instead, new micro policies aiming at influencing organizational practices, technological improvements, and behavioral patterns are required.

The authors (Garca-Escribano et al., 2021) define India as a global economic powerhouse with significant untapped potential. India has demonstrated a robust commitment to the “Sustainable growth Goals (SDG)” Agenda to promote human and economic growth. In order for South Asia, and notably India, to make significant progress toward the SDGs by 2030, the report focuses on the development challenges that region must overcome. India has significantly lower spending requirements for the SDGs pertaining to roads, water, and sanitation when compared to other South Asian nations. Achieving the SDG for education will cost South Asian countries an additional 2 percent of GDP on average, with some countries facing costs that are more than three times this average. Both the average emerging economy and India, whose GDP expenditure need in 2030 is smaller than its present spending, are not comparable to this. Additional spending on water and sanitation is typically quite small in comparison to the sums required to accomplish the bulk of other priorities. The average annual rise in road investment in the region is about 4.3 percent of GDP, which is 1.6 percent higher than the anticipated annual growth in spending for India's road SDG and more than four times that of poor countries.

The author of the research study looked at how “Social Sector Expenditure (SSE)” and the (HDI) “Human Development Index” of Indian States related to one another and shows that SSE had a positive impact on the HDI. When HDI scores from two different time periods—2004–2005 and 2011–12—are examined, it is clear that Uttar Pradesh, Chhattisgarh, Madhya Pradesh, and Bihar consistently have lower HDI scores than other states. Odisha &Jharkhand are the two states whose performance has increased over time. The states that did better in terms of HDI between 2004-2005 and 2011-2012 were Kerala, Goa, Himachal Pradesh,

Tamil Nadu, Maharashtra, and Punjab (Mittal, 2016). The author advocates greater government investment in order to advance and balance India's human development.

The author examined how economic growth has associated with an increase in inequality that may have occurred across all dimensions. Indicators of household inequality, such as the Gini coefficients of consumer spending, income, and assets across households, have also been showing an upward trend since 1991, according to the author. India is currently one of the nations with the highest levels of inequality, and this disparity has mostly been fueled by changes in the labor market, with an increasing proportion of capital at the expense of labor (Himanshu, 2019).

Similar to the Sustainable Development Goals, the main metric for assessing financial and multidimensional poverty is the headcount ratio (SDGs). This study has looked at the multidimensional patterns of poverty in India between the years of 2005 and 2006 and 2015 and 2016. The authors find that the most impoverished people had the greatest decrease in multifaceted poverty due to lowering levels of intensity (Alkire et al., 2018).

Objectives:

- To analyze the relationship between different types of social expenditure and their outcomes in terms of the SDGs in Indian states
- To examine the correlation between Human Development Index & Social Expenditure over a decade
- To analyze Multidimensional poverty index (MPI) and Gini index of Indian states, in order to understand these indicators are associated with progress towards the SDGs.
- To develop recommendations for policy makers and practitioners on implementation of social expenditure in Indian states in order to maximize their impact on the SDGs.

DATA SOURCES AND METHODOLOGY:

To assess the alignment of social expenditure with human development and poverty reduction goals in Indian states the data has been collected on social expenditure, human development indicators, and poverty indicators for each Indian state. The analysis draws on data from "United Nations Development Program (UNDP)", "Oxford Poverty and Human Development Initiative (OPHI)", as well as "Reserve Bank of India's Handbook of Statistics on Indian States". To analyses the relationship between the Human Development Index and Social Expenditure at the state level. This study is limited to two time periods: 2011-2012 and 2019-2020 for correlation analysis, and the data for the rest of the analysis is collected from the year 20192020.The analysis was done to not capture the impact and to give a true picture of social expenditure in all of India's states, and other indicators were included which are unaffected by the pandemic. The time period was chosen in order to not measure the impact of COVID-19 in analysis and as COVID-19 impact started after lockdown in the end of March 2020. Simple computations and correlation are the foundation of the analysis. Diagrams and tables are used to demonstrate the idea. The methodology for calculation for each indicator is as follows:

HDI: Three essential aspects of human development are captured by Human Development Index (HDI) which offers only one index measure. Approach employs four crucial metrics: (a) Life expectancy at birth; (b) Years of Expected Schooling; (c) Years of Average Schooling; and (d) Gross National Income (GNI) Per Capita. Four measures' values each of them is first normalized to an index value ranging from 0 to 1. After that, a dimension index is generated, which shows a value of 1 for a nation that reaches the highest value and a value of 0 for a nation that achieves the least value. HDI is derived by adding up each of the different indices that have been calculated.

Geometric mean of life expectancy, education, and Gross National Income at per capita equally weighted is used to construct the HDI as shown below:

$$HDI = (I_{health} * I_{education} * I_{income})^{1/3}$$

Two education indices' arithmetic mean is education dimension (mean years of schooling as well as expected years of schooling). The HDI was first introduced in 1990, and is updated annually to reflect changes in each country's level of human development.

(United Nations, 1994)

MPI: It was developed by the "Oxford Poverty, Human Development Initiative (OPHI)" at University of Oxford in collaboration with the "United Nations Development Program (UNDP)". The Multidimensional Poverty Index (MPI) is calculated by examining the prevalence of deprivations in the following ten dimensions: Health, Education, Living Standards, Employment, child mortality, Nutrition, Cooking fuel, Electricity, Housing and Water. The MPI is calculated by summing the number of deprivations that a household experiences across these dimensions, and expressing the result as % of the total number of deprivations. This percentage is then used to classify households as either "multidimensional poor" or "not multidimensional poor".

Gini coefficient: Early in the 20th century, Corrado Gini, an Italian statistician, created it. Gini index calculate, the deviation from a perfectly equal distribution of income (in some cases consumer expenditures) of various individuals and families within an economy. A Lorenz curve illustrates the cumulative percentage of total revenue received in relation to the cumulative number of beneficiaries, beginning with the lowest individual and household. The Gini index quantifies the disparity between the Lorenz curve and a hypothetical line of perfect equality as a percentage of the maximum area beneath the line. A Gini coefficient of 100 signifies complete inequality, whereas a number of 0 indicates total equality (The World Bank, n.d.).

Correlation Matrix: A table showing the correlation coefficients is called a correlation matrix. It is a helpful tool for figuring out how different variables relate to one another and is frequently used in statistical analysis and data mining. A correlation matrix can be created using a variety of techniques. Pearson correlation coefficient is used in this paper. The approach for determining correlation that is most frequently employed is this one. It quantifies the linear correlation between two variables and has a range of -1 to 1, where -1 denotes a perfectly negative correlation, 0 denotes no correlation, and 1 denotes a perfectly positive correlation.

Data Analysis and Results:

As explained by the survey of the financial year in end of March 31, 2022 that "Social services include, education, sports, art and culture, medical and public health, family welfare, water supply and sanitation, housing; urban development, welfare of SCs, STs and OBCs, labor and labor welfare, social security and welfare, nutrition, relief on account of natural calamities etc.," (The Economic Times, 2022). **Share of Expenditure on Social Service: All States**

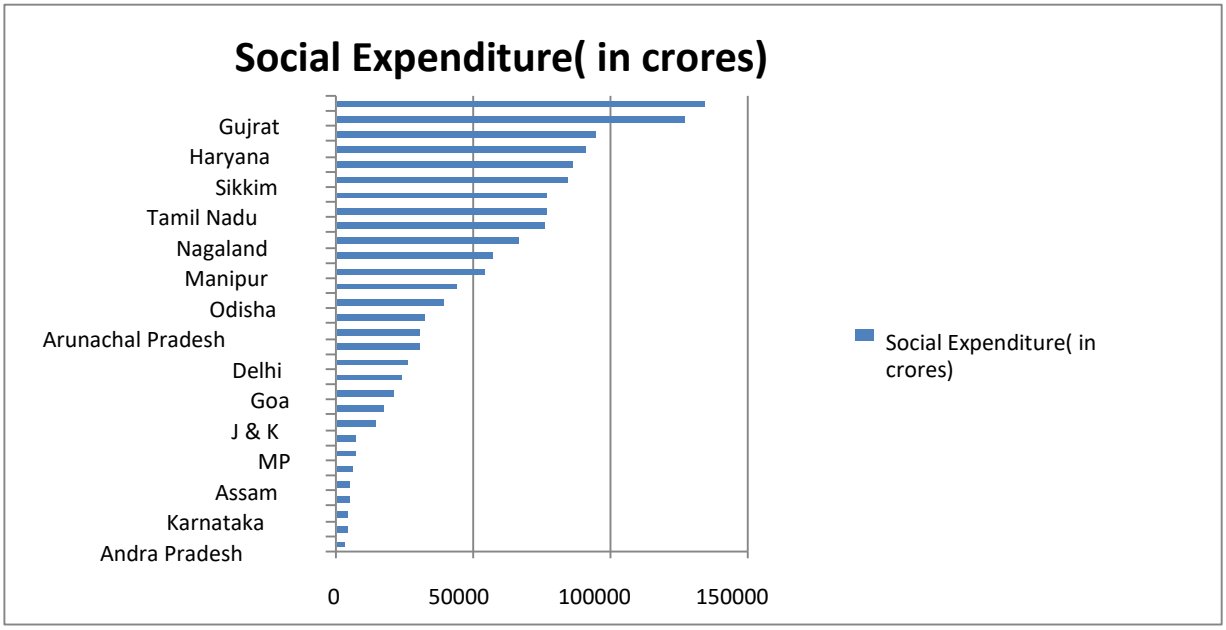
Year	**2011 - 2012**	**2019 - 2020**
Expenditure on social services	100	100
1. Education, sports, Art and culture	47.2	43.8
2. Medical and Public Health	10.5	12.5
3. Family Welfare	1.6 4.6 2.7	2.2 5.3 2.6
4. Water Supply and sanitation	6.5 7.3	7.4 7.7
5. Housing	0.9	0.9
6. Urban Development	10.9	10.9
7. Welfare of SC, ST and OBC	3.4 2.9	2.2 3.2
8. Labor and labor welfare	1.7	1.3
9. Social security and welfare		
10. Nutrition		
11. Expenditure on Natural Calamities		
12. Others		

*Source: State finance - A study of Budgets: Reserve Bank of India

The Share of state spending on social services is depicted in this table. The table shows that among the various social sector expenditure categories, states place the highest priority on education, sports, the arts, and culture. These are then followed by Medicare, public health, Social Security, and welfare. The share is 47.2 per cent as per 201112. But, this share has decrease from 47.2 per cent in 2011-12 to 43.8 per cent in 2019-20. But, the share of spending on education, sports, arts and culture is still on the top as compared to other

components under social sector. The share on Medical and public health, water supply sanitation, urban development welfare of SC, ST & OBC and expenditure on natural calamities goes up. The share of labor and labor welfare, social security and welfare remains same over a decade. The share of education, sports, art and culture, family welfare, housing, nutrition has decreased. Expenditure in education, sports, art, and culture in Indian states is likely high for a number of reasons. One explanation would be a desire to raise the general level of culture, sports, and education in the state as these components are frequently regarded as crucial to the growth and welfare of the region. Additionally, investing in these regions can be considered as a means to market the state and draw tourists, both of which can be advantageous for the economy. Additionally, the Indian Constitution requires that each children between the ages of 6 and 14receive free and compulsory education from their states, and the Indian government has implemented many schemes for the upliftment of education, sports, the arts, and culture(Kaur & Misra, n.d.). Expenditure on labor and labor welfare, as well as nutrition and family welfare, is generally considered to be low in India for a number of reasons. The absence of an effective public delivery system is one of the causes. Low spending in these sectors is the result of the government's inability to effectively use the monies allotted and to reach the intended demographic. In addition, as compared to other developed nations, India's labor regulations and welfare policies are not very strong. Additionally, these regulations are not well enforced, and workers' benefits are frequently delayed. The priority area of nutrition and family welfare is also one that receives less funding as more funds are given to other programs and development initiatives. This is true despite the fact that malnutrition is prevalent in India, especially among youngsters and pregnant women, which can result in a number of health issues and hinder the nation's overall development. The government needs to prioritize these sectors and allocate more funds towards them(Kaur & Misra, n.d.).

Social Expenditure:



*Source: State finance - A study of Budgets: Reserve Bank of India

The above diagram shows the Social Expenditure in crores. The state with the highest Social Expenditure is Uttar Pradesh followed by Gujarat, Chhattisgarh and Haryana. The state with the lowest Social expenditure is Andhra Pradesh followed by Rajasthan, Karnataka and Telangana.

A state's residents would gain a number of advantages if it increased its social spending, as well. Like people get access to basic services, their livelihood gets improved because of reduction in poverty and inequality, improved health outcome, quality of life also improved. It is worth noting that, social expenditure also has a positive multiplier effect on the economy, as it creates more jobs and increases consumption, leading to more economic activity and increased revenue for the government. It's also very crucial to remember that while higher spending is required, it might not always produce the desired results. To make sure the funds are used

effectively and the target audience is reached, rigorous monitoring, evaluation, and delivery system assurance are also critical(Mittal, 2016). Although, our first main concerns affecting social expenditure in Indian states is the lack of data and openness. Despite the fact that the government makes information on social spending available, it is typically challenging to access and understand. In addition, it is frequently unknown how resources are used or whether they are reaching the areas and people who most need them. As a result, it is difficult to evaluate the effectiveness of social programs and identify areas that need improvement. A significant concern is the deficiency in coordination and collaboration among many governmental departments and non-governmental organizations. Consequently, endeavors to tackle substantial societal challenges may be squandered and ineffectively organized.

% of Social Expenditure to Total Expenditure				HDI		
States	2011-12	2019-20	Change	2011-12	2019-20	Change
Andhra Pradesh	39.2	45.4	6.2	0.309	0.649	0.34
Arunachal Pradesh	32.4	34.6	2.2	0.124	0.661	0.537
Assam	37	44.9	7.9	0.138	0.613	0.475
Bihar	40	50.1	10.1	0.158	0.574	0.416
Chhattisgarh	51.6	43.2	-8.4	0.18	0.611	0.431
Delhi	50	53.5	3.5	0.839	0.746	-0.093
Goa	33.1	35.6	2.5	0.803	0.763	-0.04
Gujarat	38.2	38.9	0.7	0.477	0.672	0.195
Haryana	40.9	41.3	0.4	0.493	0.708	0.215
Himachal Pradesh	34.6	37.5	2.9	0.647	0.725	0.078
J & K	29.3	36.5	7.2	0.479	0.688	0.209
Jharkhand	41.2	46.4	5.2	0.222	0.598	0.376
Karnataka	37.8	39.3	1.5	0.42	0.683	0.263
Kerala	34.8	31.3	-3.5	0.911	0.782	-0.129
Maharashtra	41.1	39.6	-1.5	0.629	0.697	0.068
Manipur	29.4	38.4	9	0.199	0.697	0.498
Meghalaya	39.4	44.7	5.3	0.246	0.656	0.41
Mizoram	36.6	40.2	3.6	0.408	0.704	0.296
MP	33.6	44.4	10.8	0.186	0.603	0.417
Nagaland	24.9	32.4	7.5	0.257	0.679	0.422
Odisha	42.9	48.8	5.9	0.261	0.605	0.344
Punjab	27.1	20.4	-6.7	0.538	0.724	0.186
Rajasthan	42.6	41.1	-1.5	0.324	0.628	0.304
Sikkim	36.8	37.1	0.3	0.324	0.717	0.393
Tamil Nadu	38.3	33.5	-4.8	0.633	0.709	0.076
Tripura	41.7	44.7	3	0.354	0.658	0.304
U.P.	38.8	37.1	-1.7	0.122	0.594	0.472
Uttarakhand	45.5	43.1	-2.4	0.426	0.683	0.257
West Bengal	42.5	47.2	4.7	0.483	0.641	0.158

Percentage of Social Expenditure to Total Expenditure and HDI:

*Source: State finance - Study of Budgets: Reserve Bank of India

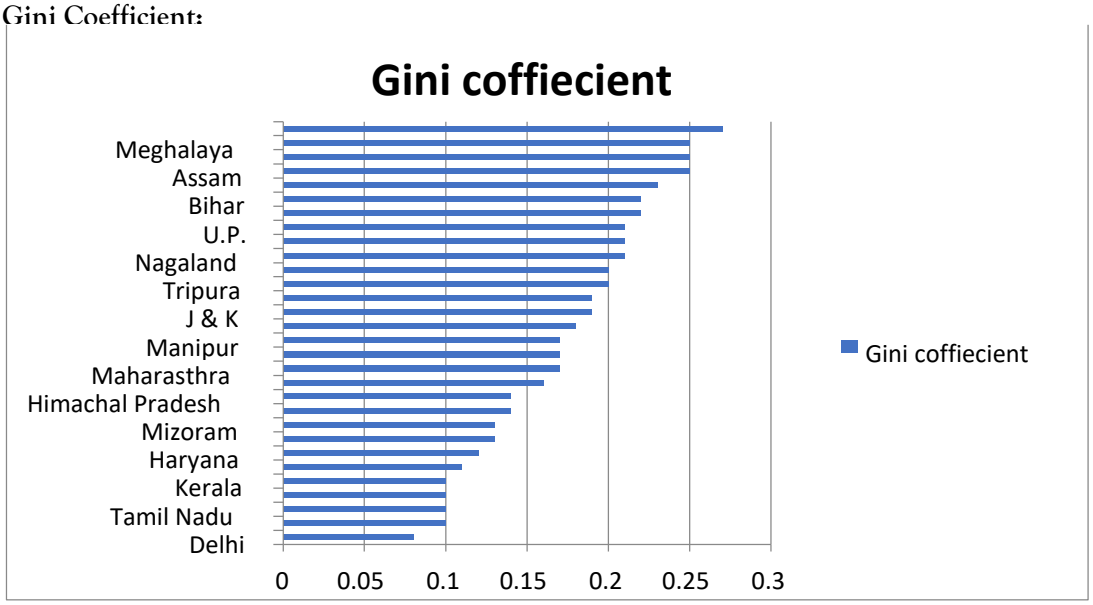
*Due to unavailability of data the state of Telangana and the Union Territories including Andaman Nicobar, Chandigarh, Dadra and Nagar Haveli, Lakshadweep, Pondicherry and Ladakh of undivided India are not included.

This table shows the change in percentage change in social expenditure to total expenditure and HDI (Human Development Index) from 2011-12 to 2019-20. The % of social expenditure to total expenditure increases most in Madhya Pradesh and followed by Bihar, Assam and J&K. The % of social expenditure to total expenditure decreases most in Punjab, Chhattisgarh and followed by Maharashtra Tamil Nadu and Kerala. HDI increase most in Arunachal Pradesh followed by Manipur and Assam. HDI decrease in Kerala the most and followed by Delhi and Goa.

There is currently an extreme lack of balance in the distribution of public social expenditure between recurring expenditures and asset creation on the one hand, and the disproportionate pre-emption by pay and maintenance expenditure on the other(Mate et al., 2018).But, economic assessment indicates that government expenditure on social services has surged under the Pandemic (Ministry of Finance, 2021-2022). In the previous five years, social services accounted for nearly 25% of all government spending. In the year 2021–2022, the center and state governments agreed to allocate Rs 71.61 lakhs crores for social sector spending, which is 8.6% of the Gross Domestic Product (GDP).

The verbal promises made by the complacent Indian authorities on an annual basis to promote inclusive social development and reduce poverty have not been backed by significant financial resources, and thus has just served to perpetuate status quo on social sector spending. With these kinds of trends, the government may find it difficult to meet the SDG targets. As shown in the table, the Human Development Index at the state level has likewise mirrored this. With regard to their SDG results; there was a significant disparity amongst states, necessitating different state-specific focuses. India's HDI rating in 2021 was 0.633, which was lower than the global average of 0.732 if we consider the entire country of India. India's HDI score decreased from its pre-covid level of 2019 in 2020 as well (0.642), according to the data (0.645).

Gini Coefficient:



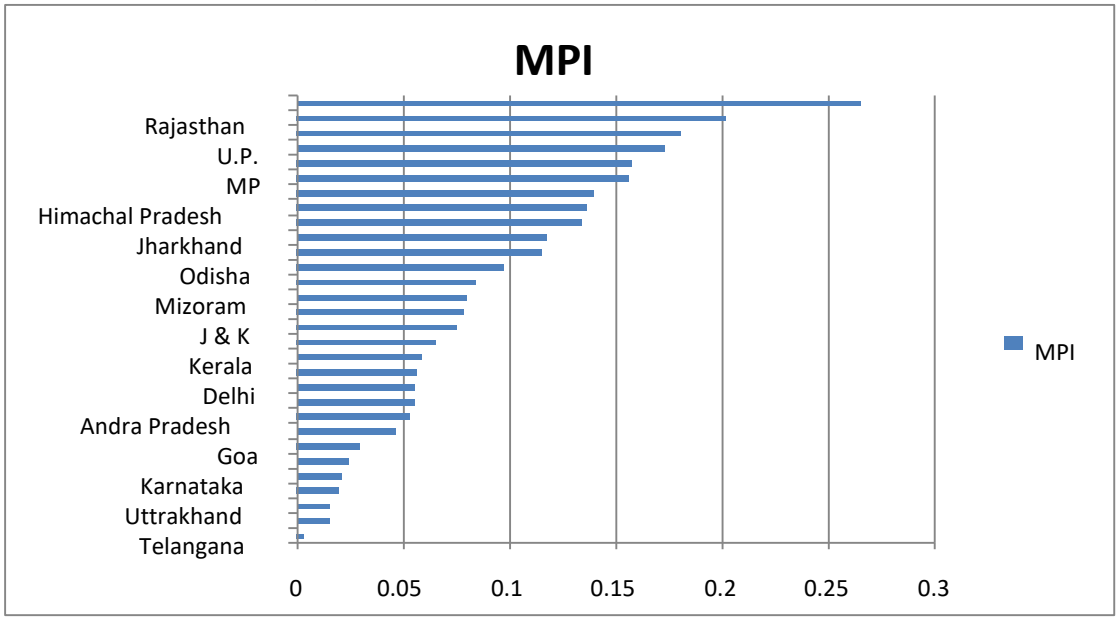
*Source: State finance - A study of Budgets: Reserve Bank of India

The above diagram shows Gini Coefficient, which tells about income and wealth inequality. Jharkhand has the highest Gini coefficient followed by West Bengal, Meghalaya and Assam. The states which have lowest Gini coefficient are Delhi followed by Telangana, Punjab and Tamil Nadu. So, there is significant variations in Gini coefficients across different states.

The great concentration of wealth and income among a select few individuals in Jharkhand is one of the main causes of the state's high Gini coefficient. The state has an abundance of natural resources, including minerals like coal and iron ore, which are exploited by big businesses and as select few wealthy people while the vast

majority of the population continues to live in relative poverty. A multifaceted strategy that addresses root reasons such a lack of work opportunities, inadequate education and healthcare, a lack of effective legislation, and bad governance would be necessary to alleviate economic inequality in Jharkhand and throughout India(Meena et al., 2013).

Multi -dimensional Poverty Index:



*Source: States finance -A study of Budgets: Reserve Bank of India

The above diagram shows Multi-dimensional Poverty Index. It is a measure of poverty that takes into account multiple dimensions of poverty including health, education and standard of living. Haryana shows the highest MPI followed by Rajasthan, Assam, Uttar Pradesh and Madhya Pradesh. The lowest MPI is in Telangana followed by Tripura, Uttarakhand West Bengal and Karnataka.

Poverty is a complicated, multifaceted phenomenon that affects both people and communities in many ways. Along with a lack of cash, poverty in India also refers to a lack of access to basic services including sanitary facilities, healthcare, and education. Fighting the country's poverty requires the social sector, which includes spending on programmes for health, education, and poverty reduction. The effectiveness of social sector investment in reducing poverty in Indian states is still a topic of continuing debate and research.

In India year 2019–20, Haryana has the highest MPI (Multidimensional poverty index). The MPI is a measure of poverty that accounts for not only the number of persons living in poverty but also those who are at risk of becoming poor and are just above the poverty line. The high MPI in Haryana may be due to a variety of factors, some of which include Agriculture distress ,economic stagnation, poor delivery of basic services , Lack of social security and high income inequality(Tripathi & Yenneti, 2020). **Table: Correlation Matrix**

Correlation	PSETTE	HDI
PSETTE	1	.350
HDI	.350	1

- PSETTE: (% of social expenditure to total expenditure for states)
- HDI (Human Development Index)

Here, PSETTE and HDI both show the change in the year 2011-12 to 2019-20. The results demonstrate that a rise in PSETTE will have a favorable impact on HDI. The value .350 indicates that there is a substantial correlation between PSETE and HDI. So, these states are required to increase their social spending to improve their performances in HDI.

As there is a distinct association between social sector expenditures and HDI, this suggests that investments in human capital building, like those in education and health, which make up the inclusive indicators of

HDI, lead to better growth. Over the years, state social spending has helped to improve SDG results, which justifies the necessity for increasing social sector spending.

CONCLUSION AND POLICY IMPLICATIONS:

India has achieved enormous advancements in eradicating poverty and fostering human development in recent years. To make sure that all citizens have access to the opportunities and resources also, they require leading successful lives, there is still long way to go. India has committed to making national and local efforts to achieve Sustainable Development Goals (SDGs). In order to make progress toward SDGs, each state in India needs to create its own set of policies. Each state has its own unique set of objectives and problems when it comes to putting goals into practice. Through analysis, it was shown that, from 2011–12 to 2019–20, state governments on average lowered their spending on some important areas. This is concerning since it shows that the percentage of social service spending on education and sports activities, as well as on nutrition has declined significantly. This decrease in social spending is most pronounced in the states of Chhattisgarh, Punjab, and Tamil Nādu, with smaller declines occurring in a number of other states. Despite the fact that several states, such Madhya Pradesh and Bihar, have seen a significant improvement in their proportion of expenditures and HDI, respectively. Therefore, it is advised that policy makers might need to rethink their present policies and distribute resources differently to better address the difficulties since social spending is not successfully contributing to the aim goals in some areas. As social spending is discovered to be positively connected with HDI, policymakers should be more concentrated on implementing efficient social sector expenditures in order to boost HDI. The policy ramifications of such an assessment could, in general, assist decision-makers in Indian states in more efficiently allocating resources and creating plans to advance human development and combat poverty in accordance with the SDGs.

The study has a number of significant implications, one of which is that it can help direct resource allocation so that money is given to those who need it most. This may entail allocating funds to initiatives that have been demonstrated to be effective in decreasing poverty and increasing human development, or it may entail redirecting funds to underdeveloped areas or populations.

Another important issue is the relationship between this research and UN Sustainable Development Goals (SDGs). The SDGs aim to reduce global poverty and inequality while advancing sustainable development. By examining how social spending in those states matches with goals for human development and poverty reduction, the individual state governments of Indian states may support the global effort to achieve the SDGs. Spending in the social sector can offer individuals and communities valuable resources and opportunities, but it is not a cure-all for poverty. It would be vital to address the various aspects of poverty, such as poor health, a lack of access to clean water.

To sum up, it is essential to assess how social spending in Indian states aligns with goals for human development and poverty reduction in order to guarantee that every citizen have access to opportunities and resource they need to lead fulfilling lives. The study can aid in directing resource allocation and assisting global efforts to achieve the Sustainable Development Goals. Access to healthcare, education and other services will improve if social sector funding is prioritized in regions with low HDI. It will be easier to maximize the impact of social programmed by improving coordination and collaboration between various government agencies and non-governmental organizations. Finding the areas where resources are being used most efficiently will be made easier with the development and implementation of thorough data collection and monitoring systems.

Limitations:

It is very crucial to note that social expenditure is just only one factor that can influence in achieving the SDGs, and there are many other factors at play as well. Additionally, the relationship between social expenditure and the achievement of the SDGs is complex and multifaceted, and it depends on the specific context in which it occurs. A more detailed analytical study would be needed to fully understand the relationship between social expenditure and the achievement of the SDGs in India. However, that the relationship between these indicators and the SDGs is complex and can depend on such as the specific goals being targeted, the efficiency and effectiveness of the programs being implemented, and the overall economic

and social context in which they are being implemented. Therefore, it is important to carefully consider these factors when analyzing the relationship between the HDI, MPI, and the SDGs in Indian states.

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