

Gender-responsive budgeting approach: Making public expenditure equitable for gender equality in Haryana, India

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ABSTRACT

This paper is an attempt to examine the social sector expenditure and gender-responsive budgeting within the framework of fiscal policy during the period 2005-06 to 2019-20 for gender development in the state of Haryana. Further, the paper also tries to examine the effectiveness of gender-based expenditure on health and education in Haryana. The study has classified gender budgeting expenditure into two parts, i.e., women-specific allocation (WSA) and pro-women allocation (PWA) as well. The study employed a simple linear regression model to assess the effectiveness of expenditure on women's development. The study found that budgetary expenditure is highly significant in improving the different performance indicators of women's empowerment. The level of income and other socio-economic variables also turn out to be significant. Hence, there is a need to increase the budgetary spending on social services, particularly in the health and education sectors. The study recommends that the outcome and impact of gender-responsive budgeting should concentrate on actual allocations, economic impacts, progress and changes in gender-performance indicators and understanding among administration and citizens.

Keywords: Equality, Fiscal Policy, Gender-responsive, Human Development

1. Introduction

During the 20th century, one of the key achievements was the access of women to economic and political activities, which had been undertaken mostly by men. Though several nations are making efforts to reduce gender inequalities, women lag behind men in access to better education and good healthcare services. Gender inequalities are prevalent all over the world, but they are mainly prominent in developing countries. Most of the developed nations have

eradicated gender inequalities in the social sector (particularly education and health care), but women's roles are still limited in the economic and political spheres. In many developing nations, gender disparities in the education and health sectors have reduced. Nonetheless, there has been a requirement to elevate the importance of women in economic activities, in political involvement and in supervision and ownership of productive resources. Many studies present the evidence and suggest that reducing gender disparities and encouraging female prosperity benefits the nation (Duflo, 2012; Singh, 2013; Stotsky, 2016; Hooda, 2022). Gender-sensitive budgeting refers to preparing the budgets and analysing them, keeping in view the gender perspective. A decentralised approach to gender-responsive budgeting begins with identifying the programmes that would empower women's capabilities and provide them opportunities to participate in organised economic activities on the one hand and enhance their conditions and consumption entitlements on the other (Rao et al., 2008). The most essential component in the entire process of gender budgeting is government ownership of the overall exercise, which can render the practice more institutionalised and promote sustainable development (Chakraborty, 2010; Hooda, 2021).

The implementation of gender-responsive budgeting at sub-levels has shown a positive impact on girls' enrolment ratio in education and reduced the incidence of violence against them (Stotsky, 2007). Considering the evils of the deep-rooted patriarchal system in India, the Central government asked the State governments to implement this strategy at their level for better implementation and outcomes. However, this exercise was first confined to some limited States of India in which fiscal decentralisation initiatives started taking concrete shape, viz., Karnataka, Kerala, and West Bengal (Rao et al., 2008). These States found a positive correlation between State-level budgeting and women's empowerment. Following the same criteria, some other States have also come forward to embrace gender budgeting in their domains. This assists them in healthier assessment of the deprived areas where more funding channelisation is essential. This, in turn, can increase any nation's and State's GDP as well as other socio-economic factors that can lead them towards sustainable development and growth.

The workshop held at the National Institute of Public Finance and Policy (NIPFP) in 2001 stated that the State governments should account for the majority of investment in social sector expenditure, which supports women's development directly (Singh 2013). However, the Indian States introduced gender budgeting at various times over the last 20 years, with varying degrees of intensity, complementing a Central government initiative (Stotsky & Zaman, 2016). However, it was the 9th five-year Plan (1997-2002) that emphasised commencing the Women Component Plan (WCP), which requires both the Centre and State-level to ensure not less than 30 per cent of the benefit to the women-based sectors and women-based Ministries/Departments. In order to bring out the effectiveness of females, particularly in education, health, poverty

reduction, and labour-force participation, the UN Sustainable Development Goals, after the Millennium Goals, put more emphasis on women-specific issues. Many States are now working towards specifying the direction toward women's rights and eradicating any type of gender discrimination against them. From this perspective, the State budget is a critical tool with the Central government to analyse the root cause of discrimination and the solutions to tackle it. Haryana is among the States of India that account for the highest per capita income. But, despite the high-income generating state, it is evident enough that gender discrimination is also at various basic stages. It has a high sex ratio, high maternal mortality rates and a high gender gap in educational attainment among boys and girls (Hooda & Kataria, 2022). The researchers suggested that allocation should be diversified for wider outreach in more effective fields (Misra & Kumar, 2023; Mitra, 2019; Rubin & Bartle, 2023; Hooda and Kataria, 2022). Gender budgeting promotes the holistic integration of gender perspectives during all the phases of the budget cycle. Therefore, the formulation and execution of policies should be gender-sensitised and need to be a gender-perspective approach in all the budget cycles (Curristine *et al.*, 2021). Moreover, scholars viewed that outcome and result-based gender budgeting should focus on actual allocation, performance in the gender-development indicators, and awareness among the masses and politicians (Marx, 2019; Polzer *et al.*, 2023).

The rest of the study is divided into six sections. Section II covers the objectives and research methodology used in the study. Section III highlights the social sector expenditure in India with emphasis on Haryana during the period 2005-06 to 2019-20 under the framework of fiscal policy. Section IV explores the trends of gender-responsive budgeting in Haryana. Section V elaborates on the effectiveness of gender-responsive expenditure on different gender-development indicators in the State. The last section, VI, covers the conclusion of the study, including findings, limitations and future research ideas.

1.1. Research Objectives

The key aim of this study is to assess the social sector spending in India with an emphasis on Haryana during the study period 2005-06 to 2019-20. Further, this paper examines the trends of gender-responsive budgeting in Haryana and its effectiveness on different gender-development indicators (particularly expenditure on health, education and HDI) in the State.

2. Materials and Methods

To segregate the gender-specific expenditure, the paper employs the data from various issues of budgetary papers of the State and RBI reports. The data on literacy, drop-out rate, sex ratio, etc, are collected from the Census of India and Sample Registrar System (SRS) of the Registrar General of India. This paper assesses the trends towards social sector expenditure and gender

budgeting from 2005-06 to 2019-20 based on the methodology embraced by the National Institute of Public Finance (NIPFP). The NIPFP is a nodal agency that organises gender budgeting in India through the support of the Ministry of Finance (MoF), which divides gender budgeting into Women Specific Programmes (WSP) and Pro-Women Allocation (PWA). WSP has great significance in India and the States as well since it is entitled to impart the entire benefit to women alone, which means 100 per cent expenditure that targets women's development. On the other hand, PWA schemes claim to provide at least 30 per cent benefit for women's empowerment, and the remaining 70 per cent is a composite expenditure that will benefit both genders with various intensities. However, the pro-women allocation is computed by using the following formula:

$$\text{PWA} = (\text{TE} - \text{WSP})$$

Where, PWA = Pro-Women Allocation; TE = Total expenditure of gender budgeting;

WSP = Women-Specific Programmes

Further, the paper uses a simple linear regression model to analyse the effectiveness of gender budgeting on education and health in the state.

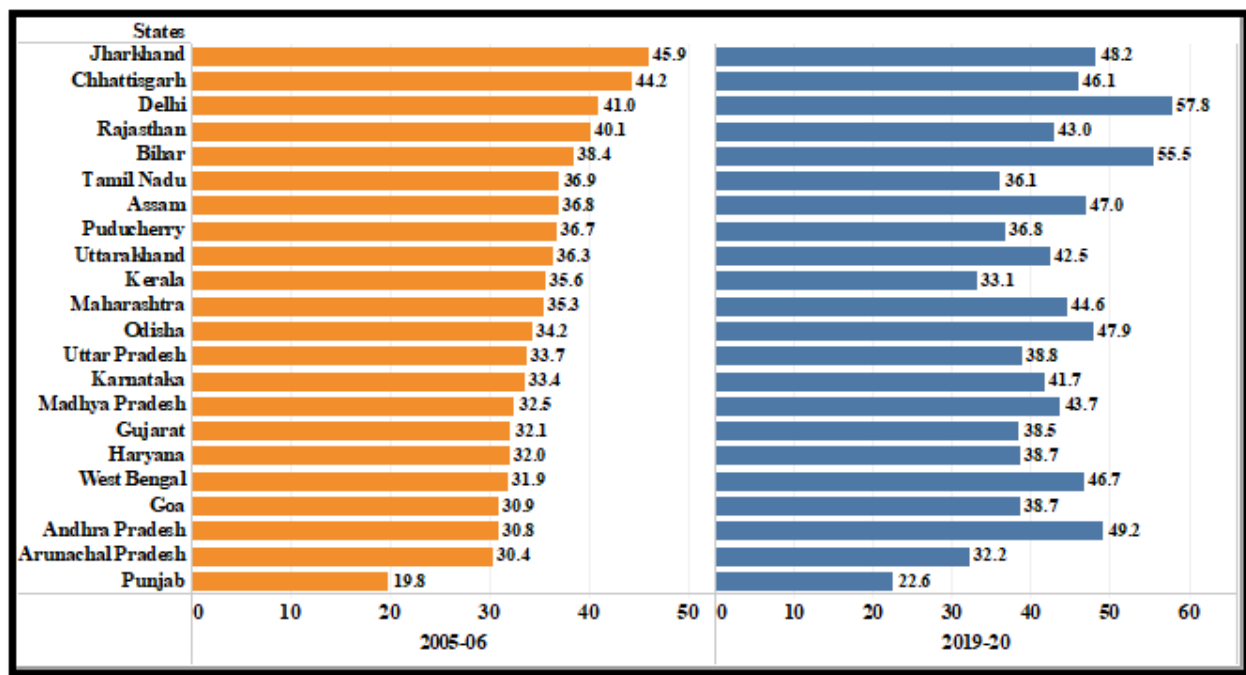
The study used a simple linear regression model to assess the effectiveness of gender-responsive budgeting on different women's development indicators (particularly on female HDI, health and education, etc).

2.1. Assessment of social sector expenditure in Haryana

Social sector expenditure is quite important for human development. It has a specific impact on women's development since it is assumed that most of the benefits women receive are routed through this sector. This section of the paper displays the State's responsiveness towards social sector expenditure and how Haryana has changed its budgetary outcomes to improve its gender outcomes. The segregation has engrossed the top five and bottom five States based on their performances from 2005-06 to 2019-20. The Indian healthcare sector continues to suffer from a lack of sponsorship, which has created significant inequalities in providing basic healthcare. Moreover, in the education sector, expenditure has been reduced to a percentage of the total Union budget and therefore, in the social sector. It is also being observed that incorporating gender in all the measures of development is highly significant in ensuring better gender justice with adequate budgetary expenditure. So, considering the positive correlation between budgetary expenditure and gender development, it is suggested to invest more resources to bridge the sectoral and gender gaps. As discussed earlier, social sector expenditure is crucial in developing productivity and reducing gender inequality for any nation and its States. It marks the highest

expenditure made in education, health, rural development, social security and welfare, sanitation and water facilities. Expenditure towards these services is considered the most imperative facet in reducing gender disproportion as these services sophisticatedly affect the well-being of females as compared to males in society. (Klasen, 1999; Klasen & Lamanna, 2009; Madhusudan Ghosh, 2018; Seguino, 2000) studied an inverse relationship between gender inequality in education and economic growth, which can be corrected by large social spending on females in education, as the marginal return of the expenditure on a female child is higher than that of a male child in any economy.

Figure 1: Social sector expenditure to the total disbursement (In percentage)

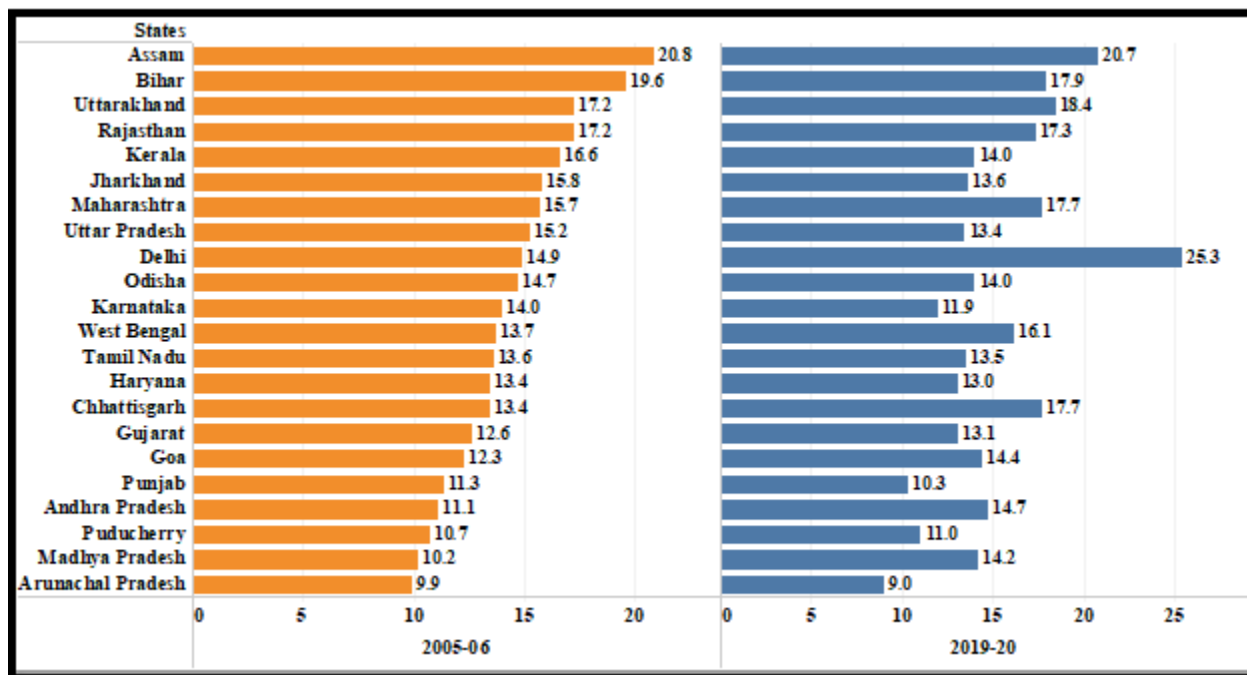


Source: RBI state finance reports for different years

Figure 1 highlights the proportion of social sector expenditure among major Indian States to total spending. Indian States successively backed up their reserves for the social sector to get better outcomes for their people. It exhibits a clear intensifying trend in financial distribution between the States to move up from vulnerabilities. It is also observed that the backwards or poor States spend more on the social sector than high-income States. Hence, it comprehends that no such positive correlation exists between the wealthiest State and its spending pattern. Jharkhand, Chhattisgarh, Rajasthan and Bihar account for 45.9, 44.2, 40.1 and 38.4 per cent, respectively, which ranks them among the top five States in 2005-06 in social sector spending. Despite being prosperous States of India, Haryana, Goa, and Punjab hold a very low position with just 32, 30.9,

and 19.8 per cent shares, respectively, under the same head. Also, in 2019-20, Bihar (55.5), Delhi (57.8), Jharkhand (48.2), and Chhattisgarh (46.1) percentages respectively secured their position to maintain in the top five States for developmental expenditure. If we look at the accomplishments of Andhra Pradesh, its social spending has increased from 30.8 per cent in 2005-06 to 49.2 per cent in 2019-20. Punjab is still the least contributing State, whose share increased by just 2.8 per cent over a decade. But If we look at the status of Haryana, it lies at the bottom six places in social sector spending marginally increased by 6.7 per cent for the same period. However, the relevant figure gives precise details on increasing social sector spending by the States, which is a positive sign of development over a decade but still substantially low to eradicate gender bias and wide variations in their spending pattern for every State.

Figure 2: Social sector expenditure on education (In percentage)

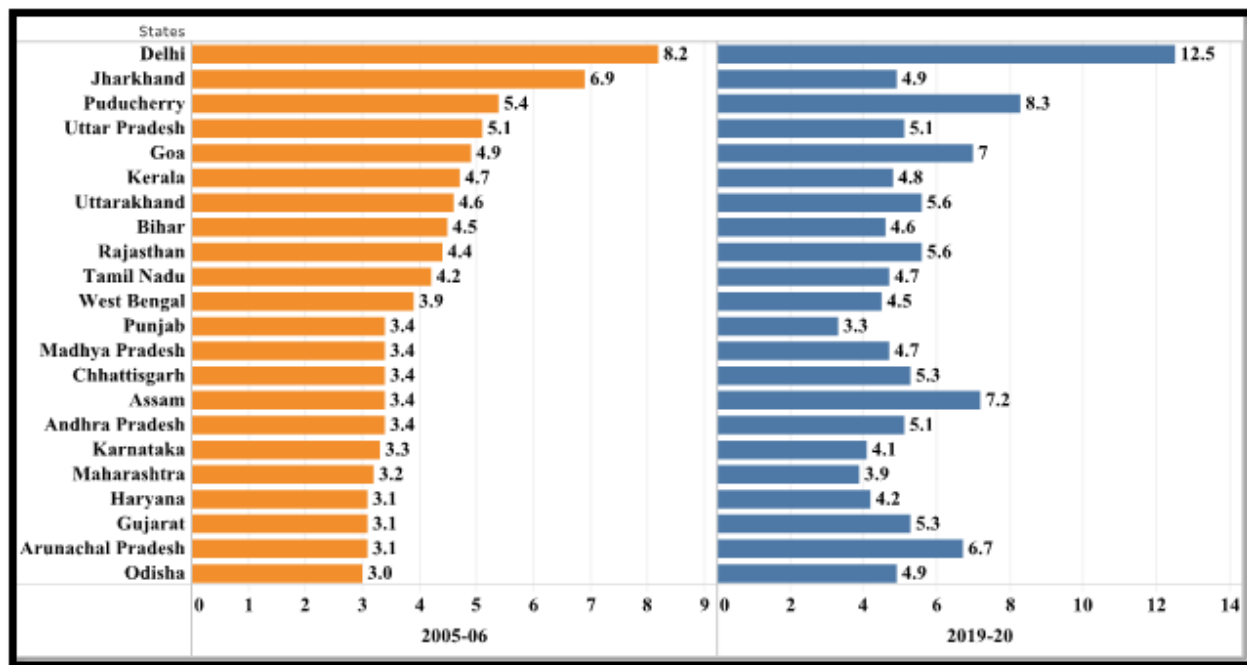


Source: RBI state finance reports for different years

The expenditure on education is the most critical priority in social sector spending. But over the periods, it has drastically declined in the Union and State budgets. Surprisingly, many States have reduced their education expenditure in the 2019-20 budget compared to 2005-06. There are 11 major States of India that have reduced their education expenditure even after realising the importance of education in overall human development. States such as Assam, Bihar, Rajasthan, and Kerala witnessed 20.8, 19.6, 17.2 and 16.6 per cent of education expenditure in 2005-06 and were placed as the top States of India in terms of education expenditure. On the other hand,

Arunachal Pradesh, Madhya Pradesh, Puducherry and Andhra Pradesh are the lowest spending States on education with 9.9, 10.2, 10.7 and 11.1 per cent, respectively, for the same period. Haryana stands at 9th place from the bottom with 13.4 per cent education expenditure, which keeps it in the medium performing States in 2005-06. However, by the year 2019-20, the expenditure on education declined from 13.4 to 13 per cent of the social sector, which dragged it among the poor-performing States of India. During the study period, Delhi is in the top position among the most spending Union Territories, with 25.3 per cent in India, whereas Chhattisgarh and Maharashtra are also performing well by incurring 17.7 per cent expenditure on educational development.

Figure 3: Social sector expenditure on health (In percentage)



Source: RBI state finance reports for different years

Expenditure on health care is the second major head of social sector spending after education as a developmental expenditure. Figure 3 above presents an overview of the top and bottom States in terms of their health expenditure. The corresponding share hovers around 3 per cent among the least-spending States and 4 to 5 per cent for the high-spending States. The percentage composition is significantly lower compared to the other developing countries, and the benchmark that has been provided by the Central government of India and the WHO, i.e. 5 per cent of GDP. In this segment, Haryana also witnessed a quite low share with just 3.1 per cent in 2005-06. Odisha and Gujarat also spent just 3 and 3.1 per cent on health in the social sector

expenditure in 2005-06, which were raised to 4.9 and 5.3 per cent respectively in 2019-20. Puducherry, Goa, and Assam have significantly improved their expenditure and measured 8.3, 7 and 7.2 per cent, respectively, in 2019-20. Haryana has also marked a slight increase by 1.1 per cent over the last fourteen years, yet it is pretty low. However, it is also observed that out of this health expenditure, the female-specific expenditure is very low, leading to an additional burden on the MMR, IMR and their reproductive phases of life.

2.2. Trends of Social Sector Expenditure in Haryana

Social sector development has been considered an essential prerequisite for sustained human development and economic growth for any economy. Hence, it provides a basis for evaluating living standards and quality (Sen, 1989). It brings a quality of life among individuals, which is further responsible for economic growth and prosperity. It contributes a large share to people's well-being, especially for women, in terms of education, health, family welfare, sanitation, rural development, etc. Therefore, Table 1 tries to explore trends in social sector expenditure of the state using time series data for the years 2007-08 to 2019-20. The calculation has been made to the percentage composition of the total plan budgetary outlay of Haryana and gross state domestic product at the current prices. It also covers the state's initiatives towards sustainable development goals for those ministries and departments that have a high women-specific impact.

Table 1: Social sector expenditure to the GSDP of Haryana (INR in millions)

Year	SSE of Haryana (Planned expenditure)	GSDP* of Haryana	SSE to GSDP(%)
2007-08	25,811.30	10,41,880.00	2.48
2008-09	31,293.60	11,14,200.00	2.81
2009-10	35,236.70	15,16,910.00	2.32
2010-11	53,601.50	30,93,260.00	1.73
2011-12	71,487.10	30,76,050.00	2.32
2012-13	81,989.10	34,52,370.00	2.37
2013-14	1,06,451.00	38,89,160.00	2.74
2014-15	1,37,991.20	44,18,640.00	3.12
2015-16	1,62,087.10	48,51,840.00	3.34
2016-17	1,93,472.90	54,53,230.00	3.55
2017-18	2,23,370.60	62,60,540.00	3.57
2018-19 (BE)	2,44,677.30	70,71,260.00	3.46

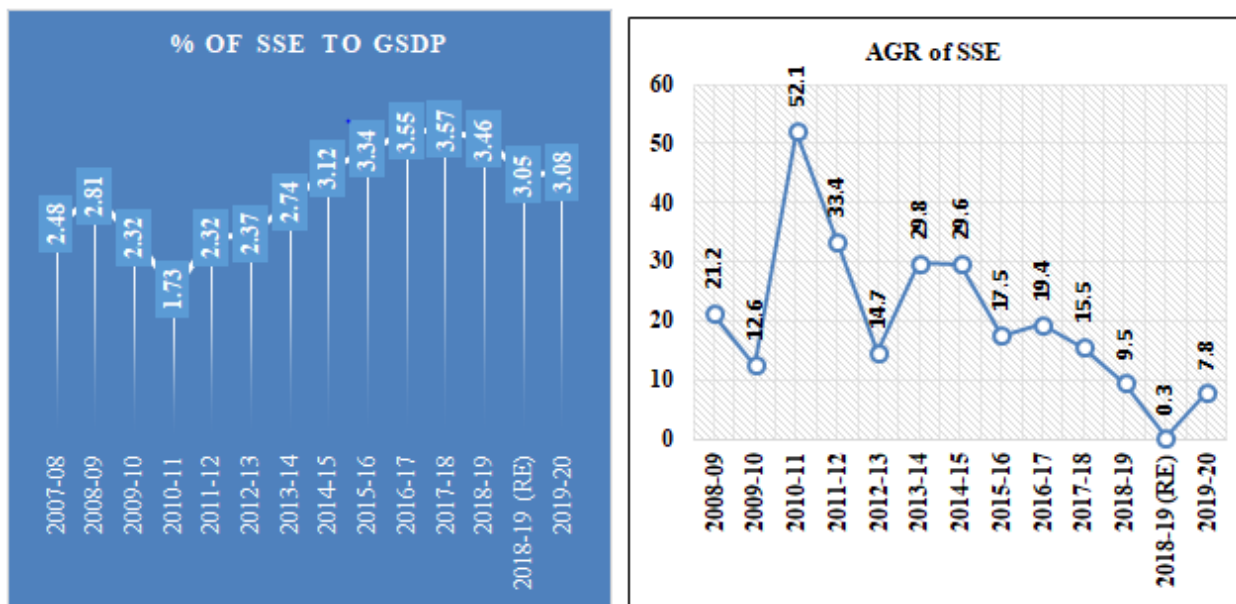
2018-19 (RE)	2,24,080.70	73,41,630.00	3.05
2019-20 (BE)	2,41,484.80	78,49,100.00	3.08
CAGR	20.48	18.32	
CV	66.22	53.6	

Source: Original budgetary papers for various issues, Government of Haryana.

*GSDP at the current prices

Table 1 highlights the extent of social sector spending of plan expenditure in the State and consists of around 3 per cent of the GSDP out of the total budgetary outlay. Figure 4 below reflects that during 2010-11, it witnessed the highest annual growth rate with 52.1 per cent but the least in percentage composition as compared to the entire study period. However, the overall percentage composition is improving during every subsequent year, but is still quite low compared to the state’s GDP. Educational attainment is the prime focus behind such allocation, followed by better healthcare facilities for individuals and bringing welfare to the economy. Apart from this, the adjacent graph reflects the annual growth rate for every social sector expenditure and shows it has significantly increased over the entire study period.

Figure 4: Percentage of social sector expenditure to the GSDP of Haryana



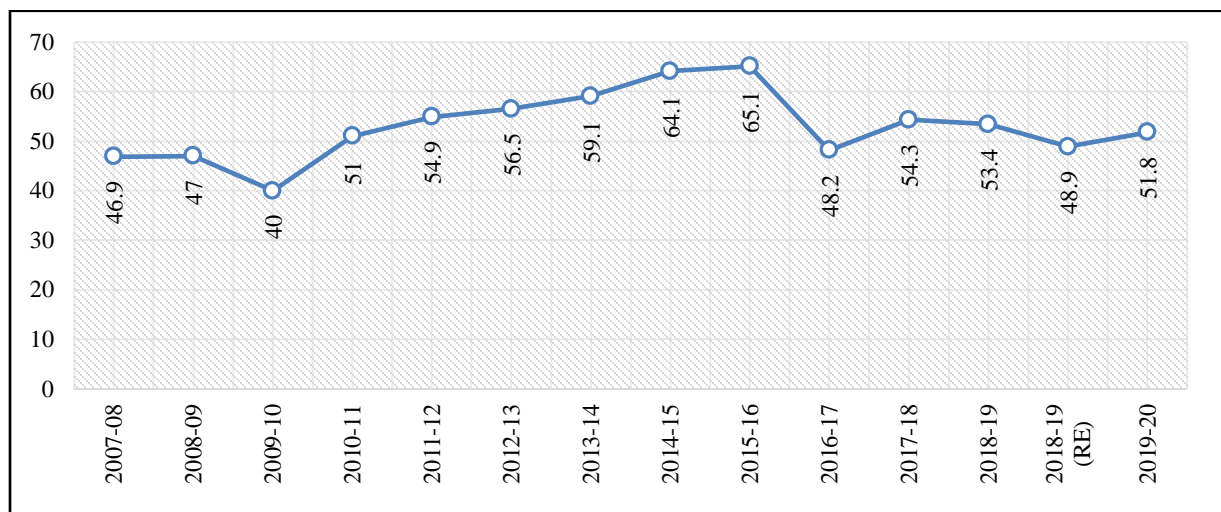
Source: Annual budgetary papers of various issues, Government of Haryana.

Table 2: Centre–State share in social sector expenditure (In percentage)

Year	Sharing		Centrally Sponsored	State-Sponsored
	Central	State		
2007-08	12.13	15.37	23.62	48.88
2008-09	12.05	10.80	11.47	65.68
2009-10	14.90	11.43	9.08	64.59
2010-11	19.59	8.19	6.72	65.50
2011-12	19.04	8.39	9.33	63.24
2012-13	20.66	14.35	7.64	57.35
2013-14	21.61	10.19	5.95	62.26
2014-15	20.91	9.48	5.00	64.61
2015-16	22.21	11.06	4.51	62.22
2016-17	25.59	12.82	3.94	57.65
2017-18	20.20	14.39	5.81	59.60
2018-19	13.90	16.40	4.65	65.00
2019-20	28.01	11.41	2.24	58.34

Source: Annual budgetary draft of Haryana, various issues

Figure 5: Share of social sector expenditure in total expenditure of Haryana



Source: Annual budgetary draft of Haryana, various issues.

Now, the Social sector expenditure in India is mainly distributed between the Centre and the States. Although the State is primarily responsible for its development expenditure, simultaneously, the State also gets a large amount of funds from the Central government in the form of grants. The central government still has great relevance in assisting States with the developmental expenditure of the State. Undoubtedly, the State finances around 60 per cent of the social services, as reflected in Table 2.

It is also observed that the share of Centrally sponsored schemes is reduced drastically over the period from 23.6 per cent in 2007-08 to just 2.24 per cent in 2019-20. On the other hand, the sharing proportion of the Central government with the State government for some schemes has increased significantly from 12.13 per cent in 2007-08 to 25.59 per cent in 2016-17, with some fluctuations. So, it can be said that the Central government is changing its criterion of investment and seems more interested in simultaneous expenditure with the States instead of working alone on particular schemes. For example, earlier, the government used to spend a huge amount on family welfare schemes, mid-day meal schemes, and ICDS, but now it has started concentrating more on bringing social justice and empowerment as well. This developmental expenditure of the State has a direct correlation with women's development in every aspect. Under the social sector expenditure, the government makes a huge investment in education, health and sanitation facilities, which has a direct influence on both males and females. The State spent 46.9 per cent of its budgetary allocation towards the social sector till 2005-06, which was raised to 51.8 per cent in 2019-20. It means an increase of approximately 5 per cent within a decade.

Even with a low female literacy rate and a higher gap in literacy attainment, the public spending on education is quite low as a percentage of social sector spending and in per capita terms as well (Singh, 2014). The State government seems a little concerned about improving the social welfare of the masses, as the share of health and education expenditure in the State budget has been reduced.

2.3. Gender-responsive budgeting in Haryana

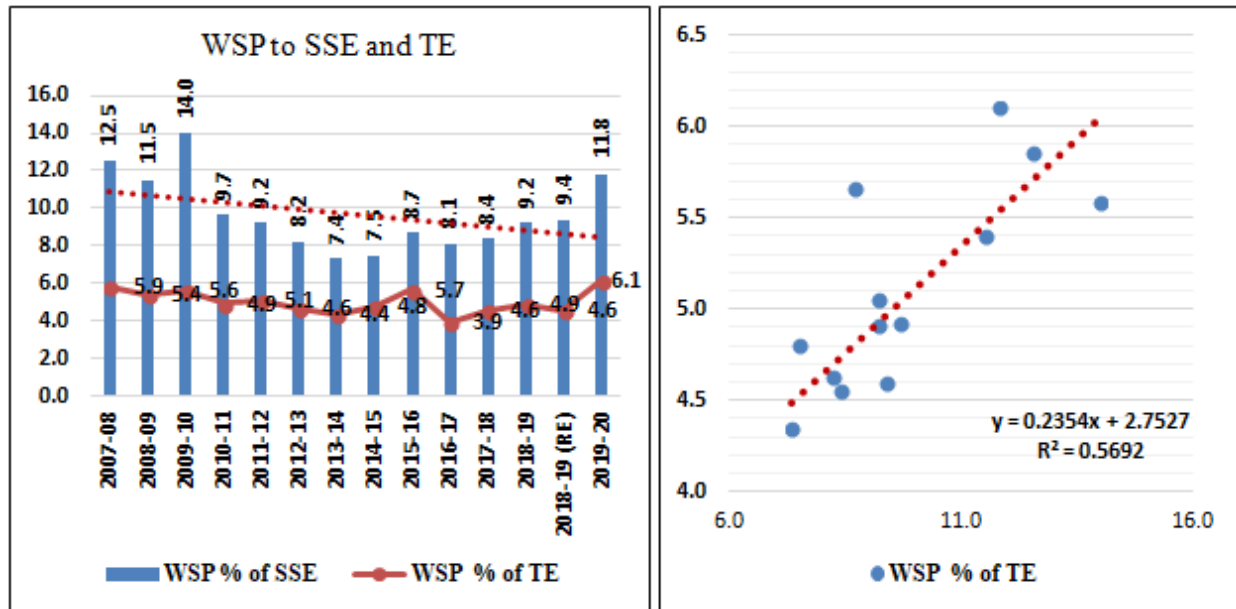
Decentralisation of gender budgeting across the Indian States was introduced to develop State policy for bringing gender parity. The 'States are largely responsible for the education, infrastructure and economic services' (Rao & Varghese, 2009). Haryana has also adopted this strategy partially by introducing a women's component plan in its budgetary system. Though it does not cover the entire sub-head of gender budgeting in its expenditure list, it still covers women-specific expenditures from 2007-08 onwards. Social sector allocation in Haryana during 2004-05 lies below the 30 per cent allocation defined by the women's component plan (Singh, 2013). Keeping in view the socio-economic indicators in Haryana, it has become imperative to focus on the need for gender-responsive budgeting in the State.

Table 3: Magnitude of WSP and PWA in Haryana (INR in millions)

Year	WSP	PWA	AGR of WSP	AGR PWA
2007-08	3,229.30	22,582.00	-	-
2008-09	3,600.00	27,693.60	11.48	22.64
2009-10	4,923.40	30,313.30	36.78	9.46
2010-11	5,175.50	48,426.00	5.12	59.75
2011-12	6,582.60	64,904.50	27.19	34.03
2012-13	6,728.10	75,261.00	2.21	15.96
2013-14	7,827.30	98,623.70	16.34	31.04
2014-15	10,341.10	1,27,650.10	32.2	29.43
2015-16	14,092.30	1,47,994.80	36.27	15.94
2016-17	15,666.50	1,77,806.40	11.17	20.14
2017-18	18,747.80	2,04,622.80	19.67	15.08
2018-19	22,523.80	2,22,153.50	20.14	8.57
2018-19 (RE)	21,040.20	2,03,040.50	12.22	-0.77
2019-20	28,461.30	2,13,023.50	26.36	-4.11
CAGR	19.88	20.57		
CV	70.01	66.16		

Source: Annual budgetary draft of Haryana, various issues

Figure 6: Women-specific expenditure in Haryana



Source: Calculated by the author

Figure 6 depicts the efforts of the government disbursement towards women-specific expenditure. The magnitude of the women-specific expenditure was calculated based on the proportional share of social sector spending and the total budget of Haryana. Table 3 exhibits that women-specific allocation has not increased in a systematic way during the study period, but is quite low to meet the women’s vulnerability present in the State. Total plan women-specific expenditure ranged around 7 to 14 per cent of social sector expenditure, whereas approximately the remaining 90 per cent of the expenditure meets the requirements of both genders. These trends indicate that the State government is increasing the women-specific expenditure in absolute terms, but in relative terms, there is not much progress towards the women-specific allocation.

Table 4: Department-wise women-specific social sector expenditure (In percentage)

Year	Education	Health	The welfare of SC/BC	Social Justice	MWCD
2007-08	2.15	0.1	1.07	6.08	1.33

2008-09	1.68	0.53	0.83	5.98	1.22
2009-10	0.75	0.12	0.82	10.29	1.33
2010-11	0.3	0.08	0.51	7.8	0.91
2011-12	0.27	0.17	0.47	7.38	0.87
2012-13	0.3	0.15	0.62	5.79	0.67
2013-14	0.65	0.12	0.67	4.65	0.62
2014-15	0.5	0.12	0.55	5.67	0.66
2015-16	0.48	0.1	0.5	6.22	0.78
2016-17	0.8	0.08	0.52	5.62	1.07
2017-18	0.66	0.02	0.5	5.84	0.84
2018-19	0.34	0.03	0.48	6.49	1.07
2018-19 (RE)	0.29	0.09	0.41	7.19	0.81
2019-20	0.32	0.06	0.44	9.58	0.95

Source: Annual budgetary draft of Haryana, various issues

A large part of women-specific expenditure goes to direct financial assistance in the form of pensions to widows/single mothers, and a very small amount has been spent on any educational development and health facilities. Education as a core for development, consists of 2.15 per cent women-specific expenditure in 2007-08, but drastically declined in the following years. This unexpected downfall in education expenditure is due to the fall of schemes and jerk investments. On the other hand, it is a well-known fact that the scheduled caste and backwards class girls have higher dropout rates and are vulnerable groups, but the expenditure towards their development has also declined sharply over the period of time. It was reduced from 1.07 per cent in 2007-08 to just 0.44 per cent in 2019-20. Women-specific expenditure in health is almost negligible to talk about, and it even drastically declined from 0.53 per cent in 2008-09 to only 0.06 per cent in 2019-20. Social justice and empowerment, and the Ministry of Women and Child Development

(MWCD) have occupied almost the entire expenditure that impacts women’s development. The government should concentrate more on empowering women by investing in beneficial schemes that could increase girls' education enrolments and reduce drop-out rates. The State government needs to switch their resources towards the betterment of female education and good health to convey better outcomes instead of just providing financial assistance to the destitute and widows. However, the allocation pattern in Table 4 clearly highlights the inverse situation.

**Table 5: Department-wise pro-women allocation of social sector expenditure
(In Percentage)**

Year	Percentage of PWA to SSE				
	Education	Health	Welfare of SC/BC	Social Justice	MWCD
2007-08	21.2	2.2	2.6	16.4	4.7
2008-09	21.8	2.5	3.3	14.5	4.3
2009-10	26.6	2.6	1.8	8.4	3.5
2010-11	21.2	1.9	1.0	18.3	2.2
2011-12	21.7	3.0	0.8	17.8	1.8
2012-13	31.8	3.4	0.7	14.7	1.9
2013-14	26.5	4.4	0.8	11.8	3.1
2014-15	25.5	6.2	0.9	15.2	4.6
2015-16	27.1	6.3	0.7	16.0	4.1
2016-17	25.6	6.5	2.1	15.9	4.0
2017-18	22.1	6.3	2.0	15.9	3.7
2018-19	16.4	5.6	1.9	18.1	4.5
2018-19 (RE)	0.0	0.0	0.0	0.0	0.0
2019-20	13.1	6.0	1.0	17.9	5.1

Source: Budgetary papers, various issues, Govt. of India.

Contrary to women-specific expenditures, the education department is the core of pro-women allocation. It consists of a quite big proportional share of social spending, around 20 to 25 per cent overall, with some exceptions. As we have discussed above also that the government is more concerned with spending towards those services that could provide maximum benefit to the whole society. The health expenditure was also found to be low in the PWA, which may result in

poor health outcomes, specifically for women compared to men, because of financial dependencies. The Department of Welfare for SCs and BCs also marked a significant decline over time from 2.6 per cent in 2007-08 to 1 per cent in 2019-20. On the other side, the Department of Social Justice and Empowerment witnessed a quite respectable percentage share but grew at a steady rate. The percentage share ranged between 15 and 17 per cent with a few exceptions.

3. Results and Discussion

3.1. Impact of Gender-based Expenditure on HDI

HDI values for Indian States are quite challenging to determine because of the considerable differences in their socio-economic parameters. Poor States of India are considered low in their HDI index, whereas it is the opposite in the case of richer States, as it captures the well-being of the people based on their income, health and education across their people. In this section, it is represented by the State of Haryana, which is considered among the richest States of India. It ranked sixth with the HDI value index at 0.70 in 2017 among other States because of the high compound annual growth rate (CAGR), particularly in the social sector expenditure. This indicates the improvement in their social attributes, like health and the education system in Haryana. But the question arises whether the benefit received from this expenditure is equally distributed among both genders or if there is some bias in providing those services. Hence, Table 6 presents the overview of the impact of such spending on the HDI values for Haryana.

Table 6: Impact on HDI of Haryana

Dependent Variable: Human Development Index							
Independent	Constant	Coefficient	Std. Error	t- value	P-value	R2	df
Per Capita education GSDP	0.57803	5.81e-07	4.17e-08	13.91	0.000	0.9416	13
Log of Per Capita GSDP	0.00151	0.0561383	0.0059117	9.50	0.000	0.8826	13
Per Capita Social Sector Expenditure	0.59443	0.0000154	7.03e-07	21.91	0.000	0.9756	13
Log of Per Capita Social Sector Expenditure	0.28854	0.0457526	0.0059117	19.54	0.000	0.9695	13
Per Capita education Expenditure	0.59159	0.0000661	5.45e-06	12.15	0.000	0.9248	13
Log of Per Capita education	0.33217	0.0486616	0.0038885	12.51	0.000	0.9288	13

Expenditure							
Per Capita Health Expenditure	0.61052	0.0002114	.0000186	11.37	0.000	0.9151	13
Log of Per Capita health Expenditure	0.49883	0.0324907	0.0015807	20.55	0.000	0.9724	13
Per Capita Expenditure on Social Justice & Empowerment	0.59734	0.000066	5.60e-06	11.78	0.000	0.9204	13
Log of Per Capita Expenditure on Social Justice & Empowerment	0.339831	0.0483944	0.0028764	16.82	0.000	0.9593	13
Per Capita Women Specific Expenditure	0.587773	0.0001914	0.0000167	11.44	0.000	0.91.60	13
Log of Per Capita Women Specific Expenditure	0.289380	0.0642295	.0022897	28.05	0.000	0.9850	13

Source: Author’s calculation

Table 6 explores the regression analysis results of HDI originating from a change in women-related aspects on the composite index. The effects of total per capita expenditure of GSDP, SSE, education, health, social security and wellbeing in women-specific expenditure are observed on the HDI index to find out the result of female-oriented variables. The Human Development Index (HDI) is well explained by these 6 independent factors when measured in terms of their per capita expenditure. It explains the dependent variable, i.e. by more than 91 per cent; hence, it has been observed that all the variables are significant at a 5 per cent level of significance and are considerable in explaining the dependent variable. It has been found that the social sector expenditure, which is responsible for conveying maximum benefit to women, indicates a higher level of significance by explaining 97.56 per cent of the dependent variable and is positively related to larger human development. Hence, a one percentage point increase in it would positively influence the human development index by 0.0457 per cent. On the other hand, education is considered a core to the development of the State. Therefore, higher expenditure for increasing the enrolment rate beyond primary to secondary schooling can significantly increase the enrolment rate in Haryana. It is also found that human development is positively correlated with women-specific expenditure. It raises the HDI by 0.064 per cent with a one-unit rise in women-specific expenditure. So, it is evident enough that if we increase expenditure on female-oriented areas, then it essentially reflects a better status quo for females in general and has a direct bearing on women at large. The Haryana government made maximum expenditure on

social justice and empowerment, and hence found it significant. It reflects that a one-per-cent increase in this sector influences the HDI by .0483 per cent.

3.2. Impact of gender-based expenditure on the Education Index

Education is an effective approach to modifying people's behaviour towards better health and livelihoods, which can significantly contribute to their overall development. It is considered one of the major factors that promote basic facets and technical skills for contemporary societal norms and conditions.

Table 7: Impact on Education Index of Haryana

Dependent Variable: Education Index							
Independent	Constant	Coefficient	Std. Error	t- value	P-value	R2	df
Per Capita education GSDP	0.44607	7.74e-07	5.93e-08	13.06	0.000	0.9343	13
Log of Per Capita GSDP	-0.32968	0.0754621	0.0076511	9.86	0.000	0.8902	13
Per Capita Social Sector Expenditure	0.46824	0.0000204	1.20e-06	17.00	0.000	0.9601	13
Log of Per Capita Social Sector Expenditure	0.05645	0.0614617	0.0027442	22.40	0.000	0.9766	13
Per Capita Education Expenditure	0.46305	0.0000894	6.30e-06	14.19	0.000	94.37	13
Log of Per Capita Education Expenditure	0.11113	0.065973	0.0042293	15.60	0.000	0.9530	13
Per Capita Women Specific Expenditure	0.46022	0.0002516	0.0000263	9.55	0.000	0.8838	13
Log of Per Capita Women Specific Expenditure	0.62029	0.0854913	0.0040244	21.24	0.000	0.9741	13

Source: Author’s own calculation

Table 7 estimates the impact of the Education Index from 2005-06 to 2019-20. The education index is a composite indicator for two-thirds of the adult literacy rate and one-third of the combined primary, secondary and tertiary gross enrolment ratio (GER). All independent variables selected are found statistically significant at a 5 per cent level of significance, accounting for more than 88 per cent of the dependent variable, i.e. Education Index. It also

possesses the highest impact in defining the Human Development Index, which is assumed to create significant changes in the economic growth process. It is also observed from the above analysis that increased investment in education can significantly impact the dependent variable. A unit increase in education expenditure can increase the education index by .0659 units, explaining 95.3 per cent of the dependent variable. On the other side, it is highly positively linked to the per capita women-specific expenditure, also, whereas a unit increase in expenditure can influence the education index by .08549 units, measured as the highest correlation to the dependent variable as compared to other independent variables.

3.3. Impact of gender-based expenditure on the health index

The government spends lots of its resources on the development of health infrastructure as a part of social sector spending, which makes it difficult to quantify its benefits differently for men and women. This little social sector spending alone on women is difficult to analyse because of inefficient, segregated data. Therefore, this part emphasises measuring the impact of government women-specific expenditure and social sector expenditure on the education index. This developmental expenditure utilises government resources to bring gender equality, especially towards those areas that could impact women the most and can help in building a society that is more inclusive and economically healthy.

Health is a central development indicator that represents the better survival and well-being of people. The health index is based on 23 health markers, with the greatest importance provided to mortality rate, maternal mortality rate, fertility rate, sex ratio, etc. Hence, these indicators are mostly female-oriented determinants and were found to be poorly accomplished in Haryana. Therefore, it can be assumed that any sought improvement towards these factors significantly contributes to the better health status of females, specifically in the State. Hence, the Table explores the impact of government expenditure on the health index of Haryana.

Table 8: Impact on the health index of Haryana

Dependent Variable: Health Index							
Independent	Constant	Coefficient	Std. Error	t- value	P-value	R2	df
Per Capita GSDP	0.73249	2.45e-07	1.65e-08	14.84	0.000	0.9483	13
Log of Per Capita GSDP	0.48134	0.0243755	0.0018203	13.39	0.000	0.9373	13
Per Capita Social Sector Expenditure	0.74020	6.30e-06	5.41e-07	11.64	0.000	0.9187	13
Log of Per Capita Social	.060888	0.0194969	0.000514	37.93	0.000	0.9917	13

Sector Expenditure							
Per Capita Health Expenditure	.074726	0.0000839	0.0000116	7.21	0.000	.8124	13
Log of Per Capita Health Expenditure	.700152	0.0134919	0.0009441	14.29	0.000	.9445	13
Per Capita Women Specific Expenditure	0.73766	0.0000777	9.42e-06	8.25	0.000	0.8501	13
Log of Per Capita Women Specific Expenditure	0.61219	0.0268463	.0013788	19.47	0.000	0.9693	13

Source: Author’s calculation.

As can be seen, a unit increase in per capita GSDP can improve the health outcomes by .02437 units in the State. Whereas, a one-unit increase in health expenditure can improve its health index by .01349 units. The same presumption has been examined from women-specific expenditure, where a unit increase in its expenditure contributes 0.0268 units of development in the dependent variable. Hence, it can be said that expenditure on women's health indicators such as life expectancy, sex ratio and maternal mortality rate can prove highly significant in the state for changing their socio-economic dynamics.

4. Conclusion

This paper analyses the importance and significance of fiscal decentralisation of gender budgeting in Haryana. It specifically targets the performance of the State in terms of changing gendered positions. Indicators such as high maternal mortality rate (MMR), infant mortality rate (IMR), unpaid work and low labour force participation rate (LFPR) of women are found to be the core snags that restrict their development. It is also being observed that women's development has not been given due place for their equality, as men are.

The women-specific expenditure was found to be stumpy, particularly in education and health, with just 0.32 and 0.06 per cent of expenditure, respectively. On the other hand, these are both considered the most important sectors in developing human resources and reducing gender inequality in the State. Undoubtedly, the government is spending lots of its resources towards women's development in basic attainments in absolute terms, but the proportional share is quite miserable overall. The paper also highlights the regression analysis on HDI, education index and health index concerning relevant social sector expenditure and female-oriented specific expenditure. All the independent variables selected are found statistically significant and rightfully indicated that if there is an increase in government current expenditure, it will lead to a fall in any kind of gender inequality. Women-specific expenditure was found to have an

extraordinary impact on their development. Hence, this little social sector spending on women ascertains the need for women's empowerment in the same departments to get balanced growth between genders. Therefore, it can be said that if the State government makes the proper allotment of funds to the major areas of concern where gender inequality is more persistent, it could definitely yield positive results in human development. It will create potential in the State to develop the socio-economic outcomes with a higher degree of gender equality.

The whole analysis of the study endorses that budgetary expenditure is highly significant in improving the different women empowerment performance indicators. The level of income and other socio-economic variables also turn out to be significant. Hence, there is a need to increase the budgetary spending on social services, particularly in the health and education sectors. The social changes, however, cannot be brought about through government allocation and actions alone. The necessary condition is the existence of a suitable environment in terms of community awareness and willingness to recognise such problems. To address the issues related to gender budgeting and its impact on gender development indicators, the initial policy response needs to be considered.

The study examines gender-responsive budgeting only from the expenditure perspective of the State government, but the analysis of the revenue side of gender-responsive budgeting has not been covered. The present paper does not cover the Benefit Incidence Analysis (BIA) of gender-based schemes. It measures the unit cost of providing a particular service and the number of units utilised by gender. Hence, measuring the incidence of education and health in an individual is difficult to assess. The use of benefit incidence analysis has good importance in evaluating the incidence of services and government spending on female development. Most research focuses on the ex-ante level of gender budgeting, leaving research on concurrent and ex-post underdeveloped. In order to fill the gaps, the studies in future should emphasise analysing the impact and outcome of executing gender budgeting. However, such type of work requires more survey-based research that scholars and governments can use to measure all real outcomes and the effects of implementing gender budgeting. Thus, future research on the outcome and impact of gender budgeting should concentrate on actual allocations, economic impacts, progress and change in gender performance indicators and understanding among administration and citizens. In conclusion, for conducting quantitative research, scholars and researchers necessitate far more data from the governments, indicating that the government initially needs to quantify and make available gender-disaggregated data.

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