

A Draft Report on

Evaluation of Finances for the State of Assam

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On behalf of the Research Team
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Terms of Reference

(ToR)

The evaluation of the study is expected to critically analyse the overall State's finance over the twelve-year period from 2012-13 to 2023-24. Specifically, the study should include the following aspects:

- I. Estimation of revenue capacities of State and Measures to improve the tax-GSDP ratio during the last five years. Suggestions for enhancing the revenue productivity of the tax system in the State.
- II. Analysis of the state's own non-tax revenues and suggestion to enhance revenues from user charges and profits from departmental enterprises and dividends from non-departmental commercial enterprises.
- III. Expenditure pattern and trends separately for Revenue and Capital, and major components of expenditure thereunder. Measures to enhance allocative and technical efficiency in expenditures during the last 5 years. Suggestions for improving efficiency in public spending.
- IV. Analysis of deficits – fiscal and revenue
- V. The level of debt to GSDP ratio and the use of debt (i.e., whether it has been used for capital expenditure or otherwise). Composition of the state's debt in terms of market borrowing, off-budget borrowings, Central government debt (including those from bilateral/ multilateral lending agencies routed through the Central government), liabilities in public account (small savings, provident funds etc) and borrowings from agencies such as NABARD, LIC etc
- VI. Implementation of FRBM Act and commitment towards targets. Analysis of MTFP of various departments and aggregate.
- VII. Analysis of the state's transfers to urban and rural local bodies in the State. Major decentralization initiatives.
- VIII. Impact of State Public Enterprises finances on the State's financial health and measures taken to improve their performance and/or alternatives of closure, disinvestment etc.
- IX. Impact of Power Sector Reforms on States' fiscal health. In case reforms have not been implemented, the likely outcome on the States' fiscal health.

- X. Analysis of contingent liabilities of the State.
- XI. Subsidies given by the States (Other than Central subsidies), their costs and benefits, targeting and evaluation.
- XII. Outcome Evaluation of State Finances in the context of recommendations of the 14th and 15th FC, in particular
 - A. analysis of the flow of resources from Centre to States through various schemes, the expenditure of States in those schemes, resources of States channelled towards these schemes and the overall impact on development spending of the States;
 - B. States' own schemes for different development objectives
- XIII. Determination of a sustainable debt roadmap for 2026-31, taking into account tax/non-tax trend forecasts.

ToR Sl. No.	Chapter
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III	Chapter II - Pattern in the Public Expenditure
IV	Chapter III - Analysis of Deficits
V	Chapter IV - Public Debts in Assam
VI	Chapter V - State Compliance of AFRBM Act, Assam
VII	Chapter VI-Fiscal Decentralization in Assam
VIII	Chapter VII - Public Sector Enterprises in Assam
IX	Chapter VIII - Power Sector Performance & its Impact on State's Financial Health
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List of Abbreviations

APL	Above Poverty Line
AE	Advanced Estimates
AT&C losses	Aggregate Transmission and Commercial losses
AP	<i>Anchalik</i> Panchayat
AI-ML	Artificial Intelligence and Machine Learning
AIIB	Asian Infrastructure Investment Bank
APART	Assam Agribusiness and Rural Transformation Project
AEGCL	Assam Electricity Grid Corporation Limited
AERC	Assam Electricity Regulation Commission
AMTRON	Assam Electronics Development Corporation Ltd
AFRBM	Assam Fiscal Responsibility and Budget Management Act
AIFA	Assam Infrastructure Financing Authority
APDCL	Assam Power Distribution Company Limited
APGCL	Assam Power Generation Corporation Limited
ARNIP	Assam Road Network Improvement Project
ARIAS	Assam Rural Infrastructure Agriculture Services
ASRIP	Assam Secondary Road Network Improvement Project
ASCARD	Assam State Cooperative Agriculture & Rural Development
HOUSEFED	Assam State Cooperative Housing Federation Ltd.
ASEB	Assam State Electricity Board
ASFC	Assam State Finance Commission
ADB	Asian Development Bank
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
ADCs	Autonomous District Councils
BPL	Below Poverty Line
BTC	Bodoland Territorial Council
BE	Budget Estimates
CE	Capital Expenditure
CFA	Central Finance Assistance
CFC	Central Finance Commission
CGST	Central Goods and Services Tax
CSS	Centrally Sponsored Schemes
CSS	Centrally Sponsored Schemes
CAGR	Compound Annual Growth Rate

CAG	Comptroller and Auditor General
CRISIL	Credit Rating Information Services of India Limited
DPC	Decentralized Planning Cell
DPD	Decentralized Planning Division
DDUGJY	Deen Dayal Upadhyaya Gram Jyoti Yojana
DHAC	Dima Hasao Autonomous Council
DALF	Director of Audit, Local Fund
DISCOM	Distribution Company
EHV	Extra High Voltage
FPC	Farmer Producer Company
FC	Finance Commission
FI	Financial Institution
FY	Financial Year
FRBM	Fiscal Responsibility and Budget Management Act
GP	Gaon Panchayat
GIC	General Insurance Corporation
GST	Goods and Services Tax
GFSM	Government Finance Statistics Manual
GoA	Government of Assam
GoI	Government of India
GIA	Grants-in-Aid
GDP	Gross Domestic Product
GSDP	Gross State Domestic Product
HT	Higher Tariff
IPDS	Integrated Power Development Scheme
IMF	International Monetary Fund
KAAC	Karbi Anglong Autonomous Council
LIC	Life Insurance Corporation
LBs	Local Bodies
LT	Lower Tariff
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MTFP	Medium Term Fiscal Policy
MVA	Megavolt-Amperes
MLAAD	Member of Legislative Assembly Area Development
MPLAD	Member of Parliament Local Area Development

MU	Million Units
MNRE	Ministry of New and Renewable Energy
MOSPI	Ministry of Statistics and Programme Implementation
MB	Municipal Board
MC	Municipal Corporation
NABARD	National Bank for Agriculture and Rural Development
NCDC	National Cooperative Development Corporation
NRLM	National Rural Livelihood Programme
RURBAN	National Rurban Mission
NSSF	National Small Savings Fund
NSAP	National Social Assistance Programme
NULH	National Urban Livelihoods Mission
NSDP	Net State Domestic Product
ODA	Official Development Assistance
O&M	Operation and Maintenance
OBC	Other Backward Class
PRIs	Panchayati Raj Institutions
PMAY (G)	Pradhan Mantri Awaas Yojana Gramin
PMAY (U)	Pradhan Mantri Awas Yojana - Urban
SAUBHAGYA	Pradhan Mantri Sahaj Bijli Har Ghar Yojana
PA	Preliminary Actual
PSUs	Private Sector Undertakings
PE	Provisional Estimates
PDS	Public Distribution System
PSE	Public Sector Enterprises
RSGA	Rastriya Gram Swaraj Abhiyan
RBI	Reserve Bank of India
RE	Revenue Expenditure
RR	Revenue Receipts
RE	Revised Estimates
RLBs	Rural Local Bodies
SC	Scheduled Castes
ST	Scheduled Tribes
SAFC	Sixth Assam State Finance Commission
SAPCC	State Action Plan on Climate Change

SBI	State Bank of India
SDL	State Development Loan
SDMF	State disaster Mitigation Fund
SDRF	State Disaster Response Fund
SFC	State Finance Commission
SGST	State Goods and Services Tax
SGS	State Government Securities
SPSE	State Public Sector Enterprises
SSS	State Sponsored Schemes
SONTR	State's Own Non-Tax Revenue
SOR	State's Own Revenue
SOTR	State's Own Tax Revenue
SSs	Sub-stations
SWIFT	Sustainable Wetland and Integrated Fisheries Transformations
SDG	Sustainable Development Goals
SBM(U)	Swachh Bharat Mission - Urban
TE	Total Expenditure
TC	Town Committee
T&D losses	Transmission and Distribution losses
TLs	Transmission Lines
UDAY	Ujwal Discom Assurance Yojana
UDAY	Ujwal DISCOM Assurance Yojana
UDCW	Unpaid Domestic Care Work
UDD	Urban Development Department
ULBs	Urban Local Bodies
VAT	Value Added Tax
VCDC	Village Council Development Committees
WMA	Ways and Means Advances
ZP	Zilla Parishad

Executive Summary

The Finance Commission in India has been an integral part of India's financial landscape, having progressed from being merely a middleman between the Union and the states to taking on a major role in financial management and restructuring. There have been intense discussions over the formula for horizontal devolution and a continuous process of redefining the rates of vertical devolution to the states with each new Finance Commission. Following this custom, the Sixteenth Finance Commission aims to provide fair resource and responsibility distribution while tackling the modern budgetary issues that states face.

This study takes a deep dive into the financial landscape of Assam, focusing on the challenges and opportunities shaped by the recommendations of the Fifteenth Finance Commission. Assam, with its distinct mix of geographical, economic, and social factors, faces a tough balancing act: it must meet the growing aspirations of its young population while dealing with fiscal constraints typical of an underdeveloped state. Over the years, Assam's finances have been under pressure due to rising expenditures on salaries, pensions, and interest payments on its increasing public debt. In the years following economic liberalization, the state often found itself in fiscal distress, requiring help from the Reserve Bank of India to manage frequent crises. However, the introduction of the Assam Fiscal Responsibility and Budget Management (FRBM) Act in 2005 marked a shift towards more disciplined fiscal practices, leading to significant progress in consolidating its finances.

However, despite these improvements, Assam's financial stability remains fragile. The state is still vulnerable to fiscal setbacks, especially when implementing costly recommendations from the State Pay Commission or responding to new socio-economic challenges. The task ahead is a complex one: Assam must continue to maintain fiscal discipline while also driving development in line with the guidelines set by the Sixteenth Finance Commission. This study will critically examine Assam's fiscal performance, looking at both its achievements and its ongoing struggles. It aims to shed light on the key hurdles the state faces and the potential strategies it could adopt to ensure financial sustainability while addressing the pressing needs of its people.

In chapter I, we observe that the revenue receipts of Assam have increased from ₹30672.49 crores in 2012-13 to ₹114084.7 crores in 2023-24. SGST is the major contributor in SOTR of the state. Compared with northeastern states, Assam's SOTR proportion to total tax revenue is found to be the highest and it has increased in the post-GST period. However, sufficient tax revenue has not been collected relative to the growth in economic activities of the state as indicated by the relatively low tax revenue to GSDP ratio. Therefore, the state should focus on reforming its tax generation capacity as well as try to maximize its revenue from non-tax sources as its SONTR generation capacity is found to be even better relative to major Indian states.

In chapter II the expenditure patterns of the state are analyzed focusing on revenue and capital expenditures. In 2023-24, revenue expenditure made up 82 percent of Assam's total expenditure, while capital expenditure rose from 8 percent to 18 percent between 2013 and 2024. Per capita revenue and capital spending remain well below the national average, with the gap in capital expenditure narrowing until 2017 but widening again after 2023. Despite some progress, the state must do more to match the all-India average. Development expenditure consistently accounted for over 60 percent of revenue expenditure, but committed expenditure jumped to 73 percent in 2024, reducing fiscal flexibility. Assam ranks among the top 25 percent of states with a high share of committed spending, and the government needs to address this to ease fiscal strain. While capital expenditure on social and economic services is relatively high, the rise in general services spending from 4 percent to 21 percent reflects growing non-development expenditure. Assam's capital expenditure ratio was below the national average until 2018-19, but it has since surpassed it, indicating improved expenditure quality. However, the state's public expenditure efficiency remains at the lowest, as revealed by a Malmquist index analysis.

In chapter III, revenue deficit, fiscal deficit and primary deficits of the State of Assam are analysed, for a period beginning in 2012-13. Fiscal deficit in the State has largely stayed below 5 percent, excepting for 2022-23 when it was estimated to rise to 6.1 percent of the State GDP. Fiscal surplus was observed in the State during 2015-16, but the deficits followed thereafter. Capital outlay is observed to share well in the total borrowings of the State, estimated over 80 percent and many time exceeding 100 percent, except for the year 2014-15 and for the revised estimate for 2022-23. These are indicative of the State using the debts for financing its capital expenses that can potentially generate their own revenues to finance repayments in the future.

In chapter IV, public debt in Assam reflects the state's increasing reliance on borrowings to finance its fiscal needs. It shows a growing reliance of the State on public borrowings, with the total debts increasing about threefold during 2012 and 2022. This trend is characterized by a Compound Annual Growth Rate (CAGR) of 11.75 percent. Despite these rising liabilities, the state has kept its Debt-to-GSDP ratio below the 28.5 percent ceiling set by the Assam Fiscal Responsibility and Budget Management (AFRBM) Act, nonetheless. The ratio fluctuated over the years, peaking at 27.5 percent in 2023-24. While the ratio of interest payments to revenue receipts remained relatively stable, fluctuating between 6 percent and 8 percent, this still poses a constraint on funds available for priority areas for economic development. On a positive note, Assam achieved revenue surpluses in certain fiscal years, allowing for greater capital expenditures. However, the state's growing reliance on market borrowings and loans, particularly from NABARD and financial institutions, signifies the increasing role of debt in financing fiscal expenditures. Though capital expenditure has been prioritized over debt repayment in recent years, the rising debt burden may curtail future development activities and increase financial pressure due to growing interest payments.

In chapter V, compliance to AFRBM and MTFP of the state are analyzed and explained. The regulation of fiscal performance of the state to a long-term fiscal sustainability by setting targets for fiscal deficit, debt-to-GSDP ratio, and achieving revenue surplus within a specified time period. Analysis shows that the State has largely complied with the targets set in the AFRBM Act, with minor exceptions for a few years. State's attainment in these fiscal parameters is close to their corresponding targets. The MTFP projections for the fiscal indicators are remarkably low, with a projected fiscal deficit of 1.37 percent and revenue surplus of 1.62 percent of the State GSDP in 2029-30, much below the current AFRBM targets in the State. Debt-to-GSDP ratio is also projected to fall to about 22.05 percent of the State GSDP in 2029-30, lower than the current AFRBM target of 28.5 percent in the State.

Chapter VI provides a detailed examination of fiscal decentralization in Assam, highlighting its evolution and current challenges. Fiscal decentralization involves transferring administrative and financial responsibilities from central to local governments, which is crucial for effective governance. Since the late 1980s, India has embraced this concept, notably through the 73rd and 74th Constitutional Amendments in 1992, which established Panchayats

for rural areas and Municipalities for urban areas. These amendments aimed to enhance local self-governance and ensure financial autonomy for local bodies. Assam's local bodies—Panchayati Raj Institutions (PRIs) and Urban Local Bodies (ULBs)—have encountered significant financial management issues. Challenges include delays in audits, inconsistent financial transfers, and a heavy reliance on government grants. While ULBs have seen some growth in resources due to increased grants, PRIs have struggled with declining resources and stagnant revenue generation. The chapter concludes that for local bodies to operate effectively, improvements in audit practices, financial transparency, and internal revenue generation are essential.

Chapter VII focussed on the impact of State Public Enterprises (PSEs) on Assam's financial health and their influence on the state's finances. As of 2022, the CAG report identifies 35 operational PSEs in Assam. Among these, five large PSEs hold more than ₹100 crore in government equity, with Assam Power Distribution Company Ltd. and Assam State Transport Corporation standing out for their recurrent losses, amounting to an accumulated ₹2,289 crore. In contrast, Assam Power Generation Company Ltd., Assam Industrial Development Corporation Ltd., and Assam Petrochemicals Ltd. have reported profits and shown signs of improvement. The second category includes two PSEs with equity between ₹50 to ₹100 crore: Assam Electricity Grid Corporation Ltd., whose performance remains unstable, and Assam Hydrocarbon and Energy Company Ltd., which has recorded small but consistent profits. In the third category, covering PSEs with equity between ₹1 to ₹50 crore, the total equity stood at ₹194 crore as of 2019. Of the 25 PSEs in this group, 16 have reported consistent losses, with total accumulated losses reaching ₹631 crore by 2022. Assam Tea Corporation Ltd., the largest equity holder in this category with ₹29 crore, also has the highest accumulated losses at ₹284 crore. Other significant loss-making PSEs include Assam Plains Tribes Development Corporation Ltd., Assam State Textiles Corporation Ltd., Assam State Development Corporation for Scheduled Castes Ltd., and Assam Agro Industries Development Corporation Ltd. It is obvious that some of the PSEs are reporting recurrent losses and subsequently widening the fiscal stress to the government. To mitigate the widening fiscal burden, it is recommended that the government identify those PSEs either to improve the performance or other strategy to be deemed fit for these loss-making enterprises.

In chapter VIII, we observe that the demand for power in the state of Assam has increased over the years due to increasing preference of consumers towards relatively cleaner and reliable

forms of energy. However, the power demand of the state has always exceeded its supply attributing to inadequate power generation and huge transmission as well as distribution losses. To transform this condition, power sector reforms were initiated in the state in 2001. Post reforms, it is quite essential to evaluate the financial performance of power sector PSUs of the state and it is found that APGCL is majorly profitable whereas AEGCL and APDCL are incurring losses. Their losses can be attributed to high cost of purchasing power and increasing cost of hiring employees. As APDCL is the power distribution company (DISCOM) of Assam and acts as the backbone of the power sector of the state, the government has been increasingly allocating grants and subsidies to revive its financial performance. The grants and subsidies allocated to APDCL have increased from ₹150.00 crores in 2012-13 to ₹1,362.88 crores in 2021-22.¹

Chapter IX analyzes the contingent liabilities of the state, focusing on explicit liabilities such as loan and financial guarantees reported by the state. Non-explicit liabilities remain hard to track due to unavailability of data in the public domain. Between 2013-14 and 2020-21, outstanding guarantees averaged ₹100 crore, with some variation. However, it jumped to ₹311.76 crore in 2021-22 and further to ₹1,166.49 crore in 2022-23. Initially, most liabilities were related to Assam Power Generation Company Ltd., but later, the Assam Infrastructure Financing Authority held the largest guarantees, with ₹238.63 crore in 2021-22 and ₹1,091.23 crore in 2022-23. Liabilities for companies like Assam Plain Tribes Development Corporation Ltd. and Assam State Development Corporation for Scheduled Castes Ltd. remained unchanged from 2016-17 to 2022-23, raising concerns about possible mismanagement. The steep rise in guarantees for the Assam Infrastructure Financing Authority suggests a focus on infrastructure, but careful monitoring of these funds are needed as the amount of liability has jumped manyfold during the last two years.

Chapter X provides a comprehensive evaluation of the subsidies given by the Government of Assam, highlighting their role in promoting economic growth and social welfare. It discusses the trend of subsidy allocation over the past decade, showing fluctuations in expenditure based on economic needs and government priorities. The analysis reveals that subsidies in Assam have grown significantly from ₹80 crore in 2012-13 to ₹2,006 crore in 2021-22, reflecting the government's focus on supporting essential sectors and vulnerable communities through

¹Annual Statement of Accounts, APDCL, related issues

targeted social welfare schemes. These subsidies cover diverse areas, from education and healthcare to housing and entrepreneurship, aiming to enhance the quality of life and economic inclusion for underprivileged groups. However, while the allocation has increased, the study also emphasizes the need for balanced fiscal management, as a high subsidy-to-GSDP ratio can burden state finances, potentially limiting investment in other developmental sectors. The chapter underscores the importance of a sustainable subsidy policy that aligns social welfare objectives with economic growth and fiscal stability.

Chapter XI examines the effects of the 14th and 15th Finance Commissions on Assam's financial autonomy, revealing a mixed dependence on central grants. Despite improvements in revenue generation, as shown by a decreasing Grants-in-Aid to Revenue Receipts ratio, external shocks like the COVID-19 pandemic have caused fluctuations, emphasizing the state's ongoing reliance on central support. The analysis also shows a fluctuating fiscal deficit trend, underscoring the need for improved fiscal management. Additionally, targeted social programs such as the *Orunodoi* Scheme and *Atal Amrit Abhiyan* have significantly contributed to women's empowerment and healthcare access, respectively, while green budgeting initiatives aim to enhance climate resilience. Strengthening local revenue generation, minimizing dependency on central funds, and fostering sustainable growth remain crucial for achieving long-term fiscal sustainability and autonomy for Assam.

Chapter XII delves into the challenges of managing Assam's public debt while ensuring fiscal sustainability. It highlights the importance of carefully navigating the complexities of public debt, which, though essential for economic development, can become risky if not handled wisely. The chapter examines trends in Assam's public debt, which grew at a compound annual growth rate (CAGR) of 28.22 percent from 2012–13 to 2021–22, and explores key debt sustainability indicators such as the fiscal deficit/GSDP ratio, debt/GSDP ratio, and interest payments/revenue receipts ratio. Effective debt management involves achieving a balance between fostering economic growth and maintaining fiscal discipline to avoid unsustainable debt levels. Despite the challenges, Assam's commitment to following recommended debt ratios and implementing strategic fiscal plans indicates a strong focus on achieving long-term economic stability while promoting development.

Profile of the State

I. The Economy of Assam

Assam, renowned for its diverse and beautiful landscapes, tea gardens (largest producer in India) and rich cultural heritage, is located in the North-East region of India and the most populous northeastern state while second largest in terms of territory. Assam has a total area of 78,438 sq. km. One noteworthy feature of Assam's geography is that it encompasses three of India's six physiographic divisions: the Deccan Plateau (Karbi Anglong), the Northern Plains (Brahmaputra plain), and the Northern Himalayas (Eastern Hills).

Assam is the 16th largest in terms of area, 15th most populous, 17th rank in terms of GSDP in India. Agriculture is the main driver of Assam's economy. More than 53 percent of the workforce is employed in the agriculture sector, which continues to directly or indirectly support more than 75 percent of the State. The major contributors to Assam's GSDP are agriculture and allied activities, manufacturing, services (the major contributor to the economy of the State) and tea production. Assam is also a major producer of natural gas and crude oil in India.

The State provides a favorable environment for industry because of its relative proximity to the rest of the nation and the availability of quality infrastructure. Although the economy of the State has been growing consistently, there is a need to augment growth further. The State is a shining example of fiscal prudence and debt sustainability. The revenue receipts of the state as a percentage of GSDP has been showing a rising trend.

II. Gross State Domestic Product (GSDP)

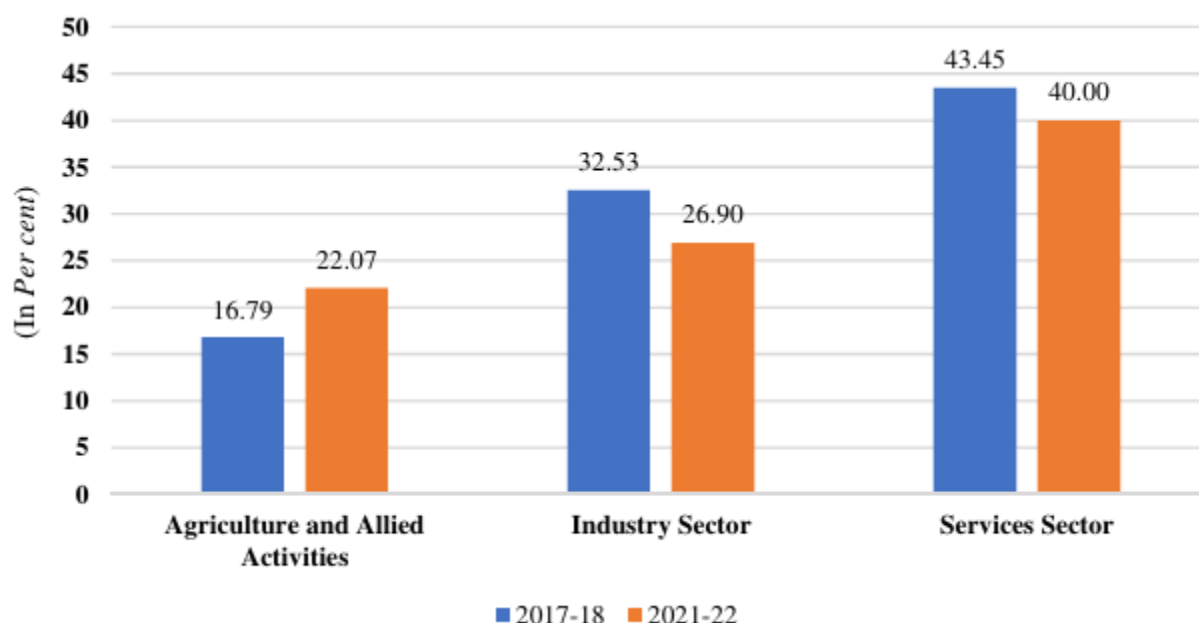
The GSDP of Assam increased from ₹ 2,83,165 crore in 2017-18 to ₹ 4,33,925 crore in 2021-22 registering a CAGR of 11.26 percent against the national CAGR of 8.48 per cent. There were sharp variations which can be observed in GSDP growth rate ranging from 11.31 percent in 2017-18 to -1.9 percent in 2020-21. The sharp fall is mainly due to Covid-19. However, there was a quick recovery of the growth rate of 27.56 percent which can be observed in 2021-22.

Table a: Growth of GDP and GSDP at current prices from 2017-18 to 2021-22 (₹ in crore)

Year	2017-18	2018-19	2019-20	2020-21	2021-22	CAGR
GDP (2011-12 Series)	1,70,90,042	1,88,99,668	2,00,74,856	1,98,00,914	2,36,64,637	--
Growth rate of GDP (in per cent)	11.03	10.59	6.22	(-)1.36	19.51	8.48
GSDP (2011-12 Series)	2,83,165	3,09,336	3,46,851	3,40,177	4,33,925	--
Growth rate of GSDP (per cent)	11.31	9.24	12.13	(-)1.92	27.56	11.26

Source: State Finances Audit Report of the CAG of India for the Year ended 31st March 2022, Report of 2023

Sectoral Contribution to GSDP

Figure a: Change in Sectoral Contribution to the GSDP

Source: State Finances Audit Report of the CAG of India for the Year ended 31st March 2022

During the five-year period from 2017–18 to 2021–22, the relative share of the industry and services sector in the GSDP decreased, while the relative share of agriculture and related activities in the GSDP slightly increased. The rise was mostly attributed to the sector's livestock and forestry components. The COVID-19 pandemic severely disrupted economic activities, particularly in industry and services sectors, due to lockdowns and supply chain interruptions. In contrast, agriculture, especially its livestock and forestry components, demonstrated resilience and continued to operate, contributing to a relative increase in its GSDP share.

III. State's own tax and non-tax revenue

State's own tax and non-tax revenue are inadequate and will remain so in the short to medium term. The State, thus, is overwhelmingly dependent on the transfers from the Central pool.

IV. Assistance from Finance Commission

In 14th FC there was an increase in the share of devolution to 42%. But that increase is not sufficient because -

Firstly, the dissolution of the Planning Commission has implied the removal of the erstwhile Planning Commission's grants to states.

Secondly, the share of post-devolution grants-in-aid from the central to the state governments has declined substantially over the last three FCs.

Table b: Components of State's Own Tax Revenue during 2017-22 (₹ in crore)

Heads	2017-18	2018-19	2019-20	2020-21	2021-22	
					Budget Estimates	Actuals
State Goods and Services Tax	4077.67	8393.04	8755.30	8549.02	11179.74	10579.56
Taxes on Sales, Trades, etc.	6373.00	4698.74	4480.96	5070.97	5721.73	4866.68
State Excise	1095.16	1399.84	1650.03	2039.94	2106.92	1939.07
Taxes on Vehicles	646.96	765.01	815.82	723.98	1041.72	978.21
Stamps and Registration Fees	239.17	240.72	292.65	280.75	373.68	439.46
Land Revenue	219.39	163.22	94.16	116.81	120.24	185.02
Other Taxes ⁴	564.17	26428.00	439.77	352.14	633.52	545.10
Total	13,21532	15924.85	16528.69	17133.61	21177.55	19533.10

Source: State Finances Audit Report of the CAG of India for the Year ended 31st March 2022, Report of 2023

Table c: Tax Expenditure and its composition in Assam(₹in crore)

Parameters	2017-18	2018-19	2019-20	2020-21	2021-22
Total Expenditure (TE)	63477.85	68261.15	79418.86	77006.78	1,02,777.80
Revenue Expenditure (RE)	55480.94	56899.00	65817.28	64519.59	82547.96
Capital Expenditure (CE)	7692.84	11034.08	13185.42	12399.39	20125.83
Loans and Advances	254.07	328.07	316.16	87.80	104.01
Appropriation to Contingency Fund	50.00	0.00	100.00	0.00	0.00
As a percentage of GSDP					
TE/GSDP	22.42	22.07	22.90	22.64	23.69
RE/GSDP	19.59	18.39	18.98	18.97	19.02
CE/GSDP	2.72	3.57	3.80	3.64	4.64
Loans and Advances/ GSDP	0.09	0.11	0.09	0.03	0.02
Appropriation to Contingency Fund/ GSDP	0.02	0.00	0.03	0.00	0.00

Source: State Finances Audit Report of the CAG of India for the Year ended 31st March 2022, Report of 2023

Table d: Details of Central Tax Transfer (₹in crore)

Head	2017-18	2018-19	2019-20	2020-21	2021-22	
					BEs	Actuals
Central Goods and Services Tax	315.80	6223.49	6163.89	5497.76	6726.70	7895.43
Integrated Goods and Services Tax	2251.40	496.70	000.00	000.00	000.00	000.00
Corporation Tax	6829.45	8768.87	7406.13	5648.64	6057.18	8298.61
Taxes on Income other than Corporation Tax	5767.00	6457.89	5803.21	5794.53	6155.23	8272.50
Customs	2250.70	1787.36	1.376.85	964.41	1257.96	2073.20
Union Excise Duties	2352.60	1187.80	957.27	622.41	609.18	1156.10
Service Tax	2534.80	231.85	000.00	086.82	012.83	424.25
Other Taxes	-0.21	61.89	14.09	14.75	-0.26	30.46
Central Tax transfers	22301.54	25215.85	21721.44	18629.32	20818.82	28150.55

Percentage variation over previous year	10.47	13.07	-13.86	-14.24	-	51.11
Percentage of Central tax transfers to Revenue Receipts	41.20	39.72	33.68	28.70	23.40	35.27

Source: State Finances Audit Report of the CAG of India for the Year ended 31st March 2022, Report of 2023

V. State Finance of Assam

At an aggregate level, the expenditure responsibilities of the states (57.4 percent) are more than that of the Union (42.7 percent). Due to the responsibility for key services like healthcare, education, and infrastructure, the states bear a higher share of public expenditure compared to the Union government. Also states implement social welfare programs which require high spending. The revenue mobilization powers are skewed towards the Union because CGST is much more than SGST. In addition, the state has a lot of other flagship programs for development. Assam was successful in containing the fiscal deficit below the threshold fixed under AFRBM Act in three out of the last five years during 2016-17 to 2020-21.

Table e: Changes in key fiscal aggregates in 2021-22 compared to 2020-21

Revenue Receipts	Revenue Receipts of the State increased by 22.98 per cent Tax Revenue of the State increased by 33.33 per cent >> Own Tax Receipts of the State increased by 14.00 per cent >> State's Share of Union Taxes and Duties increased by 51.11 per cent Non-Tax Receipts increased by 23.46 per cent Grants-in-Aid from Government of India increased by 8.81 per cent
Revenue Expenditure	Revenue Expenditure increased by 27.94 per cent Revenue Expenditure on General Services increased by 58.87 per cent Revenue Expenditure on Social Services increased by 14.37 per cent Revenue Expenditure on Economic Services increased by 3.72 per cent Expenditure on Grants-in-Aid to Local bodies decreased by 18.79 per cent
Capital Expenditure	Capital Expenditure increased by 62.31 per cent Capital Expenditure on General Services increased by 66.42 per cent

	Capital Expenditure on Social Services increased by 27.45 per cent Capital Expenditure on Economic Services increased by 70.71 per cent
Loans and Advances	Disbursements of Loans and Advances increased by 18.46 per cent Recoveries of Loans and Advances increased significantly 1,20,973.83 per cent
Public Debt	Public Debt Receipts decreased by 7.08 per cent Repayment of Public Debt increased by 64.20 per cent
Public Account	Public Account Receipts increased by 18.98 per cent Public Account Disbursements increased by I 5.86 per cent
Cash Balance	Cash balance decreased by ₹5.217.46 crore (35.61 per cent)

Source: State Finances Audit Report of the CAG of India for the Year ended 31st March 2022, Report of 2023

Assam needs additional support from the Finance Commission. The below sections will assess the cases of horizontal (allocation between the states) and vertical devolution (share of states in Central taxes).

Horizontal Devolution

Table f: Horizontal Devolution

Criteria	Weights			
	EFC	TFC	THFC	FFC
Population (1971 Census)	10%	25%	25%	17.50%
Area	7.50%	10%	10%	15%
Income distance	62.50%	50%	-	50%
Fiscal capacity distance	-	-	47.50%	-
Fiscal discipline	7.50%	7.50%	17.50%	-
Tax effort	5%	7.50%	-	-
Infrastructure distance	7.50%	-	-	-
Forest cover	-	-	-	7.50%
Demographic change	-	-	-	10%

Notes: Sourced from Reports of respective Finance Commissions;
 EFC-Eleventh Finance Commission, TFC-Twelfth Finance Commission, THFC-Thirteenth Finance Commission, FFC- Fourteenth Finance Commission

In Assam, the overall share of need and cost disability parameters has increased, while the overall share of fiscal capacity and fiscal efficiency has decreased. The FFC has eliminated the parameter of fiscal efficiency, which was increasing in share over the past three FCs. The removal of fiscal efficiency parameters by the FFC is a retrograde step. The increase in weightage on fiscal discipline from the EFC to the THFC may be attributed to the increase in the importance placed on fiscal consolidation. While forest cover is an addition to the cost disability parameters, we also note that owing to the public good nature of forests at the national scale, the FC has also corrected for positive externalities.

The criteria and weightage for distribution among the States of the local body grant may be relooked and reviewed on the basis of present economic status of rural and urban areas of the State. Some of the criteria may be as follows but weightage may be determined on the basis of latest data available.

Vertical Devolution

Table g: Vertical Devolution

Vertical devolution of the 15th finance commission	41 %
Vertical devolution of the 14th finance commission	42 %
Vertical devolution of the 13th finance commission	32 %

Source: Reports of Finance Commission

The Union Government retained an increasing share of proceeds outside the divisible pool, as a result limited resources are available for States.

Increasing Inequalities: Trends in devolution contribute to vertical and horizontal inequalities among States.

Urgent Action Required: The 16th Finance Commission must take serious and innovative steps to address these concerns.

- **Serious Consideration:** The 16th FC must give due attention to the grievances raised by States and take proactive steps to address them.
- **Justice and Equity:** Ensure that devolution mechanisms promote justice, equity, and balanced development across States.
- **Collaborative Approach:** Engage in dialogue and consultation with States to understand their concerns and develop inclusive solutions.
- **Long-Term Vision:** Formulate recommendations that lay the foundation for sustainable and harmonious fiscal federalism in India.

The implementation and monitoring of the recommendations of 14th and 15th FCs are done by various ministries and departments at the Union and state levels, depending on the subject matter and the conditions attached to the transfers. However, the 15th FC strengthened fiscal position of states in the following ways:

- Providing maximum weightage to “income distance” (50 percent) for horizontal distribution of taxes which was based on per capita income of states ensuring more funds for poor states.
- Considering the state’s entire revenue expenditure needs without distinguishing between plan and non-plan expenditure.
- Demographic change
- Forest cover

State-wise Fiscal Parameters

Table h: State-wise Figures on Broad Fiscal Parameters

2023-24 (RE)						
State/Union Territory	Gross Fiscal Deficit (% of GSDP)	Revenue Deficit (% of GSDP)	Total Revenue Receipts	Total Revenue Expenditure	Total Capital Receipts	Total Capital Expenditure
Andhra Pradesh	4.4	2.7	1,73,76,701.2	2,12,44,955.6	5,55,61,162.3	5,16,92,904.3
Arunachal Pradesh	9.6	-14.7	29,31,272.1	23,60,172.3	3,34,37,916.2	3,44,14,067.7
Assam	5.2	0.2	1,17,03,811.7	1,18,43,394.9	1,97,47,896.2	1,97,77,831.5
Bihar	8.9	4.2	2,14,49,425.9	2,50,02,382.4	1,39,85,945.9	1,41,94,820.3
Chhattisgarh	7.3	3.1	1,11,35,000.0	1,27,01,954.6	2,63,18,494.2	2,48,51,520.0
Goa	3.9	-0.9	20,85,262.8	19,94,694.6	31,72,091.5	33,59,756.9
Gujarat	1.7	-0.8	2,15,79,323.7	1,97,17,480.7	5,07,60,507.7	5,24,12,005.4

Haryana	2.8	1.2	1,05,78,693.0	1,18,95,145.4	2,54,66,353.0	2,41,18,649.4
Himachal Pradesh	6.1	2.8	40,44,630.9	46,17,629.8	23,32,335.9	19,13,354.3
Jharkhand	2.5	-1.5	95,22,875.5	88,09,319.2	4,42,52,584.6	4,48,32,056.1
Karnataka	2.7	0.6	2,26,77,989.5	2,40,73,104.0	5,51,68,347.0	5,43,52,709.2
Kerala	3.5	2.1	1,26,83,706.1	1,51,42,237.3	5,03,41,964.1	4,78,89,726.3
Madhya Pradesh	4.0	0.0	2,31,73,328.5	2,31,11,234.4	9,19,50,007.3	9,18,88,915.3
Maharashtra	2.8	0.5	4,86,11,552.9	5,05,64,717.0	8,12,76,803.9	7,93,61,851.7
Manipur	4.5	-10.2	23,62,791.3	18,56,737.9	12,10,438.2	18,12,713.4
Meghalaya	3.5	-7.3	22,18,785.5	18,29,423.8	99,35,326.4	1,03,24,974.1
Mizoram	5.2	-0.6	12,73,000.5	12,50,904.1	17,61,262.1	17,91,636.4
Nagaland	5.8	-0.9	16,58,802.3	16,14,553.6	16,85,929.1	18,16,896.8
Odisha	2.9	-2.6	1,85,50,000.0	1,63,08,942.0	6,82,92,070.8	7,05,33,128.9
Punjab	4.1	3.2	98,93,973.1	1,22,75,146.0	5,67,53,233.8	5,44,62,560.9
Rajasthan	4.3	2.0	2,37,67,191.4	2,67,74,384.3	5,83,96,164.1	5,53,86,130.2
Sikkim	5.2	-1.9	2,96,200.0	8,62,879.5	15,16,023.7	15,89,056.6
Tamil Nadu	3.5	1.7	1,40,150.1	3,17,48,363.9	3,80,47,517.1	3,35,46,121.1
Telangana	3.3	-0.1	1,69,08,958.6	1,67,38,469.5	1,33,55,123.4	1,40,17,748.0
Tripura	4.1	-1.3	22,35,377.3	21,32,028.6	5,91,616.0	7,59,964.6
Uttar Pradesh	3.2	-2.8	5,25,21,784.0	4,54,77,131.9	5,72,85,907.1	6,42,52,303.5
Uttarakhand	2.2	-0.9	54,62,654.1	51,58,520.1	33,66,075.0	36,56,410.2
West Bengal	3.5	1.7	2,36,91,191.5	2,36,91,191.5	12,55,35,475.4	12,27,09,314.7

Source: RBI State Finances: A Study of Budgets of 2024-25

Note: Negative (-) sign in deficit indicators indicates surplus.

Chapter I - An Assessment of Public Revenue

1.1 Introduction

The government of a nation requires a large amount of resources to meet the objective of maximizing social and economic welfare. Public revenue refers to the income of the government generated from all possible sources. These income or receipts neither create any liability nor reduction in assets of the government. They are called revenue receipts. Revenue receipts consist mainly of tax revenue, and non-tax revenue, apart from State's share in the divisible pool of Central taxes and duties and grants-in-aid. Tax revenues are collected through direct taxes and indirect taxes, while non-tax revenues are collected as fees, penalties, grants, escheat, amongst others. Revenue receipts are therefore, repetitive or recurring in nature. According to the Budget Estimates, 2024-25, the total revenue receipts of the Central Government stand at ₹30,01,274.55 crores. Likewise, the Assam Government mobilizes financial resources through State's Own Revenue (SOR), and Central transfers received through State's share of Central taxes and grants-in-aid to meet the expenditure on administration and developmental activities. Growth in own revenue receipts is widely used as an indicator of fiscal capacity, as it reflects the State government's ability to meet its expenditures on its own. Fiscal capacity is the total revenue that a government can realistically raise from the available tax and non-tax base.

Table 1.1: Component-wise Revenue Receipts of Assam (in ₹ crores)

Year	SOR		Central Transfers		Total	
	Tax Revenue	Non-Tax Revenue	Share in Central Taxes	Grants-in-aid	Growth Rate (in percent)	
2012-13	8250.21	2455.59	10601.26	9365.43	30672.49	
2013-14	8994.92	2705.03	11574.52	8938.32	32212.79	5.02
2014-15	9449.81	2412.89	12283.71	14035.08	38181.49	18.53
2015-16	10106.5	2741.57	16784.88	12824.75	42457.7	11.20
2016-17	12079.56	4353.12	20188.64	12598.48	49219.8	15.93
2017-18	13215.52	4071.97	22301.54	14541.91	54130.94	9.98
2018-19	15924.85	8221.29	25215.85	14117.17	63479.16	17.27

2019-20	16528.69	5539.35	21721.44	20705.61	64495.09	1.60
2020-21	17133.61	2899.61	18629.32	27233.65	65896.19	2.17
2021-22	19533.1	3579.75	28150.55	30325.66	81589.06	23.81
2022-23	24502.02	5761.31	29694.26	29784.71	89742.3	9.99
2023-24	30001.66	7010.84	31950.89	45121.31	114084.7	27.12
2024-25 (BE)	74148.41	88712.84	20874.92	28924.13	212660.3	86.41
2025-26 (Projected)	82,571.67	96,821.19	22,885.17	32,973.51	237,265.10	11.57
CAGR (in percent)	11.36	9.14	9.63	14	11.57	

Source: Economic Survey Assam 2016-17; 2021-22; 2023-2024

From the Table 1.1, it is clear that the compound annual growth rate (CAGR) of the total revenue receipts of Assam has been 11.57 percent during 2012-13 to 2023-24. However, the CAGR of the grants in aid to the state has been higher relative to the CAGR of the total revenue receipts. The growth in state's own tax revenue and non-tax revenue have been 11.36 percent and 9.14 percent respectively during the considered period. In the year 2012-13, the major source of revenue for the state of Assam has been Central taxes followed by grants in aid and tax revenue. In the same year, the revenue generated from non-tax sources was only ₹2,455.5 crores. From the period of 2013-14 to 2017-18 the similar trend can be found. However, in 2018-19 after central taxes, tax revenue is the second largest contributor in the revenue receipts followed by grants in aid and non-tax revenue. In the total revenue receipts of the state, grants in aid became the major source of revenue from 2020-21 onwards until 2023-24. One particular reason behind this shift was the necessity of revival of state economy from the effects of COVID-19 pandemic. Besides, Assam being a special category state, sharing international borders, it requires substantial grants from the Centre for ensuring border security, and enhancing border roads construction. Moreover, Assam is a highly flood prone state and the floods in the year 2023 wreaked havoc, taking a huge toll on life and property. To grapple with such disasters, the state is in need of higher grants². The budget estimates of 2024-25 have predicted that non-tax revenue will be the major contributor in the total revenue receipts of the state by generating ₹88,712.84 crores. The revenue receipts of the state for 2024-25 have been projected using the CAGR method and its value is projected to be ₹2,37,265.10 crores. State's Own Non-Tax

²<https://waterresources.assam.gov.in/portlets/flood-management>

Revenue (SONTR) is projected to be the major contributor of revenue receipts of the state followed by State's Own Tax Revenue (SOTR), grants in aid and states' share in central taxes.

During 2021-22, Assam's revenue receipts increased sharply, following the relaxation of lockdown measures and the rebound in economic activity. The surge in revenue collections was driven by increase in tax revenue- both own taxes and tax devolution - as well as non-tax revenue, offsetting reduced grants from the Centre. The revenue receipts to GSDP ratio during 2021-22 was 19.8 percent, own tax revenue to GSDP was 4.7 percent, own non-tax revenue to GSDP was 0.9 percent, and central transfers to GSDP was 14.2 percent.

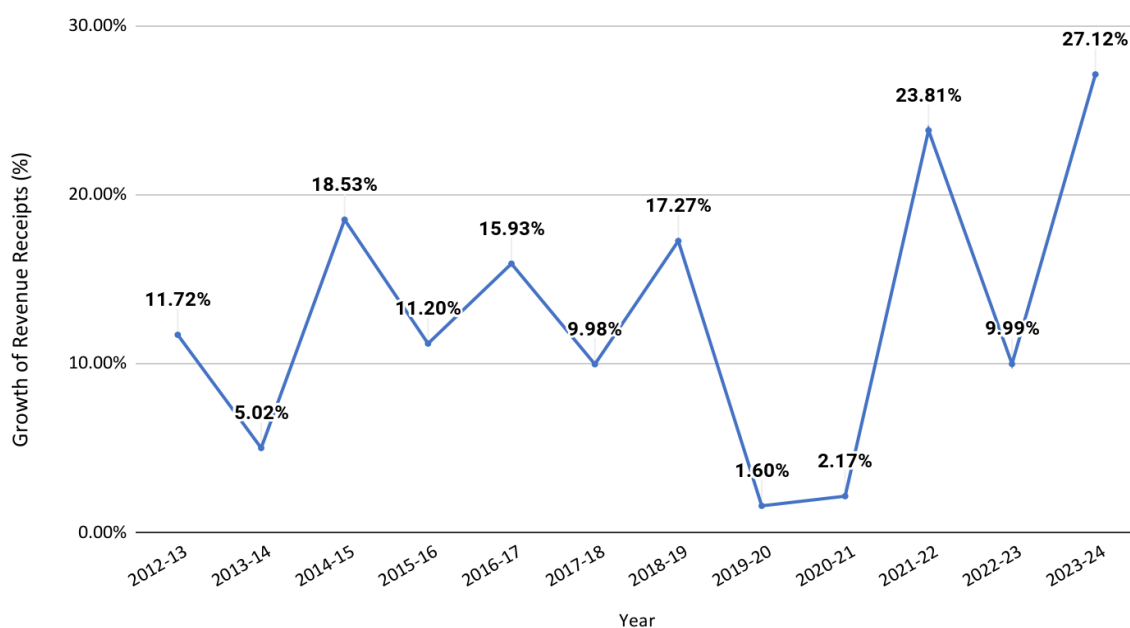
Table 1.2: Revenue Receipts to GSDP ratio of Assam

Year	Revenue Receipts (in ₹ crores)	GSDP (in ₹ crores)	Revenue Receipts to GSDP ratio (in percent)
2012-13	30,672.49	156,864.24	19.60
2013-14	32,212.79	177,745.22	18.10
2014-15	38,181.49	198,098.01	19.30
2015-16	42,457.70	224,233.98	18.90
2016-17	49,219.80	254,382.00	19.30
2017-18	54,130.94	283,165.00	19.10
2018-19	63,479.16	309,336.00	20.50
2019-20	64,495.09	346,851.00	18.60
2020-21	65,896.19	339,803.00	19.40
2021-22	81,589.06	411,454.00	19.80
2022-23	89,742.30	493,167.00	18.20
2023-24	114,084.70	570,243.00	20.00

Source: Calculated from Economic Survey Assam

From the Table 1.2 it is clear that even though there has been a more than three-fold increase in the revenue receipts of the state from ₹30,672.49 crores in 2012-13 to ₹1,14,084.7 crores in 2023-24, the ratio of revenue receipts to GSDP has hovered constantly around 19-20 percent. This implies that in the last decade there has not been a significant change in this ratio for the state of Assam.

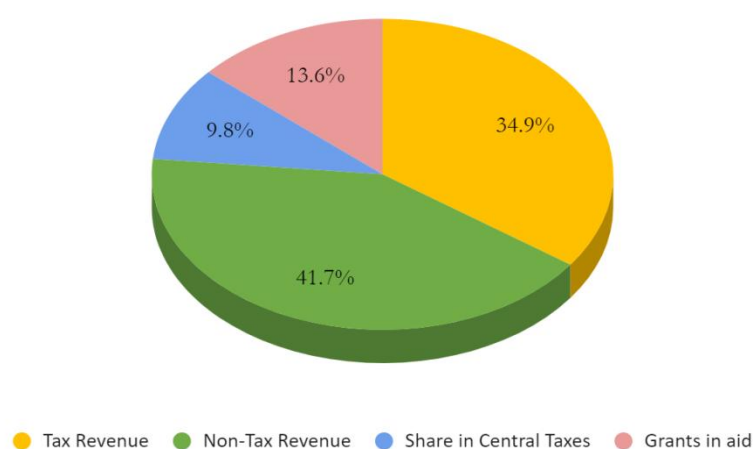
Figure 1.1: Trend of Growth of Revenue Receipts in Assam



Source: Authors' Estimation

Figure 1.1 shows the trend of the growth of revenue receipts in Assam from 2012-13 to 2023-24. It is found that the growth in revenue receipts of the state has been unstable as it grew in one year and then it fell in the succeeding year. The revenue receipts of the state registered the lowest growth of 1.60 percent in the year 2019-20 and it has been the highest in the year 2023-24.

Figure 1.2: Component-wise Revenue Receipts During FY 2024-25 (BE)



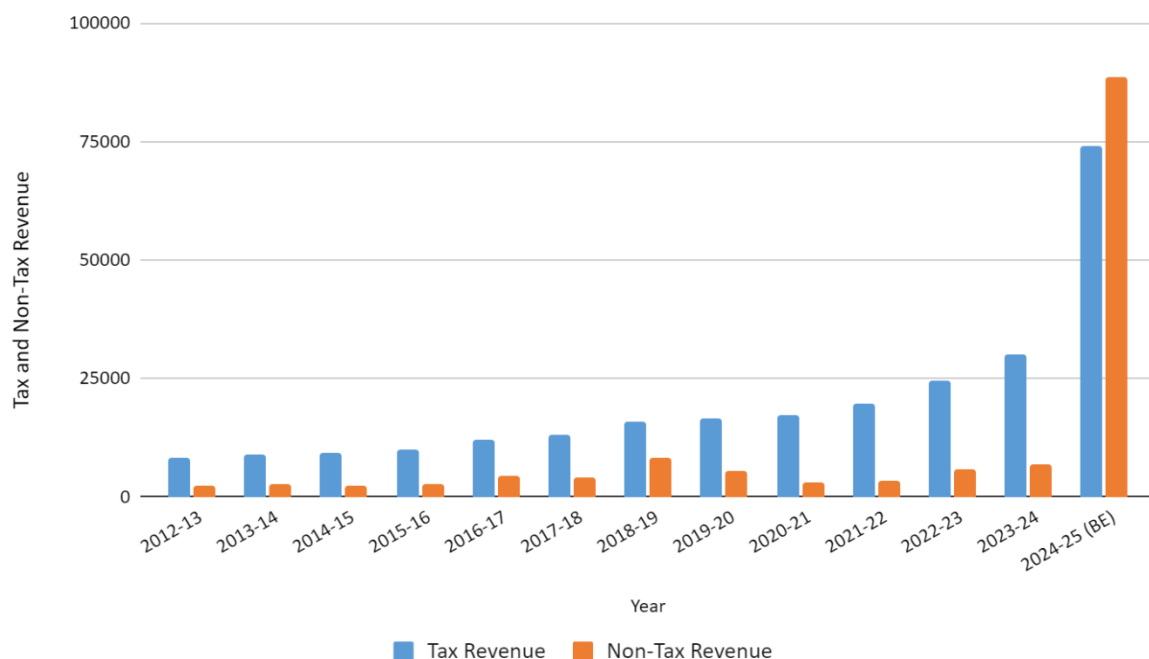
Source: Authors' Estimation

As per the budget estimates of 2024-25 in the total revenue receipts of the state of Assam the contribution of non-tax revenue will be 41.7 percent and that of tax revenue will be 34.9 percent. In the earlier years even though central taxes and grants in aid were the major sources of revenue for the state, over the years their share in total revenue has declined. This clearly indicates the state has been able to generate own revenue and its dependence on central transfers have reduced. For instance, professional taxes, stamp duty and registration fees, and state excise duty have been able to contribute significantly to state's own tax revenue. Oil royalty is a major source of non-tax revenue receipts of the state. However, the subsummation of five major taxes, i.e., VAT, CST, Entry Tax, Luxury and Amusement & Betting Tax under GST have limited the growth of tax revenue receipts of the state and at the same time the share of non-tax revenue receipts have expanded (Government of Assam, Finance Department, 2020-21).

1.2 State's Own Revenue (SOR)

SOR is one of the components of revenue receipts of the state. It is composed of SOTR and SONTR. Tax revenue indicates the revenue generating capacity of the state through taxation and non-tax revenue shows how much the state government has been earning from its investments in Private Sector Undertakings (PSUs) and from fees and charges in exchange for various services.

Figure 1.3: Year-wise State's Own Revenue (SOR) of Assam



Source: Authors' Estimation

From the Figure 1.3, it is clear that the SOTR and SONTR of the state has been expanding over the years. From 2012-13 to 2023-24, SOTR is relatively higher than that of SONTR. However, as per the budget estimates SONTR is likely to be more than SOTR in 2024-25.

In 2018-19, the SONTR has shown a noteworthy growth relative to the previous years. But this growth in SONTR has been short lived due to the COVID-19 pandemic. Major contributors of SONTR during 2020-21 were petroleum, followed by dividends and profits and forestry and wildlife (State Finances Audit Report, Government of Assam, 2021).

1.2.1 State's Own Revenue - GSDP Ratio

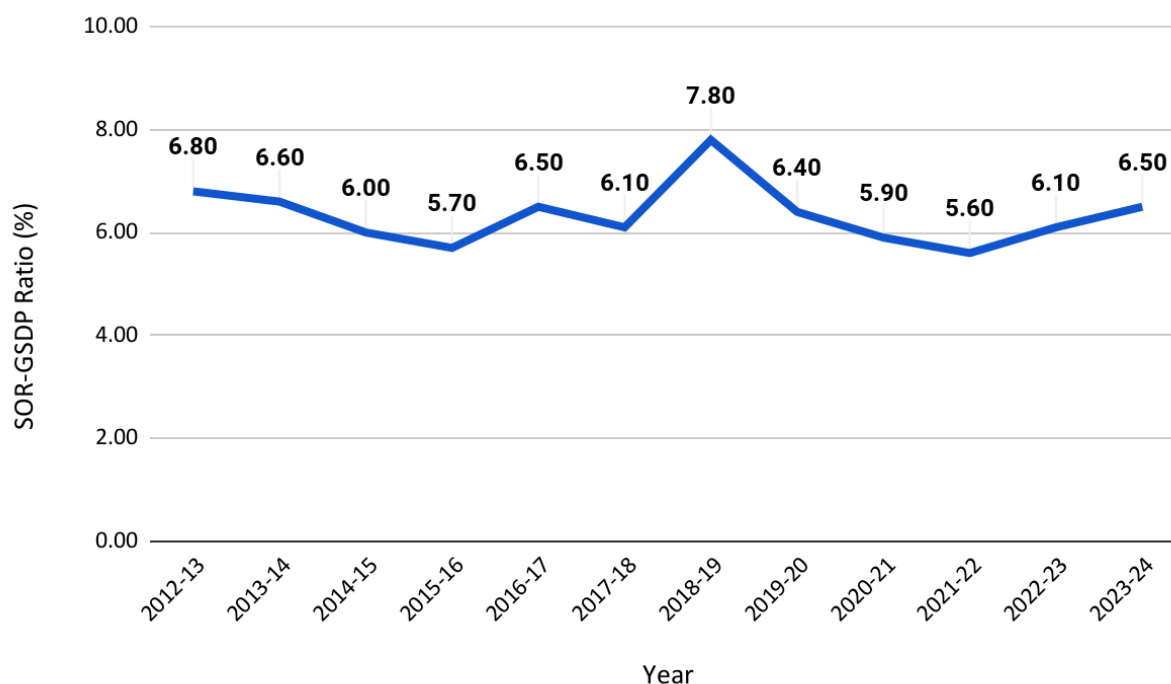
SOR-GSDP ratio serves as a measure of revenue capacity of the state. A higher value implies the state's reduced dependence on the Centre and permits increased development spending by the state. Table 1.3 and Figure 1.3 details the SOR-GSDP ratio of Assam.

Table 1.3: SOR to GSDP Ratio

Year	SOR (₹ Crore)	GSDP (₹ Crore)	SOR-GSDP Ratio (in percent)
2012-13	10,705.80	156,864.24	6.80
2013-14	11,699.95	177,745.22	6.60
2014-15	11,862.70	198,098.01	6.00
2015-16	12,848.07	224,233.98	5.70
2016-17	16,432.68	254,382.00	6.50
2017-18	17,287.49	283,165.00	6.10
2018-19	24,146.14	309,336.00	7.80
2019-20	22,068.04	346,851.00	6.40
2020-21	20,033.22	339,803.00	5.90
2021-22	23,112.85	411,454.00	5.60
2022-23	30,263.33	493,167.00	6.10
2023-24	37,012.50	570,243.00	6.50

Source: Calculated from Economic Survey Assam, related issues

Figure 1.4: SOR-GSDP Ratio of Assam



Source: Authors' Estimation

It is observed that the SOR to GSDP ratio of the state is mostly hovering around 6.5 percent. This ratio is found to be the highest in the year 2018-19 after which it declined until 2022-23.

1.3 Tax Revenue

Tax revenue is the income gained by the government through taxation. Tax revenue is the product of tax rate to a tax base. Total tax revenue as a percentage of GDP indicates the share of the country's output collected through taxes. Tax buoyancy serves as an indicator to assess the effectiveness and responsiveness of revenue mobilization in correlation with the growth of GDP. The buoyancy of tax is calculated as the ratio of the growth in tax revenue to the growth in nominal GDP for a specific year. If the gross tax receipts increase more than proportionally in response to an increase in GDP, the tax system is considered to be buoyant. Taxes are of two types- direct taxes and indirect taxes. Direct tax is paid to the government directly by the person or company on whom it is levied. Examples include income tax, wealth tax, corporation tax and property tax. Indirect tax bears the provision of shifting the incidence of tax by the individual or corporation who is impacted at first instance. GST is an example of indirect tax. Tax revenue to GSDP ratio of the states can be enhanced by the

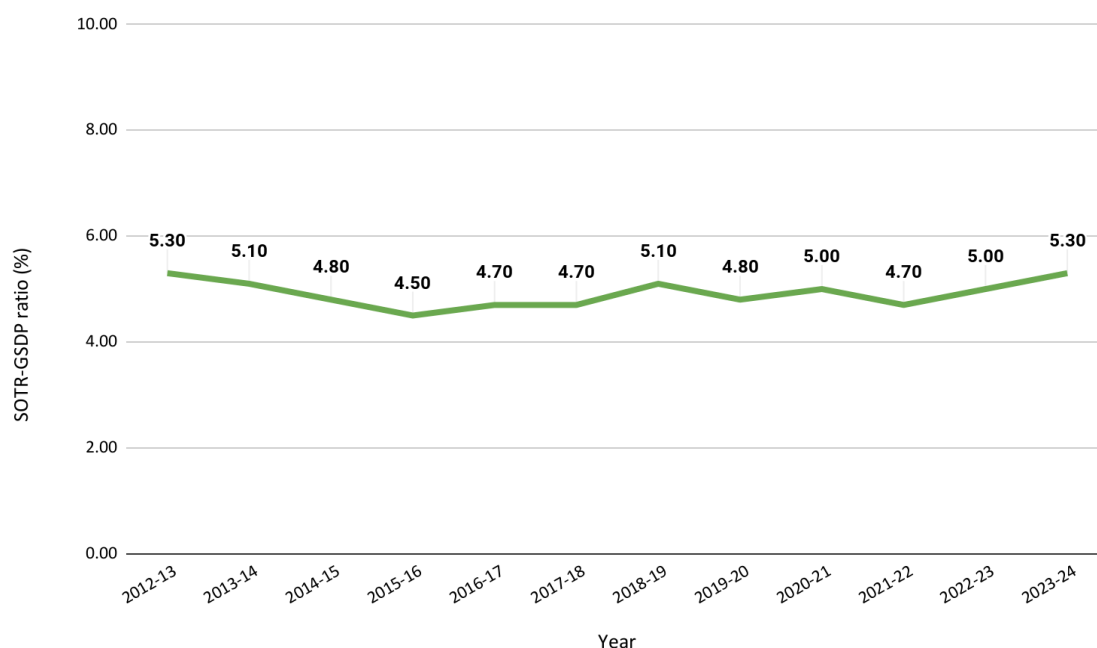
introduction of new taxes, rationalization in the rates and bases of existing taxes, and improvement in tax administration and collection.

Table 1.4: Tax Buoyancy (Tax Revenue to GSDP ratio) of Assam

Year	Tax Revenue (₹ Crore)	GSDP (₹ Crore)	Tax buoyancy (in percent)
2012-13	8,250.21	156,864.24	5.30
2013-14	8,994.92	177,745.22	5.10
2014-15	9,449.81	198,098.01	4.80
2015-16	10,106.50	224,233.98	4.50
2016-17	12,079.56	254,382.00	4.70
2017-18	13,215.52	283,165.00	4.70
2018-19	15,924.85	309,336.00	5.10
2019-20	16,528.69	346,851.00	4.80
2020-21	17,133.61	339,803.00	5.00
2021-22	19,533.10	411,454.00	4.70
2022-23	24,502.02	493,167.00	5.00
2023-24	30,001.66	570,243.00	5.30

Source: Calculated from State Finances: A Study of Budgets, RBI; Economic Survey Assam 2023-2024

Figure 1.5: Trend of Tax Buoyancy in Assam



Source: Authors' Estimation

From the Table 1.4 and Figure 1.5 it is clear that the taxes of the state are not buoyant and tax buoyancy mostly hovers around 4.70 to 5.30 percent. This implies that even though the GSDP of Assam has increased over the years from ₹1,56,864.24 crores in 2012-13 to ₹5,70,243 crores in 2023-24, the state government's tax policy is not quite responsive and due to this the collection of tax revenue is not sufficient enough relative to the growth in economic activities of the state. This may be because agriculture income is a major part of state's GSDP, however, adequate revenue has not been generated from agricultural income tax(RBI, State Finances, Study of Budget, 2024).

1.3.1 Components of Tax Revenue

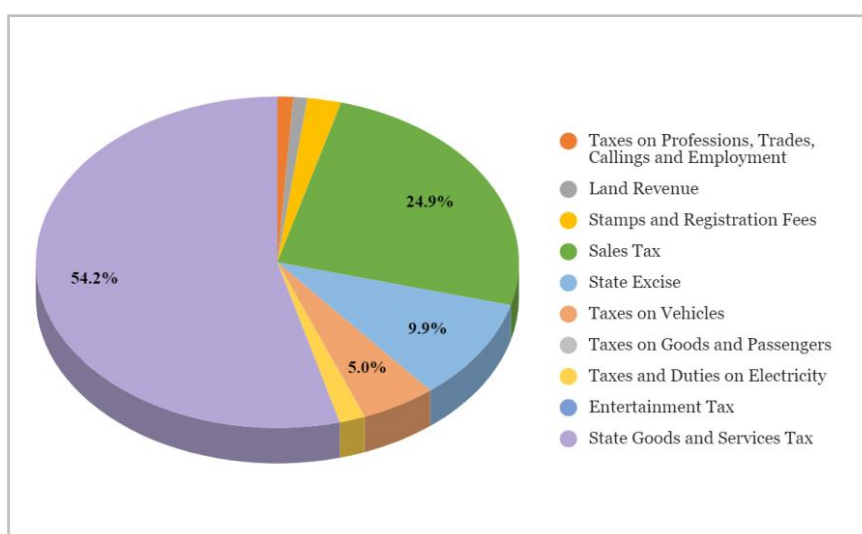
Tax revenue comprises State's Own Tax Revenue (SOTR) and share in Central taxes. At the all-India level, till 2016-17, sales tax/VAT was the largest component of SOTR. From 2017-18, however, SGST has emerged as the most important source, followed by sales tax/VAT, excise duty, stamp duty and registration fees and taxes on vehicles.

Table 1.5: Percentage share of various tax items in SOTR in 2021-22

Tax items in States Own Tax Revenue	2021-22 (AE) (in ₹ crores)	Percentage Share in 2021-22 (in percent)
Agricultural Income Tax	-62.40	0.00
Taxes on Professions, Trades, Callings and Employment	20,680.40	1.06
Land Revenue	18,502.20	0.95
Stamps and Registration Fees	43,946.30	2.25
Urban Immovable Property Tax	—	—
Sales Tax	486,667.70	24.92
State Excise	193,907.30	9.93
Taxes on Vehicles	97,821.30	5.01
Taxes on Goods and Passengers	229.40	0.01
Taxes and Duties on Electricity	33,790.60	1.73
Entertainment Tax	0.30	0.00
State Goods and Services Tax	1,057,956.30	54.16
Other Taxes and Duties	-129.10	-0.01
SOTR	1953310.2	100.00

Source: Calculated from State Finances: A Study of Budgets, RBI

Figure 1.6: Percentage share of components of SOTR



Source: Authors' Estimation

From the Table 1.5 and Figure 1.6, it is observed that State Goods and Services Tax (SGST) is the largest component of SOTR of Assam during 2021-22 followed by sales tax or VAT, state excise duty, stamps and registration fees and taxes on vehicles. The contribution of agricultural income tax, taxes on goods and passengers, and entertainment tax is very insignificant in the SOTR of the state. Income tax collected from the agricultural sector is found to be negative in the year 2021-22 and this can be attributed to the high cost of collecting taxes from this sector that is likely to surpass the revenue generated from the same (Samantara, 2021).

1.3.2 State's Own Tax Revenue

State's Own Tax Revenue (SOTR) is an indicator of revenue mobilization of the state. SOTR has increased from 5.7 percent of GDP in 2003-04 to 6.9 percent of GDP in 2022-23 for the major states (Table 1.2).

Table 1.6: SOTR as a proportion of Overall Tax Revenue

States	2015-16 to 2016-17	2018-19 to 2019-20	2021-22 to 2022-23
	(Pre-GST)	(Post-GST/ Pre-Covid)	(Post-Covid)
Andhra Pradesh	84.30	84.90	86.90
Bihar	81.00	83.00	81.80
Chhattisgarh	76.40	79.50	84.20
Goa	78.80	79.10	78.90
Gujarat	78.70	78.70	78.30
Haryana	75.10	75.10	79.70
Jharkhand	74.50	74.30	78.70
Karnataka	75.60	73.70	73.20
Kerala	63.60	65.90	70.00
Madhya Pradesh	66.20	63.70	64.80
Maharashtra	58.70	60.40	62.40
Odisha	51.90	54.40	54.20
Punjab	50.10	50.50	51.00
Rajasthan	51.10	50.50	49.80

Tamil Nadu	45.60	49.40	54.00
Telangana	46.80	49.40	53.50
Uttar Pradesh	41.40	41.50	45.70
West Bengal	31.50	31.10	29.40
All Major States	62.80	63.60	65.40
Arunachal Pradesh	7.12	11.63	11.00
Assam	38.90	39.31	43.45
Manipur	13.75	21.71	23.92
Meghalaya	25.08	28.03	26.11
Mizoram	12.33	17.51	17.18
Nagaland	13.99	21.01	21.14
Tripura	27.13	31.26	26.71
Sikkim	22.56	27.30	28.23
All North-eastern States	20.11	24.72	24.72

Source: Calculated from State Finances: A Study of Budgets, RBI

From the Table 1.6, it is found that in the pre-GST period, Andhra Pradesh has the highest SOTR as a proportion of their total tax revenue among the major states followed by Bihar. The proportion of SOTR to total tax revenue is nearly the same for the states of Chhattisgarh, Goa, Gujarat, Haryana, Jharkhand and Karnataka. Among the north-eastern states, Assam has the highest share of SOTR with respect to its total tax revenue followed by Tripura, Meghalaya and Sikkim. In the north-eastern states of Manipur and Nagaland the proportion of SOTR is almost the same.

In the post-GST and pre-COVID period even though the proportion of SOTR is the highest for Andhra Pradesh followed by Bihar among the major states, their respective SOTR has increased from pre-GST period. However, it has remained unchanged for Haryana at 75.10 percent. This implies that there has been no contribution in SOTR of Haryana after GST has been into effect. Furthermore, in Jharkhand and West Bengal a reduction in the proportion of SOTR has been seen aftermath the imposition of GST. Among the northeastern states, similar to the pre-GST period, the proportion of SOTR to total tax revenue is still highest for the state of Assam followed by Tripura, Meghalaya and

Sikkim. It can be seen that the share of SOTR in all the northeastern states have increased after the imposition of GST. This implies that GST has increased the tax revenues of the northeastern states.

Among the major states, Andhra Pradesh has the highest SOTR as a proportion of its total tax revenue during the post-COVID period followed by Chhattisgarh. In the post-COVID period the share of SOTR in the total tax revenue has declined in the states of Bihar, Goa, Gujarat, Karnataka, Odisha, Rajasthan and West Bengal. In the northeastern states of Assam, Manipur, Nagaland and Sikkim the proportion of SOTR to total tax revenue has expanded even after the COVID-19 pandemic and it is found to be higher than both pre-GST and pre-Covid times. This indicates that the tax systems of these states can withstand different economic shocks.

1.3.3 Share in Central Taxes

Under Article 280 of the Indian Constitution, the Finance Commission recommends mandatory transfer of resources from the Centre to the States to address vertical and horizontal fiscal imbalances. The distribution of net proceeds of taxes between Union and States is known as vertical devolution and the allocation of such proceeds among the States is known as horizontal devolution. All taxes in the Union List including, income tax, corporation tax, customs, Union excise duties, and service tax are shareable with the States as per recommendations of the 11th Finance Commission since 2000 (Reddy and Reddy, 2019). Successive Finance Commissions have made increments in the devolution ratio, with the 14th Finance Commission recommending State's share of central taxes to 42 per cent. Some of the horizontal devolution criteria includes population, area of the state, demographic change, tax effort amongst others. Although transfers are intended to aid State Governments in undertaking developmental expenditures, it can adversely impact their tax efforts (Jha *et al.* 2000; Kim 2007; Liu and Zhao 2011; Garg *et. al.*, 2016).

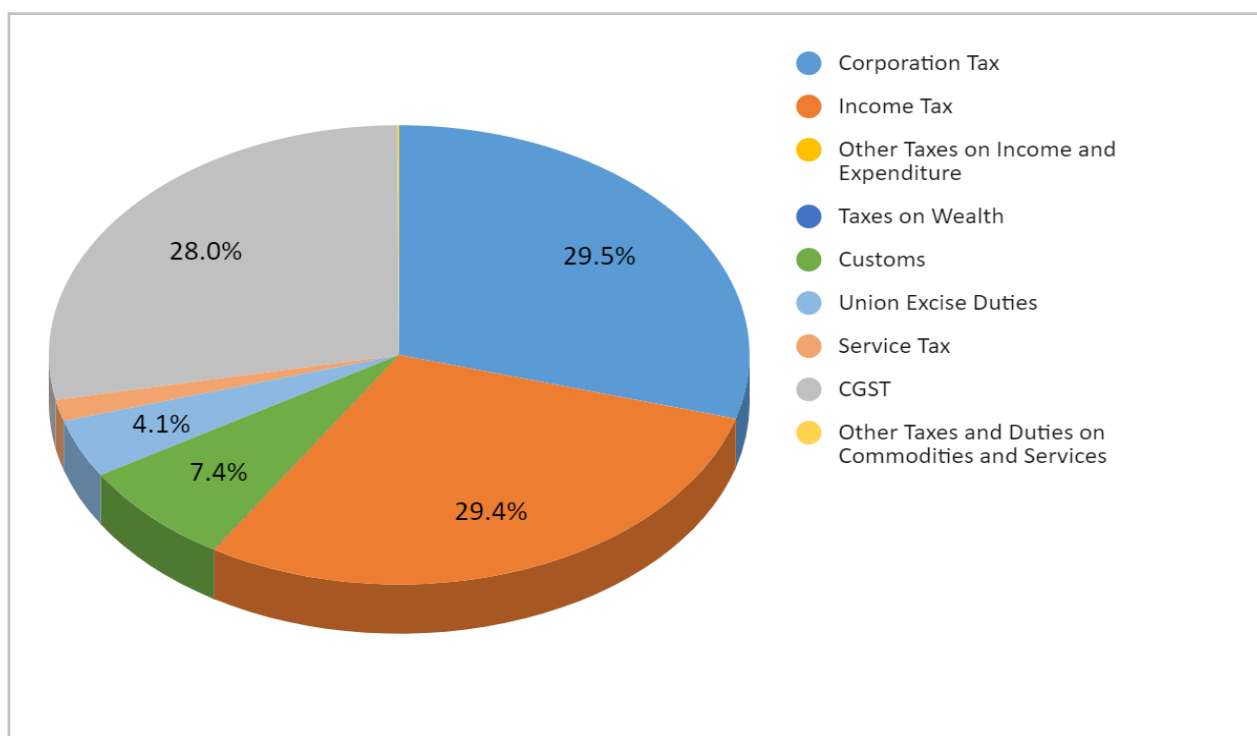
Table 1.7: Percentage share of components of Central Taxes in the Revenue Receipts of Assam

Components of Central Taxes	2021-22 (in ₹ crores)	Percentage Share in 2021-22 (in percent)
Corporation Tax	8,298.61	29.48
Income Tax	8,272.50	29.39
Estate Duty	-	-
Other Taxes on Income and Expenditure	0.06	0.00
Taxes on Wealth	2.05	0.01

Customs	2,073.20	7.36
Union Excise Duties	1,156.10	4.11
Service Tax	424.25	1.51
CGST	7,895.43	28.05
Other Taxes and Duties on Commodities and Services	28.35	0.10
Total Share in Central Taxes	28,150.55	100.00

Source: Calculated from State Finances: A Study of Budgets, RBI

Figure 1.7 Percentage share of components of Central Taxes in Revenue Receipts of Assam



Source: Authors' Estimation

From the Figure 1.7 it is seen that income tax and corporation tax are the major central taxes that make up the highest contribution into the revenue receipts of Assam followed by Central Goods and Services Tax (CGST), customs and union excise duties. The contribution of service tax is found to be only around 1.5 percent and that of other taxes and duties on commodities and services is merely 0.1 percent in the revenue receipts of the state during 2021-22. The component other taxes on income and expenditure have a insignificant contribution and estate duty does not contribute at all in the revenue receipts of the state.

Table 1.8: Percentage change in Assam's share in Central Taxes during Pre GST and Post GST period and Pre-covid and post-covid period

Components of State's share in Central Taxes	Percentage change Pre-GST and Post GST (%)	Percentage change Pre-COVID and Post COVID (%)
Corporation Tax	66.28	-5.36
Income Tax	76.78	28.10
Estate Duty	-	-
Other Taxes on Income and Expenditure	37,958.33	-99.87
Taxes on Wealth	126.06	-36.14
Customs	-33.54	15.99
Union Excise Duties	-47.21	-2.67
Service Tax	-92.02	82.98
CGST	-	26.86
Other Taxes and Duties on Commodities and Services	-3.84	117.91
Total Share in Central Taxes	47.27	13.88

Source: Calculated from State Finances: A Study of Budgets, RBI

From the Table 1.8, it is seen that there has been around 47 percent change in state's share in central taxes during the pre-GST and post-GST period, however, the state's share in central taxes increased by approximately 14 percent during the pre-COVID and post-COVID phase. This indicates that the Central transfers in the form of tax revenue has been high during 2015-16 to 2018-19 relative to the period 2018-19 to 2021-22 to the state of Assam.

During the pre-GST and post-GST period, there has been an enormous percentage change in the contribution from the component other taxes on incomes and expenditure. However, the percentage change in the contribution from customs, union excise duties, service tax and Other Taxes and Duties on Commodities and Services has been negative.

During the pre-COVID and post-COVID phase, the percentage change in the contribution of revenue has been the highest from Other Taxes and Duties on Commodities and Services followed by service taxes. The percentage change in income tax and CGST is almost found to be close.

1.3.4 Suggestions to enhance State's Own Tax Revenue

Sufficient revenue mobilisation of a state is determined by tax effort- the efficiency with which revenues are collected. This depends on several non-economic factors like quality of institutions, administrative strength; and infrastructure of tax departments. Some measures to boost tax effort include tax reforms, institutional reforms for better tax compliance, formalisation of the economy and greater use of technology in tax administration. Finance Commissions have sought to encourage States to increase their tax effort by devising formulae for tax sharing that reward States with superior tax effort. In direct tax collections, the States can raise more revenues through higher stamp duty and registration fees, as pointed out by the 15th Finance Commission. Among indirect taxes, SGST collections which account for more than 40 per cent of own tax revenue, have improved in recent years. In this context, a reduction in the number of slabs, along with adjustments in rates, can improve efficiency and collection (Debroy, 2023).

Several States have reset stamp duty rates, revised fair value of land parcels, and introduced e-stamping/digital stamping of various non-registrable documents. Some States have revised the excise duty on liquor, introduced social security cess on liquor consumption and facilitated digital modes of payment at liquor outlets to boost collections. The most common reforms in motor vehicle taxation include revision of the life tax on vehicles, introduction of green tax/green cess, and implementation of strict enforcement practices by punishing vehicle tax defaulters with hefty penalties. For addressing concerns in GST collections and plugging leakages, the reforms undertaken by States include use of artificial intelligence and machine learning (AI-ML) technology and data analytics, creation of tax intelligence / research units, e-governance and, making e-invoicing mandatory for certain taxpayers.

1.4 Non-Tax Revenue

Non-tax Revenue is the recurring income that is earned from sources other than taxes by the government. These receipts comprise the government's earnings from interest on loans, dividends on investments such as from PSUs, fees and earnings for the services it provides, fines and penalties, and escheats. The components of non-tax revenue are States' Own Non-Tax Revenue (SONTR) and Grants in aid from the Centre.

1.4.1 State's Own Non-Tax Revenue

States' Own Non-Tax Revenue (SONTR) consists of six components namely, general services, social services, economic services, fiscal services, interest receipts, and dividends and profits. Economic services are the major source of non-tax revenue for States and their share in SONTR has increased to around 60 per cent in 2021-22 and 2022-23. General services, social services and interest receipts are the other important components of SONTR. In most of the States, the contributions from fiscal services and receipts from dividend and profit remain insignificant.

Table 1.9: SONTR as a proportion of Overall Tax Revenue

States	2003-04 to 2008-09	2018-19 to 2019-20	2021-22 to 2022-23
	(Post-FRBM/ Pre-GFC)	(Post-GFC)	(Post-Covid)
Andhra Pradesh	13.80	9.10	4.00
Bihar	2.70	2.60	3.50
Chhattisgarh	15.20	13.70	15.40
Goa	37.60	31.30	27.20
Gujarat	14.80	10.50	8.80
Haryana	22.00	12.70	10.40
Jharkhand	15.10	14.30	14.80
Karnataka	11.70	4.90	5.60
Kerala	6.00	10.80	8.40
Madhya Pradesh	12.20	9.80	7.30
Maharashtra	13.00	7.00	6.10
Odisha	12.20	14.00	27.80
Punjab	30.50	11.30	6.20
Rajasthan	12.80	13.80	10.20
Tamil Nadu	8.30	7.40	6.20
Telangana	NA	11.50	8.70
Uttar Pradesh	8.10	11.00	3.90

West Bengal	6.30	3.00	2.60
All Major States	12.00	9.20	7.60
Arunachal Pradesh	37.24	13.34	12.71
Assam	15.74	31.16	9.88
Manipur	12.16	2.45	1.57
Meghalaya	13.76	10.32	8.56
Mizoram	9.41	8.24	13.67
Nagaland	7.10	4.29	7.62
Tripura	37.66	5.17	3.25
Sikkim	7.69	23.68	25.32
All North-Eastern States	17.60	12.33	10.32

Source: Calculated from State Finances: A Study of Budgets, RBI

There is a wide variation in SONTR collection across States (Table 1.9). Before the Global Financial Crisis and post-FRBM Act, the state's own non-tax revenue was found to be the highest for Goa, followed by Punjab and Haryana. For the major Indian states, the SONTR has been around 12 percent of their overall tax revenue. Among the northeastern states the SONTR is almost the same for Arunachal Pradesh and Tripura relative to their tax revenue.

In the post Global Financial Crisis phase, the proportion of SONTR has declined for almost all the major states of the country except Karnataka, Odisha, Rajasthan and Uttar Pradesh. This might be because these are big states and they have relatively diverse and wide sources of non-tax revenue. In the northeastern states of Assam and Sikkim the SONTR has increased, however, a drastic decline in the SONTR for Arunachal Pradesh and Tripura has been noticed.

During the post-COVID period, the SONTR has been highest relative to total tax revenue for the states of Chhattisgarh and Maharashtra. In the same time, the proportion of SONTR with respect to the total tax revenue has declined for almost all northeastern states except for Mizoram, Nagaland and Sikkim.

1.4.2 User Charges

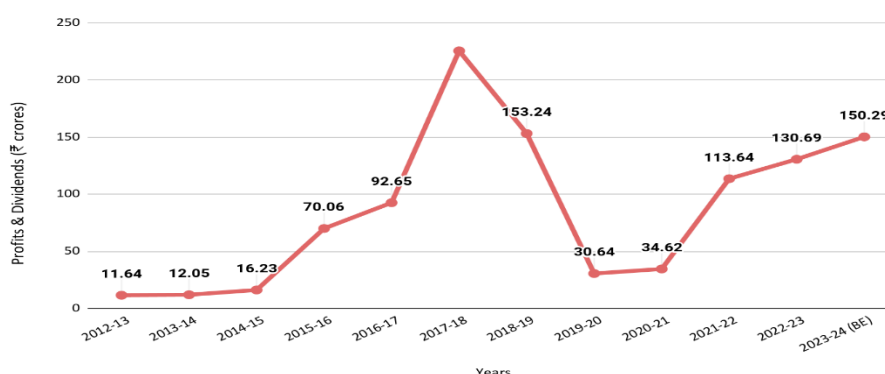
User charges are fees, charges, and assessments levied on individuals or organizations directly benefiting from, or subject to regulation by, a government program or activity. The purpose of user charges is to improve the efficiency and equity of certain Government activities, and to generate revenue by reducing the burden on taxpayers to finance activities whose benefits accrue to a relatively limited number of people, or to impose a charge on activities that impose a cost on the public. User charges that are set to cover the costs of production of goods and services can provide economic efficiency in the allocation of resources within the economy. They allocate goods and services to those who value them the most, and they signal to the Government how much of the goods or services it should provide. Prices in private, competitive markets serve the same purposes. User charges for goods and services that do not have special social benefits improve equity, or fairness, by requiring that those who benefit from an activity are the same people who pay for it. The public often perceives user charges as fair because those who benefit from the good or service pay for it in whole or in part, and those who do not benefit do not pay.

In general, if the benefits accrue broadly to the public, then the program should be financed by taxes paid by the public; in contrast, if the benefits accrue to a limited number of private individuals or organizations, then the program should be financed by charges paid by the private beneficiaries. For example, according to this principle, the benefits from national defense accrue to the public in general and are, therefore, financed by taxes whereas the benefits of piped water supply sold by the municipal corporation accrue exclusively to those using the water, and are, therefore, financed by user charges. The amount of the user charge should depend on the costs of producing the goods or services and the portion of the program that is for private benefits.

The government of Assam provides many services like power, education, health, water-supply and sanitation, minor irrigation, roads and bridges, parks and other recreation facilities from which it collects user charges.

1.4.3 Profits and Dividends

Figure 1.8: Year-wise Profits and Dividends accrued to the State of Assam



Source: State Finances: A Study of Budgets, RBI

The Figure 1.8 shows the profits and dividends earned by the state of Assam from 2012-13 to 2023-24. These profits and dividends majorly come from the PSUs of the state. Some of the major profit-making PSUs of the state are Assam Power Generation Company Limited, Assam Industrial Development Corporation Limited, Assam Petrochemicals Limited and Assam Electricity Grid Corporation (The details are given in section 7.3 and section 7. of Chapter 7). Thus, increase in the amount of profits and dividends indicates the growth of the state's PSUs. It can be observed that the profits and dividends of the state have increased continuously from 2012-13 and it has been the highest in the year 2017-18 after which there has been a significant decline in the profits and dividends earned by the state in 2019-20. However, this decline has been short lived as the profits and dividends again rose up continuously. This implies that the state has taken up effective measures for proper functioning of its PSUs and to ensure that they remain profitable.

1.4.4 Suggestions to enhance State's Own Non-Tax Revenue

Growing demand for public expenditures, limitations in expanding tax capacity and limited scope to deviate from common harmonized indirect tax system under the GST regime have induced States to look for opportunities to expand revenue mobilisation from non-tax sources. A major source is user charges on goods and services provided by them. To augment revenues from non-tax sources, reform measures undertaken by State governments include, inter alia, e-auction of mining leases, royalty revision across different segments of mining minerals, revision of the penal rates to curb secret mining and related activities, land monetisation, revision of water rates for industrial use, and improved

financial management of the State public sector enterprises. Upward revision of electricity tariffs has been implemented by various States to meet the under-recovery. Smart and pre-paid metering in power distribution may help in further improving billing and collection efficiency, with a commensurate impact on lowering Aggregate Technical and Commercial (AT&C) losses³. As per the RE 2023-24, from recovery of loans and advances Rs12.61 crores are generated, however, it is likely to reduce to Rs 11.84 crores as per BE 2024-25 (Finance Department, Government of Assam, 2020-21). Therefore, effective measures must be devised to raise the revenue from interest receipts. Also, revival of the loss incurring PSUs such as Assam Power Distribution Corporation Ltd., Assam State Transportation Corporation (details in section 7.3, Chapter7) will also ensure increased profits and dividends for the state.

As standard of living of people is being upgraded, there is an increased inclination towards leisure and it upholds the fact that there is immense potential of generating revenue from entertainment tax. Area irrigated under major irrigation projects has expanded from 55809 hectares in 2021-22 to 69203 hectares in 2022-23 (Statistical Handbook, Assam, 2023). However, the revenue receipts earned from medium and major irrigation projects in Assam during 2022-23 has been only Rs16.7 lakhs ((RBI, State Finances, Study of Budget, 2024). This indicates that considerable revenue can be generated from this component of tax receipts in the state.

In the case of social services such as education and health which are merit in nature, full cost recovery may not always be possible or desirable. In such cases, user charges should at least recover the operation and maintenance (O&M) costs of infrastructure assets deployed for social services. Proper pricing of water has also assumed importance in view of the fast depletion of groundwater levels and excessive usage/wastage of water in many States. An appropriate pricing of water – for example, volumetric water charges instead of charging a flat rate - would help in economising the use of water and promote environmental sustainability⁴.

1.5 Comparison of State's Revenue at all-India level

In comparison to major Indian states, Assam is not performing well in terms of revenue generation from taxation. In the pre-GST period, the average share of SOTR in the tax revenue of all major India states is found to be around 63 percent whereas for Assam the share of SOTR in overall tax revenue

³<https://eeslindia.org/en/smart-meters/>

⁴<https://www.teriin.org/research-paper/pricing-urban-water-supply>

is found to be around 39 percent. Even after the introduction of GST, Assam's share of SOTR is still low relative to average SOTR share of all the major states.

However, Assam is performing relatively better in terms of generating revenue from non-tax sources. The share of SONTR in total revenue for the state has been higher relative to the average SONTR of all major India states. Particularly during the period after the Global Financial Crisis, Assam's SONTR share lies at around 31 percent whereas the average SONTR share for major Indian states lies at around 9 percent.

1.6 Comparison of State's Revenue with other Northeastern States

Among the northeastern states the SOTR of Assam is relatively the highest, however, its share of SONTR is found to be low relative to Arunachal Pradesh and Tripura in the pre-GST period and that of Arunachal Pradesh, Mizoram and Sikkim in the post-COVID phase. This suggests that the state needs to put in efforts to collect revenue from non-tax sources. This in turn will ensure growth in revenue from State's own sources and thereby will reduce its dependence on Central transfers.

1.7 Comparison of States' Revenue pre and post-GST Period

During the pre-GST period the revenue receipts of Assam grew at around 11 percent and 16 percent in 2015-16 and 2016-17 respectively. However, the growth rate of revenue receipts of the state dipped down to around 10 percent in 2017-18 when GST was introduced. But in 2018-19 the revenue receipts grew at a higher rate relative to the pre-GST period. The SOTR of the state has increased from ₹10,106.5 crores in 2015-16 to ₹15,924.85 crores in 2018-19. Even though there has been an increase in SONTR, States share in Central Taxes from pre-GST levels, the SONTR has declined in 2017-18 relative to the preceding year. Due to the introduction of GST, the revenue receipts of Assam have increased from ₹42,457.7 crores in 2015-16 to ₹63,479.1 crores in 2018-19.

1.8 Conclusion

In conclusion, between 2012–13 and 2023–24, the revenue receipts of Assam have increased significantly but the revenue contributions from different components of revenue receipts are found to be quite uneven. Initially, the primary revenue source of the state was states' share in central taxes, but from 2020-2021 onwards grants from the central government became the main source of revenue for the state. This shift is likely attributed to the central government's intervention initiatives undertaken during the COVID-19 pandemic. By 2024-25, non-tax revenue is projected to become the largest revenue source for the state.

The SOTR has grown at a higher rate relative to SONTR. However, the SOTR to GSDP ratio, also known as the tax buoyancy of the state, is very low and this indicates that the state's tax policy has not fully capitalized on the economic growth. The State Goods and Services Tax (SGST) makes up the largest portion of SOTR. Comparing Assam's performance with other states, particularly in the post-GST and post-COVID periods, reveals that Assam's SOTR proportion to total tax revenue is the highest among northeastern states and has increased post-GST. This suggests that imposition of GST has positively impacted the tax revenues generation of the Northeastern states, particularly Assam. Furthermore, the resilience of Assam's tax system during the post-COVID period indicates its capacity to withstand economic shocks, positioning the state well for future fiscal stability. However, there is a need for policy reforms to enhance revenue generation, particularly by introducing new taxes, rationalizing existing ones, and improving tax administration. For instance, plantation tax can be introduced in the state. Assam is known for its tea gardens and the tea leaves have a higher valuation than tea dust. Therefore, tax can be imposed on tea plantations that specifically supply tea leaves and the revenue generated can be utilized for upliftment of tea communities and development of these areas. There has been production of 56847.67 MT of rubber in the state in 2022-23 (Statistical Handbook, Assam, 2023), hence, there is potential to impose tax on income generated from rubber plantation as well.

Over the years, with growing population and rising aspirations, the demand for public expenditure is also increasing. To incur public expenditure, there should be a required flow of receipts as well. However, given the limitations of the state in increasing its tax capacity, non-tax revenues become a more reliable source of raising the revenue of the state. Non-tax revenue not only complements the tax revenues but it has the potential of improving the financial health of the states. In Assam, strategic management of public sector undertakings (PSUs) has resulted in growth of profits and dividends. Moreover, the Assam government offers various public services to its citizens and earns user charges from it.

Even though tax revenue is found to be the primary contributor in the SOR of the state, the states' non-tax revenue generation capacity is even better relative to major Indian states. Therefore, the state should focus on reforming its tax generation capacity as well as try to maximize its revenue from non-tax sources. This in turn, will help the state to be self-sufficient in terms of fulfilling the demand of public expenditure. Moreover, this not only reduces the states' dependence on Central funds but also facilitates the Central government to allocate its resources more judiciously.

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Chapter II - Pattern in the Public Expenditure

The pattern in the expenditure is one of the important measures to understand the fiscal health of a state. Expenditure on different segments under the broad head of revenue and capital expenditure highlights the priority or importance of the state on different segment. It also indicates sustainability in the state finance in future. The Reserve Bank of India (RBI) compiles the state finances and publishes annual publication i.e., the State Finances: A Study of Budgets which releases different data on state finances.

2.1 Revenue Expenditure

Table 2.1 presents the share of revenue expenditure (RE) and capital expenditure (CE) in the total expenditure (TE) for the state of the Assam during the period 2012-13 to 2023-24. It is observed that the share of RE in the TE has continuously declined from about 92 percent to about 82 percent. During the same period, CE increased from about 8 to 18 percent. **Rising share of CE and a declining RE in the TE indicates that the state is in the path of fiscal consolidation.** Moreover, a similar trend can be observed when the RE and CE are assessed in terms of percentage to the GSDP.

Table 2.1: Composition of Revenue and Capital Expenditure and Growth Rate

Year	Revenue Expenditure	Annual Growth	Capital Expenditure	Annual Growth
2012-13	91.75 (20.51)		8.25 (1.84)	
2013-14	90.88 (19.92))	9.72	9.12 (1.99)	22.54
2014-15	90.89 (22.60)	22.22	9.11 (2.26)	21.97
2015-16	93.22 (18.38)	-5.28	6.78 (1.33)	-31.21
2016-17	89.97 (22.19)	33.37	10.03 (2.47)	104.46
2017-18	87.82 (21.86)	12.39	12.18 (3.03)	39.81
2018-19	83.75 (20.56)	2.55	16.25 (3.98)	43.43
2019-20	83.31 (21.16)	15.67	16.69 (4.23)	19.49
2020-21	83.87 (21.27)	-1.97	16.13 (4.08)	-5.96
2021-22	80.39 (22.53)	27.94	19.61 (5.49)	62.31
2022-23	88.38 (25.67)	16.74	11.62 (5.83)	-8.71

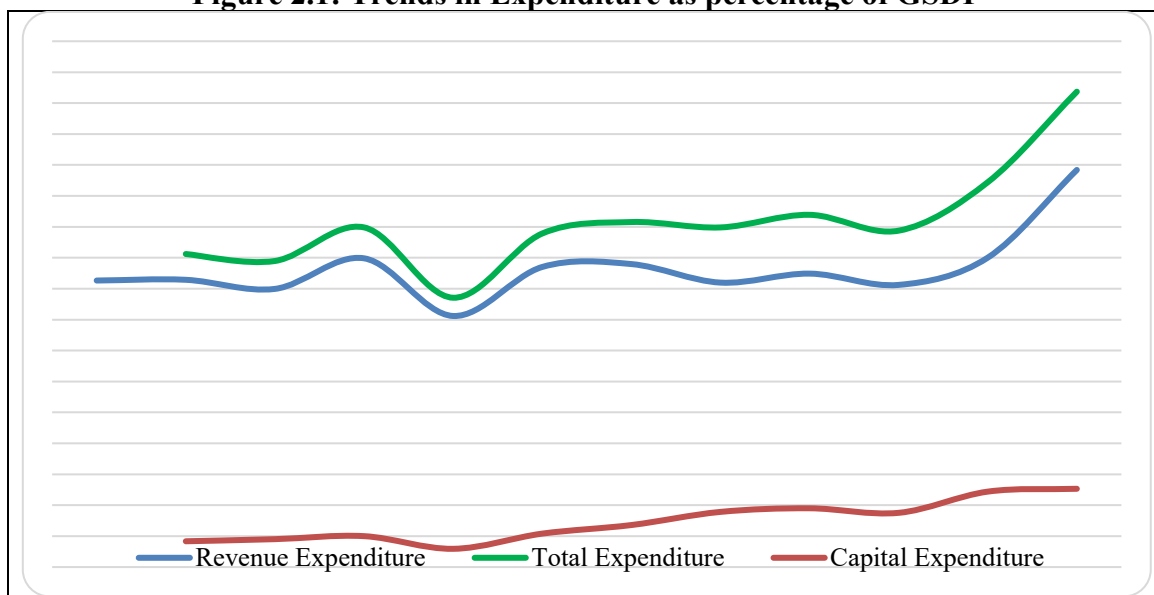
2023-24	82.37 (22.83)	15.53	17.63 (4.88)	29.67
CAGR		13.92*		22.23*

Figures in bracket are percentage to GSDP

*Compound annual growth rate during 2012-13 to 2013-24

Figure 2.1 highlights that there is a continuous rise in the CE from approximately 2 to 5 per cent while the amount of RE as percentage to the GSDP remained constant in the range of 18-22 per cent except the year 2023. **Rising share of CE and in terms of percentage to NSDP thereby highlights the improvement in the quality of expenditure in the state.**

Figure 2.1: Trends in Expenditure as percentage of GSDP



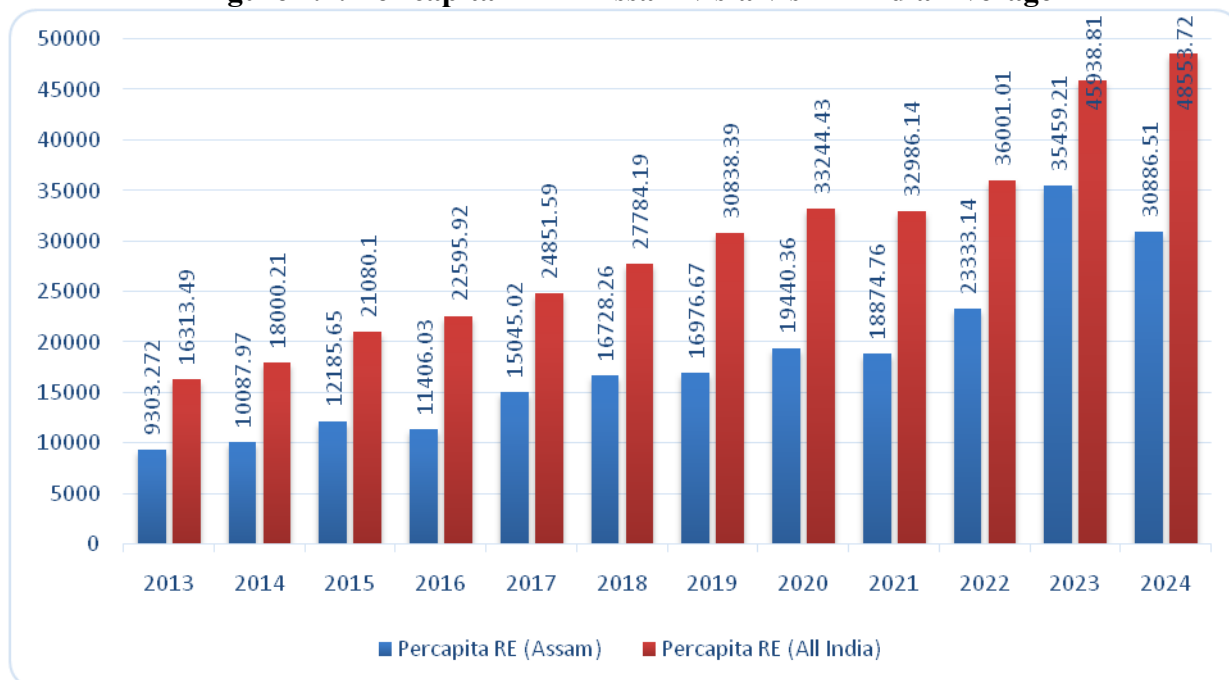
Source: Authors' Estimation

Note: Revenue Expenditure and Total Expenditure are shown in the left axis

Whereas Capital expenditure is measured on the right axis

Figure 2.2 presents a comparison of per capita RE for Assam and the all-India average. The figure clearly indicates a rising trend in the per capita RE across all state on an average. A similar trend is observed in Assam as well. However, it is evident that the per capita RE in Assam is significantly below compared to the national average. For example, the state spends about ₹9,300 per person in 2012-13 while during the same year, the all India average per capita RE was more than ₹16000. Similarly, in the year 2023-24, compared to the national average of ₹48,553, Assam spends ₹30,886 only.

Figure 2.2: Per capita RE in Assam vis-à-vis All India Average



Source: Authors' Estimation

The RE is broadly composed four components. These include expenditure on general services, social services, economic services and grants in aid. The pattern of RE across different components are presented in Table 2.2.

Table 2.2: Percentage distribution of different components of Revenue Expenditure

Year	General services	Social services	Economic services	Grants in aids
2012-13	36.15	38.78	15.77	9.30
2013-14	34.04	41.65	15.86	8.45
2014-15	33.07	46.29	18.11	2.54
2015-16	34.9	47.93	16.86	0.31
2016-17	34.69	45.93	18.06	1.32
2017-18	39.76	38.52	21.49	0.23
2018-19	37.01	44.53	17.98	0.48
2019-20	33.96	44.15	21.33	0.56
2020-21	35.48	44.97	18.97	0.58
2021-22	44.06	40.20	15.37	0.37
2022-23	36.06	49.18	14.18	0.58
2023-24	38.34	46.63	14.13	0.90
CAGR	13.56	14.86	11.84	-7.95

Source: Authors' Estimation

The pattern in the expenditure shows that the state has significantly increased its spending on social services as percentage to the total RE. In contrast, the spending on economic services shows a marginal decline whereas a small increment in the spending is noted in general services. Moreover, it is observed that during the reference period, the ratio of development expenditure (social and economic services) is more than that of non-development expenditure. Except the year 2021-22, share of development expenditure remain 60 per cent or above. This is an encouraging sign for the state as percentage of development expenditure within the RE remained consistently for the state.

Within the general services, expenditures on organs of state, fiscal services administrative services are binding in nature and government has little control in such expenditure. The percentage share of expenditure on different components of general services is presented in table 2.3. It is noted that expenditure on interest payments and servicing of debt has remained around 20 per cent in most of the years. In 2015-16, a spike in the share of revenue expenditure on interest payments and servicing of debt is observed. In that year, out of total expenditure on general services, 36 per cent was spent on interest payment and debt servicing. In the subsequent years, it moderated before increasing to about 25 per cent in the year 2023-24. However, as measured in terms of CAGR, interest payment and servicing of debt grew by more than the growth rate overall RE. This highlights the need for a careful analysis for any future government borrowings.

Table 2.3: Revenue Expenditure of Government of Assam on General Services

Year	Organs of State	Fiscal Services	Int. Payments and Servicing of Debt	Admin. Services	Pensions	Misc. Gen. Services
2012-13	2.40	2.73	21.35	34.12	35.87	3.53
2013-14	3.16	2.62	21.51	33.49	39.18	0.04
2014-15	2.30	3.08	19.12	31.10	40.53	3.88
2015-16	2.16	3.16	36.25	19.09	39.37	-0.04
2016-17	2.39	2.72	18.33	36.43	38.34	1.78
2017-18	1.75	2.58	15.48	26.38	37.57	16.23
2018-19	2.73	3.95	19.34	29.83	38.52	5.63
2019-20	2.42	4.44	21.11	26.98	42.99	2.06
2020-21	3.34	3.60	23.15	25.58	45.12	-0.79
2021-22	1.54	3.43	17.87	28.77	47.36	1.04
2022-23	2.05	3.22	20.90	35.29	37.02	1.52
2023-24	2.50	3.65	25.33	29.53	37.97	1.01
CAGR	13.97	16.62	15.34	12.05	14.15	1.38

Source: Authors' Estimation

As reported in Table 2.4, within the broad category of social services, the largest chunk of expenditure incurred in Education, Sports, Art and Culture. As on 2023-24, about 42 percent of the total resources spent on social services are allotted to this segment. However, the share of spending has continuously declined from more than 61 per cent in 2012-13 to 42 per cent in 2023-24. The other important segments according the share of expenditure are housing, medical and public health, social security and welfare, urban development, Welfare of Scheduled Castes, Scheduled Tribes and OBCs etc. Similarly, the trend and composition of expenditure in different segment within the broad categories of economic services are presented in Table 2.5. Data presented in Table 2.5 shows that agriculture and allied services has remained the major segments in terms of expenditure as about 31 per cent of the resources allotted for the broad category of economic services are spent on this segment. The rural development is the second largest segment where 28 per cent of the resources are spent. Other important segments in terms of share of expenditure are transport and communication, irrigation and flood control and industry and minerals. One important point to note here is that the CAGR of expenditure on agriculture and allied services are about 10 and 8 per cent respectively which are below than the CAGR of overall RE. This is an indication declining importance in these segments in terms of their expenditure.

Table 2.4: Revenue Expenditure of Government of Assam on Social Services

Year	Education, Sports, Art and Culture	Medical And Public Health	Family Welfare	Water Supply and Sanitation	Housing	Urban Development	Welfare Of Scheduled Castes, Scheduled Tribes and OBCs	Labour and Labour Welfare	Social Security and Welfare	Nutrition	Relief On Account of Natural Calamities	Others
2012-13	61.41	11.86	1.64	2.95	0.11	1.76	5.54	1.12	8.59	1.94	2.58	0.49
2014	63.08	11.34	1.39	2.72	0.10	2.00	4.14	1.08	6.66	3.26	3.75	0.46
2015	61.72	9.38	1.17	4.31	4.79	1.29	3.13	0.85	6.10	2.61	4.20	0.43
2016	60.37	14.84	1.26	3.57	6.24	0.29	1.21	0.43	6.61	2.16	2.42	0.59
2017	55.81	12.81	1.14	4.22	6.13	3.10	3.40	0.39	3.54	1.42	7.64	0.40
2018	65.92	18.29	1.41	1.83	8.57	2.79	3.01	0.54	4.03	1.17	-7.98	0.42
2019	61.61	15.55	1.24	2.54	0.39	2.59	6.51	0.86	4.58	1.80	2.07	0.27
2020	54.42	15.55	1.13	2.31	5.32	3.34	7.15	0.56	5.32	2.73	1.93	0.26
2021	56.31	18.60	1.15	2.07	5.82	3.13	2.15	0.47	5.37	2.49	2.14	0.32
2022	54.11	18.63	1.09	1.65	6.31	4.52	3.67	0.52	5.38	1.96	1.80	0.36
2023	38.48	11.22	0.70	1.04	24.66	6.94	4.89	0.35	3.98	1.91	5.58	0.26
2024	42.03	12.05	0.86	1.26	13.14	7.01	6.32	0.42	11.91	1.97	2.75	0.27
CAGR	10.97	15.02	8.35	6.36	76.98	30.24	16.24	5.15	18.32	15.03	15.55	8.61

Source: Authors' Estimation

Table 2.5: Revenue Expenditure of Government of Assam on Economic Services

Year	Agriculture and allied services	Rural development	Special area programmes	Irrigation and flood control	Energy	Industry and minerals	Transport and communications	Science, technology and environment	General economic services
2013	38.40	16.26	1.81	13.28	0.47	6.92	15.78	0.17	6.91
2014	29.85	18.37	5.32	11.59	2.99	5.96	21.12	0.57	4.21
2015	29.51	23.39	2.14	10.36	1.61	5.58	20.88	0.31	6.23
2016	26.72	28.65	2.08	10.73	61.00	9.31	19.43	0.12	22.49
2017	28.38	18.69	3.28	8.63	4.70	4.86	25.80	0.24	5.43
2018	24.36	26.12	3.72	7.10	13.11	5.95	14.56	0.24	4.84
2019	28.30	19.38	0.99	8.36	16.05	5.53	14.18	0.29	6.92
2020	27.23	38.85	0.07	6.23	10.01	3.18	10.08	0.17	4.18
2021	29.44	29.66	1.24	7.21	11.05	2.91	11.65	0.19	6.66
2022	32.80	28.02	0.70	7.31	10.25	6.42	11.04	0.14	3.31
2023	33.84	26.31	1.38	8.96	6.69	7.28	11.53	0.12	3.89
2024	31.24	28.72	0.85	8.87	4.94	6.97	13.53	0.30	4.57
CAGR	9.76	17.77	4.41	7.80	38.61	11.91	10.28	17.92	7.72

Source: Authors' Estimation

One important dimension in the component of RE is the proportion of committed expenditure within the total RE. Committed expenditure comprises of expenditure on salaries, pensions, interest payments and subsidies. The government has limited control over committed expenditure. Table 2.6 presents the share of committed expenditures and its components to the total RE.

Table 2.6: Committed expenditure as percentage to revenue expenditure

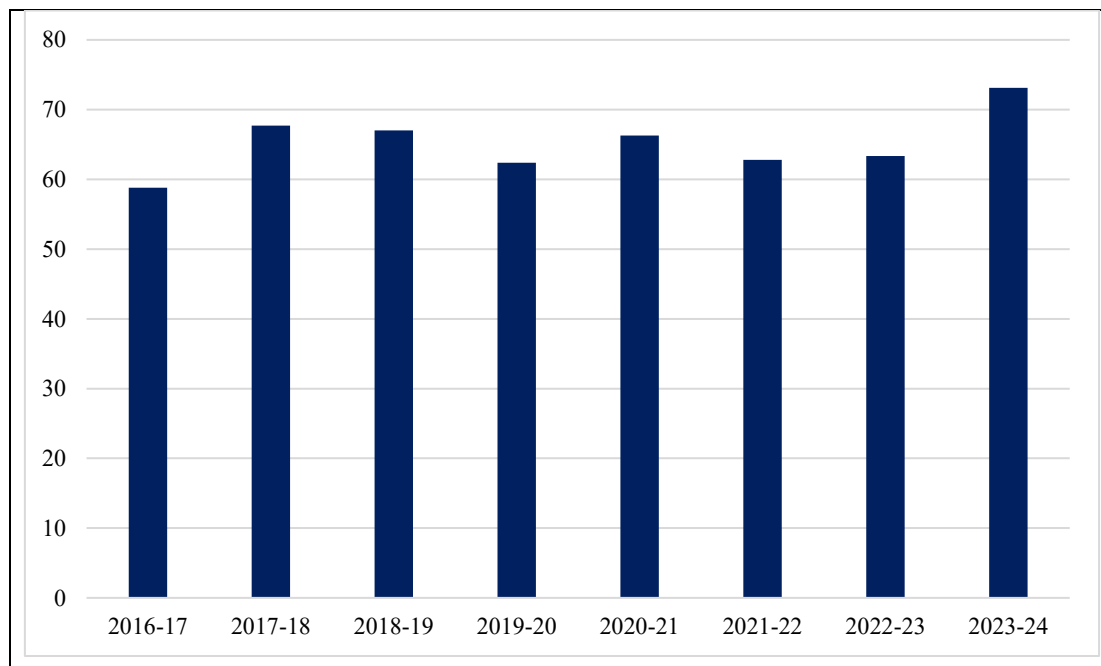
Year	Salary	Interest Payment	Pension	Total
2016-17	39.50	6.00	13.29	58.8
2017-18	46.98	5.77	14.93	67.69
2018-19	46.00	6.75	14.25	67.02
2019-20	41.03	6.74	14.59	62.37
2020-21	42.19	8.05	16	66.26
2021-22	34.59	7.33	20.86	62.79
2022-23	44.03	5.95	13.34	63.32
2023-24	50.62	7.91	14.55	73.1
CAGR	16.37	16.84	13.78	15.86

Source: Authors' Estimation

In Assam, within different segment of committed expenditure, bulk of the resources is spent on salary, which shows a continuous increase from 39.5 per cent to 50.62 per cent during 2016-17 to 2023-24. The increase in expenditure on interest payment from 6 per cent to about 8 percent also reveals the rising burden on interest payment for the state. Overall, the state spends about 15 per cent out of the total RE on payment of pension. It is observed that on an average committed expenditure increase at a rate of about 16 per cent per annum. The average annual growth rate from salary, interest payment and pension are approximately 16, 17 and 14 per cent respectively. This highlights that the committed expenditure for the state of Assam is rising faster than the rate of overall growth rate of RE.

Figure 2.3 presents the share of committed expenditure in the total RE in Assam. The pattern in the expenditure shows that the committed expenditure ranges between 60 to 70 per cent during 2017-18 to 2020-23 which further increased crosses 70 per cent of the RE in the year 2023-24. Therefore, about one-third of the RE is left for other purposes. This clearly shows the shrinking space for expenditure for the state government in Assam.

Figure 2.3: Committed Expenditure as percentage of RE

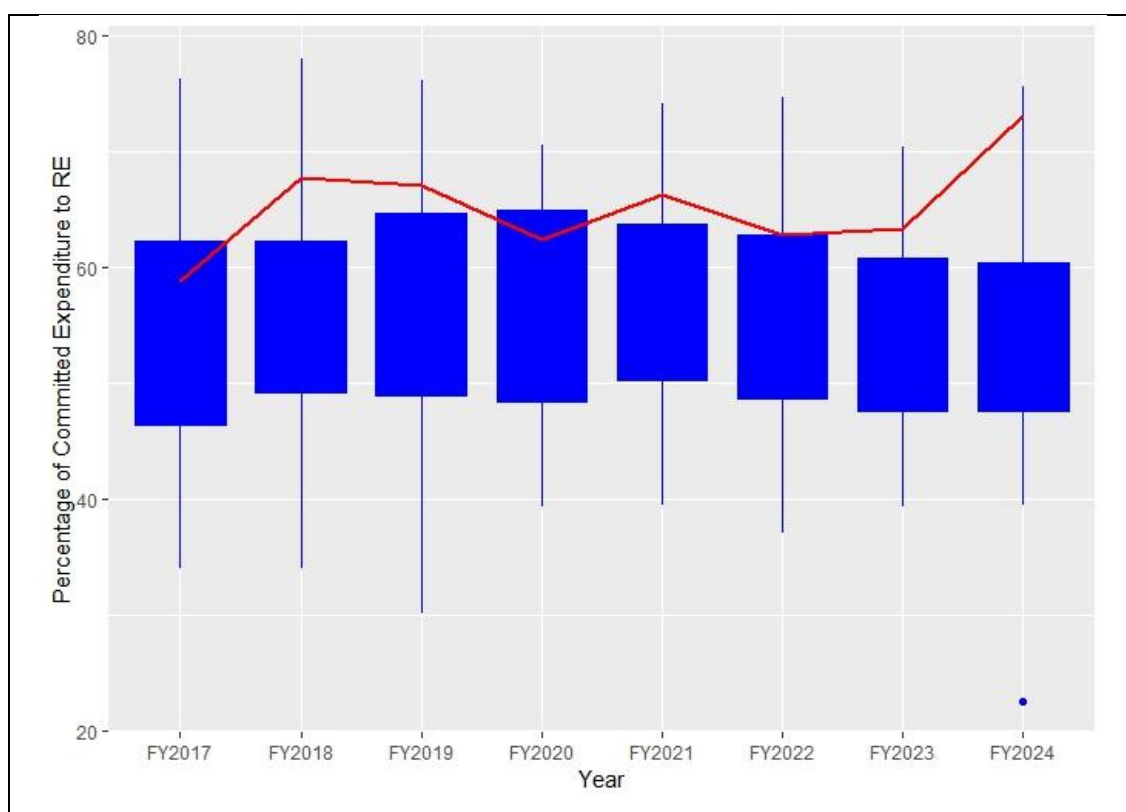


Source: Authors' Estimation

The status of Assam in terms of committed expenditure can be better understood by comparing the same with other states in India. To do so, box plots showing percentage of committed expenditure to RE over period 2017-2024 are presented in Figure 2.4 The figure shows that committed expenditure comprises the bulk of the share in the total RE for most of the states.

Barring a few exceptions, committed expenditure to RE across states in India ranges between about 40-70 per cent since 2019-20. The committed expenditure to RE in Assam always remained high as it can be seen from the box plots where except 2016-17, 2019-20 and 2021-22, Assam is one of the top 25 per cent states which spends the largest share on committed expenditure (as shown by the red line). In 2023-24, a further spike in the committed expenditure can be seen in Assam. Increasing committed expenditure is an indication of rising fiscal burden to the state of Assam.

Figure 2.4: Committed Expenditure as percentage to Revenue Expenditure
Assam vis-à-vis other states



Source: Estimated using data from CAG report

Note: Red line shows the share of committed expenditure to RE in Assam. The blue dot in the year 2024 represents Maharashtra where the data related to salary was not available

Unlike the capital expenditure, revenue expenditure not associated with direct asset creation, yet it is crucial for welfare of the population, maintenance of assets and meeting the debt servicing obligations. However, it is important that Government makes effort for reducing revenue expenditure and increase the share of capital expenditure to achieve faster economic growth.

2.2 Capital Expenditure

It is already highlighted that the share of CE in the total expenditure has been sharply increasing in the state. As reported in Table 2.7, the share of CE to TE increased from about 8 to 18 percent of the total expenditure during the reference period. In absolute value, capital expenditure increased from approximately ₹4,610 crores to more than ₹28,418 crores with CAGR of about 18 percent per annum during the period 2012-13 to 2023-24. This is an indication of improvement of quality of expenditure in the state. Within the broad category of CE, share of economic services is the highest. As on 2023-24 more than 60 per cent of the total CE allotted to economics services.

Table 2.7: Composition of Capital Outlay of Assam

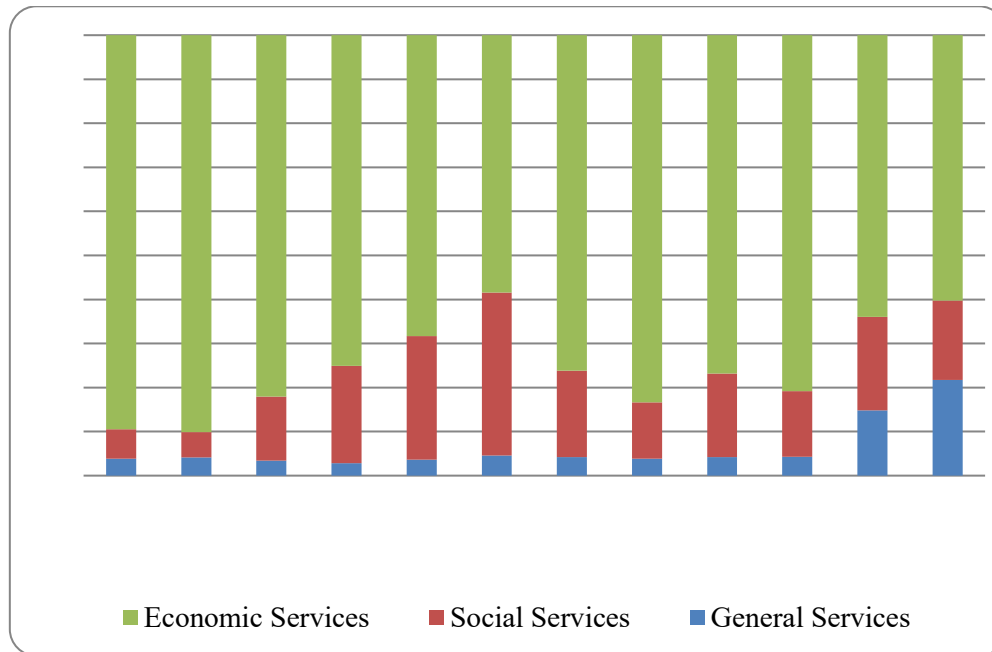
Year	General Services	Social Services	Economic Services
2012-13	3.82	6.72	89.46
2013-14	4.10	5.75	90.15
2014-15	3.44	14.54	82.02
2015-16	2.81	22.15	75.04
2016-17	3.63	28.04	68.34
2017-18	4.56	36.99	58.45
2018-19	4.21	19.61	76.18
2019-20	3.84	12.77	83.39
2020-21	4.18	18.99	76.83
2021-22	4.29	14.91	80.80
2022-23	14.84	21.17	63.98
2023-24	21.69	18.09	60.21
CAGR	43.14	33.75	17.91

Source: Authors' Estimation

Spending on economic services also steadily increased from ₹2,341.49 crore to ₹14,343.84 crore during the reference period of the present analysis. The increment in expenditure occurred at on average 18 percent per annum. Similarly, capital expenditure on social services also increased from ₹175.85 crore to ₹4,310.47 crore with a CAGR of 33.75 percent. However, the share of expenditure on social services out of the total capital expenditure increased very rapidly from 6.7 percent to approximately 37 percent during 2012-13 to 2017-18. However, since then the share has continuously declined and in the year 2023-24, only 18 percent of the resources were spent. A similar declining trend in terms of share of expenditure is observed in case of economic services. During 2012-13, out of total capital expenditure, about 89 per cent were spent on economic services while in 2023-24 the share of expenditure on economic services declined to approximately 60 per cent. In contrast to the

declining share of spending on economic and social services, the share of expenditure on general services are steadily rising during the reference period. Such declining trend in the share of expenditure on development services and increment in the category of non-development services is not an encouraging sign for the fiscal prudence of Assam. Moreover, the rate of increase in terms of CAGR is very high in case of General Services compared to the other two categories. Figure 2.5 shows the composition of economic, social and general services to the total CE in Assam.

Figure 2.5: Composition of Capital Outlay of Assam



Source: Authors' Estimation

Under the broad category of social services sector, there are several segments. These includes (i) education, sports, art and culture; (ii) medical and public health; (iii) family welfare; (iv) water supply and sanitation; (v) housing; (vi) urban development; (vii) welfare of scheduled castes, scheduled tribes and OBC's; and (viii) others. Out of these segments, largest chunk of the resources is spent on water supply and sanitation where about 29 per cent of the total capital expenditure was spent. It is obvious from table 2.8 that water supply and sanitation was the highest priority segment of the government at least in terms of capital expenditure. However, since 2021-22, the share of expenditure declined drastically. The second important segment in terms of capital expenditure is education, sports, art and culture. As on 2023-24, about 22 per cent of the total resources spent as capital expenditure were devoted to this segment. Medical and public health is another important segment where more than 18 per cent of the resources are allotted. The pattern in the capital expenditure in

welfare of scheduled castes, scheduled tribes and OBCs, and social security and welfare also highlights government's attention to these inevitable segments.

Table 2.8: Capital Expenditure on Social Services of Assam

Year	education, sports, art and culture	medical and public health	family welfare	water supply and sanitation	Housing	urban development	welfare of scheduled castes, scheduled tribes and OBCs	social security and welfare	others
2012-13	1.14	6.93	-	51.68	10.91	29.23	0.11	-	-
2013-14	-	6.79	-	57.95	7.47	27.55	0.24	-	-
2014-15	-	2.31	-	84.54	2.68	10.45	-	-	0.03
2015-16	-	1.06	-	76.56	2.22	20.15	-	-	0.01
2016-17	-	2.23	-	71.14	1.27	25.35	-	-	0.01
2017-18	2.14	8.06	-	74.87	0.63	13.93	0.25	-	0.12
2018-19	3.10	18.05	0.00	63.72	1.48	11.98	0.48	0.21	0.99
2019-20	9.86	28.95	-	37.75	2.04	17.43	2.90	-	1.08
2020-21	3.07	22.14	0.00	65.65	1.21	6.09	1.33	0.00	0.51
2021-22	20.04	31.12	-	25.62	1.10	20.63	0.96	0.02	0.51
2022-23	26.17	15.95	0.02	25.27	3.09	14.79	8.32	0.98	5.42
2023-24	21.96	18.61	0.02	29.18	2.12	10.27	8.34	6.85	2.65
CAGR	74.98	46.33	-	26.98	15.26	21.62	97.63	-	-

Source: Authors' Estimation

Economic services are another important component of development expenditure. As highlighted earlier, the bulk of the capital expenditure are devoted in the broad category of economic services. Within the broad category of economic services, highest share of capital expenditure is spent on transport. During 2023-24, transport received more than 77 percent of the total capital expenditure. Table 2.9 shows that rise in the share of spending is very rapid and consistent during the reference period of the present study. It is observed that the allocation to special area programme has sharply declined.

In order to compare the trend in CE in Assam vis-à-vis other states in India, the per capita CE for Assam and all India average is depicted in figure 2.6. The figure shows that per capita CE in Assam is significantly lower than the all-India average. Since 2017, there is a rising trend in the per capita

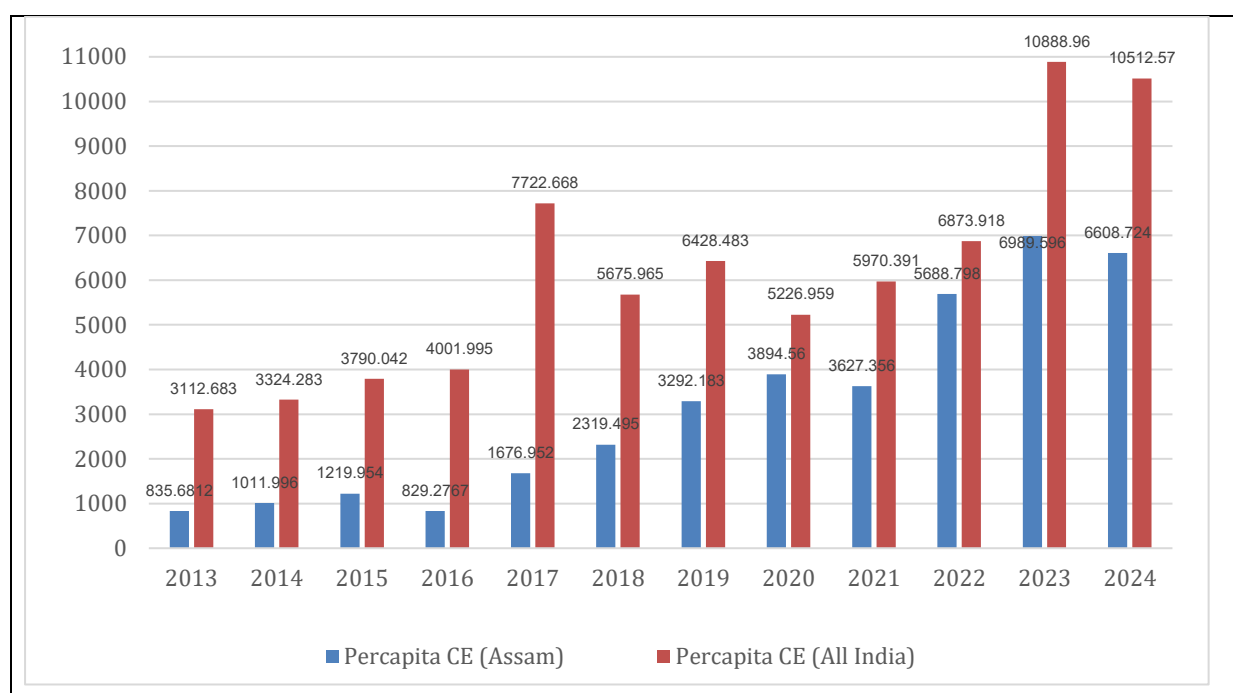
CE and the gap between state and all India per capita CE also narrowed to some extent. However, since 2023, there has been a significant rise in all India average while the state per capita CE moderately declined.

Table 2.9: Capital Expenditure on Economic Services

Year	Agriculture and allied activities	Rural development	Special area programmes	Major and medium irrigation and flood control	Energy	Industry and minerals	Transport	Communications	Science, technology and environment	General economic services
2012-13	0.45	-	30.22	24.43	8.64	3.56	32.46	-	-	0.25
2013-14	0.25	-	35.50	18.16	14.43	4.17	27.16	-	-	0.33
2014-15	0.34	-	11.83	46.93	5.51	3.63	30.98	-	-	0.78
2015-16	0.91	-	11.81	45.82	8.15	-1.61	34.66	-	-	0.26
2016-17	1.46	-	13.31	21.46	13.77	3.70	45.66	-	-	0.64
2017-18	5.83	-	9.94	14.75	17.88	1.99	49.02	-	0.04	0.56
2018-19	3.17	0.00	5.67	18.97	4.40	1.58	65.95	0.00	0.04	0.21
2019-20	1.78	-	4.49	14.93	1.02	0.65	76.93	-	0.03	0.17
2020-21	3.41	0.00	2.87	10.66	3.10	0.38	79.26	0.00	0.10	0.22
2021-22	2.13	-	3.53	6.83	22.74	0.56	56.37	-	0.09	7.73
2022-23	2.49	-	2.92	13.20	7.02	1.46	71.40	-	0.68	0.83
2023-24	3.80	-	0.58	10.44	4.87	1.61	77.61	-	0.52	
CAGR	43.10		-17.73	9.14	11.92	9.69	27.63	-	-	23.31

Source: Authors' Estimation

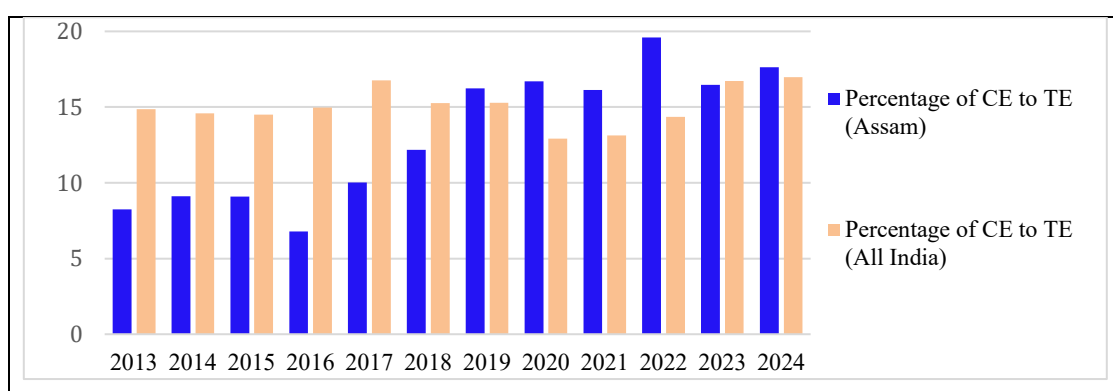
Figure 2.6: Per capita Capital Expenditure Assam vis-à-vis All India Average



Source: Authors' Estimation

Further, examine of the size of the CE to the TE, percentage of CE to TE for Assam as compared to all-India average are presented in Figure 2.7. Figure 2.7 reveals that that during 2012-13 to 2017-18, the percentage of CE to RE in Assam was far below than the national average. However, since 2018-19, the trend reversed completely and the share of CE in TE in Assam is higher than that of the average when CE of all states is taken together. This is an indication that the ratio of CE to TE in Assam is increasing continuously and is higher than the average of all states taken together.

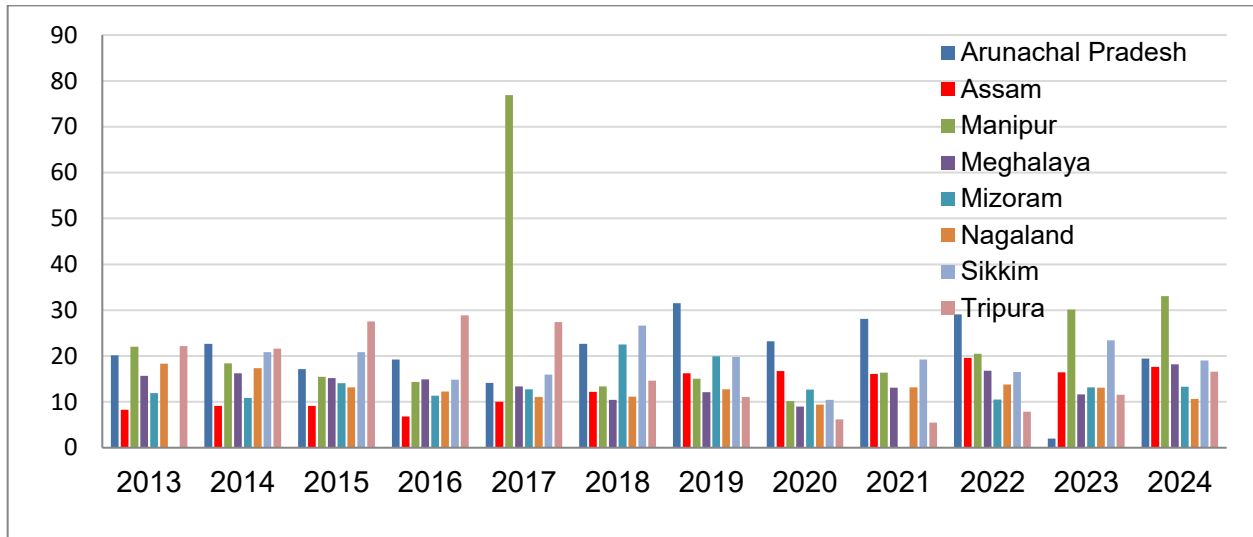
Figure 2.7 Percentage of CE to TE in Assam vis-à-vis All India Average



Source: Authors' Estimation

In addition to the comparison of CE to TE in Assam vis-a-vis with the national average, the comparison with the rest of the states in the north eastern region is presented in figure 2.8.

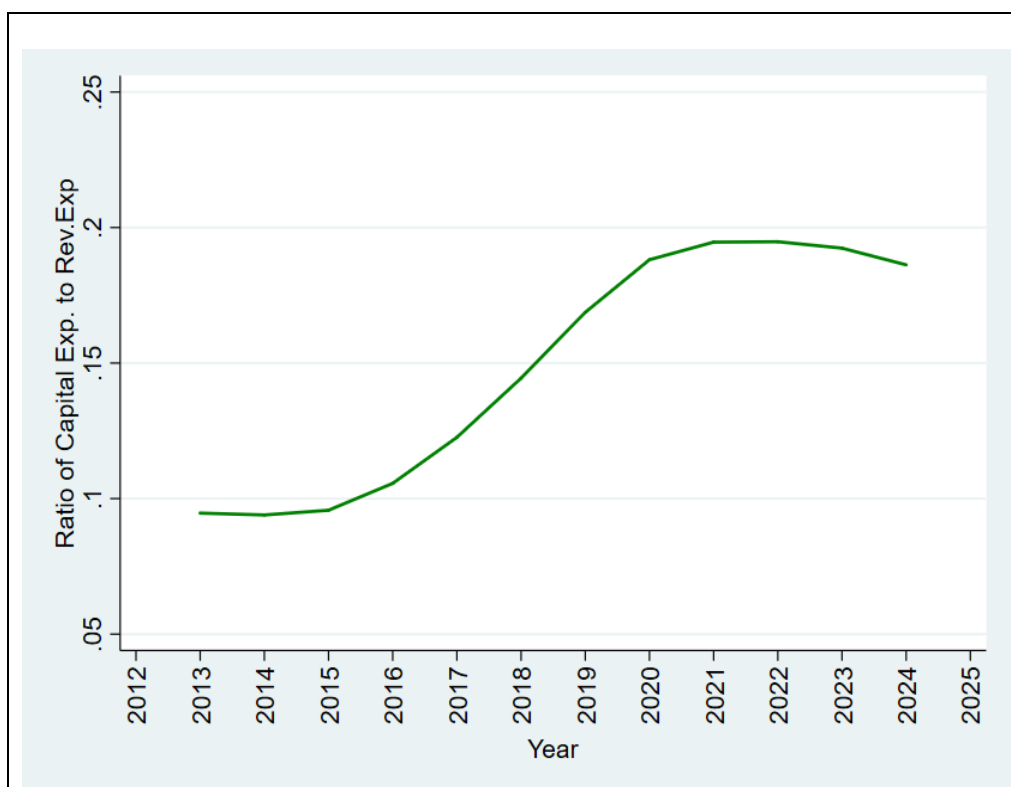
Figure 2.8 Percentage of CE to TE in Assam vis-à-vis other states in the NE region



Source: Authors' estimation

Another indicator to measure the quality of expenditure in a state is ratio of CE to RE. A rising share of CE to RE is regarded as improvement in the quality of expenditure. The ratio of CE to RE for Assam is presented in figure 2.8. The rising trend of capital expenditure to revenue expenditure shows the improving quality of expenditure in the state. The ratio continuously increases since 2012-13 to 2019-20 with a sign of remain stagnant in the subsequent two years. However, a declining trend is visible since afterwards.

Figure 2.9: Quality of Expenditure as measures in terms of CE to RE



Source: Authors' Estimation

2.3 Efficiency

Allocative efficiency is defined as attaining the optimal production by allocating the optimal combination of resources (Brumby, 2007). Allocative efficiency means the ability to use inputs in optimally to bring the highest possible output. In the context of public expenditure, allocative efficiency would indicate the optimal allocation of resources to maximize the benefits. The technical efficiency on the other hand measured as input and output oriented. The input oriented technical efficiency is measured how much input minimization can be possible for a given amount of output. Whereas, output oriented technical efficiency is measured as how much output can be proportionally increased (Mohanty & Bhanumurthy, 2018).

The definition of output and input are crucial in the analysis of efficiency. In order to study efficiency in the expenditure, extant studies applied different approaches. In a study of state finances of Kerala, efficiency is measured by comparing the amount spends to bring an improvement in output by one unit i.e. inputs required in terms of expenditure per unit output. However, the challenges are to define the output and inputs. In the study in Kerala, measure of education and health efficiency are estimated using indicators like literacy rate, gross enrolment ratio and life expectancy at birth. The study further

compares the estimates in Kerala with other states in India. However, the study could only capture the efficiency in select indicators only. Moreover, the quality of output is also not reflected in the study particularly when the output is related to health and education. On the other hand, Mohanty & Bhanumurthy (2018) measures the efficiency by considering gross enrolment ratio for school education, Gross enrolment ratio for higher education, and two inputs such as education expenditure to GDP ratio and non-education expenditure to GDP ratio. Again, the efficiency is measured only of education. In the present case, the purpose is to analyse the efficiency of overall expenditure rather specific to education or health.

The present study uses a similar methodology adopted by Mohanty & Bhanumurthy (2018) in analysing efficiency in expenditure across states. Instead of taking different indicators to measure output, per capita GSDP is considered as output while per capita revenue and capital expenditure are taken as inputs in the model.⁵ Using these output and inputs, malmquist productivity index is estimated. The malmquist index represents the efficiency of a state in a year over the previous year. If the value of malmquist index is greater than one, it indicates improvement in the efficiency while a value less than one would suggest a decline in the efficiency over the last year. Moreover, the malmquist index can further be compared across states to assess the relative efficiency in revenue and capital expenditure. In the present analysis, the sample period is 2012-13 to 2021-22. Financial year 2022-23 and 2023-24 are excluded to have a balanced panel data which is a prerequisite for estimating malmquist index. Further, instead of presenting year wise malmquist index, the geometric means for each of the states are calculated over the sample period. The geometric mean helps to examine the overall picture of a state in terms of efficiency over the sample period. Moreover, it is more convenient and meaningful to compare with other states rather than a year-on-year comparison. Table 2.10 reports the overall efficiency score for 26 states and their ranking based on the geometric mean of the index.

⁵ see Mohanty & Bhanumurthy (2018) for detailed methodology.

Table 2.10 Malmquist index and ranking of the states

State	Geometric mean of the Malmquist index over 2013-2022	Ranking of States
Andhra Pradesh	1.002	9
Arunachal Pradesh	0.968	23
Assam	0.926	26
Bihar	1.023	3
Chhattisgarh	0.972	22
Gujarat	0.985	17
Haryana	0.976	21
Himachal Pradesh	1.003	8
Jammu and Kashmir	1.040	2
Jharkhand	1.022	4
Karnataka	0.979	20
Kerala	0.996	10
Madhya Pradesh	1.083	1
Maharashtra	0.963	24
Manipur	0.987	15
Meghalaya	1.003	7
Nagaland	0.988	12
Odisha	0.986	16
Punjab	0.982	19
Rajasthan	0.996	11
Sikkim	1.014	5
Tamil Nadu	0.988	13
Tripura	0.988	14
Uttar Pradesh	1.004	6
Uttarakhand	0.942	25
West Bengal	0.985	18

Source: Authors' Estimation

Note: R's 'malm' code is used in an output-oriented productivity estimation

Total 26 states were considered for the analysis

It is found that during 2013-2022, the overall index for Assam is the lowest among the states considered for the analysis. In summary, the efficiency index suggests that per capita revenue and capital expenditure in Assam is not resulting in maximization of per capita GSDP. In other words, the allocative efficiency is not at par with the other states which are better in planning their expenditure to maximize per capita output.

3.4. Concluding Remark and Suggestions

Based on the analyses of expenditure and its various components, the following important points emerged-

- The share of revenue expenditure out of total expenditure is about 82 as on 2023-24.
- The share of capital expenditure increases from 8 to 18 per cent during 2013 to 2024.
- Per capita revenue expenditure is significantly lower than the all-India average during the entire period of present analysis.
- Per capita capital expenditure is also significantly lower than the all-India average. Although, there is a sign of decline in the gap since 2017. However, it has further widened since 2023. Although there is some sign for improvement in the capital expenditure as percentage to total expenditure, the state government must focus to improve it further to catch up the all-India average in terms of per capita expenditure.
- Share of development expenditure to the total RE remained above 60 per cent over the study period.
- Committed expenditure swallows about 73 per cent of RE in 2024. For most of the study period, the committed expenditure remained around 60 to 67 with some fluctuations. Rising committed expenditure is affecting the fiscal space of the state. Therefore, to contain committed expenditure, government must focus on its reduction. It is found that Assam is one of the top 25 per cent states which spends comparatively larger share on committed expenditure. Government must focus strategically on different components of committed expenditure.
- Share of capital expenditure on social and economic services found to be considerably high. However, a sharp rise is observed in the category of general services (from about 4 to 21 per cent). Such increment in non-development expenditure is not an encouraging sign for the state government.
- The percentage of CE to RE in Assam was far below than the national average during 2012-13 to 2017-18. However, since 2018-19, the trend reversed completely and the share of CE in TE in Assam is higher than that of the average when CE of all states are taken together. A rising share of CE to RE is also observed in Assam. Such increase is often regarded as improvement in the quality of expenditure.

- The efficiency of public expenditure in Assam is found to be the lowest. The efficiency analysis was carried using malmquist index. Per capita RE and CE were considered as inputs and per capita GSDP as the only output.

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Chapter III -Analysis of Deficits

3.1 Introduction

Deficits serve as important indicators of fiscal health of an economy. Budget deficit has three connotations – fiscal deficit, revenue deficit and primary deficit. Fiscal deficit is the excess of expenditure over revenue receipts of the State. Revenue deficit refers to the excess of revenue expenditures over revenue receipts. Primary deficit is fiscal deficit net of interest payments. The size of primary deficit therefore indicates the size of borrowings that need to be made for financing the revenue and capital expenditures of the State. The size of deficits is mandated to be stabilized after the enactment of the AFRBM Act in 2005. The Act emphasized on the State eliminating revenue deficit within five financial years and to consistently reduce the *Revenue Deficit-to-GSDP ratio* in each financial year starting from 1st April, 2005. The AFRBM Act 2005 explained that for “the purpose of calculation of revenue deficit vis-à-vis the target set for any year, due to adjustments will be made to cover the shortfall in the current transfer from the centre, including devaluation of the state share of Central taxes with reference to the budgetary provision of the year.”

3.2 Revenue Deficit of Assam

Assam faced a critical phase in early 2000s and this continued unabated till financial year 2004-05. During this phase there was a serious mismatch between revenue receipt and expenditure which led to a growing revenue deficit. AFRBM Act (2005) states that the overall fiscal scenario was marked by acute ways and means problems, which very often resulted in an unauthorized overdraft with the RBI, leading to RBI imposing ban on State government payments with unfailing regularity (AFRBM Act 2005). Assam joined the FRBM in 2005, consequently managing to attain a revenue surplus of 2.60 percent in 2005-06. This did not last however and revenue deficit reappeared at 1.92 percent in 2009-10 consequent upon the relaxation of FRBM targets necessitated by the Global Slowdown beginning in 2008.

Table 3.1: Revenue Deficit since 2012-13

Fiscal Year	Revenue Receipt	Revenue Expenditure	Revenue Surplus(-) /Deficit (+)	GSDP at Base Price	GSDP at current Price (in crore)	Revenue Deficit as a percentage to GSDP at current prices
2012-13	30690.98	29136.92	-1554.06	147342.38	156864.24	(-) 1.0
2013-14	32212.79	31989.88	-222.91	154525.4	177745.22	(-) 0.13
2014-15	38181.49	39078.17	+896.68	166708.85	198098.01	(+) 0.45
2015-16	42457.7	37011.42	-5446.28	179594.73	224233.98	(-)2.43
2016-17	49219.81	49362.72	+142.91	202081	254382	(+) 0.1
2017-18	54130.94	55480.95	+1350.01	219919	283165	(+) 0.5
2018-19	63479.16	56899	-6580.16	231040	309336	(-) 2.1
2019-20	64495.09	65817.28	+1322.19	240707	346851	(+) 0.4
2020-21	65896.19	64519.59	-1376.6	247819	339803	(-) 0.4
2021-22	81589.06	82547.96	+958.9	278835	411454	(+) 0.2
2022-23 (RE)	89742.3	101814.64	+12072.35	300799	493167	(+) 2.4
2023-24 (BE)	45121.32	111336.59	-2,748.10	318559	570243	(-) 0.5

Source: *Economic Survey of Assam (various issues)*

Notes: Negative values indicate ‘Revenue Surplus’; RE- Revised estimate, BE - Budget Estimate.;

* 2020-21 and 2021-22 data were taken from economic survey.

The deficit was corrected in the Fiscal Year 2010-11 and the State was able to maintain a revenue surplus till the fiscal year 2014-15. The state was able to achieve Revenue surplus only during two out of five-year period from 2016-17 to 2020-21. During the fiscal year 2018-19 the state achieved

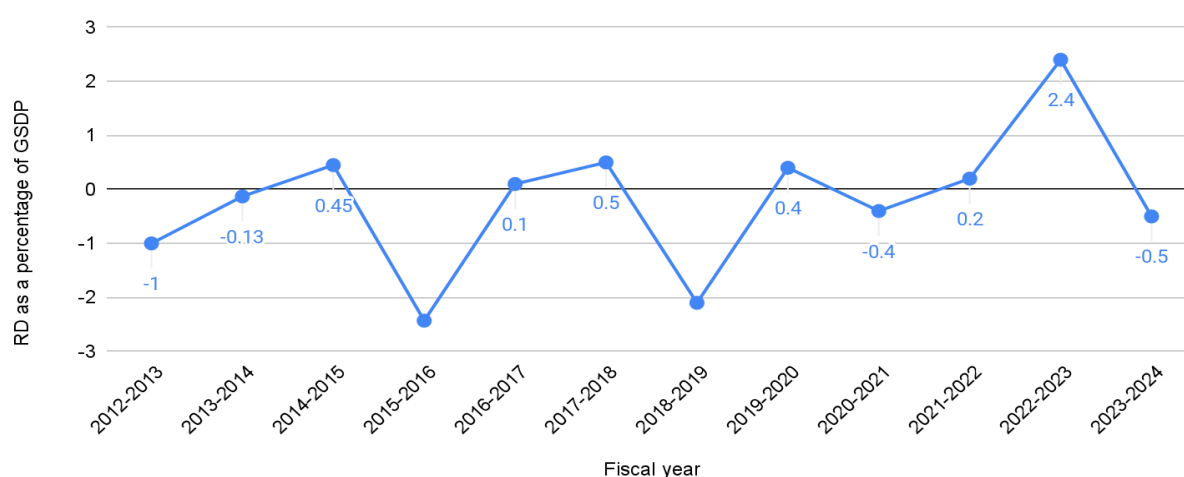
the highest revenue surplus to the tune of ₹6,580.16 crore, estimated at 2.1 percent of GSDP. This was followed by a marginal revenue deficit of 0.4 percent of GSDP in 2019-20, which however recovered to attain a surplus of ₹1,376.60 crore i.e., 0.4 percent of GSDP in 2020-21. The next year a revenue deficit to the tune of ₹958.90 crore (0.2 percent of GSDP) was run by the State Government. The Revised Estimate (RE) puts the size of deficit at ₹12,072.35 Crore (2.4 percent of GSDP), amounting to 2.4 percent of the State GDP. Budget estimate for 2023-24 on the other hand puts a revenue surplus of ₹2,748.10 crore, i.e., 0.5 percent of GSDP.

Figure 3.1a Trend of Revenue Deficits (in ₹ crore)



Source: Authors' Estimation

Figure 3.1b Trend of Revenue Deficits as a percentage of GSDP



Source: Authors' Estimation

Table 3.2: Percentage of Revenue Deficit to GSDP – Assam and India

Percentage of Revenue Deficit to GSDP											
States	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (RE)	2022-23 (BE)
Assam	-1.1	-0.2	0.5	-2.4	0.1	0.5	-2.1	0.4	0.2	3	-0.5
India	3.7	3.2	2.9	2.5	2.1	2.6	2.4	3.3	7.3	4.6	3.8

Source: RBI State Finance Study (various issues)

Notes: ‘-’ indicates surplus

3.3 Gross Fiscal Deficits of Assam

Fiscal Deficit is the excess of the total expenditure over total receipts of the government. The size of fiscal deficit measures the extent borrowing required to be made by the government to meet its expenses during a fiscal year. Among others, deficit financing is theorized to increase money supply in an economy, and to consequently cause inflation. Borrowings are usually made by the governments to finance its capital expenses and to build social and economic infrastructure that can potentially generate its own returns to pay back in the future. The borrowings are therefore desired to be used for capital formation rather than to meet the revenue expenses of the state in order to ensure fiscal sustainability in the long run.

The FRBM Act, amended in April 2011, mandates the State Government to reduce its Fiscal Deficit to 3 percent of GSDP by 2010-11 and maintain the same level thereafter. The amendment to the AFRBM in April 2021 consolidated the 14th Finance Commission's recommendations relating to the limit of Fiscal Deficit as recommended for the States during its accorded period (2015-16 to 2019-20). The Act fixed the annual Fiscal Deficit at 3 percent of GSDP and provided room to deviate from the target up to 3.50 percent under the specific circumstances. Further the 15th Finance Commission advised that the State Government should conform to the definition of Debt and Fiscal deficit contained in FRBM Act as well as the suggested path of consolidation.

Table 3.3: Fiscal Deficit of Assam (figures in crores)

Year	Fiscal Deficits (in ₹ crore)	Percentage to GSDP	Revenue Deficits		Capital Outlay		Net Lending	
			Value	Percentage to Fiscal Deficit	Value	Percentage to Fiscal Deficit	Value	Percentage to Fiscal Deficit
2012-13	1516.49	(+)0.97	-1554.06	-102.48	2617.28	172.59	460.65	30.38
2013-14	3782.3	(+)2.13	-222.91	-5.89	3189.24	84.32	822.04	21.73
2014-15	5429.54	(+)2.74	896.68	16.51	3912.27	72.06	630.71	11.62
2015-16	3005.47	(-)1.34	-5446.28	-181.21	2690.91	89.53	260.09	8.65
2016-17	6125.78	(+) 2.4	142.91	2.33	5502.8	89.83	499.38	8.15
2017-18	9342.21	(+) 3.3	1350.01	14.45	7692.84	82.34	254.07	2.72
2018-19	4779.06	(+)1.5	-6580.16	-137.69	11034.08	230.88	328.07	6.86
2019-20	14915.8	(+) 4.3	1322.19	8.86	13185.42	88.4	316.16	2.12
2020-21	11108.03	(+)3.3	-1376.6	-12.39	12399.39	111.63	87.8	0.79
2021-22	18089.25	(+)4.4	958.9	5.3	20125.83	111.26	104.01	0.57
2022-23(RE)	30204.83	(+)6.1	12072.35	39.97	15997.71	52.96	339.84	1.13
2023-24(BE)	20956.6	(+)3.7	-2748.1	-13.11	23822.5	113.67	189.12	0.90

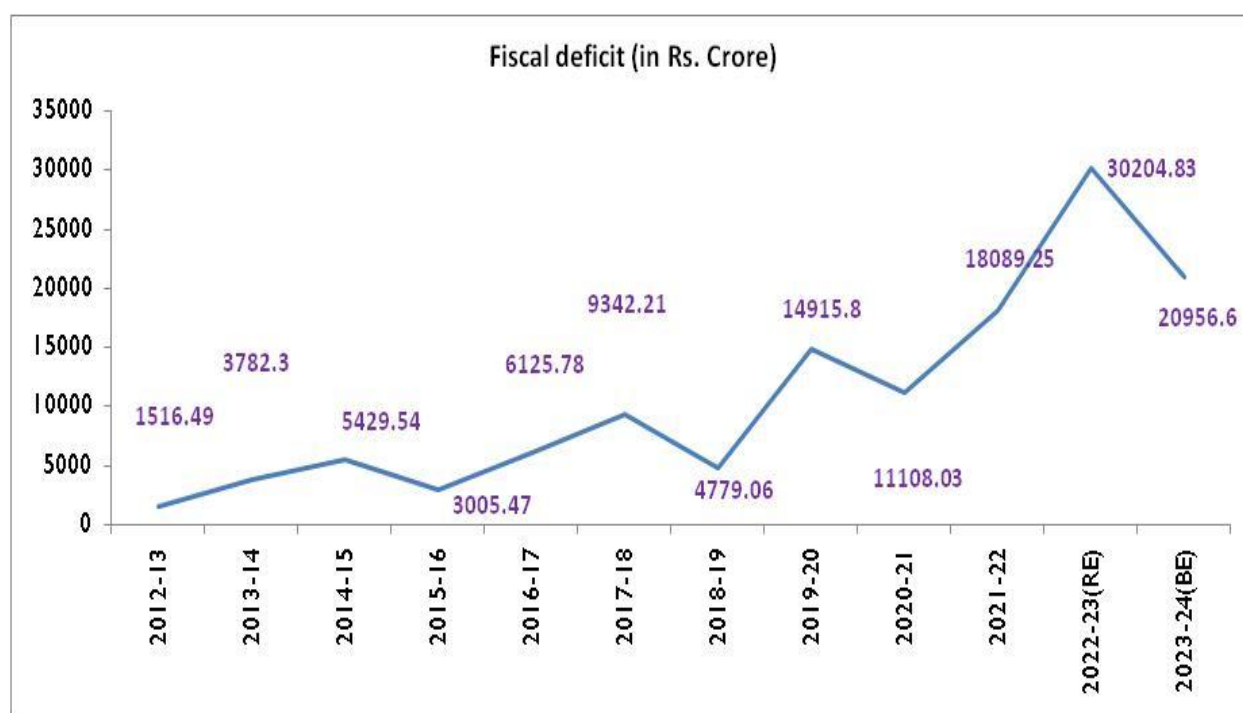
Sources: Economic Survey of Assam, Dept. of Economic and Statistics, Assam, related issues

Notes: Negative values indicate surplus, positive the deficits

Table 3.3 shows that the State was successful in containing the Fiscal deficit to below 3 percent of GSDP from 2012-13 to 2016-17. During the year 2014-15 the budget estimated a fiscal surplus of Rs. 1640 crore but due to decrease in actual revenue receipt with reference to assessment made in the budget the state ended up with a fiscal deficit of ₹5,429.54 crore against estimated surplus value (CAG finance report 2015). The state achieved a fiscal surplus of 3005 crore (1.34 percent of GSDP) during the fiscal year 2015-16 as during this year Revenue Receipt increased by 11.20 percent (₹4,279) over the previous year whereas Revenue Expenditure decreased only by 5.29 percent (₹2,067) during the same period. Fiscal deficit of ₹6,125 crore in 2016-17 further increased and stood

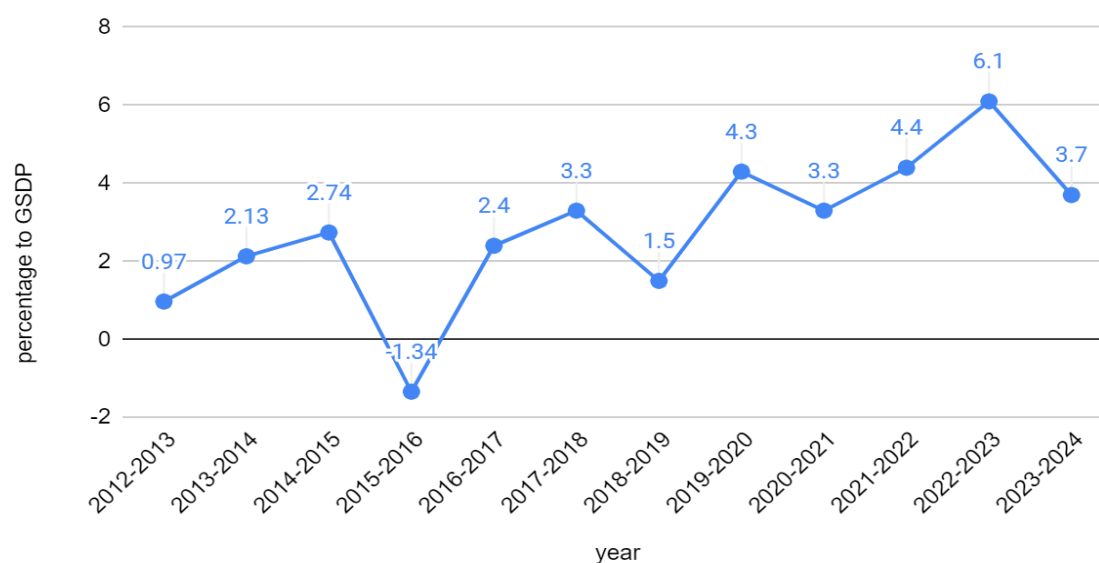
at ₹9,342 crore in 2017-18 which was 3.29 percent of GSDP. The state maintained Fiscal Deficit below 3 percent in 2018-19 as suggested by AFRBM 2005 Act. In 2020–21, the state's fiscal deficit was 3.47 percent of gross domestic product (GSDP), less than the 5.50 percent borrowing cap set under the AFRBM Act, 2020. Only in three of the previous five years was the State able to keep the Fiscal Deficit below the target set under the AFRBM Act. The State's fiscal deficit for the current fiscal year, 2021–2022, was 4.58 percent of GDP, just above the 4.50 percent borrowing limit fixed under the AFRBM Act, 2021 (CAG 2022-23). In FY 2021-22 the State faced a Fiscal Deficit of ₹18,089.25 crore. The State expects to see a Fiscal Deficit of ₹20,956.60 crore in FY 2023-24(BE), against the revised estimate deficit of ₹30,204.83 crore for 2022-23.

Figure 3.2a: Fiscal Deficit of Assam (in ₹crore)



Source: Authors' Estimation

Figure 3.2b: Fiscal Deficit as percentage of GSDP of Assam



Source: Authors' Estimation

3.4 Primary Deficit

Primary Deficit refers to the difference between the fiscal deficit and interest payments. As the fiscal deficit reflects the borrowing requirement of the government, it can be said that the primary deficit refers to the difference between the government's borrowing requirements and its interest liability. A zero primary deficit indicates that the government incurs further borrowing to pay the interest payments on the past obligations. When primary deficit is equal to fiscal deficit it implies that the entire public debt is expected to be used on public expenditure on revenue and capital account without any interest payment liability. Primary deficit therefore indicates that the Government is insufficient to cover its non-interest expenses.

The quality of the deficits can be understood by its pattern, usually through the ratio of revenue deficit to fiscal deficit and by breaking down of the deficits in to its components – revenue deficit and capital expenditure (including loans and advances). The extent to which borrowed funds are used for meeting current expenditure of the State is indicated by the ratio of revenue to fiscal deficit ratio. A rising ratio indicates increasing share of the borrowing spent on revenue expenditures and relatively falling share in capital assets on the one hand. This may also be indicative of inability of the existing capital assets, possibly built from past borrowings, to generate enough revenue to the government.

3.5 Analysis of Primary Deficits and Primary Revenue Deficits of the State

Non-debt receipts were largely observed to be sufficient to cover the primary revenue expenditure but not sufficient to meet capital expenditure in the State. Over the period 2007-09, there has been an increase in the proportion of capital expenditure in primary expenditure; but it fell considerably during 2009-11. The proportion then improved marginally during 2011-12, indicating improvement in the productive capacity of the State's economy (CAG, 2012). The State had a primary surplus from 2007-08 to 2008-09, but it turned to a deficit in 2009-10 and 2010-11.

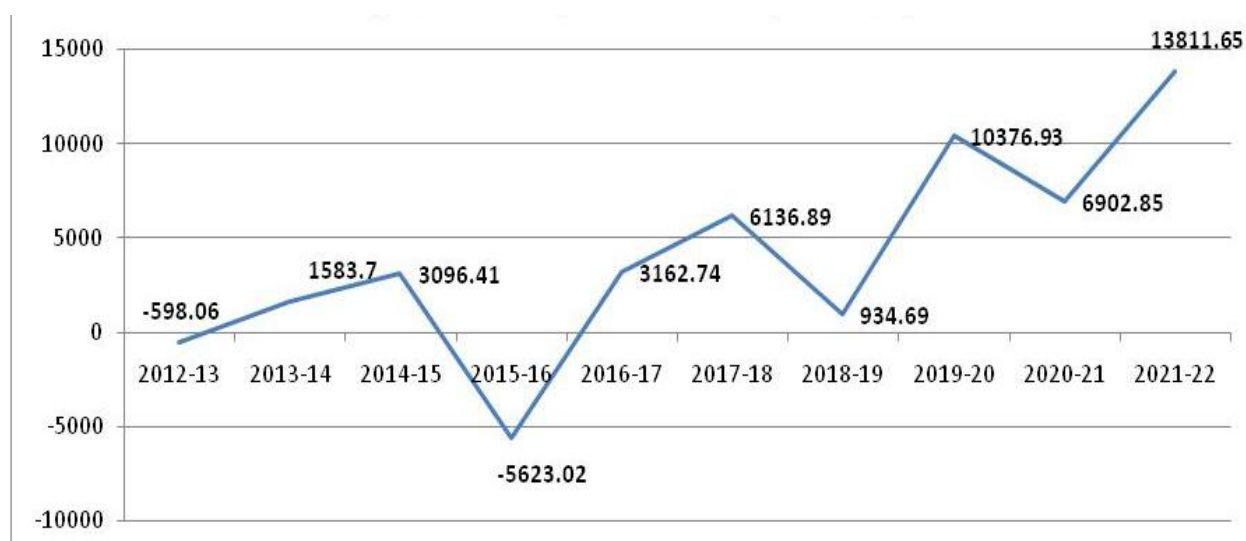
From the fiscal period 2016-17, primary revenue expenditure and the capital outlay are observed to increase continuously in the State (Table 3.4). The State is also able to achieve primary revenue surplus throughout the period from 2012-13 to 2023-24. During 2015-16, the State successfully attained Primary surplus of ₹958 crore i.e., 2.5 percent of GSDP. This turned to a deficit in the latter year however and stands at 6136.89 crores in 2017-18, which is about 2.1 percent of GSDP. The deficit declined 0.3 percent in 2018-19, but increased significantly to ₹10,376.93 crore which is 3.1 percent of GSDP in 2019-20. In 2021-22 the state faced a Primary Deficit of 2.9 percent of GSDP. According to the revised estimate (RE) of 2022-23 Primary deficit stands at 4.7 percent of GSDP and during the 2023-24 the state budget estimated the primary deficit of 2.1 percent of GSDP.

Table 3.4: Primary Deficits and Revenue Deficits of Assam (figures in crore)

Year	Non Debt Receipt	Primary Revenue Expenditure	Loans & Advances	Capital Outlay	Primary Expenditure	Primary Revenue Deficit	Primary Deficit	Primary Deficit as a percenta ge to GSDP
(1)	(2)	(3)	(4)	(5)	(6) (3+4+5)	(7) (3-2)	(8) (6-2)	(9)
2012-13	30698	27022.01	460.65	2617.28	30099.94	-3675.99	-598.06	-0.4
2013-14	32219	29791.43	822.03	3189.24	33802.7	-2427.57	1583.7	1
2014-15	38191	36744.43	630.71	3912.27	41287.41	-1446.57	3096.41	1.6
2015-16	42967	34392.98	260.09	2690.91	37343.98	-8574.02	-5623.02	-2.5
2016-17	49238.41	46398.97	499.38	5502.8	52401.15	-2839.44	3162.74	1.2
2017-18	54135.65	52275.63	304.07	7692.84	60272.54	-1860.02	6136.89	2.1
2018-19	63482.09	53054.63	328.07	11034.08	64416.78	-10427.46	934.69	0.3
2019-20	64503.06	61378.41	316.16	13185.42	74879.99	-3124.65	10376.93	3.1
2020-21	64904.75	59320.41	87.8	12399.39	71807.6	-5584.34	6902.85	1.7
2021-22	82914.68	76496.49	104.01	20125.83	96726.33	-6418.19	13811.65	2.9
2022- 23(RE)*	-	-	339	15997.71	-	-	23329.85	4.7
2023- 24(BE)*	-	-	189.12	23822.47	-	-	12141.23	2.1

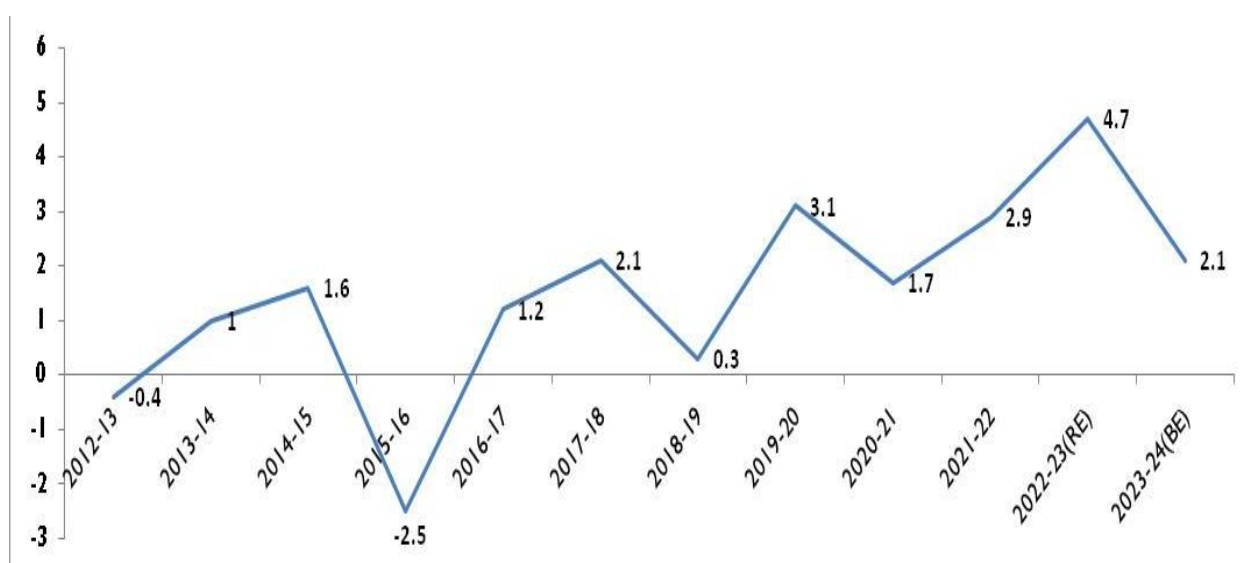
Source: State Finance Audit Report of the Comptroller and Auditor General of India, Government of Assam (various issues); *Data taken from the Economic Survey of Assam, GOA (various issues)

Figure 3.3: Primary Deficits in Assam (in Rs. Crore)



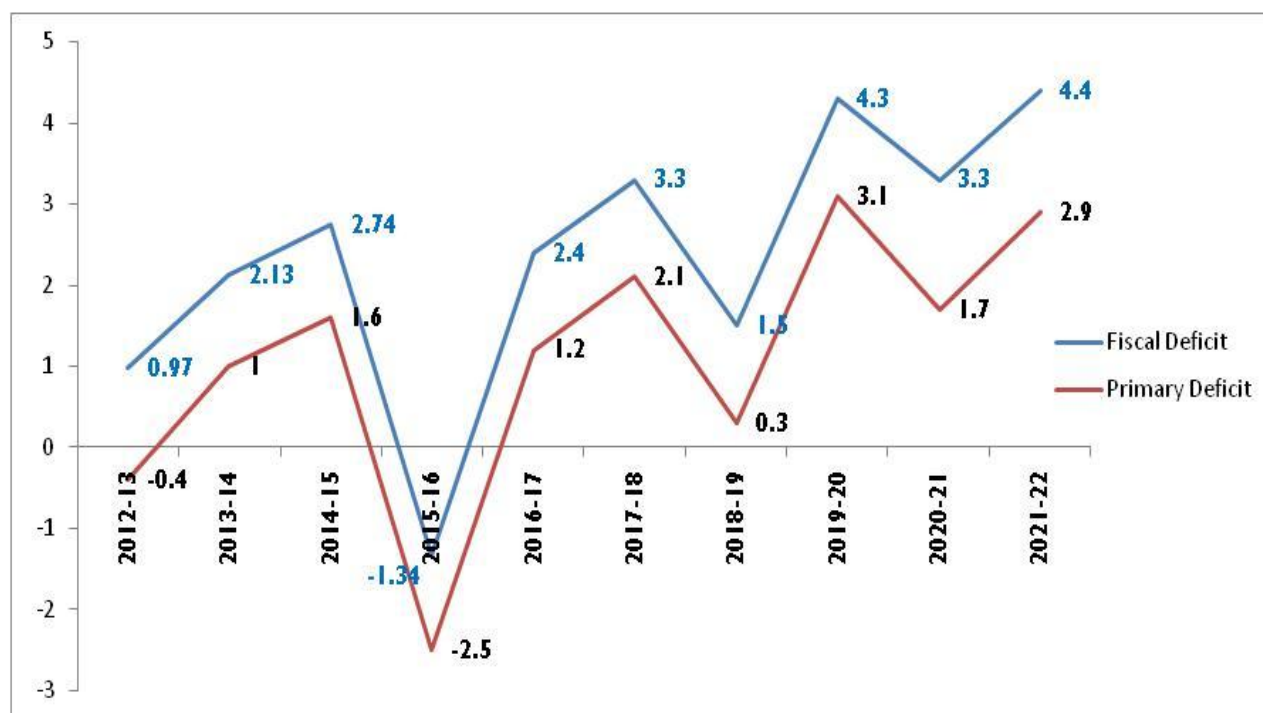
Source: Authors' Estimation

Figure 3.4: Primary deficit as a percentage of GSDP



Source: Authors' Estimation

Figure 3.5: Fiscal versus Primary deficits in Assam (as percentage to GSDP)



Source: Authors' Estimation

3.6 Conclusion

In this chapter, we have analysed revenue deficit, fiscal deficit and primary deficits for the State for Assam, for period beginning in 2012-13. Fiscal deficit in the State has largely stayed below 5 percent, excepting for 2022-23 when it was estimated to rise to 6.1% of the State GDP. Fiscal surplus was observed in the State during 2015-16, but the deficits follow thereafter. Capital outlay is observed to share well in the total borrowings of the State, estimated over 80 percent and many time exceeding 100 percent, except for the year 2014-15 and the revised estimate for 2022-23. These are indicative of the State using the debts for financing its capital expenses that can potentially generate their own revenues to finance repayments in the future.

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Chapter IV -Public Debts in Assam

4.1 Overview of Public Debt and GSDP Ratio

The size of debt bears important implications for an economy. A higher debt implies higher repayment obligations of the government towards the lender. Loans taken from Banks and other financial institutions are usually repaid with interest at the end of the loan tenure, making it important to raise additional revenues for debt servicing. Theoretically, increased debts have corresponding higher tax burden on the citizens. The severity of debt induced consequences however depends on multiple factors, for instance, borrowing sources, terms of borrowing and importantly on their deployments. Debts that are used for productive purposes can usually generate their own revenues for repayments, while those used for non-productive purposes carry the debt burdens to the future generations.

The Debt-to-GSDP ratio is often used for measuring relative burden of debt on an economy, by comparing the size of debt to the size of the economy. At the State level, this ratio is a metric comparing a state's public debt to its Gross State Domestic Product (GSDP). By comparing what a state owes with what it produces, the Debt-to-GSDP ratio reliably indicates that particular state's ability to pay back its debts. A falling debt/GSDP ratio, *ceteris paribus*, can be considered as a progress towards stability and better repayment capacity. On the contrary, if Debt/GSDP ratio increases rapidly and goes above a threshold, it indicates shortage of current level of the primary balance in stabilizing the Debt-to-GSDP ratio. Fiscal adjustments through reduced fiscal deficits (primary balance) are important to make public debt sustainable. In the sections to follow, we analyze the liabilities of the State of Assam in terms of its debt size and in relation to its size relative to the State GDP.

4.2 Debt size and Debt-to-GSDP ratio in Assam

An increasing trend is observed in the total liabilities of the Government of Assam. State's fiscal liabilities increased at the rate of 11.75 percent per annum in the last 10 years, from ₹32,897.00 crore in 2012-13 to ₹99,918.54 crore in 2021–22. The ratio of fiscal liabilities to GSDP nevertheless stayed below the ceiling of 28.50 percent set by the AFRBM Act (2011). The State was therefore able to maintain its outstanding debts constantly below 28.50 percent of its GSDP. Debt-GSDP ratio slightly improved during the initial years from 2012-13, which however started increasing sharply in the later years, from 20.13 percent in 2019-20 to 23.03 percent in 2021-22. The revised estimates of 2022-23

puts the size of outstanding liabilities at ₹1,15,751.32 crore, and is estimated to increase to ₹1,38,388.30 crore as per the budget estimate of 2023-24. The Debt-to-GSPD ratio is similarly estimated at 24.48 percent and interest payments to revenue receipts ratio at 7.73percent. Debt-to-GSDP ratio shows fluctuations during 2012-13 and 2021-23, remaining as low as 17.13 percent in 2015-16 and rising to as high as 27.5 in 2023-24.

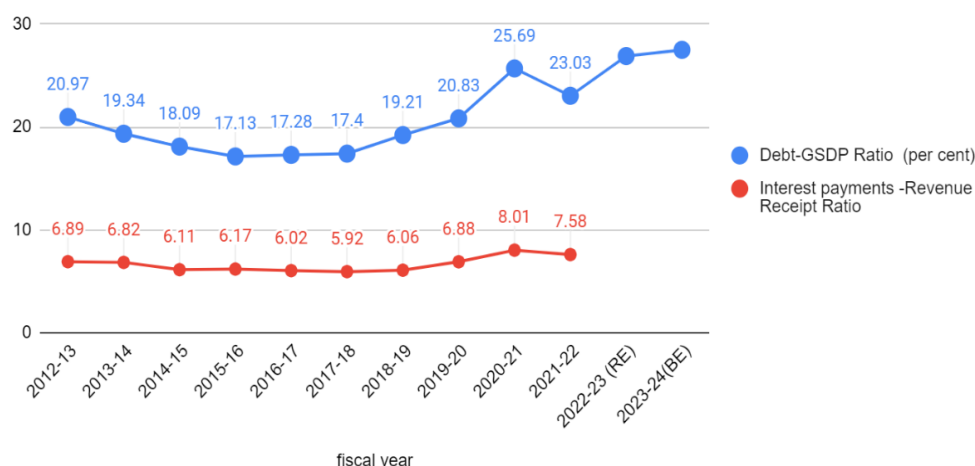
Debts need to be repaid with interests. Large interest payments curtail the size of funds allocated for priority areas. State needs to collect more than enough revenues to cover interest payments in order to meet important expenses and also to survive unforeseeable financial hardships. In extreme cases, governments borrow to repay its existing debts, curtailing its deployment for developmental activities. An approximation of debt servicing capacity can be made by the ratio of interest payments to revenue receipts, measuring how much of its revenue receipts go for interest payments. In Assam, interest payment-to-revenue receipt ratio gradually decreased from 6.89percent in 2012-13 to 5.92 percent in 2017-18 and but started rising from 6.06 percent in 2018-19 to 8.01 percent in 2020-21. During 2021-22, the ratio fell to 7.58 percent but is estimated to increase to 7.73 during 2023-24. During 2012-13 and 2021-22, the ratio recorded a CAGR of 0.96 percent. Thus, interest payments to revenue receipts remained largely stable, surrounding around 6 to 8 percent during the period.

Table 4.1: Outstanding Liabilities, Debt-to-GSDP and Interest Payment-to-Revenue Receipts in Assam

Year (at the end of march)	Assam		
	Outstanding liabilities (Rs. Crore)	Debt-GSDP Ratio (per cent)	Interest payments -Revenue Receipt Ratio
2012-13	32,897.00	20.97	6.89
2013-14	34,376.00	19.34	6.82
2014-15	38,512.00	19.49	6.11
2015-16	39,054.00	17.13	6.17
2016-17	43,981.00	17.28	6.02
2017-18	49,275.00	17.40	5.92
2018-19	59,426.00	19.21	6.06
2019-20	72,256.00	20.83	6.88
2020-21	87,407.00	25.69	8.01
2021-22	99,918.54	23.03	7.58
2022-23 (RE)	115751.32	23.47	7.66
2023-24(BE)	138388.30	24.48	7.73
CAGR (Actual)	11.75	0.94	0.96

Source: CAG, Government of Assam; various issues; Economic Survey Assam 2022-23; ** From 2014 - 15 & 15-16 value is different in different CAG report

Figure 4.1: Trend of Debt-GSDP and Interest Payments –Revenue Receipts ratio



Source: Authors' Estimation

4.3 Uses of Public Debt of Assam:

Borrowed funds should ideally be used to fund capital creation and development activities. Using borrowed funds for meeting consumption and interest payments on outstanding loans is not sustainable. The uses of public debt of Assam can be identified from the composition of Fiscal Deficit and financing pattern of fiscal deficit. Fiscal deficit is also defined as the excess of aggregate expenditure over the non-debt receipt. Usually, the revenue expenditure is made up of revenue receipt and the borrowed fund is used in capital expenditure. The share of Revenue Deficit/ Surplus in Fiscal Deficit indicates the extent to which borrowed funds were used for current consumption. Table 4.3 and 4.4 explain the composition of Fiscal Deficit and Financing pattern of Fiscal Deficit from 2012 to 2022.

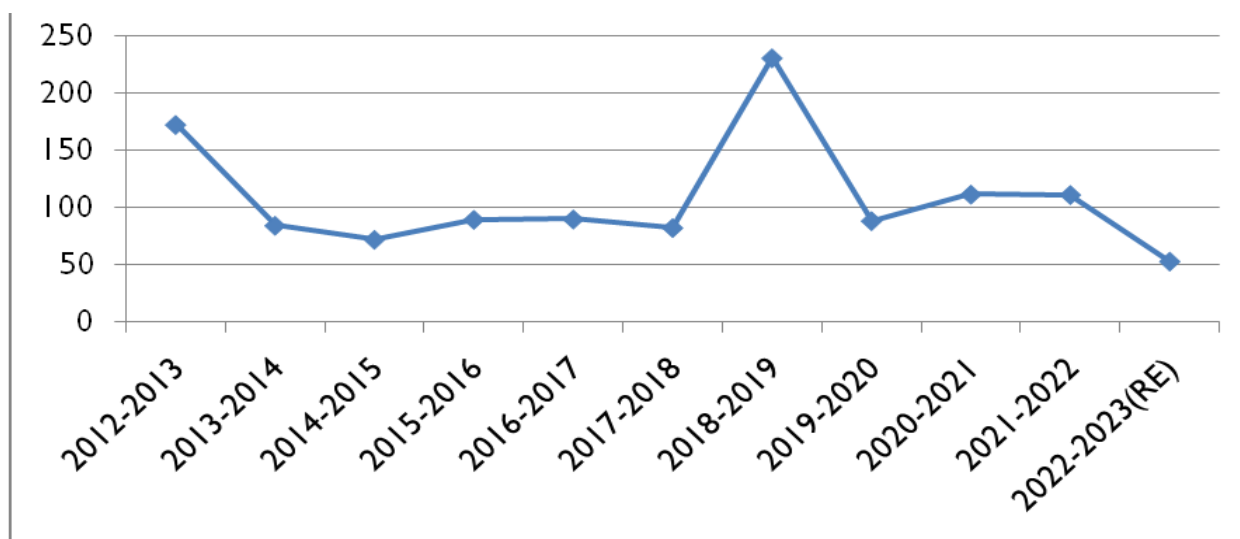
Table 4.2 Composition of Fiscal Deficit of Assam

Year	Fiscal Deficits (in Rs. crore)	Percentage to GSDP	Revenue Deficits		Capital Outlay		Net Lending	
			Value	Percentage to Fiscal Deficit	Value	Percentage to Fiscal Deficit	Value	Percentage to Fiscal Deficit
2012-2013	1516.49	(+)0.97	-1554.06	-102.48	2617.28	172.59	460.65	30.38
2013-2014	3782.3	(+)2.13	-222.91	-5.89	3189.24	84.32	822.04	21.73
2014-2015	5429.54	(+)2.74	896.68	16.51	3912.27	72.06	630.71	11.62
2015-2016	3005.47	(-)1.34	-5446.28	-181.21	2690.91	89.53	260.09	8.65
2016-2017	6125.78	(+) 2.4	142.91	2.33	5502.8	89.83	499.38	8.15
2017-2018	9342.21	(+) 3.3	1350.01	14.45	7692.84	82.34	254.07	2.72
2018-2019	4779.06	(+)1.5	-6580.16	-137.69	11034.08	230.88	328.07	6.86
2019-2020	14915.8	(+) 4.3	1322.19	8.86	13185.42	88.4	316.16	2.12
2020-2021	11108.03	(+)3.3	-1376.6	-12.39	12399.39	111.63	87.8	0.79
2021-2022	18089.25	(+)4.4	958.9	5.3	20125.83	111.26	104.01	0.57
2022-2023(RE)	30204.83	(+)6.1	12072.35	39.97	15997.71	52.96	339.84	1.13
2023-2024(BE)	20956.6	(+)3.7	-2748.1	-13.11	23822.5	113.67	189.12	0.90
Average (Actual)	-	-	-	-39	-	113.28	-	-

Source: CAG Report for Assam; Economic Survey of Assam (*various issues*)

Notes: Actual values presented for the period 2012-13 to 2021-22; Notes: Negative values indicate surplus; *Net lending is equal to disbursement of loans by the Government minus recovery of loans and advances*

Figure 4.2: Percentage of Capital Outlay to Fiscal Deficit



Source: CAG report for Assam; Economic Survey of Assam (various issues)

There are also instances of Assam running revenue surplus in recent years. Table 4.3 shows that during 2012-14, 2015-16, 2018-19 & 2020-21 the state achieved revenue surplus of ₹1,554.06 crore, 222.91 crore, 5,446.28 crore, 6,580 crore and 1,376.60 crore respectively, enabling the state government to disburse larger funds for capital outlays and advancement of loans and for developmental purposes.

State borrowings to finance fiscal deficits are presented in Table 4.4. During 2012-13 to 2021-22, fiscal financing from borrowings is gradually increasing. While market borrowings recorded a large decline during 2012-13 to 2016-17, they increased substantially in the latter periods, for instance, from ₹696 crore in 2012-13 to ₹10753 crore in 2021-22. Borrowing from the GOI on the other hand shared a negligible portion of the total borrowing till 2019-20 when it recorded a *negative value* of ₹39 crore, reverting however to ₹1408.00 crore in 2020-21 and further to ₹2377.00 crore in 2021-22.

Table 4.3: Financing pattern of Fiscal Deficit (in ₹crore)

Fiscal Year	Market Borrowing	Loans from GOI	Special Securities Issued to	Loans from Financial Institutions	Small Savings, PF etc.	Deposit & Advances	Suspense and Misc.	Remittances	Reserve Fund	Decrease (+)/increase (-) in cash balance with RBI
2012-13	(+) 696.40	(+) 86.62	(-) 643.25	(+) 4.62	(-) 807.52	(-) 413.21	(+) 404.99	(+) 35.27	(+) 118.35	(-) 998.76
2013-14	+ 585.66	+ 113.31	- 668.57	- 49.24	- 837.17	- 157.47	- 2,786.10	- 10.32	- 255.66	+ 283.26
2014-15	(-) 2,152.93	(+) 351.89	(-) 1,078.14	(-) 76.05	(-) 890.13	(+) 233.54	(-) 1,518.87	(-) 30.26	(-) 320.62	(+) 52.04
2015-16	(-) 1,896.75	(+) 83.50	(-) 1,512.63	(-) 203.20	(-) 860.14	(+) 1,005.83	(+) 5,734.83	(+) 47.66	(-) 230.02	(+) 836.41
2016-17	(-) 1,994.34	(+) 78.38	(+) 630.19	(-) 573.31	(-) 796.46	(-) 345.65	(-) 2,551.67	(+) 72.34	(-) 1,240.52	(+) 595.26
2017-18	6,797.00	-68.6	-665	426	1,028.00	-444	4,896.00	20.5	-2,295.00	-401.9
2018-19	8,089.00	-52	-709	838	981	1,151.00	-6,314.00	-57	107.5	744
2019-20	10,996.00	-39	-755	878	968	855	4,915.00	-142	682	-3,543.00
2020-21	14,230.00	1,408.00	-755	909	889	-230	-3,630.00	--46.40	43	-717
2021-22	10,753.00	2,377.00	-755	768	602	47	574	24	-49	5,523.00

Source: CAG Report for Assam

4.3.1 Use of Debts

During the period from 2012-13 to 2021-22 there was an upward trend of total Public Debt and increasing in capital expenditure. From 2016-17 the borrowing fund was mostly utilized in capital expenditure than for repayment of outstanding debts. During 2016-17 the amount used to repay the existing debts was ₹1,958.60 crore i.e., 23.19 percent of the total borrowing. Capital expenditure for that period is ₹7,692.84 crore which makes 91.07 percent of the borrowings during the years. In 2018-19, repayment of borrowing is ₹3,589.36 crore i.e., 30.54 percent and capital expenditure is

₹11,034.08 crore i.e. 93.87 percent. In 2019-20 and 2020-21 the capital expenditure constitutes only 69.12 percent of the total borrowings, for each period. During 2021-22 capital expenditure is 120.73 percent but in view of accounting of GIA to the tune of ₹6,168.69 crore as Capital Expenditure, Public Debt utilized for Capital Expenditure would be 83.73 per cent only

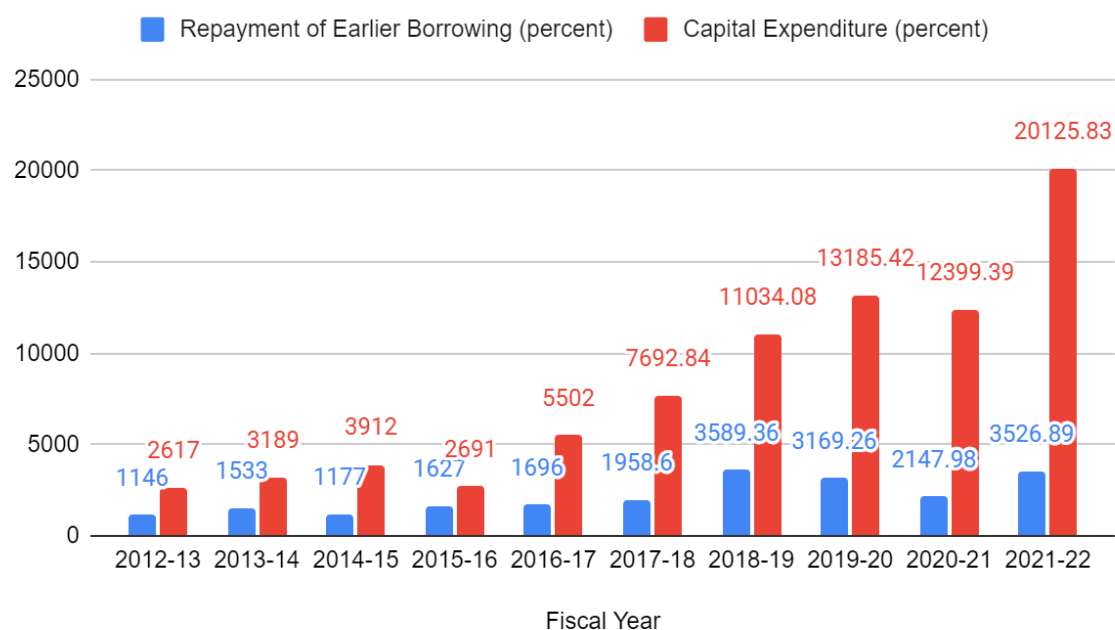
Table 4.4: Utilisation of Borrowed Bunds (₹ in crore)

Fiscal Year	Total borrowing (Public Debt Receipt)	Repayment of Earlier Borrowing (percent of total borrowing)	Capital Expenditure (percent of total borrowing)
2012-13	1388.40	1146 (82.54)	2617 (188.49)
2013-14	1196.07	1533 (128.17)	3189 (266.62)
2014-15	6145.46	1177 (19.15)	3912 (63.66)
2015-16	5497.99	1627 (29.59)	2691 (48.95)
2016-17	3901.71	1696 (43.47)	5502 (141.02)
2017-18	8447.07	1958.60 (23.19)	7692.84 (91.07)
2018-19	11,754.65	3589.36 (30.54)	11034.08 (93.87)
2019-20	14249.63	3169.26 (22.24)	13185.42 (69.12)
2020-21	17940.18	2147.98 (11.97)	12399.39 (69.12)
2021-22	16670.15	3526.89 (21.16)	20125.83* (120.73)
2022-23 (RE)	-	7330.86	15997.71
2023-24(BE)	-	4407.09	23822.50

Source: CAG Report Government of Assam (various issue)

Notes: *In view of accounting of GIA to the tune of ₹6168.69 crore as Capital Expenditure, the amount of percentage of Public Debt utilized for Capital Expenditure would be 83.73 percent only; Figures in parentheses indicate percentage out of total borrowings/public debt receipt.

Figure 4.3: Repayment of Earlier Borrowings and Capital Expenses of the Government

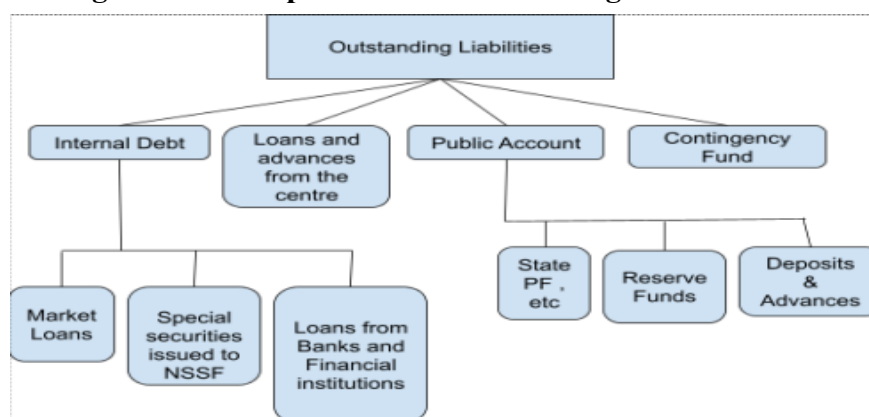


Source: Authors' Estimation

4.4 Composition of the State Debt

Total debt of the State Government typically constitutes internal debt (market loans, ways and means advances from RBI, special securities issued to National Small Savings Fund and loans from financial institutions, etc.), loans and advances from the Central Government and Public Account Liabilities. The State FRBM Act, 2005 defines 'total liabilities' as the liabilities under the Consolidated Fund and the Public Account of the State.

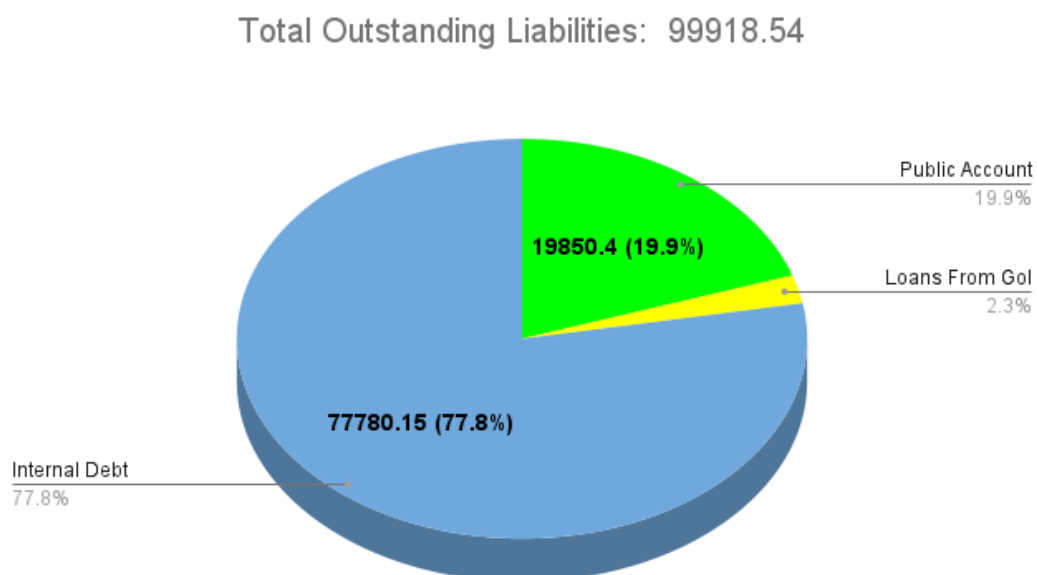
Figure 4.4: Compositions of Outstanding Liabilities



Source: Authors' Estimation

Figure 4.5 shows the break-up of total debt at the end of FY 2021-22 of Assam. At the end of Fiscal year 2021-22 the total debt was ₹99,918.54 crore out of which 77.84 percent was internal debt, loans from Government of India were 2.29 percent and public account liabilities constitute 19.87 percent.

Figure 4.5: Break-up of Outstanding Debt at the end of FY 2021-22



Source: Authors' Estimation calculated from CAG Report Government of Assam

Note: figures in ₹crore

Table 4.5 Trend and Composition of outstanding Liabilities of the Government of Assam (values in crore)

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SDLs/ SGs (a)	105.60	99.50	94.50	116.90	136.70	15,668.50	22,465.40	30,554.80	41,551.00	55,781.00	66,534.00	82,639.00	97,868.70
UDAY (b)	3.4	2.6	2.1	0.9	—	-	-	-	—	—	0	-	-
Compensation and other bonds (c)	—	—	—	—	—	0.1	0.1	0.1	—	—	0	-	-
Market Borrowings (a to c)	109	102.1	96.6	117.8	136.7	15668.6	22465.5	30554.9	41551	55781	66534	82639	97868.7
NSSF	60.60	67.00	73.70	84.50	99.60	9,331.80	8,664.10	7,954.60	7,199.60	6,444.70	5,689.70	4,934.70	4,179.80
WMA from RBI	—	—	—	—	—	-	-	-	—	—	0	-	-
Loans from LIC (1)	—	—	—	—	—	0.1	-	0	—	—	0	0	0
Loans from GIC (2)	0.1	0.1	0.1	0.1	—	0.3	-1.2	1.9	—	-0.6	-1.3	-1.3	-1.3
Loans from NABARD (3)	8.30	8.30	8.80	11.10	11.60	1,738.20	2,165.40	2,971.00	3,848.10	4,762.00	5,535.20	7,227.20	8,986.20
Loans from SBI and other banks(4)	—	—	—	—	—	-	-	-	—	—	0	-	-
Loans from NCDC (5)	—	—	—	—	—	-	-	32.7	31.5	27	22.5	18	13.5
Loans from other institutions (6)	—	—	—	—	—	-	-	-	—	—	0	-0.6	-1.1
Loans from banks and FIs (1 to 6)	8.40	8.40	8.90	11.20	11.70	1,738.50	2,164.20	3,005.60	3,879.60	4,788.40	5,556.50	7,243.30	8,997.30
Internal Debt	178.10	177.50	179.20	213.40	248.00	26,738.90	33,293.70	41,515.00	52,630.30	67,014.10	77,780.20	94,817.00	1,11,045.7
Loans from Centre	18.40	17.60	16.80	16.80	15.10	1,433.50	1,366.30	1,314.20	1,275.40	2,686.70	5,061.00	8,012.30	12,428.90
Provident Fund	59.90	68.00	76.30	85.50	93.80	10,179.30	11,207.00	12,188.00	13,156.50	14,045.40	14,646.90	14,827.20	14,697.80
Reserve Fund	28.80	30.80	36.20	36.20	49.20	2,805.10	4,738.70	4,434.80	5,655.30	5,382.50	4,251.20	4,610.00	6,831.30
Deposit and Advances	-6.3	2.20	0.6	2.30	13.00	2,829.70	-1,395.90	244.40	610.30	380.6	427.1	3,814.80	5,696.70
Contingency Fund	0.5	0.5	0.5	0.5	0.5	50	100	100	200	200	200	200	200
Outstanding Liabilities	279.40	296.50	309.70	354.80	419.60	44,036.50	49,309.80	59,796.40	73,527.80	89,709.10	1,02,366.3	1,26,281.4	1,50,900.4

Source: RBI Study of Budget, various issues, Figures as on March 31,

4.4.1 Internal debt

Internal debt is composed of market loans, ways and means advances from RBI, special securities issued to National Small Savings Fund and loans from financial institutions.

Market Loans

The total market loan in the State increased from 102.1 crore in 2013 to Rs. 97868.7 crore in 2024, mostly constituted of the SDLs/ SDGs.

Special Securities issued to National Small Savings Fund

NSSF is gradually increased during 2013 and 2017, from ₹67.0 crores to ₹9,331.80 crores. It then gradually declines through 2024, to ₹4,179.80 crore as estimated in the budget.

Loans from Bank and Financial Institution

During 2012 and 2016 the amount of loans from Bank and Financial Institutions increased gradually from ₹8.40 crore in 2012(end of March) to ₹11.70 crore in 2016(end of March). Loans from banks and FIs spiked to ₹1,738.50 crore in 2017(end of March) and increased substantially to ₹8,997.30 crore as on March of 2024.

Loans from NABARD

Loans from NABARD increased slowly during 2012 and 2016. It grew to Rs. 1,738.20 Crore in 2017 and further to Rs. 8986.20 crore as estimated for 2023-24.

Loans from NCDC

The State Government took ₹32.70 crore loans from NCDC (National Cooperative Development Corporation) during 2019-20. it decreased to ₹13.50 crore as estimated for 2023-24.

4.4.2 Central Government Debt

Loans from the centre had been decreasing from Rs 18.40 crore at the end of 2012 to Rs. 15.10 crore at the end of 2016. During the 2017, it spiked to the tune of ₹1433.50 Crore and further to ₹12,428.90 Crore as estimated at the end of 2024.

Borrowing from International Bilateral Multilateral Lending Agencies

The Union Cabinet of Government of India has approved the policy guidelines to allow financially sound State Government entities to borrow directly from bilateral ODA (Official Development Assistance) partners for implementation of vital infrastructure projects. The guidelines will facilitate the State Government entities to directly borrow from the external bilateral funding agencies subject to fulfilment of certain conditions and all repayments of loans and interests to the funding agencies will be directly remitted by the concerned borrower. The concerned State Government will furnish guarantee for the Loan. The Government of India will provide counter guarantee for the loan.

External assistance is crucial for financing major infrastructure projects, social sector projects, and institutional capacity building. It is especially important for State Governments to acquire competitive strength in the globalized economic framework. The Government of India receives external development assistance from bilateral and multilateral sources for Central sector projects, Central Public Sector Undertakings, and State sector projects. Current guidelines do not allow direct borrowings from external agencies by State Government entities.

Table 4.6 Funding from Multilateral Lending Agencies

Name of Loan/ Projects with Funding Agency	LC	Agree Dt.	Loan Amount (in Millions)	Loan Amount (In INR Crores)	Cumulative Disbursement
Asian Development Bank					
EPOR Energy Sector - Power	USD	30/12/2020	231	1706.24	110.7
	INR				883.03
4265-IND Assam South Asia Subregional Economic Corridor Connectivity Improvement Project	USD	28/12/2022	300	2407.59	6.11
	INR				50.69
4166-IND Assam Skill University Project	USD	08/03/2019	112	834.02	5.4
	INR				44.46
3624 IND Assam Urban Infra Investment Program - Projects 2	USD	08/03/2019	26.04	181.68	23.43
	INR				170.52
	USD	13/12/2018	60.16	419.74	37.6

3755-IND Assam Integrated Flood and Riverbank Erosion Risk Management Invest. Prog.2	INR				271.46
Asian Infrastructure Investment Bank					
L0302A-IND Assam Intra State Transmission System Enhancement Project	USD	23/02/2021	304	2245.44	29.79
	INR				236.2
L0315A-IND Assam Electricity Distribution System Enhancement & Loss Reduction Project	USD	25/04/2022	386	3097.76	23.07
	INR				188.42
L0440A-IND Assam Secondary Road Network Improvement Project	USD	09/09/2022	320	2568.09	10.85
	INR				122.18
9026-IN Assam Inland Water Transport Project	USD	16/01/2020	88	623.05	25.59
	INR				205.42
9487-IN Assam Integrated River Basin Management Project-Phase I	USD	11/06/2023	108	891.87	5.13
	INR				46.41
19IN01 Assam Bridge Project	USD	08/08/2019	300	2124.04	198.52
	INR				1508.78

Source: Aid, Accounts & Audit Division, Utilization of Government Loans From 2017-2018 To 2023-2024

World Bank sponsored

Assam Agribusiness and Transformation Project (APART) is a World Bank funded project implemented by the Government of Assam under coordination of Assam Rural Infrastructure and Agriculture Services (ARIAS) Society. APART aims at “adding value and improving resilience of selected agriculture value chains focusing on smallholder farmers and agro entrepreneurs in targeted districts of Assam.”

APART: The Government of Assam through Government of India has applied for a credit of USD \$ 200 million from the international Development Association (IDA) (a wing of the World Bank group) for implementation of Assam project on Agri-bussiness and Rural transformation (APRT)

which is currently under preparatory stage.⁶ Under this World Bank funded project input and material support have been provided in 100.60 ha of existing pond covering 345 beneficiaries through demonstration of polyculture technology of fish and 235 ha of *beel* fisheries have been developed for enhancing productivity of the *beel* covering about 945 community members by technology demonstration in *beel* fisheries. Under Fishery Value Chain, a total of 25 numbers Farmers Producer Company (FPC) are registered with the shareholders of 10836 farmers where main thrust of the FPC is on production and management of quality fish seed, production of fish feed by using local ingredients and the production and marketing of fish value added products. Moreover, Climate Resilient Paddy cum Fish Culture has been practiced in 100 ha. The project achieved 150 ha high yielding varieties seed rearing unit which helped the beneficiaries for producing quality fish seed.

Under the World Bank-funded APART, the main initiatives for 2023–2024 are: a) Fish polyculture technology demonstration: 120 ha encompassing 388 beneficiaries Climate-resilient paddy-cum fish culture: 294 ha, benefiting 595 people; b) technology demonstration in *beel* fisheries: 300 ha; and c) d) Fresh Water Prawn Demo: 43 hectares with 136 recipients e) A 100 ha high-yielding variety seed rearing unit that serves 353 recipients.

Asian Development Bank Sponsored

Under the externally aided Assam Road Network Improvement Project (ARNIP) aided by Asian Development Bank (ADB), procurement for improvement and upgradation of 6 roads in 11 contract packages for about 313 km are to be initiated in the latter half of the financial year 2021-22.

The Sustainable Wetland and Integrated Fisheries Transformation (SWIFT) project is an externally aided pipeline project proposed by the Asian Development Bank (ADB) to develop infrastructure in 4000 ha of Assam *beel* fisheries. The estimated project cost is ₹851.88 Crores, including loan credit (80%) of Rs. 681.50 crore and state share (20 percent) of ₹170.34 crores. The project aims to rejuvenate 4800 MT and 800 MT small indigenous fishes each year, contributing to overall state fish production. The Department of Economic Affairs, Ministry of Finance, Government of India, submitted a proposal to ADB on 8th December 2022. Two missions have been completed by ADB experts, with the third mission scheduled for November to December 2023. Progress on pre-project activities includes identification of 191 *beels*, geo-mapping of 152 *beels*, appointment of Project Director, selection of Electroveen Engineering Private limited, and engagement of four consultants.

⁶ Source : Economic Survey of Assam 2023-24

Negotiations for project funding are expected by July 2024, and loan sanction approval by September 2024.

The Asian Infrastructure Investment Bank (AIIB)

The Asian Infrastructure Investment Bank (AIIB) funded Assam Secondary Road Network Improvement Project (ASRIP), procurement for improvement and upgradation of 6 roads in 8 contract packages for about 250 km are to be initiated in the first part of the financial year 2021-22.

4.4.3 Contingency Fund

This Fund is in the nature of an imprest, established by the State Legislature, and is placed at the disposal of the Governor to enable advances to be made for meeting unforeseen expenditure pending authorization of such expenditure by the State Legislature. The fund is recouped by debiting the expenditure to the concerned functional major head relating to the Consolidated Fund of the State. As on 31 March 2022, the balance under Contingency Fund was ₹200 crore and no amount was lying un-recouped at the end of the financial year.

4.5 Analysis of Liabilities in Public Account of the state

The Public Account established by Article 266 (2) of the Constitution contains receipts and disbursements related for certain transactions, such as Small Savings, Provident Funds, Reserve Funds, Deposits, Suspense, Remittances, etc., that are not included in the Consolidated Fund and for which the State Legislature does not have the authority to vote. In this regard, the State acts as a banker, and the balance remaining after the year's disbursements is the fund that the Government may use for a variety of purposes. The trend in growth and compositions of Public Account Balances is presented in Table 4.6.

Table 4.7: Public Account Balance of the Government of Assam

Year	Small saving, provident Fund' Etc	Reserve Funds	Deposits and Advances	Suspense and Miscellaneous	Remittances	Total (in ₹ crore)
2012-13	807.52	201.08	413.21	-156.99	35.27	1229.55
2013-14	837.17	543.44	157.47	123.04	10.32	1617.44
2014-15	890.13	818.51	-233.54	-91.92	30.26	1413.44
2015-16	860.14	230.02	-1005.83	-228.6	47.66	-191.33
2016-17	796.46	1240.52	345.65	2551.67	72.34	4861.96
2017-18	1,027.66	-2,294.54	-443.61	4895.62	20.49	3,205.62
2018-19	981.06	107.5	1151.47	-6313.74	-56.58	-4130.29
2019-20	968.47	682.43	854.71	4915.06	-141.96	7278.71
2020-21	888.85	43.2	-229.72	-3,629.55	-46.39	-2973.61
2021-22	601.53	-49.37	46.52	574.1	23.76	1196.54

Source: CAG Report, Government. of Assam (various issues)

Public Account Balances of the Government increased significantly from ₹1,229.55 crore in 2012-13 to ₹4,861.96 crore in 2016-17 at an annual average rate of 59.09 per cent. The Public account liabilities again started to decrease and fluctuate during last five years. During 2021-22 the Public Account liabilities stood at ₹1196.54 Crore

Reserve Funds

Reserve Funds created for specific and defined purposes under the Public Account of the State Government. These funds are met from contributions or grants from the consolidated Fund of the State. Details of transactions during the year 2021-22 in four main active Reserve Funds are as under:

Consolidated Sinking Fund

The State Government established the Sinking Fund based on the XII Finance Commission's recommendations to manage market borrowings and other debts. The required contribution to the Fund was 0.5 percent of the outstanding liabilities, which amounted to ₹428.62 crore for the year ending March 31, 2021. The State Government contributed ₹445.89 crore, exceeding the requirement. However, ₹1,821.52 crore was dis-invested from the Fund for the redemption of Open Market Loans. As of March 31, 2022, the Fund's total accumulation was ₹2,893.06 crore, including accrued interest of ₹280.34 crore, with ₹2,885.83 crore invested by RBI.

State Disaster Response Fund

With effect from April 1, 2010, the Government of India (GoI) replaced the previous Calamity Relief Fund with the State Disaster Response Fund (SDRF). According to the Fund's requirements, the Himalayan and North Eastern States as well as the Centre are needed to make donations to the Fund in the amount of 90:10, and the contributions must be transferred to Major Head-8121 in the Public Account. Spending for the entire year is spent when running Major Head-2245.

As of April 1, 2021, the State Disaster Response Fund (SDRF) in Assam had a balance of ₹768.43 crore. During the financial year 2021-22, the State Government received ₹617.60 crore from the Central Government. The State's contribution for the year was supposed to be ₹68.80 crore, but instead, the government transferred a total of ₹339.68 crore to the SDRF account. This amount included ₹308.80 crore from the Central Government and ₹30.88 crore from the State.

The State Government transferred ₹258.87 crore to the fund account in 2021-22, which comprised ₹193.00 crore from the Central Government, ₹21.50 crore from the State, and ₹44.37 crore from the NDRF.

The State incurred calamity-related expenses amounting to ₹647.92 crore during the year, which was set off against the fund balance, leaving ₹719.06 crore in the SDRF by the end of March 31, 2022. However, this remaining amount was not invested as required under the Government of India guidelines. Additionally, the State did not pay the half-yearly interest on the fund balance, violating SDRF norms. This unpaid interest of ₹46.11 crore resulted in an understatement of revenue expenditure and increased future liabilities.

Guarantee Redemption Fund

In September 2009, the State Government established a "Guarantee Redemption Fund" to fulfil payment obligations resulting from government guarantees for bonds and other borrowings issued by State Public Sector Undertakings or other Bodies, as requested by the beneficiaries. The State Government was mandated to pay ₹2.50 Crore to the Fund in 2021–2022, which amounted to three percent of ₹83.42 crore (the outstanding guarantees at the conclusion of the second fiscal year proceeding the present fiscal year). In response to the outstanding guarantees of Rs. 83.42 crore, the State Government made a contribution to the fund of ₹9.00 Crore. The Reserve Bank of India invested the full ₹70.59 Crore that remained in the Fund as of March 31, 2022, which also included the accumulated interest of ₹4.37 Crore for the years 2021–2022.

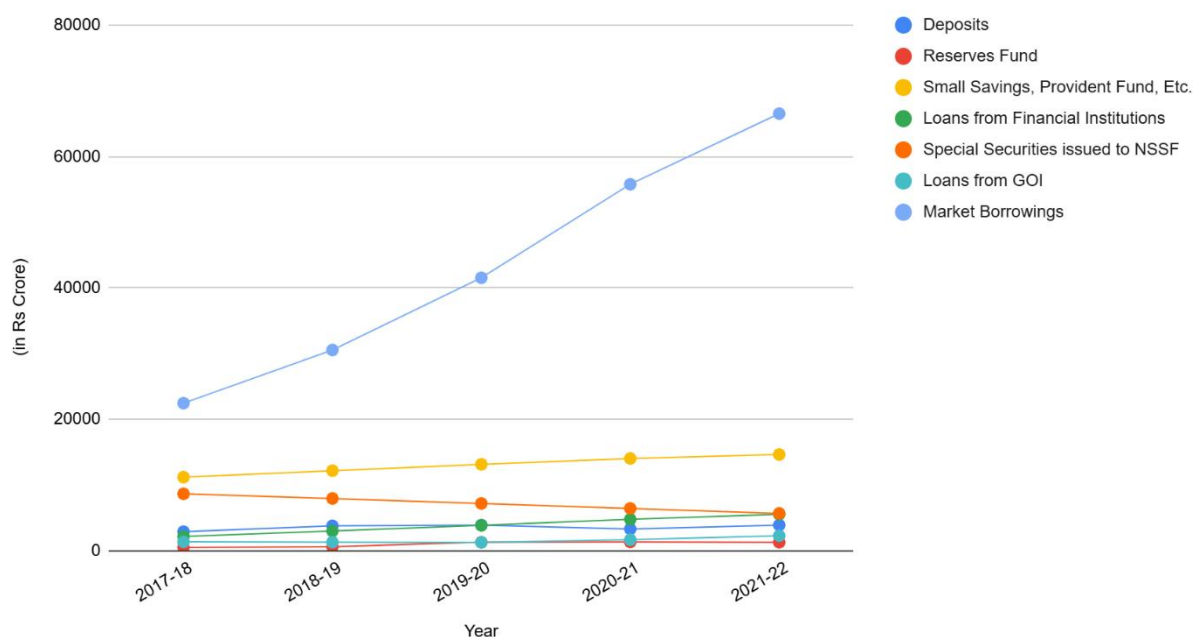
The State Government was granted Rs. 154.40 crore for the SDMF in 2021–2022. The revenue receipts major head-1601-07-105-Grants-in-Aid for State Disaster Mitigation Fund accurately recorded the fund's receipt; nevertheless, the above-described accounting method for recording expenditure under the SDMF was not followed. For the purpose of transferring funds to the Major Head of "8121-General and other Reserve Funds-130-State Disaster Mitigation Fund" in the accounts in Public Account, no budgetary provision was made under the Major Head "2245-08-797-Transfers to Reserve Fund and Deposit Accounts."

Table 4.8: Trend of Debts

Year	Deposits	Reserves Fund	Small Savings, Provident Fund, etc.	Loans from Financial Institutions	Special Securities issued to NSSF	Loans from GOI	Market Borrowings
2017-18	2,902.41	510.57	11,206.99	2,164.24	8,664.07	1,361.19	22,465.41
2018-19	3,799.29	618.07	12,188.05	3,001.77	7,954.58	1,309.08	30,554.77
2019-20	3,898.94	1,300.50	13,156.52	3,879.64	7,199.62	1,270.29	41,551.01
2020-21	3,319.97	1,343.70	14,045.37	4,788.41	6,444.65	1,684.68	55,781.01
2021-22	3,909.17	1,294.33	14,646.90	5,556.45	5,689.69	2,287.99	66,534.01

Source: State Finances Audit Report of The Comptroller and Auditor General of India for the year 2021-22, Government of Assam

Figure 4.6: Trend of Debts



Source: Authors' Estimation

Source: State Finances Audit Report of The Comptroller and Auditor General of India for the year 2021-22, Government of Assam.

Table 4.9: Repayment of Debt of Assam

Year	Repayment of (Rs in crore)						
	Internal Debt (1)	Loans from GOI (2)	Public Debt (3)= (1)+(2)	Interest (4)	Public Debt including interest (5) = (3)+(4)	Growth Rate of Interest Rate	Growth Rate of Public Debt Including Interest
2022-23	2,561.77	296.03	2,857.80	5,736.73	8,594.53		
2023-24	4,236.80	166.13	4,402.93	5,409.59	9,812.52	-5.70	14.17
2024-25	7,039.41	57.47	7,096.89	4,882.29	11,979.17	-9.75	22.08
2025-26	8,260.39	62.14	8,322.53	4,263.93	12,586.46	-12.67	5.07

2026-27	7,384.59	54.6	7,439.39	3,711.15	11,150.57	-12.96	-11.41
2027-28	8,677.84	61.39	8,739.23	3,061.86	11,801.09	-17.50	5.83
2028-29	7,511.77	64.66	7,576.43	2,496.93	10,075.36	-18.45	-14.62
2029-30	12,480.77	64.69	12,545.46	1,566.80	14,112.26	-37.25	40.07
2030-31	9,763.09	59.36	9,822.45	836.99	10,659.44	-46.58	-24.47
2031-32	8,854.64	56.76	8,911.40	174.85	9,086.28	-79.11	-14.76

Source: CAG audit report, Govt of Assam 2023

The Table 4.9 shows the Repayment of debts from 2022-23 to 2031-32. The burden of rate of the interest will decrease over the ten years, the burden of repayment of debts fluctuation with an increase and decrease trend.

4.6 Conclusion

The chapter shows the state's growing reliance on public borrowings, with the total debts increasing about threefold during 2012 and 2022. This trend is characterized by a Compound Annual Growth Rate (CAGR) of 11.75 percent. Despite these rising liabilities, the state has kept its Debt-to-GSDP ratio below the 28.5 percent ceiling set by the Assam Fiscal Responsibility and Budget Management (AFRBM) Act. However, the ratio has fluctuated over the years, peaking at 27.5 percent in 2023-24. While the ratio of interest payments to revenue receipts remained relatively stable, fluctuating between 6 percent and 8 percent, this still poses a constraint on funds available for priority areas for economic development. On a positive note, Assam achieved revenue surpluses in certain fiscal years, allowing for greater capital expenditures. However, the state's growing reliance on market borrowings and loans, particularly from NABARD and financial institutions, signifies the increasing role of debt in financing fiscal expenditures. Though capital expenditure has been prioritized over debt repayment in recent years, the rising debt burden may curtail future development activities and increase financial pressure due to growing interest payments. To manage this rising debt, Assam must continue to prioritize fiscal responsibility, ensuring that loans are directed toward productive uses and that repayment is carefully managed to avoid placing a burden on future generations.

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Chapter V - State Compliance to AFRBM Act, Assam

5.1 Introduction

The Assam Fiscal Responsibility and Budget Management Act (AFRBM), 2005 was passed by the State Governments to ensure fiscal prudence by elimination of Revenue Deficit, stabilizing Fiscal Deficit at an acceptable level, establishment of improved debt management, and enhancement of transparency within a medium-term framework. The Act sets quantitative goals for the State to meet in relation to its debt size and parameters of deficits. Subsequently, the Act was amended several times, and most recently in September 2021.

5.2 AFRBM Act's implementation and achievement in terms of Thirteenth Finance Commission

The Thirteenth Finance Commission (FC-XIII) was constituted by the President of India under Article 280 of the Indian Constitution, on 13 November 2007 to make recommendations for the period 2010-15.

According to the AFRBM Act, 2011, that came into force with effect from 1st April 2010, the State Government was to eliminate revenue deficit by 2011-12 and maintain revenue balance or attain surplus thereafter. The fiscal deficit was mandated to be reduced to 3 percent of the GSDP by 2010-11 and maintain the same level thereafter. Further, the Act envisaged that the State Government would limit the total outstanding debt to GSDP ratio to 28.2 percent in 2010-11, 28.3 percent in 2011-12, 28.4 percent in 2012-13 and 2013-14 and 28.5 percent in 2014-15 and to maintain the same level thereafter.

The performance of the state during 2010-15 in terms of the key fiscal targets of the FC-XIII set for selected variables as laid down in AFRBM (Amendment) Act, 2011 vis-à-vis achievements are given in Table 5.1 and Table 5.2.

Table 5.1: Revenue and Fiscal Deficit / Surplus during the Period 13th Finance Commission

Year	Revenue Deficit (-) / surplus (+) (in Crore)			Fiscal Deficit (-) / surplus (+) (as a percentage of GSDP)		
	Budget Estimate	Actual	AFRBM Target	Budget Estimate	Actual	AFRBM Target
2010 -11	-5960	53	Eliminate Revenue Deficit By 31.3.2012 and attain surplus thereafter	9.47	-1.91	3 percent of GSDP (By 31.3.2011) and maintain same level thereafter
2011 -12	1114	927		3.01	-1.43	
2012 -13	1364	1554		3	-1.06	
2013 -14	3101	223		3	-2.33	
2014 -15	9384	-897		0.92	-2.95	

Source: CAG Audit Report, Government of Assam

Table 5.2: Outstanding Liabilities to GSDP ratio during the Period 13th Finance Commission

Year	Outstanding Liabilities to GSDP (in Percentage)		
	Budget Estimate	Actual	FRBM Target
2010 -11	28	29	28.50 percent (In 2014-15)
2011 -12	26.4	27.52	
2012 -13	22.6	22.91	
2013 -14	26.4	27.52	
2014 -15	25.08	20.95	

Source: CAG Audit Report, Government of Assam

During 2010-11 the state attained a Revenue Surplus of Rs 53 crore and Fiscal Deficit of 1.91 percent of GSDP and successfully achieved the targets under the AFRBM Act. The state however failed to achieve Debt-GSDP ratio as targeted under the AFRBM Act. During 2011-12 the state was able to reduce Debt-GSDP ratio from 29 percent in 2010-11 to 27.52 percent in 2013-14 and to 20.95 percent

in 2014-15, and achieved the FRBM targets, in all fiscal indicators. The state has also achieved the targets prescribed in the FRBM Act in 2012-13 and 2013-14. During 2014-15 the state has achieved two out of three FRBM targets. During that year the State however could not maintain Revenue Surplus and had a Revenue Deficit of ₹897 crore.

5.3 AFRBM Act's implementations and outcome for the period of Fourteenth Finance Commission

The Fourteenth Finance Commission (FC-XIV) was constituted by the President of India under Article 280 of the Constitution on 2 January 2013 to make recommendations for the period of 2015-20. The Commission reviewed the state of the finances, deficit and debt levels of the Union and the States, keeping in view, in particular, the fiscal consolidation roadmap recommended by the Thirteenth Finance Commission. XIV-FC also fixed similar targets for the State. The performance of the State during 2015-20 in terms of key fiscal targets of the XIV-FC set for selected variables as laid down in AFRBM (Amendment) Act, 2011 vis-à-vis achievements are given in Table 5.3.

Table 5.3: Revenue & Fiscal Deficit / Surplus during the Period 14th Finance Commission						
Year	Revenue Deficit (-) / surplus (+) (in Crore)			Fiscal Deficit (-) / surplus (+) (as a percentage of GSDP)		
	Budget Estimate	Actual	AFRBM Target	Budget Estimate	Actual	AFRBM Target
2015-16	62565	5446	Eliminate Revenue Deficit By 2011-12 and attain surplus thereafter		1.32	3 percent of GSDP 2010-11 and maintain same level thereafter
2016-17	3721	-142.91		2.97	-2.38	
2017-18	2401	-1350		2.98	-3.29	
2018-19	2989.13	6580		-2.97 (RE)	-1.52	
2019-20	3475.73	-2172		-2.9	-4.45	

Source: CAG Audit Report, Government of Assam

Table 5.4: Outstanding Liabilities to GSDP ratio during the Period 14th Finance Commission

Year	Outstanding liabilities to GSDP (in Percentage)		
	Budget Estimate	Actual	FRBM Target
2015-16	—	17.13	28.50 percent
2016-17	18.8	17.28	
2017-18	19.31	17.08	
2018-19	16.85(RE)	18.84	
2019-20	18.95	21.55	

Source: CAG Audit Report, Government of Assam

The state has achieved all of three FRBM targets with Revenue Surplus of ₹5,446 crore and Fiscal Surplus of 1.38 percent of GSDP and with a Debt-GSDP Ratio of 17.13 percent in 2015-16. But during 2016-17 the state failed to attain revenue surplus but ran deficits of ₹142.91 and it was able to fulfil other two FRBM targets with a Fiscal Deficit of 2.38 percent of GSDP and Debt-GSDP ratio of 17.28 percent. Again, it was seen that during 2017-18 the State has failed to achieve the Revenue Surplus. Instead, it had a revenue deficit of ₹1,350 crore and Fiscal deficit stood at 3.29 percent, higher than the target fixed under the AFRBM Act. During that year the liabilities of the state stood at 18.85 percent which was well within the norms (28.50 percent) as prescribed under the Act. During 2018-19 the state was able to correct the fiscal indicators and attained a huge revenue surplus of ₹6580 crore and contained the fiscal deficit to 1.52 percent of GSDP and debt GSDP ratio at 18.84, satisfying the norms prescribed in the AFRBM act. During 2019-20 the state ended up with Revenue Deficit of ₹2172.60 crore and the Fiscal Deficit of the State stood at 4.25 percent of GSDP, much higher than the limit of 3 percent fixed under AFRBM Act, and is the largest level of fiscal deficit since the enactment of the AFRBM Act in 2005 in the State. Debt-GSDP ratio at the end of 2019-20 was 21.55 which below the AFRBM target.

5.4 AFRBM Act's implementations and its commitment towards Targets for the periods Fifteenth Finance Commission

The Fifteenth Finance Commission (FC-XV) was constituted by the President of India under Article 280 of the Constitution on 27th November 2017 to make recommendations for the period 2020- 25. The Commission was entrusted not only with dividing the net receipts of taxes between the Union and the States, but also with examining and offering feedback on the fiscal principles that are designed for various grants that are generally given in addition to revenue shares. Specifically, the commission was instructed to take into account performance-based rewards in order to encourage and support State and/or local governments—the "appropriate level of government"—in a number of policy

domains. Subsequently, the Assam Fiscal Responsibility and Budget Management Act (AFRBM), 2005, which was passed by the State Government, got amended seven times, with the latest amendment in September 2021.

The State shall be permitted to use a normal Net Borrowing Ceiling (NBC) of 4 percent of the projected GSDP for the fiscal year 2021–2022, as per the AFRBM Act, 2021. Starting with the fiscal year 2021–2022, the State will be allowed borrowing permission equal to 3.50 percent of GSDP. The State has set aside the remaining borrowing ceiling of 0.50 percent of GSDP for additional Capital Expenditure, which will be allowed based on the State's Capital Expenditure for the fiscal year 2021–2022. In addition to the previously mentioned ceiling of 4 percent of GSDP, the State may be permitted to borrow up to an additional 0.50 percent of GSDP, subject to the performance of the electricity sector and the guidelines issued by the Department of Expenditure, Ministry of Finance, and Government of India.

The performance of State during 2020-21 to 2021-22 in terms of key fiscal targets of the XIV-FC set for selected variables as laid down in AFRBM (Amendment) Act, 2011 vis-à-vis achievements are given in Table 5.5

Table 5.5: Achievement in Fiscal indicators vis-à-vis AFRBM targets during 15th Finance commission

Fiscal Year	Revenue Deficit (-) / surplus (+)		Fiscal deficit(-) / surplus(+)		Ratio of total outstanding debt to GSDP (in percent)	
	Achievement	AFRBM target	Achievement	AFRBM target	Achievement	AFRBM target
2020-21	383	Revenue surplus	-3.56	5.5 percent (2020-21) 4.5 per cent (2021-22)	25.69	28.50 percent
2021-22	-2733		-4.58		23.03	
2022-23(RE)	-12072.35		-6.1		23.47	
2023-24(BE)	2,748.10		-3.7		24.48	

Source: CAG Report for Assam; Economic Survey of Assam, GoA.

At the end of 2020-21 the state was able to attain revenue Surplus of Rs 383 Crore and the fiscal deficit was stood at 3.56 percent of GSDP which satisfied the targets set by the Act. During that year Debt to GSDP ratio stood at 25.69 percent and the state successfully achieved the fiscal targets. During 2021-22, the State ended up with Revenue Deficit of ₹2,732.7 crore and the Fiscal Deficit of the State stood at 4.58 per cent of the State GSDP, which was marginally above the borrowing limit of 4.50 percent fixed under AFRBM Act, 2021. The state has ended up with Debt-to-GSDP ratio of 23.03 percent in 2021-22, complying with the norms. The state however failed to comply with the target for fiscal deficit of 4.5 percent during 2022-23.

5.5 Medium Term Fiscal Policy Analysis

One of the FRBM Act's stated goals is for the Central Government to implement its medium-term fiscal policy framework. In order to do this, the government must present the Annual Financial Statement (AFS), Demand for Grants, and Fiscal Policy Statements (FPS), Macro-economic Framework (MF), and Medium-Term Fiscal Policy (MTFP) Statement to both Chambers of Parliament in accordance with Section 3 of the Act. A Medium-Term Expenditure Framework (MTEF) Statement must also be submitted to the Parliament, under a 2012 change to the FRBM Act.

Table 5.6 shows the variations between actual and the amount projected by the Medium-Term Fiscal Plan from 2016-17 to 2021-22. During 2021-22 the State was projected to have a revenue surplus of ₹4,574.00 Crore, but the State ran a revenue deficit of ₹2,733.00 crore. The State also faced higher fiscal deficit than the MTFP projections, with a variation of 32 percent but the State was able to achieve lower Debt-to-GSDP ratio than the projected values.

Table 5.6: Achievement of Mid Term fiscal Policy (in ₹crore)

Year		2016-17	2017-18	2018-19	2019-20	2020- 21	2021- 22
Revenue Receipts	Projection as per MTFP	66,180.00	23,898.00	74,119.00	83,148.00	91,930.80	88,979.00
	Actual	49,220.00	17,288.00	63,479.00	64,495.00	64,902.19	79,815.00
	Variations (in percent)	-25.63	-27.66	-14.36	-22.43	-29.40	-10.30
Revenue Expenditure	Projection as per MTFP	62,459.00	68,319.00	71,329.00	79,742.00	82,776.98	84,405.00
	Actual	49,363.00	55,481.00	56,899.00	66,667.00	64,519.59	82,548.00
	Variations (in percent)	-20.97	-18.79	-20.23	-16.40	-22.06	-2.20
Revenue Deficit (deficit '-'/ surplus '+')	Projection as per MTFP	3,721.00	2,400.00	2,790.00	3,406.00	9,153.82	4,574.00
	Actual	-142.91	-1,350.00	6,580.00	-2,172.00	382.60	-2,733.00
	Variations (in percent)	-103.84	-156.25	135.84	-163.77	-95.82	-160.00
Fiscal deficit (deficit '-'/ surplus '+')	Projection as per MTFP	-6,675.00	-7,701.00	-9,774.00	-11,113.00	-9,382.71	-15,028.00
	Actual	-6,125.00	-9,342.00	-4,779.00	14,916.00	12,102.03	19,863.00
	Variations (in percent)	-8.24	21.31	-51.10	34.21	28.98	32.00
Debt-GSDP ratio (per cent)	Projection as per MTFP	17.16	19.31	17.62	17.57	19.50	26.00
	Actual	18.54	18.85	18.84	20.57	25.10	23.00
	Variations (in percent)	8.04	-2.38	6.92	17.07	28.72	-13.00
GSDP growth rate at current prices (per cent)	Projection as per MTFP	-	-	17.00	12.36	15.00	-8.00
	Actual	11.6	11.59	9.32	11.22	3.89	28.00
	Variations (in percent)	-	-	-45.18	-9.22	-74.07	457.00

Source: CAG State Finances Report (various issues)

Table 5.7: MTFP Projections made in the Assam State Budget 2023-24

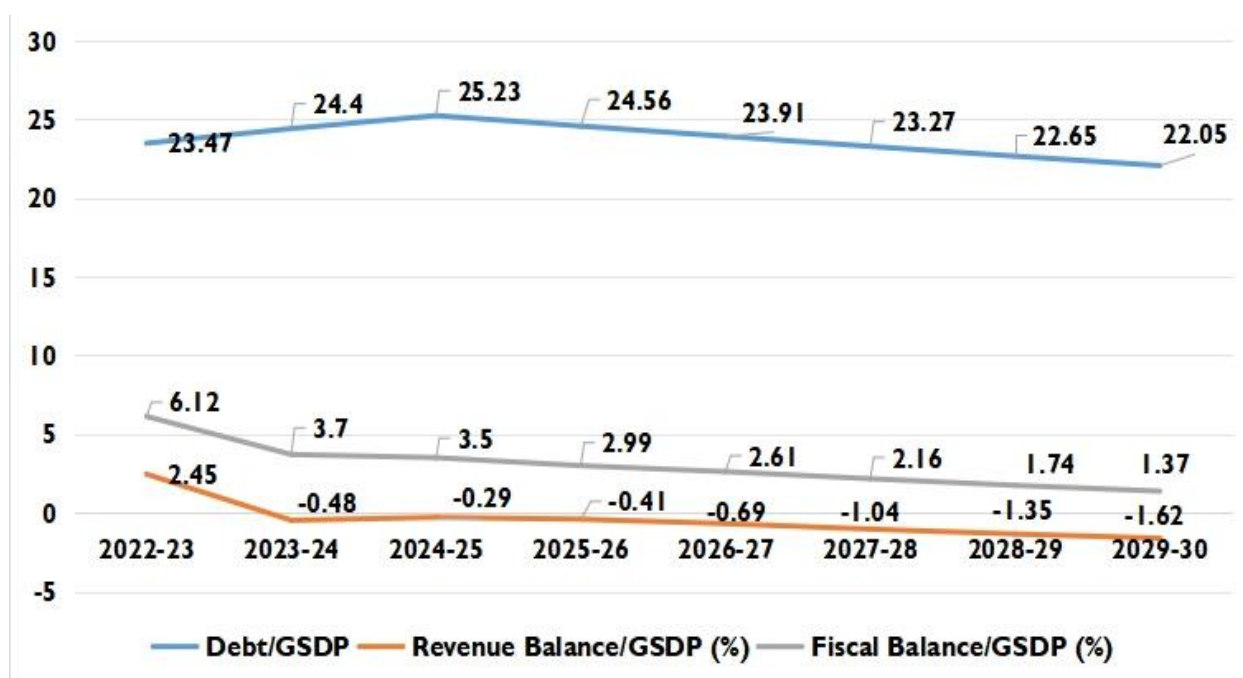
Items	2022-23 (PA)	2023-24 (BE)	2024-25 Estimates	2025-26 Projection	2026-27 Projection	2027-28 Projection	2028-29 Projection	2029-30 Projection
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
1. Total Revenue Receipts	89742.3	114084.7	111943.85	144703.7	159174.07	175091.47	192600.62	211860.68
Own Revenues (a+b)	30263.33	37012.5	43019.71	55902.32	61492.55	67641.8	74405.98	81846.58
a) Own Tax Revenue (i to xi)	24502.02	30001.66	34148.43	44392.95	48832.25	53715.47	59087.02	64995.72
i) State Good & Service Tax (SGST), Integrated Goods & Service Tax (IGST)	12564.45	15668	17237.96	22409.35	24650.28	27115.31	29826.84	32809.52
ii) Sales Tax	6748.61	7743.24	8718	11333.4	12466.74	13713.41	15084.75	16593.23
iii) State Excise	2525.57	3000	4100.82	5331.07	5864.18	6450.6	7095.65	7805.22
iv) Stamp Duty & Registration	851.51	821.04	1226.18	1594.03	1753.44	1928.78	2121.66	2333.82
v) Motor Vehicle Tax	1348.41	1445.04	2197.71	2857.02	3142.72	3456.99	3802.69	4182.96
vi) Taxes on Goods & Passengers	2.64	5.5	3.81	4.95	5.44	5.99	6.59	7.25
vii) Tax on Professions, Trades etc.	212.81	231.01	306.44	398.38	438.21	482.03	530.24	583.26
viii) Other Taxes on Commodities & Services	0.04	0.01	0.06	0.08	0.09	0.09	0.1	0.11
ix) Land Revenue	158.5	681.56	228.24	296.71	326.39	359.02	394.93	434.42
x) Taxes on agricultural income	1.67	7	2.76	3.59	3.95	4.34	4.78	5.25
xi) Taxes & Duties on Electricity	87.81	399.27	126.45	164.38	180.82	198.9	218.79	240.67
b) Non-Tax Revenue	5761.31	7010.84	8871.28	11509.37	12660.3	13926.33	15318.97	16850.86
i) Interest receipts	323.68	159.84	466.095	582.62	640.88	704.97	775.47	853.01
ii) Royalty on Crude Oil & Natural Gas	4087.06	4204.66	5860.37	7618.48	8380.33	9218.36	10140.2	11154.22
iii) Forestry & Wild life	451.39	1010	1250	1625	1787.5	1966.25	2162.88	2379.16
iv) Others	899.18	1636.34	1294.82	1683.26	1851.59	2036.75	2240.42	2464.47
Transfer from the Centre (a+b)	59478.97	77072.2	68924.14	88801.38	97681.52	107449.67	118194.63	130014.1
a) Share of Central Taxes	29694.26	31950.89	40000	51200	56320	61952	68147.2	74961.92
b) Grants (i +ii)	29784.71	45121.31	28924.14	37601.38	41361.52	45497.67	50047.43	55052.18
i) Centrally Sponsored Schemes	21557.32	31130.48	23196.82	30155.87	33171.46	36488.6	40137.46	44151.21
ii) Grants under Finance Commission and other transfers	8227.38	13990.82	5727.31	7445.51	8190.06	9009.07	9909.97	10900.97
2. Recovery of loans and advances	5.07	306.39	2222.23	2666.67	3066.68	3526.68	4055.68	4664.03
3. Revenue Expenditure (a to d)	101814.64	111336.59	110091.86	141708.7	153542.23	165460.56	178467.65	192669.27
a) Interest	6874.97	8815.37	9597.38	10077.25	11084.98	12193.47	13412.82	14754.1
b) Salary	30868.01	41039.93	36399.03	38218.98	42040.88	46244.97	50869.46	55956.41

c) Pension	16406.63	16208.91	17811.43	18523.89	20376.28	22413.91	24655.3	27120.83
d) Others	47665.03	45272.38	46284.01	46746.85	49084.19	50556.72	52073.42	53635.62
4. Capital Outlay	15997.71	23822.47	26595.58	27393.45	30132.79	33146.07	36460.68	40106.75
5. Lending + contribution to Contingency Fund	2139.84	189.12	11.47	12.04	12.65	13.28	13.94	14.64
6. Revenue Deficit [Surplus (-)/ Deficit (+)]	12072.35	-2748.1	-1851.99	-2994.99	-5631.83	-9630.91	-14132.97	-19191.41
7. Fiscal Deficit [Surplus (-) / Deficit (+)]	30204.83	20957.1	22532.83	21743.83	21446.93	20001.77	18285.97	16265.95
8. Year End Debt Stock	115751.32	138388.3	162242.06	178466.27	196312.89	215944.18	237538.6	261292.46
9. Year End Outstanding Guarantees	1166.5	311.76	311.76	311.76	311.76	311.76	311.76	311.76
10. Debt Stock including Guarantees (8+9)	116917.82	138700.06	162553.82	178778.03	196624.65	216255.94	237850.36	261604.22
11. Debt/GSDP	23.47%	24.40%	25.23%	24.56%	23.91%	23.27%	22.65%	22.05%
12. (Debt + Guarantee)/GSDP	23.71%	24.46%	25.28%	24.60%	23.94%	23.31%	22.68%	22.08%
13. Revenue Balance/Revenue Receipts (%)	13.45	-2.41	-1.65	-2.07	-3.54	-5.5	-7.34	-9.06
14. Revenue Balance/GSDP (%)	2.45	-0.48	-0.29	-0.41	-0.69	-1.04	-1.35	-1.62
15. Fiscal Balance/GSDP (%)	6.12	3.7	3.5	2.99	2.61	2.16	1.74	1.37
16. Interest Payment/ Revenue Receipt (%)	7.66	7.73	8.57	6.96	6.96	6.96	6.96	6.96
17. Own Tax revenue/ GSDP (%)	6.14	6.53	6.69	7.69	7.49	7.29	7.1	6.91
18. GSDP (₹ in crore) at current prices	493167	567142.05	643089	726690.57	821160.34	927911.19	1048539.64	1184849.8

Source: Statements laid before the Assam Legislative Assembly as required under the Assam Fiscal Responsibility and Budget Management Act, 2005 (GOVERNMENT OF ASSAM, FINANCE DEPARTMENT) 2024-25

Note: PA – Preliminary Actual; BE –Budget Estimate

Figure 5.1: MTFP Projections of Major Fiscal Parameters for Assam



Source: Authors' Estimation calculated from Statements laid before the Assam Legislative Assembly as required under the Assam Fiscal Responsibility and Budget Management Act, 2005 (GOVERNMENT OF ASSAM, FINANCE DEPARTMENT) 2024-25

5.6 Conclusion

AFRBM in the State was enacted to regulate the fiscal functioning of the State Government to maintain long term fiscal sustainability. AFRBM mandated ceiling targets of Fiscal Deficit and Debt-to-GSDP ratio in particular to be achieved by the State in a given time frame. It also mandated the state to attain revenue surplus within a stipulated time period. Analysis shows that the State has largely complied with the targets set in the AFRBM Act, with minor exception for a few years. State's attainment in these fiscal parameters is close to their corresponding targets. For example, in the year 2022-23 a breach in the fiscal deficit is observed, however the deficit was reduced to 3.7 per cent which is within the target range. The AFRBM act 2005, lists several directives to adherence the fiscal parameters. These includes proposals for supplementary or additional demand for grants placed before the state Legislature shall be accompanied with a statement of their impact on the fiscal indicators as disclosed at the time of presentation of the Annual Financial statement under section 5(3) of the AFRBM act.; revision of trends in receipts and expenditure every year; manage expenditure in consistent with the revenue generated; maintain government debt at prudential level;

ensure that policy decisions of the government have due regard to the financial implication on the future generation etc.

The MTFP projections for the fiscal indicators are remarkably low, with projected fiscal deficit of 1.37 per cent and revenue surplus of 1.62 percent of the state GSDP in 2029-30, much below the current AFRBM targets in the State. Debt-to-GSDP ratio is also projected to fall to about 22.05 percent of the State GSDP in 2029-30, lower than the current AFRBM target of 28.5 percent in the State.

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Chapter VI - Fiscal Decentralization in Assam

6.1 Introduction

In today's contemporary world, each and every economy has put significant importance towards decentralization of power. It has become one of the key components of modern democracy. Decentralization as a concept rests on a few fundamental principles including accountability, transparency, and public participation in governance and fiscal transfers. One step in ensuring the efficacy of decentralization is the transfer of responsibilities, personnel, and financial resources from the central government to the provincial and local governments. More specifically, 'Fiscal Decentralization' is the transfer of certain functions including the administrative authority and financial resources from the Central government to local governments such as states, regions and municipalities. It includes both the creation of resources by regional and local governments as well as the distribution of resources by the Central government. Fiscal decentralization, being an essential component of decentralization, is significant since decentralization becomes inoperative and ineffective without it. Without adequate and proper financial resources, any kind of decentralized form of government is not meaningful (Rao, et. al., 2011; Meenakshi and Saxena, 2022)

Since the late 1980s, the global economy has witnessed a massive wave of decentralization. In view of this wave of decentralization, India also joined this movement in 1992 by passing the 73rd and 74th Constitutional Amendments which amended its constitution with the intent to strengthen democracy at the base-level by decentralizing governance and empowering local political organizations in both rural and urban India. These amendments added two new parts of the Constitution, namely Part IX titled "The Panchayats" (added by 73rd Amendment) and Part IXA titled "The Municipalities" (added by 74th Amendment). The 73rd Constitutional Amendment granted constitutional status to Panchayats in rural areas and introduced Panchayati Raj Institutions (PRIs). They are also known as Rural Local Bodies (RLBs). A PRI can be described as a system of rural local self-government in India. The role of a PRI is to build democracy at the base-level and ensure rural development in the country. The 74th Constitutional Amendment was introduced for the creation of local self-governments in urban areas. These local self-governments are also known as Urban Local Bodies (ULBs). These ULBs are constituted for local planning, administration and development in the urban areas. The aim of these amendments was to establish financially sound, democratic, independent local institutions that could design and carry out programs for their individual regions and give the populace decentralized

governance. Its foundations are the ideas that local solutions are the best means of resolving local problems and that people should have a voice in decisions that impact their lives. The important aspects of the Amendment Acts were:

- The creation of a three-tiered Panchayat and Municipality organizations.
- Every five years, regular elections are to be held for Panchayats and Municipalities.
- Chairperson positions and seats shall be reserved for women, SC, and ST according to their respective population proportion.
- The Constitutions of the State Election Commission and the State Finance Commission are to be reviewed every five years after their expirations.

6.2 An Overview of Local Bodies in the State

Located in Northeast India, Assam is the second-biggest state in terms of territory while the largest in terms of population. It is considered as the gateway of North-East India. The total area of Assam is 78,438 sq km (30,285 sq mile). As per the Census 2011, the total population of Assam is 3.12 crore. Rural population in the State is 2.68 crore which constitutes about 85.9 percent of the total population while the urban population is about 0.44 crore which constitutes about 14.1 percent of the total population of the State. Compared to the national average of population density of 382 persons per sq km, Assam has a higher population density of 398 persons per sq km. State's sex ratio is 958 females per 1,000 males which is also higher than the national average of 943. Rural and urban sex ratios in the State are 960 and 946 females per 1,000 males, respectively.

Some of the important statistics of the State are mentioned in Table 6.1.

Table 6.1: Important Statistics of the State

Indicators	Unit	Value
Total Population	Crore	3.12
Male Population	Crore	1.59
Female Population	Crore	1.52
Rural Population	Crore	2.68
Urban Population	Crore	0.44
Density of Population	Persons per sq. km.	398
Sex Ratio	(Female per thousand male)	958

Urban Sex Ratio	(Female per thousand male)	946
Rural Sex Ratio	(Female per thousand male)	960
Urban Population	<i>Per cent</i>	14.1
Literacy Rate	<i>Per cent</i>	72.19
Urban Literacy Rate	<i>Per cent</i>	88.47
Rural Population	<i>Per cent</i>	85.9
Rural Literacy Rate	<i>Per cent</i>	69.34

Source: Statistical Handbook, Assam 2023

Due to the wide diversity in the demographic structure of the State, the Assam State Finance Commission (ASFC) faces some difficulties and challenges in their tasks. Assam is composed of General Area and Sixth Schedule Areas. The General Area is mainly split up into two distinct valleys viz. the Barak Valley and the Brahmaputra Valley which are separated by hills. In addition to the General category, different plain tribes and ethnic groups live in the General Area. The Sixth Schedule Areas are filled with both hills and plains which are inhabited by people of diverse ethnicity. Bodoland Territorial Council (BTC), Dima Hasao Autonomous Council (DHAC), and Karbi Anglong Autonomous Council (KAAC) are the three autonomous district councils (ADCs) in Assam that were founded in 1949 to safeguard indigenous and tribal populations under the Sixth Schedule of the Indian Constitution. Sixth Schedule Areas were excluded from Finance Commission awards due to Article 243 M and 243 ZC provisions. However, Central Finance Commissions recommended allocations for Excluded Area local bodies, but the 14th Finance Commission did not, creating an anomalous situation between Normal Area and Excluded Area local bodies.

6.2.1 Panchayati Raj Institutions (PRIs): Overview, Functioning of PRIs & Audit Coverage

In accordance with the provisions of the 73rd and 74th Constitutional Amendments, Assam created a three tier Panchayati Raj System and it was established in conformity with the Assam Panchayat Act, 1994:

- At the base level is the Gaon Panchayat (GP) consisting of a cluster of villages.
- At the intermediate level is the Anchalik Panchayat (AP) coterminous with the Sub-Division.

- At the apex level there is the Zilla Parishad (ZP) coterminous with the district.

For conducting business, the legislative framework of the PRIs in Assam are based on the following acts and rules:

- Assam Panchayat Act, 1994 (AP Act, 1994)
- Assam Panchayat (Financial) Rules, 2002 (AP (F) Rules, 2002), amended in 2004
- The Assam Panchayat (Administrative) Rules, 2002 (AP (A) Rules, 2002) and
- Government instructions issued from time to time.

The Sixth Schedule Areas do not have the Panchayati Raj system in place; instead, the corresponding Autonomous District Councils (ADCs) are in charge of local governance. As of March 2021, there were a total 2,415 PRIs in the ‘General’ areas of Assam which includes 26 ZPs, 191 APs and 2198 GPs.

The position of PRIs in Assam, in terms of number of LBs (PRIs), average area and average population, is shown in Table 6.2.

Table 6.2: Statement showing details of position of PRIs in Assam (as of 31 March 2021)

Level of LB (PRIs)	No. of LBs	Total	Average Area per PRIs (sq. km)	Average Population
Zilla Parishad (ZP)	26	2415	2032.93	1188256
Anchalik Panchayat (AP)	191		219.78	128460
Gaon Panchayat (GP)	2198		18.46	10793

Source: Report of the Comptroller and Auditor General of India on Local Bodies for the period 2017-18 to 2020-21, GoA.

The AP Act, 1994, allows panchayats to make bye-laws for their functions, and the 73rd Constitutional Amendment grants them authority in revenue mobilization. The AP (F) Rules, 2002 which got amended in 2004, empower all three tiers to levy and collect taxes. However, in April 2022, the government suspended tax or fee levy by the PRIs for business activities except foreign or country liquor shops, educational institutions, health establishments, brick kilns, mobile towers, petrol pumps, timber saw mills, and godowns. Thus, there was no guarantee of total autonomy for the PRIs in terms

of revenue mobilization. The Central and the State Finance Commissions had stressed upon the need for complete transfer of funds, functions and functionaries (3Fs) to the PRIs for fruitful and proper devolution. But it has been observed that the 3Fs were still not completely transferred to the PRIs in Assam.

Established under the Assam Local Funds (Accounts & Audit) Act, 1930, the Director of Audit, Local Fund (DALF), Assam, is the principal auditor of all tiers of PRIs. The year-wise (2012-13 to 2020-21) positions of units planned for audit, and those actually got audited, are given in Table 6.3.

Table 6.3: Coverage of PRI units planned for audit by DALF in respect of PRIs

Year	No. of units planned for audit	No. of units audited	Shortfall	Percentage of shortfall
2012-13	1423	788	635	44.62
2013-14	1130	888	242	21.42
2014-15	1131	842	289	25.55
2015-16	1511	753	758	50.17
2016-17	1560	801	759	48.65
2017-18	1324	691	633	47.81
2018-19	1386	613	773	55.77
2019-20	1105	471	634	57.38
2020-21	1031	501	530	51.41

Source: Report of the Comptroller and Auditor General of India on Local Bodies, GoA, related issues.

There were arrears in the audit of PRIs by the DALF, during the period 2012-13 to 2020-21, ranging between 21.42 percent and 57.38 percent. The DALF reported a shortfall in audit coverage and arrear in audit reports of the PRIs due to issues such as record production failure, Panchayat Election engagement, COVID-19, National Register of Citizens (NRC) updation, etc. This has affected the accountability mechanism of PRIs in Assam.

6.2.1.1 Status of PRIs in Sixth Schedule Areas

As stated earlier, the Sixth Schedule Areas do not have the Panchayati Raj system in place; instead, the corresponding Autonomous District Councils (ADCs) are in charge of local governance. Every Autonomous Council in the Sixth Schedule Areas has stated that they are open to the 73rd Amendment's expansion to include the excluded territories. Nonetheless, the Union Ministry of Home Affairs is responsible for enacting the necessary legislation in this regard. Meanwhile, the Karbi Anglong Autonomous Council established 26 Village Development Councils, the Bodoland Autonomous Council established 415 Village Council Development Committees (VCDC), and the Dima Hasao Autonomous Council suggested establishing 20 VCDCs. The Village Councils function similarly to General Practitioners in the General Areas. On the other hand, the village council members are chosen representatives.

The Fifth SFC recommended suitable grants for the years 2016-2020 in order to fully operationalize village councils in Sixth Schedule Areas with staff and office buildings. However, because no personnel were accepted for the Village Councils, none of the Autonomous Councils were able to use the funding against staff salaries. Only BTC (Bodoland Territorial Council) received the ₹26.75 crore that was made available for office buildings, and another ₹26.75 crore is scheduled to be released. Our primary goal is to establish the Village Councils with the fewest possible employees, office space, and funding for a few other crucial areas (Report of SAFC 2020-25).

6.2.2 Urban Local Bodies (ULBs): Overview, Functioning of ULBs & Audit Coverage

Likewise, a three-tier system of Urban Local Bodies (ULBs) was implemented for the urban regions. This system comprises:

1. A Municipal Corporation (MC) for bigger urban areas.
2. A Municipal Board (MB) for a relatively large urban area.
3. A Town Committee (TC) for transitional and emerging townships.

The Assam government, however, has recently chosen to transform all TCs into MBs and has divided them into five population-based groups. Included in Category I are MBs with a population of more than one lakh; in Category II, the population ranges from 20,000 to 50,000; in Category III, the population ranges from 10,001 to 20,000; and in Category V, the population ranges up to 10,000. For conducting business, the legislative framework of the ULBs in Assam are based on the following acts and rules:

- Guwahati Municipal Corporation Act, 1971 (GMC Act)
- Assam Municipal Act, 1956 (amended up to 2012) (AM Act)
- Assam Municipal Accounts Rules, 1961 (AMA Rules); and
- Government instructions, issued from time to time.

As of March 31, 2021, there were a total 101 ULBs in the State: 100 MBs and one MC. While regions specified under the Sixth Schedule of the Indian Constitution are controlled by the regulations formulated by the corresponding Autonomous District Councils, ULBs falling under the General Areas are administered under the AM Act, 1956.

The position of ULBs in Assam, in terms of number of LBs (PRIs), average area and average population, is shown in Table 6.4.

Table 6.4: Statement showing details of position of ULBs in Assam (as of 31 March 2021)

Level of LB (ULBs)	No. of LBs	Total
Municipal Corporation (MC)	1	101
Municipal Board (MB)	100	
Town Committees (TC)	got converted to MBs	

Source: Report of the Comptroller and Auditor General of India on Local Bodies for the period 2017-18 to 2020-21, GoA.

The Director of Audit, Local Fund (DALF), Assam, set up under the Assam Local (Accounts & Audit) Act, 1930, is also the principal auditor of all tiers of ULBs in the State. The year-wise (2012-13 to 2020-21) positions of units planned for audit, and those actually got audited, are given in Table 6.5.

Table 6.5: Coverage of ULB units planned for audit by DALF in respect of ULBs

Year	No. of units planned for audit	No. of units audited	Shortfall	Percentage of shortfall
2012-13	58	26	32	55.17
2013-14	57	41	16	28.07
2014-15	48	21	27	56.25
2015-16	67	41	26	38.81

2016-17	76	49	27	35.53
2017-18	82	41	41	50.00
2018-19	74	44	30	40.54
2019-20	69	31	38	55.07
2020-21	69	37	32	46.38

Source: Report of the Comptroller and Auditor General of India on Local Bodies, GoA, related issues.

There were arrears in the audit of ULBs by the DALF, during the period 2012-13 to 2020-21, ranging between 28.07 percent and 56.25 percent. The DALF reported a shortfall in audit coverage and arrear in audit reports of the ULBs due to issues such as record production failure, Panchayat Election engagement, National Register of Citizens (NRC) updation, COVID-19, etc. This has affected the accountability mechanism of ULBs in Assam.

6.2.1.1 Status of ULBs in Sixth Schedule Areas

As already stated above, the regions specified under the Sixth Schedule of the Indian Constitution are controlled by the regulations formulated by the corresponding Autonomous District Councils. For most of the audit and assessment made by CAG India, ULBs under Sixth Scheduled Areas were not selected as it does not come under the purview of the 74th Constitutional Amendment Act. However, there are about 22 ULBs in the Sixth Schedule Areas of Assam. Overall, the combined revenue gap of the ULBs in BTC, KAAC and DHAC has been assessed at ₹140.58 crore during the period of five years 2020-25. Fulfillment of the assessed revenue gap will be covered by GIA recommended by the SFC.

6.3 Sources of Funds for Local Bodies

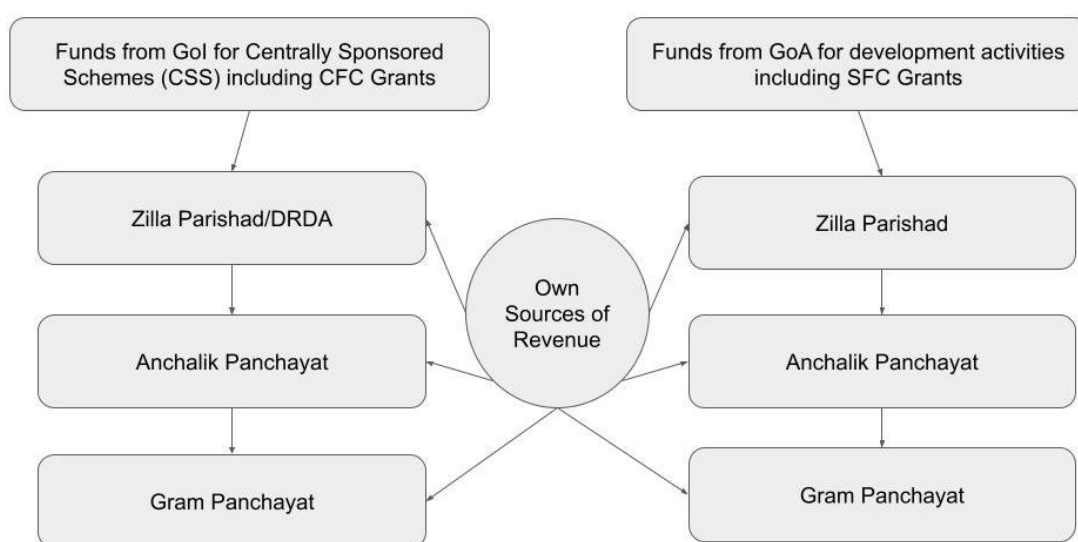
The principal sources of income for Local Bodies (PRIs and ULBs) in the State are the funds released by GoI for Centrally Sponsored Schemes (CSS) including Central Finance Commission (CFC) Grants and by GoA for development activities including State Finance Commission (SFC) Grants. In addition, LBs also mobilize revenue from their own resources, loans, shared revenues, etc.

6.3.1 Sources of Funds for PRIs

PRIs in the State primarily generate income from various sources, including Centrally Sponsored Schemes (CSS), Central Finance Commission (CFC) Grants, State Finance Commission (SFC) Grants, and State Government Grants which are funded for various schemes. Flow of funds are mainly

first transferred to a ZP and or DRDA (District Rural Development Agency) which are then transferred to AP and then GP and the three tiers of the panchayats have their own sources of revenue to mobilize their revenue earnings. PRIs collect non-tax revenue from *haats*, ferries, and fisheries, including house tax, toll fees, fines, and user charges, which are leased out annually by inviting sealed tenders. Figure 6.1 depicts the flow of funds in PRIs.

Figure 6.1: Fund Flow of PRIs



Source: Authors' Analysis taken from Report of the Comptroller and Auditor General of India on Local Bodies

The Table 6.6 states the receipts of PRIs, from all sources during 2012-13 to 2020-21:

Table 6.6: Resources of PRIs from 2012-13 to 2020-21(₹ in crore)

Year	Own Revenue	State Finance Commission (SFC) transfers	Central Finance Commission (CFC) transfers	Interest for Delayed Payment of CFC grants	Grants for State Sponsored Schemes (SSS)	GOI grants for Centrally Sponsored Schemes (CSS)	Total Resources	Resources Growth (%)
2012-13	176.16	104.42	362.05	-	89.09	1,211.38	1,943.10	-17.52
2013-14	193.80	158.23	201.93	4.97	197.29	2,000.58	2,756.80	41.88
2014-15	213.18	298.84	270.54	1.45	147.04	1,879.94	2,810.99	1.97
2015-16	8.16	147.36	292.40	10.28	486.00	2,070.00	3,014.20	7.23

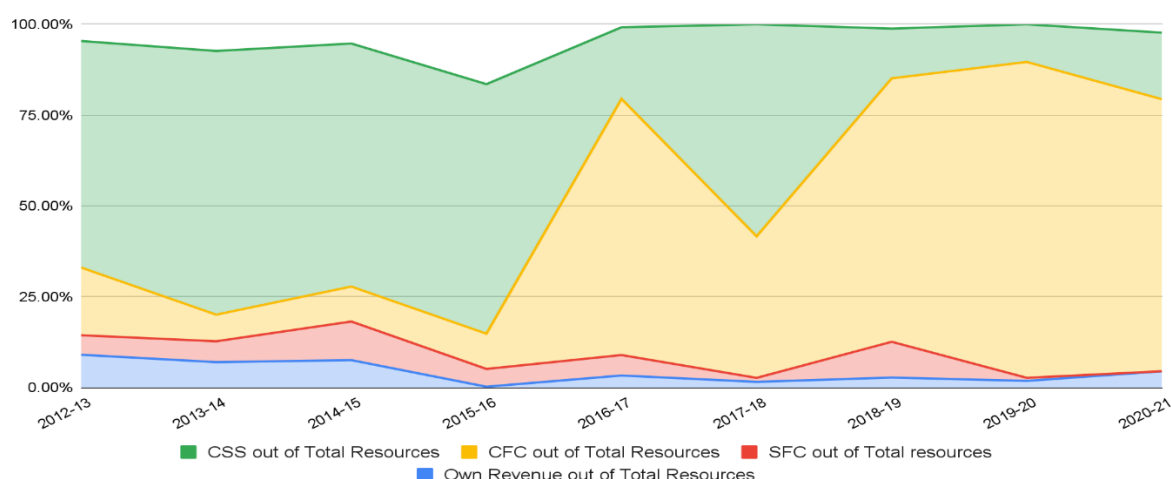
2016-17	43.61	73.13	915.98	10.49	-	255.98	1,299.19	-56.9
2017-18	43.45	29.80	1,055.80	0.00	-	1,581.16	2,710.21	108.61
2018-19	41.66	146.92	1,082.32	17.57	-	204.31	1,492.78	-44.92
2019-20	31.52	14.14	1,462.45	0.00	-	174.18	1,682.29	12.7
2020-21	40.43	0.00	668.56	20.45	-	163.63	893.07	-46.91

Source: Authors' Estimation calculated Report of the Comptroller and Auditor General of India on Local Bodies, related issues; State Finances Audit Report of the Comptroller and Auditor General of India, related issues.

NB: SFC Grants was nil during 2020-21 due to delay in submission of Sixth ASFC Report

Figure 6.2 depicts the contribution of different resources to total resources of PRIs such as grants for CSS, CFC transfers, SFC transfers and grants for CSS and not including grants for SSS.

Figure 6.2: Contribution of Different Resources to Total Resources of PRIs



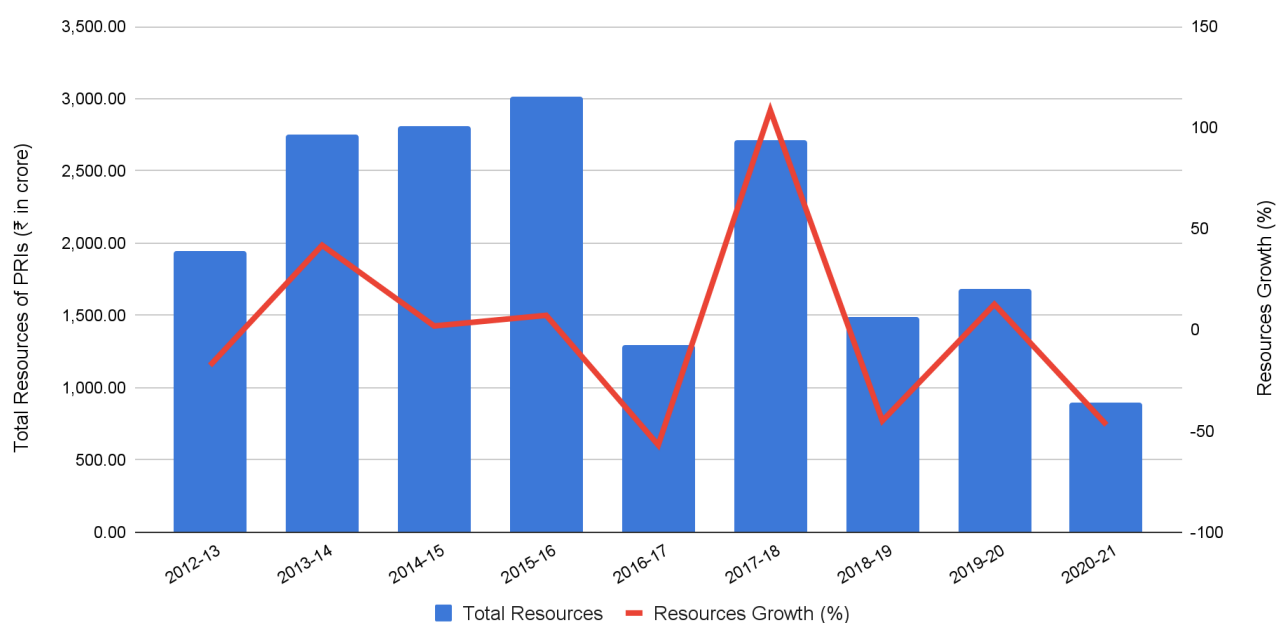
Source: Authors' Estimation

From the Table 6.6 and Figure 6.2, it is observed that a greater significant contribution for source of funds for PRIs comes from grants for CSS from GoI and CFC transfers. Grants from GOI for CSS to PRIs were very high from 2012-13 to 2015-16 ranging between 62.34 percent to 72.57 percent. However, a huge decline in CSS grants (19.7 percent) was observed in 2016-17, but that was compensated for in the next year with a rise in share of 58.34 percent in grants for CSS. From 2018-19 onwards, the share of CSS grants has come down to about 13.69 percent (ranging between 10.35 percent to 18.32 percent). Coming to the CFC transfers, 18.63 percent was contributing to the total funds of PRIs in 2012-13, but less than 10 percent share was recorded during the period 2013-14 to 2015-16. From 2016-17 onwards, a somewhat relatively high and constant proportion of CFC transfers ranging between 70.50 percent and 86.93 percent were contributing to the total resources of

PRIs in the upward trend (except in the year 2017-18 which saw a decline of 38.96 percent). CFC transfers registered a CAGR (Compound Annual Growth Rate) of 16.71 percent while CSS grants registered a CAGR of -12.72 percent which reflects the contrasting upward and downward trend in their shares to the total resources of PRIs. Own revenue generated by PRIs and SFC transfers from GoA constitute very less share in the total resources of PRIs. Over the years from 2012-13 to 2020-21, each of the two components contributed around less than 10 percent to the total resources of PRIs. Own revenue and SFC transfers register a CAGR of -7.43 percent and -20.70 percent respectively. From 2016-17 to 2020-21, it can be observed that own revenue generated by PRIs ranged between ₹30 crore and ₹45 crore with a significant contribution of the resources coming from FC grants or SFC transfers for implementing CSS or State Schemes.

Year-wise total resources of PRIs are given in Figure 6.3 which shows the total resources along with their growth rate:

Figure 6.3: Total Resources of PRIs from 2012-13 to 2020-21



Source: Authors' Estimation

It is observed that in 2012-13, total resources of PRIs was ₹1943.10 crore which grew in the subsequent years and by 2015-16, the total resources was ₹3014.20 crore. However, total resources saw a huge dip (₹1299.19 crore) in the year 2016-17 declining by 56.9 percent from the previous year. Nonetheless, a huge increment (₹2710.21 crore) of 108.61 percent was observed in 2017-18.

From 2018-19 to 2020-21, the growth of total resources of PRIs fluctuated and the amounts were very less compared to previous years. Over the years from 2012-13 to 2020-21, total resources of PRIs registered a CAGR of -8.27 percent.

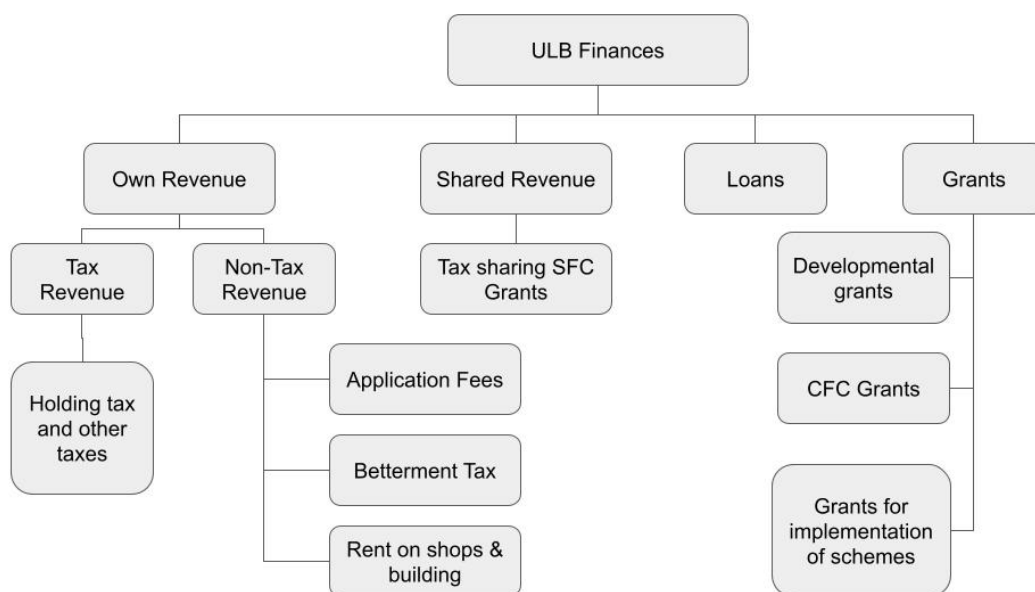
6.3.2 Sources of Funds for ULBs

The principal sources of revenue of ULBs are as follows:

- Collection from tax and non-tax sources as assigned to them under Assam Municipal act, 1956.
- Devolution of shared taxes and duties as per recommendation of the State Finance Commission.
- Grants-in-aid from the Government of Assam.
- Grants-in-aid from the Government of India under Centrally Sponsored Schemes.
- Share of State Government. of Assam against Centrally Sponsored Schemes of Government. of India.
- Award of Central Finance Commission Grant, GOI.
- Loans which can be obtained from the State Government, Central Government, institutional borrowings, market borrowings, international agencies and other sources.

Additionally, ULBs get loans from financial institutions to carry out several projects related to roads, water supply, urban development, etc. According to the provisions of the Acts currently in effect, all collections, including taxes on holdings, water taxes, latrine taxes, etc., are sources of tax income; on the other hand, the primary sources of non-tax revenue were building plan sanction fees, rent from stores and buildings, tolls, and other fees and charges. ULBs are unable to generate their own revenue due to inadequate revenue collection, resulting in reliance on government grants. Their main source of revenue is property tax on land and buildings, while their non-tax revenue includes water charges, rent from commercial establishments, trade licenses, and fees for plan/mutations sanction. The State Government holds the authority to collect certain taxes, but lacks complete autonomy in generating their own revenue. The State Government reimburses the ULBs for their startup costs by disbursing grants and loans. In order to carry out various programs and projects, ULBs also get funding and support from the Central and State Governments. Figure 6.4 depicts the flow of funds of ULBs.

Figure 6.4: Fund Flow of ULBs



Source: Authors' Analysis taken from Report of the Comptroller and Auditor General of India on Local Bodies

The Table 6.7 states the receipts of ULBs, from all sources during 2012-13 to 2020-21:

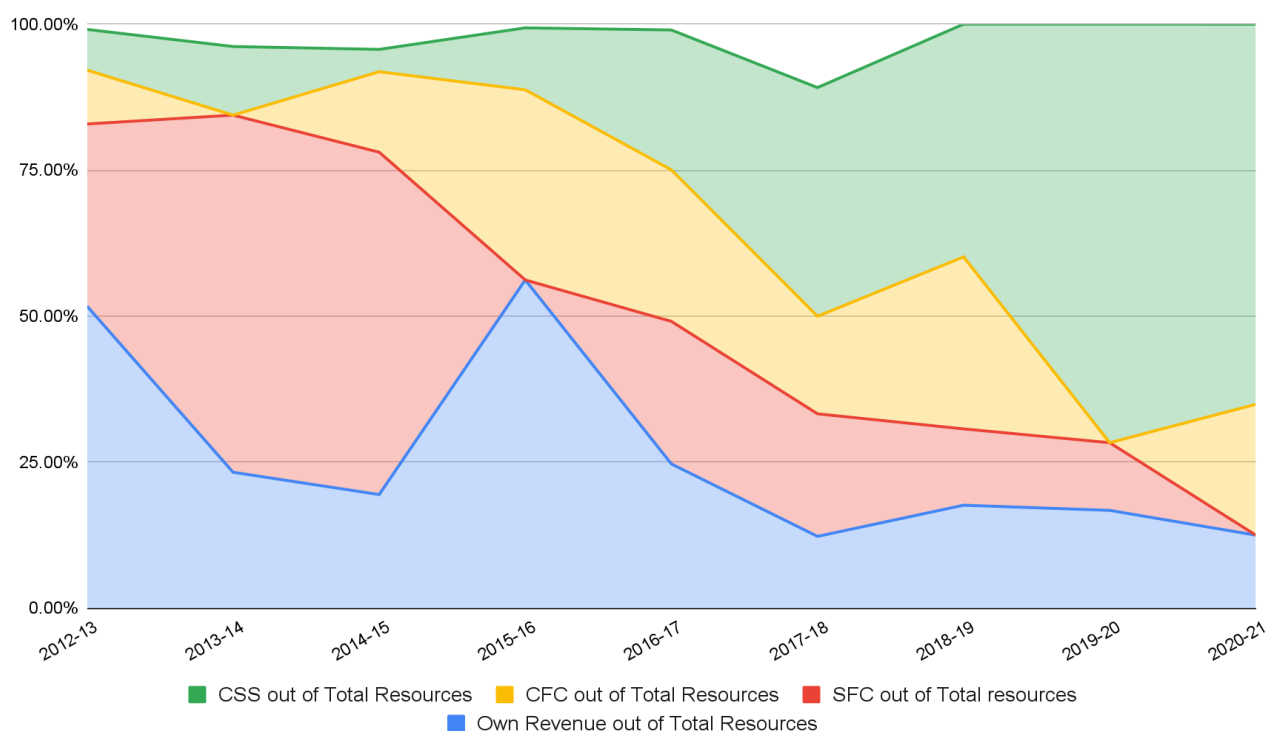
Table 6.7: Resources of ULBs from 2012-13 to 2020-21 (₹in crore)

Year	Own Revenue	State Finance Commission (SFC) transfers	Central Finance Commission (CFC) transfers	Interest for Delayed Payment of CFC grants	Grants for State Sponsored Schemes (SSS)	GOI grants for Centrally Sponsored Schemes (CSS)	Total Resources	Resources Growth (%)
2012-13	248.07	149.59	44.28	0.2	4.14	33.41	479.69	15.99
2013-14	50.61	133.11	0	0.12	8.22	25.57	217.63	-54.63
2014-15	56.05	169.07	39.74	0.18	12.29	11.03	288.36	32.5
2015-16	80.34	0	46.57	0	0.91	15.17	142.99	-50.41
2016-17	93.59	92.59	98.39	1.51	2.29	90.87	379.24	165.22
2017-18	82.35	140.88	112.12	0	72.9	262.88	671.13	76.97
2018-19	92.89	68.94	155.35	0	-	210.29	527.47	-21.41
2019-20	81.88	56.72	0	0	-	350.88	489.48	-7.2
2020-21	96.08	0	172.52	0.13	-	500.99	769.72	57.25

*Source: Authors' Estimation calculated Report of the Comptroller and Auditor General of India on Local Bodies, related issues; State Finances Audit Report of the Comptroller and Auditor General of India, related issues. * Only GMC*

Figure 6.5 depicts the contribution of different resources to total resources of ULBs such as grants for CSS, CFC transfers, SFC transfers and grants for CSS and not including grants for SSS.

Figure 6.5: Contribution of Different Resources to Total Resources of ULBs



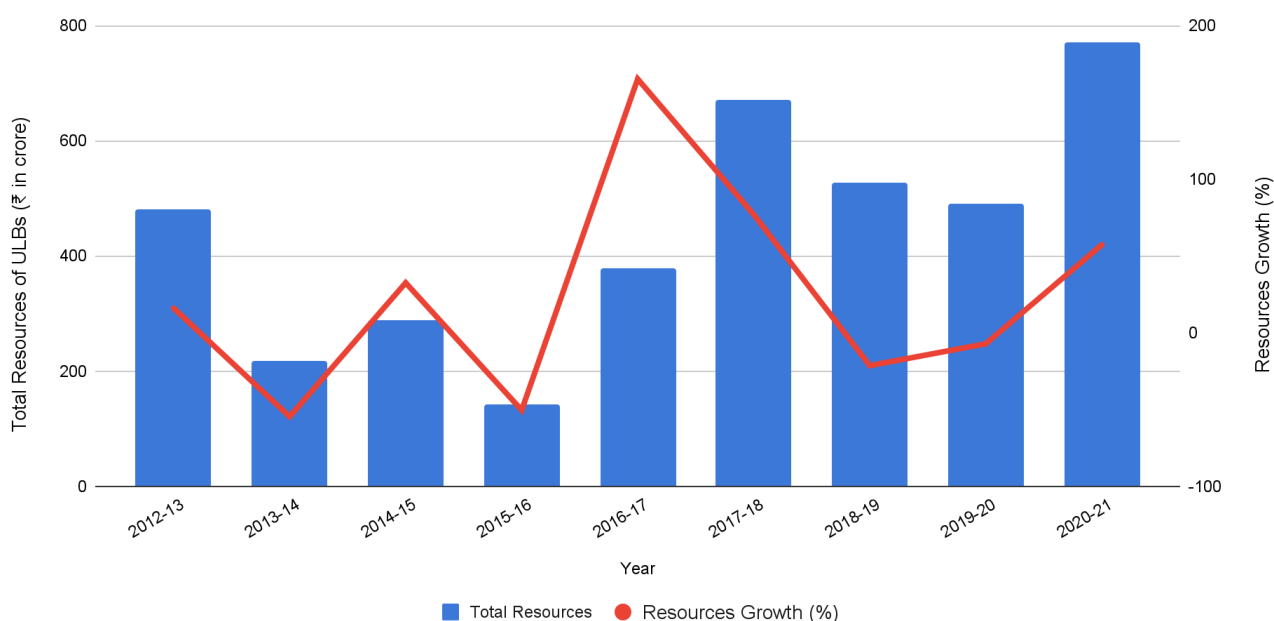
Source: Authors' Estimation

From the Table 6.7 and Figure 6.5, it can be observed that a higher significant contribution for source of funds for ULBs comes from grants for CSS from GoI, own revenue of the ULBs and SFC transfers. The shares of CSS grants were not that high during the years 2012-13 till 2015-16, ranging between 6.96 percent to 11.75 percent of the total resources of ULBs. However, from 2016-17 onwards, an upward trend (23.96 percent in 2016-17 to 65.09 percent in 2020-21) can be observed in the share of CSS grants reflecting greater contributions in the resource pool of ULBs. Over the years, CSS grants registered a CAGR of 35.10 percent. In 2012-13, the share of own revenue of the ULBs was about 51.71 percent which drastically came down to 23.26 percent in the next year. From 2014-15 onwards, a somewhat relatively lesser (compared to its value in 2012-13) and constant proportion of own revenue mostly ranging between 12 percent and 25 percent were contributing to the total resources of ULBs (except in the year 2015-16 which saw an increase of 56.19 percent). Over the years from 2012-13 to 2020-21, the ULBs' own revenue registered a CAGR of -10.0 percent. Coming to the SFC and CFC transfers, both were quite evenly contributing to the resource pool of ULBs with shares ranging between 10 percent and 60 percent and some years even saw zero transfers. During the period 2012-13 to 2020-21, CFC registered a CAGR of 16.31 percent while the SFC transfers registered a CAGR of -11.42 percent reflecting upward and downward trends in their shares to the resource pool

of ULBs, respectively. The fiscal transfers from Government (SFC transfer, CFC transfer) formed a major portion of the revenue (averaging 66.76 percent) of ULBs in the State during the period 2016–17 to 2020-21 indicating the dependence on the Grants provided by the Government.

Year-wise total resources of ULBs are given in Figure 6.6 which shows the total resources along with their growth rate:

Figure 6.6: Resources of ULBs from 2012-13 to 2020-21



Source: Authors' Estimation

In the above chart, it can be observed that in 2012-13, the total resources of the ULBs was ₹479.69 crore which significantly decreased in the subsequent years and by 2015-16, the total resources was ₹142.99 crore. From 2016-17 onwards till 2020-21, the total resource pool of the

ULBs was increasing (a big leap in its growth rate by 165.22 percent in 2016-17 from its previous year) but there were some fluctuations which were quite constant in nature ranging its total resource values between ₹375 crore and ₹770 crore. Over the years from 2012-13 to 2020-21, total resources of ULBs registered a CAGR of 5.39 percent which reflects that the average growth of the resource pool grew at 5.39 percent compared to -8.27 percent CAGR of the PRIs.

State finance commissions suggest measures to improve Panchayats' revenue generation, including abolishing the maximum taxation limit, providing a floor rate for each tier of PRI, empowering rural local bodies to impose surcharges on immovable property, and expanding weekly/bi-weekly bazaar

and market fees. ULBs can increase their resources by periodically reviewing property tax assessments, extending enhanced rates, and valuing urban land based on market prices. Special rates can be adopted for scavenging charges from private institutions. The success of these measures depends on a reliable data base and simplified tax administration.

6.4 Transfer of Resources from the State to Local Bodies (PRIs and ULBs) in Assam

Grants awarded by the Central Finance Commission (CFC), as well as devolution and grant-in-aid suggested by the State Finance Commission (SFC), are directly transferred by the State Government to local bodies under the principal head of the account "3604-Compensation and Assignment to Local Bodies". But starting with the fiscal year 2017–18, the State Government has decided to transfer the amount suggested by SFC and CFC through the corresponding ULBs and PRIs' functional head of account. But still, transfer to Excluded Areas in accordance with SFC and CFC awards continues under "3604-Compensation etc." as the primary head. The 6th Assam SFC recommended vertical and horizontal devolution of State's Own Tax Revenue between State and Local Bodies.

Year-wise total actual amount transferred to local bodies (both PRIs and ULBs) under the award of CFC and SFC for the year from 2012-13 to 2022-23 are given in the Table 6.8.

Table 6.8: Compensation and Assignment to LBs and PRIs (₹ in crore)

Year	Compensation and Assignment to ULBs and PRIs	Revenue Expenditure (RE)	Assistance to PRIs and ULBs as percent of RE
2012-13	739.79	29,136.92	2.54
2013-14	375.76	31,989.89	1.17
2014-15	993.50	39,078.17	2.54
2015-16	375.16	37,011.42	1.01
2016-17	652.35	49,362.72	1.32
2017-18	125.05	55,480.94	0.23
2018-19	273.89	56,899.00	0.48
2019-20	366.23	65,817.28	0.56
2020-21	376.95	64,519.59	0.58
2021-22	306.13	82,547.96	0.37
2022-23	516.23	101,814.65	0.51

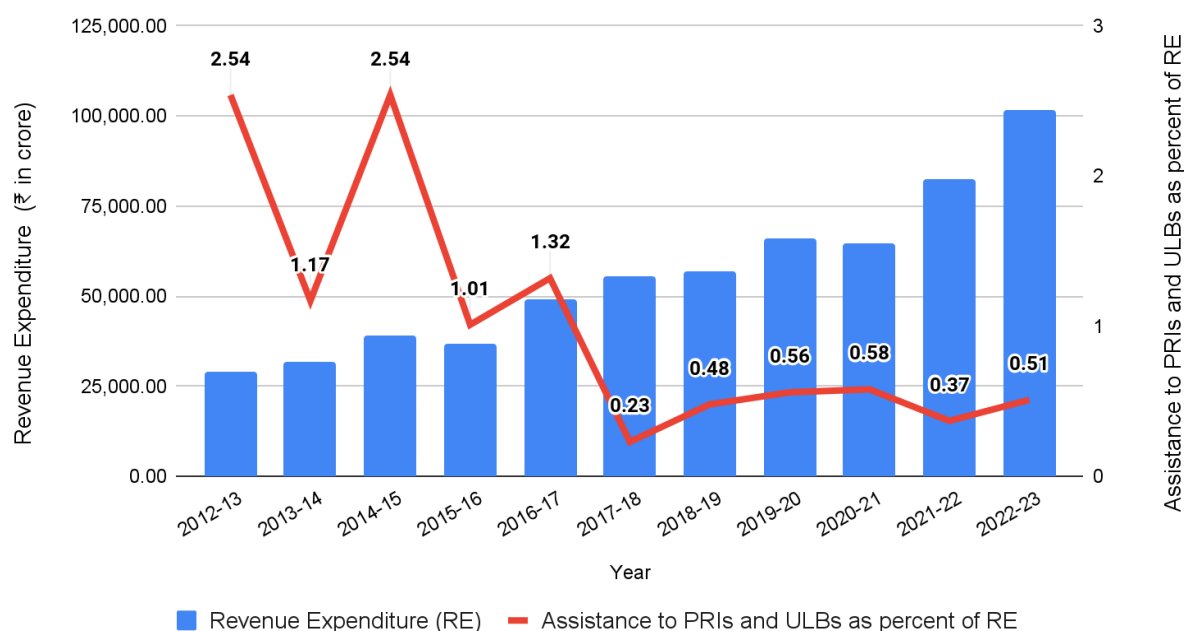
Source: Author's Estimation calculated Finance Accounts, GoA, related issues

According to the state finance audit report of CAG 2021-22, the amount spent on revenue in 2021–2022 was ₹82,547.96 crore, or 80.32 percent of the ₹1,02,777.80 crore total expenditure. The State Government's Grants-in-Aid to local bodies or individual entities under various Central Schemes during the year were misclassified as capital expenditure instead of revenue expenditure, resulting in an understatement of revenue expenditure to that extent and an overstatement of capital expenditure. This led to a misclassification of ₹6,168.59 crore.

Typically, capital expenditure refers to spending on the creation of durable physical assets. In the case of PRIs, this includes expenses for building physical infrastructure using grants from State and Central Finance Commissions. The SFC grant comprises devolution and grants-in-aid, with devolution intended for meeting the revenue deficits and maintenance of community assets. Expenditure from devolution is treated as revenue expenditure, while specific purpose grants are for creating physical assets and considered capital expenditure. Expenditure from Central Finance Commission grants can be categorized as either revenue or capital expenditure based on its purpose. Despite significant funds being spent on agency functions for CSS, PRIs do not have a clear distinction between revenue and capital expenditure due to not following prescribed budgeting and accounting formats. It is recommended that PRIs adhere to CAG-prescribed formats for budgeting and accounting. In the present scenario, it can be seen that the PRIs in Assam are facing challenges due to lack of necessary human resources and administrative machinery. Despite the Constitution Amendment, they have not been fully empowered with funds and functions, preventing them from functioning effectively as self-government institutions. The grant against major schemes like maintenance of rural roads and bridges and piped water supply scheme will be routed through line departments and channeled directly to the PRIs (Report of SAFC 2020-25).

The Figure 6.7 depicts the assistance through direct transfer of amounts to local bodies (PRIs & ULBs) as percent of revenue expenditure for the year from 2012-13 to 2022-23:

Figure 6.7: Assistance of Direct Transfers to Revenue Expenditure



Source: Authors' Estimation

In Table 6.8 and Figure 6.7, it is observed that transfer of resources to PRIs and ULBs during the period from 2012-13 to 2015-16 were significantly higher ranging between ₹735.0 crore and ₹995.0 crore with alternate years facing some lower transfers amounting about ₹375.0 crore compared to the recent years from 2017-18 to 2022-23 with somewhat a relatively lesser and constant proportion of direct transfers from State government were assigned to the ULBs and PRIs ranging between ₹125.0 crore and ₹516.5 crore with lowest amount of ₹125.05 crore was being transferred in 2017-18. However, from 2018-19 onwards, direct transfer amounts to LBs were slightly increasing but not as significant as mentioned above. As a result, the assistance to PRIs and ULBs as percent of revenue expenditure (RE) saw a similar pattern with the absolute figures. Over the years from 2012-13 to 2022-23, compensation and assignment to ULBs and PRIs registered a CAGR of -3.22 percent while assistance to PRIs and ULBs as percent of (RE) registered a CAGR of -13.62 percent.

In compliance with the Indian Government Accounting Standard (IGAS) 2: Accounting and Classification of Grants-in-aid, GIA in cash is recognized as revenue expenditure at the time of disbursement even if it involves creation of assets by the grantee, except in cases specifically authorized by the President on the advice of the Comptroller and Auditor General of India. The State government releases Grants (paid in cash) to the local bodies for their functioning and overall

development of the local bodies both in rural and urban areas which would ultimately help in the development of the economy of the State.

Grants-in-aid (grants released which is paid in cash) provided by the State Government to the local bodies (PRIs & ULBs) for the year from 2012-13 to 2022-23 are given in Table 6.9:

Table 6.9: Grants-in-Aid given by the State Government (Grants Released)(₹ in crore)

Year	Total Grants released to PRIs	Total Grants released to ULBs	Total Grants released to LBs	Revenue Expenditure (RE)	Percentage of grants to RE
2012-13	0.00	5.93	5.93	29,136.92	0.02
2013-14	0.01	92.31	92.32	31,989.89	0.29
2014-15	27.89	89.64	117.53	39,078.17	0.3
2015-16	0.00	3.45	3.45	37,011.42	0.01
2016-17	144.59	151.27	295.86	49,362.72	0.6
2017-18	818.42	306.73	1,125.15	55,480.94	2.03
2018-19	569.49	456.98	1,026.47	56,899.00	1.8
2019-20	3,042.78	578.32	3,621.10	65,817.28	5.5
2020-21	682.48	354.96	1,037.44	64,519.59	1.61
2021-22	1,339.39	827.37	2,166.76	82,547.96	2.62
2022-23	252.96	1,310.92	1,563.88	101,814.65	1.54

Source: Author's Estimation calculated Finance Accounts, GoA, related issues

Figure 6.8 depicts the assistance of grants released by the State government to the local bodies (ULBs & PRIs) as percent of revenue expenditure.

Figure 6.8: Assistance of Grants-in-Aid (Grants Released to LBs) to Revenue Expenditure



Source: Authors' Estimation

From Table 6.9 & Figure 6.8, it is observed that with the increase of revenue expenditure, the grants released by the State government to the local bodies (PRIs & ULBs) has been increasing from the year 2012-13, reaching a peak point in the year 2019-20 with highest assistance of grants released (5.50 percent with ₹3621.10 crore grant amount), and then decreasing in the successive years with a range between 1.50 percent and 2.65 percent of assistance of grants to revenue expenditure till 2022-23. Over the years from 2012-13 to 2022-23, the total grants released to local bodies (ULBs & PRIs) registered a CAGR of 66.0 percent while the percentage of grants to revenue expenditure registered a CAGR of 48.15 percent which reflect that GIA (grants released) by the State government to the local bodies have maintained a positive cumulative growth.

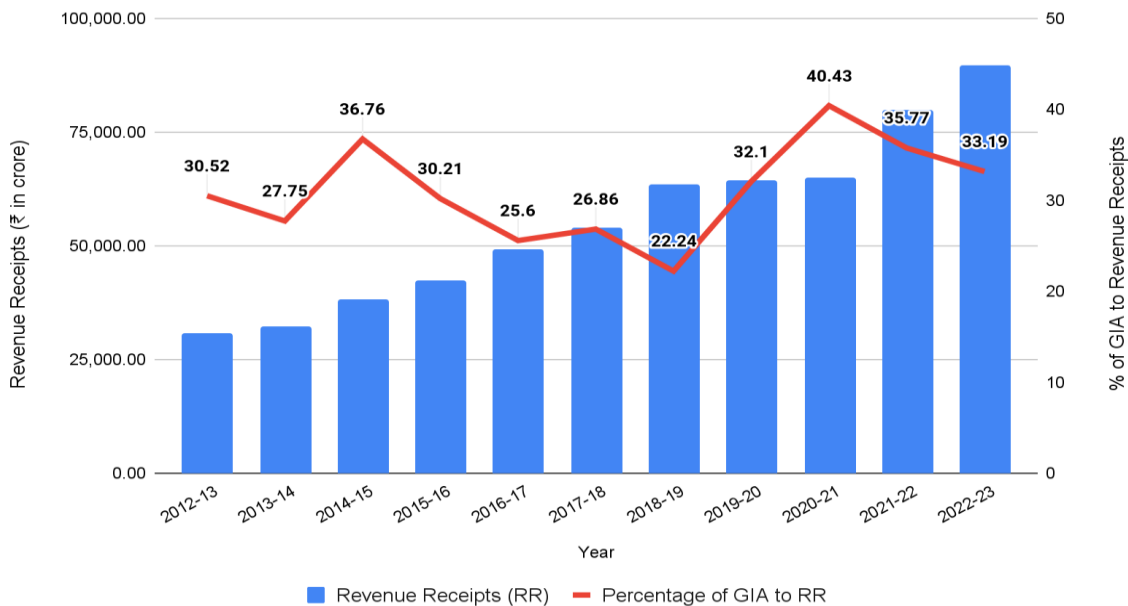
6.5 Transfer of Resources from the Centre

The Central Government established three Central Finance Commissions (XIII FC, XIV FC, and XV FC) throughout the course of the last ten years, from 2012–13 to 2022–23. The State Government was granted its fair share of devolved taxes and various grants based on the recommendations made by these FCs. Furthermore, the State has been granted substantial funds by the Central Government to carry out a range of initiatives within the State. When compared to grants distributed in the XIII-

FC period (2010–15), the GoI's Grants-in-Aid (GIA) increased dramatically during the XIV-FC term (2015–20). This pattern persisted throughout the XV-FC era as well.

Year-wise Grants-in-Aid (GIA) and contributions to the State Government from the year 2012-13 to 2022-23 is given in Figure 6.9:

Figure 6.9: GIA and Compensation to State Government



Source: Authors' Estimation

From the Figure 6.9, it is observed that from 2012-13 to 2022-23, GIA from GoI to the State government has increased significantly. Over the years, from 2012-3 to 2022-23, GIA from GoI to GoA registered a CAGR of 11.09 percent while the percentage of GIA to revenue receipts registered a CAGR of 0.77 percent. Thus, share of GIA from GoI to the GoA has seen an overall significant contribution to the revenue receipts.

GIA from GoI increased by ₹1232.92 crore (4.32 percent) during the year 2022-23 compared to the previous year, primarily on account of increased grants for the implementation of CSS.

6.5.1 Finance Commission Grants

The aim of the Finance Commission grants is to increase the state's consolidated revenues to support the Panchayat and Municipalities' resources and suggest Grant-in-Aid as per Article 275 of the Indian Constitutions. The benefits of these grants can be summarized into few points mentioned below:

- Guaranteed transfers to local organizations so they can efficiently plan and provide essential services within the roles that have been delegated to them by applicable laws.
- Ensure that local bodies with primary functions are strengthened to provide essential services.
- The allocated funds must be released immediately to the Gaon Panchayat, Anchalik Panchayat, and Zilla Parishad, which are the lowest level of the three tiers of the PRI.

XIII-FC, XIV-FC & XV-FC Grants were provided to the State Government for Local Bodies (PRIs & ULBs). Details of recommended amount, actual release and transfer of GIA to local bodies (ULBs & PRIs) during 2010-11 to 2021-22 are given in Table 6.10.

Table 6.10: Recommended Amount, Actual Release and Transfer of GIA to Local Bodies (PRIs & ULBs)(₹ incrore)

Particulars	Recommendation of the XIII-FC, XIV-FC & XV-FC					Actual release by GoI					Release by State Government				
	2010-15	2015-20	2020-21	2021-22	Total	2010-15	2015-20	2020-21	2021-22	Total	2010-15	2015-20	2020-21	2021-22	Total
Local Bodies (i+ii)	1,978.63	6,387.12	2,376.00	1,770.00	10,533.12	1,625.62	5,782.69	2,183.00	1,495.80	9,461.49	1,517.04	5,549.77	2,183.00	593	8,325.77
(i) Grants to PRIs	-	5,416.58	1,604.00	1,186.00	8,206.58	-	5,101.34	1,604.00	1,186.00	7,891.34	-	5,101.34	1,604.00	593	7,298.34
(ii) Grants to ULBs	-	970.54	772	584	2,326.54	-	681.35	579	309.8	1,570.15	-	448.43	579	-	1,027.43
Grand Total	1,978.63	6,387.12	2,376.00	1,770.00	10,533.12	1,625.62	5,782.69	2,183.00	1,495.80	9,461.49	1,517.04	5,549.77	2,183.00	593	8,325.77

Source: Authors' Estimation calculated from State Finances Audit Report of the Comptroller and Auditor General of India, related issues

From the Table 6.10, it is observed that the recommended amount of grants has been increased by a significant amount of ₹4,408.49 crore (222.81 percent) from the FC-XIII (₹1,979.63 crore) to FC-XIV (₹6,387.12 crore). Out of this, GoI released ₹5,782.69 crore to the State Government during the FC-IV. However, the actual release was somewhat lower in amounts recommended by both FC-III and FC-IV.

XV FC recommended a total of ₹4,146.0 crore for release to the local bodies during 2020-21 to 2021-22. Out of that, GoI released ₹3,678.80 crore to the State Government during the period. For the same period, the State Government has released ₹2,776.0 crore to the local bodies falling short of ₹902.80 crore by the actual release from the GoI.

6.5.1.1 Finance Commission Grants to PRIs

The report of SAFC 2020-25 stated that the Fourteenth Finance Commission recommended grants-in-aid of ₹5416.59 crore to augment PRIs' resources during the award term of 2015–20. A total of ₹4874.93 crore was recommended for general basic grant, while the remaining ₹541.66 crore was recommended for a performance grant.

The Central Ministries provide a significant amount of funding to the PRIs each year so they can operate a range of Centrally Sponsored Schemes, with State Share added to each program. The State Share differs from plan to plan and is not uniform. Some of the important Centrally Sponsored Schemes that are being implemented by PRIs in the State are Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), National Social Assistance Programme (NSAP), Pradhan Mantri Awaas Yojana Gramin (PMAY (G)), National Social Assistance Programme (NSAP), Rastriya Gram Swaraj Abhiyan (RGSA), National Rurban Mission (RURBAN) and National Rural Livelihood Programme (NRLM). The schemes provide benefits to the rural population with the aim of enhancing the livelihood security of the people, constructing houses for the BPL households approved by the concerned agencies, providing assistance to poor with pension schemes, strengthening the PRIs for achieving the Sustainable Development Goal (SDG), alleviating poverty in the rural areas.

Table 6.11: Fund Received by PRIs under CSS during the years from 2015-16 to 2018-19(₹ in crore)

No. Name of Scheme	2015-16	2016-17	2017-18	2018-19	Total
MGNREGA	938.33	1,273.87	1,354.37	1,246.02	4,812.59
PMAY (G)	949.08	1,298.83	1,582.56	244.08	4,074.55
NSAP	332.95	220.49	189.89	284.46	1,027.79
RGSA	17.08	55.57	27.59	39.21	139.45
RURBAN	0.00	1.75	32.40	1.40	35.55
NRLM	22.83	217.91	219.57	260.85	721.16
Total	2,260.27	3,068.42	3,406.38	2,076.02	10,811.09

Source: Report of the Sixth Assam State Finance Commission (2020-25)

From the Table 6.11, it can be observed that MGNREGA received a significant fund of ₹4,812.59 crore during the years 2015-16 to 2018-19, followed by PMAY scheme (₹4,074.55 crore). Over the years mentioned above, fruitful funds have been received for implementation of CSS by the PRIs for the development of the rural areas.

6.5.1.2 Finance Commission Grants to ULBs

The Central Finance Commission (CFC) is required under Article 280(3) (C) of the Constitution to recommend measures to enhance a State's Consolidated Fund in order to supplement Municipalities' resources. These recommendations must be based on the recommendations of the respective SFCs. The General Basic Grant (GBG) and General Performance Grant (GPG), as a percentage of the divisible pool account, were suggested by the Fourteenth Finance Commission to ULBs. According to the audit report of CAG on local bodies 2017-18 to 2020-21, a total of ₹776.42 crore was recommended by the Fourteenth Finance Commission to be allocated under the GBG for the years 2015-16 to 2019-20. However, within the aforementioned period, there was a short release of ₹95.07 crore of GBG. Furthermore, the GoI withheld the release of GPG due to the ULBs' failure to meet the FC's performance standards.

Through the Directorate of Municipal Administration, the ULBs are to carry out several Agency functions related to Centrally Sponsored Schemes which are majorly funded by the Central

Government. Generally, the State Budget does not transfer any funds to the ULBs. However, the State Budget routes the State share of several Centrally Sponsored Schemes, such as National Urban Livelihoods Mission (NULH), Swachh Bharat Mission - Urban (SBM(U)), Pradhan Mantri Awas Yojana - Urban (PMAY(U)), Atal Mission for Rejuvenation and Urban Transformation (AMRUT), etc., to the ULBs for implementation. Funds released to the ULBs for the implementation of the above-mentioned schemes for the recent years are given Table 6.12:

Table 6.12: Fund Received by ULBs under CSS during the years from 2015-16 to 2019-20 (₹ in crore)

Year	NULM	SBM(U)	PMAY(U)
2015-16	-	0.2	-
2016-17	-	8.69	-
2017-18	9.54	6.68	2.69
2018-19	3.05	85.06	0.53
2019-20 (BP)	53.34	202.36	-

Source: Report of the Sixth Assam State Finance Commission (2020-25)

From the Table 6.12, it can be seen that SBM(U) has received the highest fund followed by NULM. For the year 2019-20, the budget provision was also high for both the schemes indicating the importance of cleanliness and livelihoods of the urban poor.

6.6 Brief Financial Reporting on Local Bodies (PRIs and ULBs)

This section briefly details the financial reporting (audit reports and SFC reports) on the local bodies of Assam.

6.6.1 Brief Financial Reporting on PRIs

According to the current Commission (SAFC), only origin-based taxes such as land revenue, entertainment taxes, entry taxes, profession taxes, etc. are suitable for tax assignment. But when it comes to municipal taxes, the tax base is typically smaller than the cost of collecting. Furthermore, the PRIs in Assam lack the administrative tools necessary to fully utilize the income streams that have already been allocated to them. In light of this, tax assignment could work against the local government. Tax assignment to local authorities is not thought to be desirable in light of this factor and the global sharing of the net proceeds of all taxes imposed and collected by the State.

The report of SAFC 2020-25 stated that tax sharing is a key component in the Constitutional Scheme of resource transfer from the State to local bodies, typically treated as an untied fund. The net proceeds of taxes and duties are shared with Panchayats based on successive SFCs' recommendations. During the award period of 2016–17 to 2019–20, the Fifth SFC recommended tax devolution of ₹579.39 crore. This sum was meant to bridge the revenue shortfall, enhance service provision, and preserve community resources.

According to the report of SAFC 2020-25, grants designated for special purposes can be used to build physical infrastructure, improve administrative standards, or solve specific issues. In general, these grants are typically restricted to particular projects and programs, making them unusable for other reasons. For the years 2016–20, PRIs were recommended to get special purpose grants of ₹1912.04 crore by the Fifth SFC. Of this sum, ₹224.84 crore went through the ZP/AP, and the remaining ₹1687.20 crore went through the appropriate line departments. Over the course of the five-year period 2020–25, the total revenue gap of PRIs at all levels is expected to be around ₹2238.00 crore. Nonetheless, the effective revenue gap is only roughly ₹758.29 crore because the wages of casual employees and salaries of provincialized panchayat employees are covered from the State budget. Based on the assessment of revenue gap the SFC has estimated the total requirement of funds for PRIs in General Areas to be ₹3627.65 crore which include the assessed revenue gap of ₹758.29 crore and the recommended GIA amounting to ₹2869.36 crore.

With respect to fiscal management, The Assam Panchayat Act, 1994, established the taxation powers of each tier of PRIs, followed by the Assam Panchayat (Financial) Rules 2002, which provided the maximum limit for GPs to levy on houses, structures, trades, and callings. However, these Bye Laws have not been implemented yet, resulting in a significant reduction in revenue collection for PRIs. According to the report of SAFC 2020-25, in the base year 2016-17, PRIs at all levels collected about ₹53.00 crore in own tax and non-tax revenue. The sources of revenue allotted to PRIs have less growth potential and are less elastic. The revenue expenditure of PRIs on salary alone is ₹137.00 crore, and this dependence on financial support from upper levels of government is untenable. It is time for PRIs to understand that funds from the State and Central Governments should supplement their own resources, not replace them. Functional autonomy is not sustainable without its own resource generation, and additional resource mobilization by PRIs is crucial against this backdrop.

6.6.2 Brief Financial Reporting on ULBs

The ULBs in General Areas receive grants-in-aid from the State Government, grants from Central Finance Commission and SFC devolution. The fiscal transfers from Government (SFC transfer, CFC transfer) formed a major portion of the revenue (averaging 66.76 percent) of ULBs in the State during the period 2016–17 to 2020-21 indicating the dependence on the Grants provided by the Government.

According to the audit report of CAG on local bodies 2017-18 to 2020-21, the UDD (Urban Development Department) did not have a consolidated figure of actual receipts for own revenue of any of the ULBs in Assam, which indicated the lack of monitoring by the Government on the resources of the ULBs. Audit reports have also shown that the budget utilization was less than 50 percent during the years 2015-16 to 2019-20 with respect to Grant No: 31 Urban Development (Town and Country Planning), 34 Urban Development (Municipal Administration) & 73 Urban Development (Guwahati Development Department). The government needs to review systemic issues, such as over-budgeting and inability to use resources effectively, to ensure proper allocation of resources to priority sectors. The state faces challenges in improving urban infrastructure, with low utilization of three grants related to urban development. The government should examine the reasons for poor allocation and take swift corrective action to address these issues. Because of the State Government's reduced budgetary provision / allocation and delayed submission of the 5th ASFC Report (2016–17 to 2019–20), there was a shortfall in the allocation to the ULBs amounting to ₹1,001.65 crore. The actual release of funds to the ULBs was also far short with the 86 percent shortage in 2019-20. This shows the lack of urgency on the part of the Government in providing assistance to the ULBs.

Since the Second SFC, every SFC that has come after it has advocated for the global distribution of all taxes and duties that the State Government levy and collects; assigned taxes to ULBs are essentially almost nil. The Assam Municipal Act, 1956 makes no mention of a mandatory provision for ULBs to share in the earnings of State taxes. Article 243Y of the Constitution, however, requires the SFC to recommend giving ULBs financial support from the State's net proceeds from its own tax revenue. In accordance with the SFC's proposal, the State Government provides funds to ULBs.

According to the report of SAFC 2020-25, although ULBs in Assam (General Areas) have shown slight increase in tax revenue, large arrears in their own revenue collection remained, ranging from ₹40.11 crore to ₹53.53 crore between 2014-15 and 2018-19. Over the course of the five-year period 2020–25, the total assessed revenue gap of ULBs in Assam amounts to ₹514.50 crore. Based on the

assessment of revenue gap the SFC has estimated the total requirement of funds for ULBs in General Areas to be ₹1925.64 crore which include the assessed revenue gap of ₹514.50 crore and the recommended GIA amounting to ₹1411.14 crore.

6.7 Major Decentralization Initiatives Undertaken in Assam

The process of decentralization in an economy is an essential step towards economic development of the country. With the delegation of power from the central government to the local and regional governments, decentralization plays a pivotal role in planning and decision making of an economy. The process of democratic decentralization has become a big revolution throughout the world in general and in India. Being the largest democracy in the world, decentralized planning in India has been devised to make planning responsive to the aspirations and will of the common populace. Decentralized planning in India was first introduced by the erstwhile Planning Commission during the Seventh Five Year Plan. In Assam, the decentralized planning process was initiated in 1986 in all plain districts as per the recommendation of Hanumantha Rao's Committee. As per recommendation, Decentralized Planning Division (DPD) at State Head Quarter and Decentralized Planning Cell (DPC) at every plain district of Assam was set up by the Government of Assam. The primary objective of decentralized planning was to ensure the involvement of peoples' participation and decision-making process in the socio-economic development process of the state. The Decentralized Planning Division (DPD) under the Transformation and Development Department, is the Nodal Department of the schemes at the State Level which performs the main supervisory functions while the Decentralized Planning Cell acts as the Nodal Implementing Agency in the plain districts under the district administration.

Devolution of Subjects (functions) to PRIs

The following 22 subjects out of 29 listed in the 11th Schedule were to be devolved to PRIs:

1. Agriculture, including agricultural extension.
2. Land improvement, land reforms, land consolidation, and soil conservation.
4. Minor irrigation, water management, and watershed development.
5. Animal husbandry, dairying, and poultry.
6. Fisheries.
7. Social forestry and forestry.
8. Minor forest produce.
9. Small-scale industries, including food processing industries.

10. Khadi, village, and cottage industries.
11. Drinking water.
12. Fuel and fodder.
13. Roads, culverts, bridges, ferries, waterways, and other means of communication.
14. Rural electrification, including the distribution of electricity.
15. Poverty alleviation programmes.
16. Education, including primary and secondary schools.
17. Adult and non-formal education.
18. Health and sanitation, including hospitals, primary health centres, and dispensaries.
19. Family welfare.
20. Women and child development.
21. Social welfare, including welfare of the handicapped and mentally retarded.
22. Welfare of weaker sections, Scheduled Castes (SCs), and Scheduled Tribes (STs).
23. Public distribution system.

Subjects Yet to Be Mapped (7 out of 29 from Schedule 11):

1. Rural housing.
2. Non-conventional energy sources.
3. Technical training and vocational education.
4. Libraries.
5. Cultural activities.
6. Markets and fairs.
7. Maintenance of community assets.

Partial Devolution of Functions to PRIs

While 22 subjects were identified for devolution, the actual devolution orders were issued for only 7 subjects, namely:

1. Agriculture, including agricultural extension.
2. Land improvement and soil conservation.
3. Animal husbandry, dairying, and poultry.
4. Adult and non-formal education.
5. Education, including primary and secondary schools (up to Class X or XII).
6. Khadi, village, and cottage industries.

8. Rural electrification, including the distribution of electricity.

Devolution of Subjects (functions) to Urban Local Bodies (ULBs)

As per Article 243W of the 74th Amendment of the Constitution, the State Government is mandated to transfer 18 subjects listed in the 12th Schedule to Urban Local Bodies (ULBs):

1. Urban planning, including town planning.
2. Regulation of land use and construction of buildings.
3. Planning for economic and social development.
4. Roads and bridges.
5. Water supply for domestic, industrial, and commercial purposes.
6. Public health, sanitation, conservancy, and solid waste management.
7. Fire services.
9. Urban forestry, environmental protection, and promotion of ecological aspects.
10. Safeguarding the interests of weaker sections, including the handicapped and mentally retarded.
11. Slum improvement and upgradation.
12. Urban poverty alleviation.
13. Provision of urban amenities and facilities, such as parks, gardens, and playgrounds.
14. Promotion of cultural, educational, and aesthetic aspects.
15. Burials and burial grounds, cremations, cremation grounds, and electric cremations.
16. Cattle ponds and prevention of cruelty to animals.
17. Vital statistics, including the registration of births and deaths.
18. Public amenities, including street lighting, parking lots, bus stops, and public conveniences.
19. Regulation of slaughterhouses and tanneries.

Incomplete Transfer of Functions to ULBs

Although the Assam Government amended the Assam Municipal Act, 1956, in May 2011 in alignment with the 74th Amendment, the devolution of these subjects to ULBs remains incomplete. Currently, ULBs in Assam are exercising only 8 traditional subjects from the 18 listed in the 12th Schedule.

Member of Parliament Local Area Development (MPLAD) Scheme:

The MPLAD (Member of Parliament Local Area Development) Scheme was formulated and initiated on 23rd December 1993 by the Government of India (GoI). It is a Plan Scheme which is fully funded by GoI. At the time of its inception, the Scheme was administered by the Ministry of Rural Development. Later, in October 1994, the subject relating to the MPLAD Scheme was transferred to the Ministry of Statistics and Programme Implementation (MOSPI). In this regard, MOSPI is in charge of formulating policies, allocating funding, and recommending monitoring mechanisms. The objective of the Scheme is to enable a Member of Parliament (MP) to suggest works of developmental nature in their constituencies, with a focus on building long-lasting community assets in response to perceived local needs. From the beginning of the Scheme, durable assets of national importance viz. primary education, drinking water, sanitation and roads, public health, etc. are being developed. Each State/UT designates a department as the Nodal Department, which has the ultimate duty for overseeing, keeping an eye on, and coordinating the MPLADS implementation with the districts and other Line Departments. The State Nodal Department is notified by the Government of India of the MPLADS funds that have been given to the District Authorities. The State Nodal Department and the Government of India are informed by the District Authorities about the progress of MPLADS implementation.

During the launch of the Scheme in 1993-94, an amount of ₹ 5 lakh per annum per MP was allotted which got increased to ₹ 2 crore per year in 1998-99. From the year 2011-12, this allocated amount has been increased to ₹ 5 crore per year. MOSPI does not directly disburse funds to MPs, instead it pays out funds to district authorities. This yearly entitlement is distributed in two conditional installments of Rs. 2.5 crore each. The nature of the funds is non-lapsable; if the funds are not released in a given year, they are carried over to the following year. A minimum of 15% and 7.5% of their funds, respectively, must be recommended by MPs for the creation of assets in areas inhabited by Scheduled Castes (SCs) and Scheduled Tribes (STs).

Member of Legislative Assembly Area Development (MLAAD) Scheme:

One of the primary goals of decentralized planning is to increase the level of engagement of local people and their representatives in the planning process and thereby in Assam, the Planning and Development (P&D) Department of the State Government introduced the MLAAD (Member of Legislative Assembly Area Development) Scheme under the sub-sector “Sub-Divisional Special Programme” in 1994-95. It is in the same line with MPLAD Scheme i.e., under the MLAAD Scheme,

annual funds allocated to each MLA constituency will come from the State's Plan Budget; the funds are meant to be used for certain important projects or activities that are determined by the perceived requirements of the local people with a focus on building durable assets such as public library, rural roads and culvert, market sheds, community halls, primary education, etc. According to the Guidelines of the MLAAD Scheme, all schemes are carried out by the district's concerned Deputy Commissioner (Nodal Agency of the district) upon the recommendation of the concerned MLA.

During the launch of the Scheme in 1994-95, an amount of ₹5 lakh per annum for each LAC of the State was allotted. At present, the allotted amount has been raised to ₹ 1 crore per LAC per annum. For the development schemes to be taken up at the earliest, the release of the funds is made installment-wise. Special attention has been given for development of infrastructure in areas inhabited by Scheduled Caste (SC) and Scheduled Tribe (ST) population.

SUHRID Scheme:

"SUHRID", a comparatively new scheme, was introduced in 2016-17. Under this scheme, 126 LACs will receive an allotted amount of ₹ 6,300 lakh per annum i.e., each LAC of the State will receive an amount of ₹ 50 lakh per annum from the concerned Deputy Commissioners. This amount will be used to help those in need, especially those facing challenges in the health and education sectors. This is carried out based on the recommendation of the concerned MLA.

Untied Fund Scheme:

The Untied Fund Scheme was first introduced in 1988-89. Untied Fund is being made available to each District/Sub-Division in order to provide the Sub-Divisional Planning & Development Committee some financial flexibility and to encourage them to devise their own programs and schemes. This fund has been set aside specifically to promote planning at the local level. The Untied Fund Scheme is a local initiative and it is ideal for these schemes to support either employment creation or production, or both. Under the Scheme, purchasing inventory with funds from revenue expenditures is strictly prohibited. The relevant Deputy Commissioner receives funding to implement various development plans. In contrast to the MP's or MLA's Local Area Development Scheme, the Untied Fund is not allocated among Legislative Constituencies, nor should the selection of schemes be done based on constituency. According to the Untied Fund Scheme, the kind of work must be able to be finished in one or two working seasons, i.e. within the same fiscal year. It should be for development works based on perceived needs in the community and result in the production of durable assets. Schemes must be profitable, productive, and revenue-generating as well as

economically feasible. It is crucial that the plan aids in the resolution of some local issues. Simultaneously, the plan ought to be evident and might perhaps aid in the area's infrastructure advancement. More than 50 percent of the Untied Fund allocated to a Sub-Division/District for a year may be utilized for Urban Area development. This is because, on the one hand, recent investments made in rural areas have increased significantly thanks to Rural Development Programmes, and the majority of the earlier Untied Fund-covered schemes are now undertaken by the DRDAs, while on the other hand, no special funds are available to address unique local problems in Urban Areas that can be solved with small untied fund investments.

The Untied Fund scheme does not apply to works that are owned by commercial organization trusts, registered societies, private institutions of cooperative institutions, grants and loans, memorials, acquisition of land or any compensation for land acquired, or places of religious worship. The relevant government department or agency is in charge of carrying out the untied fund plan.

Gyanjyoti Scheme:

In Assam, the Gyanjyoti Scheme was implemented in 2004-05 with the goal of enhancing educational opportunities and development of the student community of the State. The Scheme's main goals are to raise awareness, expose participants to a variety of significant locations both inside and outside the state, impart knowledge, encourage participation, and provide facilities for school students to visit historically and geographically significant places and important educational and research institutions of Assam and outside Assam. Students in Class VIII through Class X from government/provincialized schools of Assam are selected to participate. Jorhat and Kamrup (M) have been designated as Nodal Districts to carry out this Scheme. The Scheme is run once every year. 100 pupils of Class VIII to X from government or provincialized schools in the district will be identified by the corresponding DCs and the selection of the number of students from any school should be within 10 students. 50 percent participation is to be ensured for girls students. In addition to visits to educational institutions, the Scheme calls for a series of competitions among students and career counseling sessions.

Dharmajyoti Scheme:

In Assam, Dharmajyoti Scheme was introduced in 2004-05 with the intention of encouraging elderly people and pilgrims to travel to historical and religious sites both inside and outside of the state. With the assistance of all the concerned Deputy Commissioners of the district, the Assam State Transport Corporation (ASTC) implements the Scheme. The Nodal Deputy Commissioner for the Scheme is the Deputy Commissioner of Kamrup (M) district. The locations include Sri Sri Jagannath Mandir in

Puri, Sri Sri Madhupur Satra in Coochbehar, Satras in Majuli, Poamucca at Hajo, Ajan Peer Dargah at Sivasagar, Guru Tag Bahadur Gurudwara at Dhubri, Sri Surjya Pahar near Goalpara, Bordowa Satra near Nagaon, Bhuban Pahar (Motinagar) near Silchar, Budhagaya in Bihar, Parasuram Kunda in Arunachal Pradesh, Ranganath Temple and Gaurisagar Temple at Sibsagar, etc.

6.8 Conclusion

In conclusion, the financial management and audit practices of local bodies in Assam, including Panchayati Raj Institutions (PRIs) and Urban Local Bodies (ULBs), have faced significant challenges from 2012-13 to 2022-23. The arrears in audits by the Directorate of Audit, Local Fund (DALF) have hindered the accountability mechanisms of these institutions. Fluctuations in grants and financial transfers from both the Government of India (GoI) and the State Government have further complicated the financial stability of PRIs and ULBs, with contrasting trends in key funding sources such as Central Sponsored Schemes (CSS) grants and State Finance Commission (SFC) transfers.

PRIs have seen a general decline in total resources over the years, largely driven by decreasing CSS grants and stagnant own revenue generation, despite some compensation through increased CFC transfers. ULBs, on the other hand, have experienced a more positive growth trajectory in their total resources, primarily due to increasing CSS grants, although their own revenue generation has also declined over time.

The misclassification of expenditures and the lack of adherence to prescribed budgeting and accounting formats have further exacerbated the financial challenges faced by PRIs. The dependency on government grants remains high for both PRIs and ULBs, and the inconsistent transfer of resources from the State Government has added to the instability.

Overall, the financial landscape for local bodies in Assam reflects a need for improved audit coverage, more consistent and transparent financial transfers, and stronger internal revenue generation to enable these institutions to function more effectively as self-governing entities.

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Chapter VII - Public Sector Enterprises in Assam

7.1 Introduction

Public utilities are essential services provided to society by businesses that require significant capital investments. Public Sector Enterprises (PSEs) are wholly or partly owned and controlled by the government, producing marketable goods and services. They are established in areas with massive investment and long gestation periods, where private investment is reluctant to venture. High sunk costs, large investments, intermediate good nature, and low tariff requirements necessitate a longer capital amortization period, making public ownership preferable. However, in the 1970s, questions arose about public monopolies in infrastructure development. The argument was that market competition under private ownership could ensure efficiency and optimal resource allocation. The perception of inefficient and unaccountable public monopolies led to a global trend towards de-monopolization of the power sector. This chapter analyzes the financial implications of Assam's public sector enterprises and examines the power sector reforms in Assam.

7.2 Public Sector Enterprises in Assam

There are three primary types of Public Sector Enterprises (PSEs) in Assam. These are departmental undertakings, statutory corporations and Government companies. Departmental undertakings are managed by specific government departments headed by ministers and are accountable to the legislature. Statutory corporations are established through acts of parliament or state legislative assemblies, granting them autonomy within the scope of their defining acts and regulations. Government companies are registered under the Indian Companies Act, 1956, with the government holding a majority stake of 51 percent or more.

In addition to investment in terms of equity, the state government extends financial support to PSEs through loans, advances, and loan guarantees. Many PSEs in Assam face mismanagement and chronic losses, leading to frequent bailouts by the state government. These bailouts have put significant pressure on state finances. To assess the status of state PSEs, they have been categorized into Operationally Viable, Operational but Loss Making, and Chronic Loss-Making Units Closed or Facing Closure.

The Comptroller and Auditor General of India audited a total of 51 State Public Sector Enterprises (SPSEs) and one State Electricity Regulatory Commission. Among these SPSEs, 48 were

Government Companies (including 102 subsidiaries and two other Government-controlled companies), and three were Statutory Corporations. Out of the 51 SPSEs, 35 were operational, while 16 were non-functional (all Government Companies). None of these Government Companies had shares listed on the stock exchange.

Table 7.1: Number of Working and Non-Working State PSEs as per CAG Report

Types of SPSEs	Working SPSEs	Non-Working SPSEs
Government Companies	32	16
Statutory Corporations	3	-
Total	35	16

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

Note: ₹ in crore; NA indicates data not available

The government of Assam (GoA) has considerable stake in terms of equity in statutory corporations, government companies, joint stock companies, and cooperatives. This intervention is justified by the massive investment and long gestation periods required, which deter private enterprises. Additionally, positive externalities in such projects make efficient provision challenging for private initiatives. Traditionally, the government has invested heavily in Public Sector Enterprises (PSEs) in various sectors, aiming to promote economic and social welfare and induce rapid growth. These investments were primarily funded through borrowed money, placing a significant strain on government finances due to increased debt obligations. The inefficient performance of these PSEs, reflected in low returns on investment, has further burdened government expenditure.

In order to systematically analyze the performance of these PSEs, all working 35 PSEs are grouped into three categories. These groups are based on the size of the equity by Government of Assam as on 2022.⁷ These groups are,

Group A: PSEs with equity greater than equal to 100 crores (≥ 100 crores)

Group B: PSEs with equity ranging from 50 to less than 100 crores (50 to < 100 crores)

Group C: PSEs ranging from 1 to less than 50 crores (1 to < 50 crores)

⁷Companies with equity less than 1 crore are excluded from the discussion of the present analysis.

The grouping of PSEs enables in identifying the important PSEs strategically based on their size of investment. Accordingly, the first group consists of five PSEs; the second group includes two PSEs, while the third group has 25 PSEs. The detailed discussion about the performance of each of the PSEs are summarised below.

7.3 Group A: Equity greater than equal to 100 crores

The PSUs that come under the first category (i.e., equity greater than equal to 100 crores) are:

- 1) Assam Power Generation Corporation Ltd
- 2) Assam Power Distribution Company Ltd
- 3) Assam Industrial Development Corporation Ltd
- 4) Assam Petrochemicals Ltd
- 5) Assam State Transport Corporation

1) Assam Power Generation Corporation Ltd.

The equity held by GoA, profit and loss statement, the accumulated profit/ loss and the net worth of the Assam Power General Corporation Ltd. over the years of 2017 to 2022 are presented in Table 7.2.⁸

The equity of GoA increased from ₹455.86 crores in 2018 to ₹2428.71 crores in 2022. Similarly, there is an increase in the profit of the company from less than one crores in 2017 to ₹207.84 crores in 2022 resulting in elimination of accumulated loss from ₹173.27 crores in 2017. The net worth of the company has increased from ₹299.8 crores in 2018 to ₹550.14 crores in 2022. Overall, the company could generate profits for all the years of the reference period.⁹ In the year 2022 the company reported no accumulated losses which have declined from ₹173 in 2017.

Net worth per crore equity marginally increased from ₹0.65 crores in 2018 to ₹0.76 crores in 2020. However, it decreased to ₹0.22 crore in 2022.

⁸Net worth means Paid Up Capital (Equity) plus Free Reserves and Surplus minus Accumulated losses minus Deferred Revenue Expenditure

⁹ Data for 2021 is not reported in the CAG report

Table 7.2: Statement of Equity, Profit/Loss and Net worth Assam Power Generation Corporation Ltd

Year	GoA Equity	Profit/ Loss	Accumulated profit/ loss	Net worth	Net worth per Crore equity
2017		0.93	-173.27		
2018	455.86	17.21	-156.06	299.80	0.65
2019	455.86	22.50	-113.15	342.71	0.75
2020	455.86	4.28	-107.59	348.27	0.76
2021	NA	NA	NA	NA	NA
2022	2428.71	207.84	0	550.14	0.22

Source: CAG Audit Report on State Public Sector Enterprises (various edition); CAG Report

Note: ₹ in crore; NA indicates data not available

2) Assam Power Distribution Company Ltd.

Table 7.3 presents the statements on equity, profit and loss, the accumulated profit/ loss and the net worth of Assam Power Distribution Company Ltd.

Table 7.3: Statement of Equity, Profit/Loss and Net worth Assam Power Distribution Company Ltd

Year	Equity by Government.	Profit/ loss	Accumulated profit/ loss	Net worth	Net worth per crore equity
2017	NA	-103.90	-3088.93	NA	NA
2018	251.45	-33.98	-3122.90	-2960.13	-11.77
2019	251.45	21.01	-2956.01	-2774.70	-11.03
2020	534.58	21.01	-2956.01	-2774.70	-5.19
2021	NA	NA	NA	NA	NA
2022	4824.81	-292.43	-1251.21	-786.77	-0.16

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

Note: ₹ in crore; NA indicates data not available

The equity of the GoA in Assam Power Distribution Company Ltd. increased from ₹251.45 crores in 2018 to ₹4824.81 crores in 2022. The company suffered losses to the tune of ₹103 and ₹33 in 2017

and 2018 which further ballooned to ₹292 during 2022 respectively. However, accumulated loss of the company declined from ₹3088.93 crores in 2017 to ₹1251.21 crores in 2022. The net worth of the company has reduced from negative ₹2960.13 crores in 2018 to a negative ₹786.77 crores in 2022. Overall, the company generated losses initially, made a profit of ₹21.01 crores in 2019 and 2020 and again made a loss of about ₹300 crores in 2022. Although the company reported a decrease in accumulated losses over the years, it has huge accumulated losses as of 2022. Net worth per crore equity remained negative throughout the reference period of the study. As on 2022, the employee strength of the company is about 56 thousand.

3) Assam Industrial Development Corporation Ltd.

Table 7.4 presents the statement of GoA's equity, profit and loss statement for the Assam Industrial Development Corporation Ltd.

Table 7.4: Statement of Equity, Profit/Loss and Net worth Assam Industrial Development Corporation Ltd.

Year	Equity by Government.	Profit/ loss	Accumulated profit/ loss	Net worth	Net worth per crore equity
2017		5.53	-31.46		
2018	139.21	2.58	-110.24	12.07	0.08
2019	139.21	7.26	-102.98	28.65	0.20
2020	139.21	7.93	-95.05	44.16	0.31
2021	NA	NA	NA	NA	NA
2022	139.21	9.72	-85.32	53.89	0.38

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

Note: ₹ in crore; NA indicates data not available

In the Assam Industrial Development Corporation Ltd, the equity of the GoA is ₹139.21 crores for the entire reference period. The company reported an increase in the profit from ₹5.53 crores in 2017 to ₹9.72 crores in 2022. However, the accumulated loss of the company also widened from ₹31.46 crores to ₹85.32 crores during 2017-2022. The net worth of the company has increased from ₹12.07crores in 2018 to ₹53.89 crores in 2022. Overall, the company could generate profits for all

the years of the reference period. The net worth per crore equity has increased from ₹0.086 crores in 2018 to ₹0.38 crores in 2022. Although the company's accumulated loss is considerable, the performance over the year has improved. A total number of employees in the company is 637 people as on 2022.

4) Assam Petrochemicals Ltd.

The equity-profit and loss statement for Assam Petrochemicals Ltd. are reported in Table 7.5

Table 7.5: Statement of Equity, Profit/Loss and Net worth Assam Petrochemicals Ltd.

Year	Equity by Government.	Profit/loss	Accumulated profit/loss	Net worth	Net worth per crore equity
2017		2.86	-26.41		
2018	97.41	5.44	-20.97	-11.84	-0.12
2019	157	7.03	-13.94	450.32	2.86
2020	177	-10.11	-24.05	506.21	2.85
2021	NA	NA	NA	NA	NA
2022	177	22.68	-7.60	522.66	2.95

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

Note: ₹ in crore; NA indicates data not available

The equity of GoA in Assam Petrochemicals Ltd. increased from ₹97.41 crores in 2018 to ₹177 crores in 2022. Similarly, there is an increase in the profit of the company from ₹2.86 crores in 2017 to ₹22.68 crores in 2022 resulting in a decrease in accumulated loss from ₹26.41 crores to ₹7.6 crores. The net worth of the company has increased from a negative ₹11.84 crores in 2018 to ₹522.66 crores in 2022. Overall, the company could generate profits for all the years of the reference period except for the year 2020. In the year 2022 the company reported a considerable decrease in accumulated loss and reported of total accumulated loss as on 2022 as ₹7.6 crores which has declined from ₹26.41 crores in 2017. The overall trend for net worth per crore equity has increased from a negative ₹0.12 crores in 2018 to ₹2.952 crores in 2022 thus showing improvement in the profitability of the company. As on 2022, number of employees in the company is 1706.

5) Assam State Transport Corporation

Table 7.6 presents the statements on equity, profit and loss, the accumulated profit/ loss and the net worth of Assam State Transport Corporation.

Table 7.6: Statement of Equity, Profit/Loss and Net worth Assam State Transport Corporation

Year	Equity by Government.	Profit/ loss	Accumulated profit/ loss	Net worth	Net worth per crore equity
2017	NA	-46.78	-779.90	NA	NA
2018	157.47	-65.31	-839.53	-671.80	-4.266
2019	157.47	-77.87	-948.04	-780.31	-4.955
2020	157.47	-77.87	-948.04	-780.31	-4.955
2021	NA	NA	NA	NA	NA
2022	157.47	-38.67	-1037.83	-870.10	-5.525

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

Note: ₹ in crore; NA indicates data not available

The state government's equity in Assam State Transport Corporation remained constant at ₹157.47 crores in the entire reference period. There is an increase in the losses of the company from ₹46.78 crores in 2017 to ₹77.87 crores in 2020. However, the losses declined to ₹38.67 crores in 2022. However, over the year, the company reported an increase in accumulated loss from ₹779.9 crores in 2017 to ₹1037.83 crores in 2022. The net worth of the company has also depleted sharply and decreased from negative ₹671.80 crores in 2018 to a negative ₹870.10 crores in 2022. Overall, the company generated losses and an increase in accumulated losses over the years. The net worth per crore equity has further deteriorated from a minus ₹4.26 crores in 2018 to a minus ₹5.52 crores in 2022. Huge accumulated loss and continuous depletion of net worth implies that the performance of the company is not efficient. A total of 17084 persons are employed in this company during the reference period.

In summary, out of the five PSEs, Assam Power Generation Company Ltd. is making profit and it is improving over the years. Its Net worth is also improving. Similarly, Assam Industrial Development Corporation. Ltd and Assam Petrochemicals Ltd. reported profit which are increasing over the years.

The net worth and net worth per crore equity for these PSEs are also improving over the years. In contrast, Assam Power Distribution Company Ltd. and Assam State Transport Corporation have reported recurrent losses. The net worth of Assam State Transport Corporation is negative and continuously depleting, while the net worth of Assam Power Distribution Company Ltd. although negative reveals signs of improvement. Thus, the performance of these two PSEs is recurrently inefficient. The government may take appropriate measures either to improve the performance of these PSEs or alternatively may consider other measures to reduce its fiscal burden.

7.4 Group B: PSEs with equity ranging from 50 to less than 100 crores (50 to <100 crores)

The PSUs that come in this category are:

- 1) Assam Electricity Grid Corporation Ltd.
- 2) Assam Hydrocarbon and Energy Company Ltd.

1) Assam Electricity Grid Corporation Ltd.

The equity-profit and loss statement for Assam Electricity Grid Corporation Ltd. are reported in Table 7.7

Table 7.7: Statement of Equity, Profit/Loss and Net worth Assam Electricity Grid Corporation Ltd

Year	GoA Equity	Profit/loss	Accumulated profit/loss	Net worth	Net worth per crore equity
2017	NA	-199.74	-422.2	NA	NA
2018	99.93	357.39	-464.04	-364.11	-3.64
2019	99.93	145.94	-232.42	-132.49	-1.32
2020	99.93	-181.60	-395.98	-296.05	-2.96
2021	NA	NA	NA	NA	NA
2022	99.93	105.46	-313.14	-213.21	-2.13

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

Note: ₹ in crore; NA indicates data not available

The equity of the GoA in Assam Electricity Grid Corporation Ltd. remained constant at ₹99.93 crores over the reference period. The company reported loss of ₹199.74 crores in 2017. In the subsequent

two year it reported profit of ₹357 and ₹145.94 crore respectively. The company suffered loss of ₹181.60 crore in 2020, however reported profit of ₹105.46 crores in 2022. Although the company reported a declining trend, the accumulated loss of Assam Electricity Grid Corporation Ltd stands at of ₹313.14 crores as in 2022. The net worth of the company has improved from negative ₹364.11 crores in 2018 to negative ₹213.21 crores in 2022. The trend of net worth per crore equity is somewhat improved from negative ₹3.64 crore in 2018 to negative ₹2.13 crores in 2022.

A total of 8997 are employed in this company during the reference period.

2) Assam Hydrocarbon and Energy Company Ltd.

Table 7.8 presents the statements on equity, profit and loss, the accumulated profit/ loss and the net worth of Assam Hydrocarbon and Energy Company Ltd.

The state government invested ₹21 crore in Assam Hydrocarbon and Energy Company Ltd. The equity of the GoA remained stagnant at ₹21 crores from 2018 to 2020 and then increased to ₹61 crores in 2022. The company reported a decreasing profit from ₹1.51 crores in 2017 to ₹0.94 crores in 2022. A decrease in accumulated profit from ₹11.41 crores in 2017 to zero crores in 2022 is also reported. The net worth of the company has increased from ₹32.41 crores in 2018 to ₹37.19 crores in 2022. The trend of net worth per crore equity has improved initially from ₹1.54 crores in 2018 to ₹1.66 crores in 2020. However, it declined to ₹0.60 crores in 2022. In terms of size of employment, only 33 persons are employed in this PSE as on 2022.

Table 7.8: Statement of Equity, Profit/Loss and Net worth Assam Hydrocarbon and Energy Company Ltd.

Year	GoA Equity	Profit/ loss	Accumulated profit/loss	Net worth	Net worth per crore equity
2017	NA	1.51	11.41	NA	NA
2018	21	1.51	11.41	32.41	1.54
2019	21	1.24	0	33.65	1.60
2020	21	1.27	0	34.93	1.66
2021	NA	NA	NA	NA	NA
2022	61	0.94	0	37.19	0.60

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

Note: ₹ in crore; NA indicates data not available

In this category of PSEs, GoA has more than ₹99 crore equity in Assam Electricity Grid Corporation Ltd. The performance of the company is not stable as it makes profits in two years while reported losses in three years. Moreover, the net worth is negative but there are signs of improvement. In Assam Hydrocarbon and Energy Company Ltd., the GoA invested ₹21 crore till 2021 as equity which has increased to ₹61 crore in 2022. This company earns continuous profit and as on 2022 the net worth of the company is ₹37 crore. Government may consider measure to improve performance of Assam Electricity Grid Corporation Ltd as the company reported considerable accumulated losses and negative net worth as on 2022.

7.5 Group C: PSEs with equity ranging from 1 crore to less than 50 crores

In the third category of PSEs, those PSEs which reported GoA's equity in the range of ₹1 to less than ₹50 crore are included. Based on the data available as of 2022, 25 PSEs fall into this category. Since the number of PSEs in this category is comparatively high, the aggregate information regarding equity, profit and loss, accumulated losses and net worth are presented separately for 2018, 2019, 2020 and 2022 in Table 7.9, 7.10, 7.11 and 7.12 respectively.

Table 7.9: Statement of Equity, Profit/Loss and Net worth of PSEs with Equity ranging from 1 crore to less than 50 crore (Year 2018)

Sl. No.	Name	Equity by GoA	Profit/ Loss	Accumulated Profit/ Loss	Net worth
1	Assam Seeds Corporation. Ltd	3.46	-3.64	-13.17	-11.71
2	Assam Tea Corporation. Ltd	29.54	-19.36	-305.77	-278.23
3	Assam Plantation Crop Development Corporation. Ltd	5	-1.23	-4.2	0.8
4	Assam Plains Tribes Development Corporation. Ltd	2.2	-0.07	-30.87	-27.92
5	Assam State Development Corporation for Other Backward Classes Ltd	3.4	-0.74	-13.44	-10.64
6	Assam Minorities Development and Finance Corporation Ltd	2	0.01	0.01	2.01
7	Assam State Development Corporation for Scheduled Castes Ltd	5.59	-1.68	-23.74	-13.89
8	Assam Hills Small Industries Development Corporation Ltd	2	-0.65	-7.12	-5.12
9	Assam Small Industries Development Corporation Ltd	6.67	-3.11	-17.63	-10.96
10	Assam Electronics Development Corporation Ltd	9.46	2.26	0.25	9.71
11	Assam Mineral Development Corporation Ltd	4.89	7.55	13.62	18.51
12	Assam Trade Promotion Org	10	0.66	1.89	11.89
13	Assam Government Marketing Corporation Ltd	2.16	-0.78	-5.53	-1.48
14	Assam State Textbook Production and Publication Corporation Ltd	1	0.28	1.26	2.26
15	Assam Gas Company Ltd	16.91	71.13	714.03	730.94
16	Assam Financial Corporation	27.7	0.13	-5.72	26.68
17	Assam State Warehousing Corporation	8	0.09	-11.35	2.12
18	Assam Agro industries Development Corporation Ltd	1.1	-0.45	-22.56	-20.36
19	Assam State Minor Irrigation Development Corporation Ltd	17.35	-0.02	-63.76	-46.41
20	Assam Power Loom Development Corporation Ltd	3.54	0	0	1.47
21	Assam Government Construction Corporation Ltd	2	-0.1	-10.34	-8.34
22	Assam Conductors and Tubes Ltd	1.54	-2.01	-8.2	-6.66
23	Assam State Textiles Corporation Ltd	15.76	0.03	-22.94	-7.18
24	Assam Spun Silk Mills Ltd	1.7	0	0	1.7
	All PSEs	182.97	48.3	164.72	359.19

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

Note: ₹ in crore; NA indicates data not available

Table 7.10: Statement of Equity, Profit/Loss and Net worth of PSEs with Equity ranging from 1 crore to less than 50 crore (Year 2019)

Sl No.	Name	Equity by GoA	Profit/ Loss	Accumulated Profit/ Loss	Net worth
1	Assam Seeds Corporation. Ltd	1.46	-3.64	-13.17	-11.71
2	Assam Tea Corporation. Ltd	29.54	-19.36	-305.77	-278.23
3	Assam Plantation Crop Development Corporation. Ltd	5	-0.16	-13.71	-8.71
4	Assam Food and Civil Supplies Corporation. Ltd	12.19	-0.42	-0.73	11.46
5	Assam Plains Tribes Development Corporation. Ltd	2.2	-10.52	-41.38	-36.08
6	Assam State Development Corporation for Other Backward Classes Ltd	3.4	-0.33	-15.79	-12.39
7	Assam Minorities Development and Finance Corporation Ltd	2.41	0.01	0	0.02
8	Assam State Development Corporation for Scheduled Castes Ltd	5.59	-1.68	-23.74	-13.89
9	Assam Hills Small Industries Development Corporation Ltd	2	-0.89	-8.57	-6.57
10	Assam Small Industries Development Corporation Ltd	6.67	-3.11	-17.63	-10.96
11	Assam Electronics Development Corporation Ltd	9.46	2.26	0	9.71
12	Assam Mineral Development Corporation Ltd	4.89	7.55	0	18.51
13	Assam Trade Promotion Org	10	0.89	0	12.77
14	Assam Government Marketing Corporation Ltd	2.16	0.82	-4.09	0.27
15	Assam State Textbook Production and Publication Corporation Ltd	1	1.95	0	4.59
16	Assam Gas Company Ltd	16.91	27.9	0	754.23
17	Assam Financial Corporation	26.85	-3.28	-9.73	22.67
18	Assam State Warehousing Corporation	8	0.09	-11.35	2.12
19	Assam Agro industries Development Corporation Ltd	2.2	-0.45	-22.56	-20.36
20	Assam State Minor Irrigation Development Corporation Ltd	17.35	-0.02	-63.76	-46.41
21	Assam Power Loom Development Corporation Ltd	3.54	0	0	1.47
22	Assam Government Construction Corporation Ltd	2	-0.12	-10.46	-8.46
23	Assam Conductors and Tubes Ltd	1.54	-2.01	-8.2	-6.66
24	Assam State Textiles Corporation Ltd	15.76	0.7	-36.72	-21.28
25	Assam Spun Silk Mills Ltd	1.7	0	0	1.7
	All PSEs	193.82	-3.82	-607.36	357.81

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

Note: ₹ in crore

Table 7.11: Statement of Equity, Profit/Loss and Net worth of PSEs with Equity ranging from 1 crore to less than 50 crore (Year 2020)

Sl No	Name	Equity by GoA	Profit/ Loss	Accumulated Profit/ Loss	Net worth
1	Assam Seeds Corporation. Ltd	1.46	-3.64	-13.17	7.19
2	Assam Tea Corporation. Ltd	29.54	-17.98	-323.75	174.08
3	Assam Plantation Crop Development Corporation. Ltd	5	-0.16	-13.71	9.69
4	Assam Food and Civil Supplies Corporation. Ltd	12.19	-0.31	-1.04	0
5	Assam Plains Tribes Development Corporation. Ltd	2.2	-2.68	-44.06	-38.76
6	Assam State Development Corporation for Other Backward Classes Ltd	3.4	-0.33	-15.79	-12.39
7	Assam Minorities Development and Finance Corporation Ltd	2.41	0.01	0	0.02
8	Assam State Development Corporation for Scheduled Castes Ltd	5.59	-1.68	-23.74	-13.89
9	Assam Hills Small Industries Development Corporation Ltd	2	-0.89	-8.57	-6.57
10	Assam Small Industries Development Corporation Ltd	6.67	-3.11	-17.63	-10.96
11	Assam Electronics Development Corporation Ltd	9.46	2.26	0	9.71
12	Assam Mineral Development Corporation Ltd	4.89	22.46	0	40.38
13	Assam Trade Promotion Org	10	0.62	0	13.39
14	Assam Government Marketing Corporation Ltd	2.16	-0.73	-9.74	-5.38
15	Assam State Textbook Production and Publication Corporation Ltd	1	1.95	0	4.59
16	Assam Gas Company Ltd	16.91	82.55	0	822.95
17	Assam Financial Corporation	26.85	-3.28	-9.73	22.67
18	Assam State Warehousing Corporation	8	0.13	-9.06	4.41
19	Assam Agro industries Development Corporation Ltd	2.2	-0.45	-22.56	-20.36
20	Assam State Minor Irrigation Development Corporation Ltd	17.35	-0.02	-63.76	-46.41
21	Assam Power Loom Development Corporation Ltd	3.54	0	0	1.47
22	Assam Government Construction Corporation Ltd	2	-0.05	-10.5	-8.5
23	Assam Conductors and Tubes Ltd	1.54	-2.01	-8.2	-6.66
24	Assam State Textiles Corporation Ltd	15.76	0.7	-36.72	-21.28
25	Assam Spun Silk Mills Ltd	1.7	0	0	1.7
	All PSEs	193.82	73.36	-631.73	921.09

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

Note: ₹ in crore

Table 7.12: Statement of Equity, Profit/Loss and Net worth of PSEs with Equity ranging from 1 crore to less than 50 crore (Year 2022)

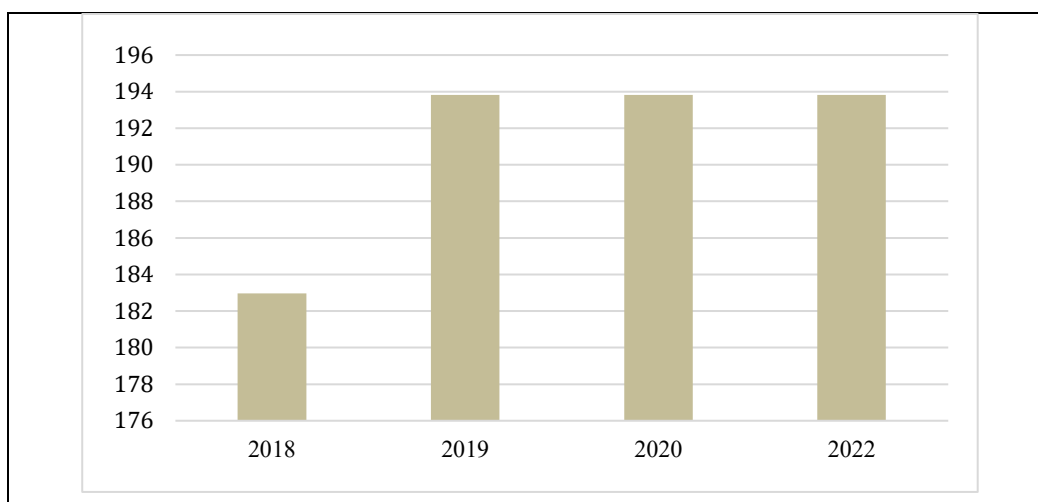
Sl. No	Name	Equity by GoA	Profit/ Loss	Accumulated Profit/ Loss	Net worth
1	Assam Seeds Corporation. Ltd	1.46	0.04	-10.03	-8.57
2	Assam Tea Corporation. Ltd	29.54	39.72	-284.03	-256.49
3	Assam Plantation Crop Development Corporation. Ltd	5	-0.16	-13.71	-8.71
4	Assam Food and Civil Supplies Corporation. Ltd	12.19	0.91	-0.72	11.47
5	Assam Plains Tribes Development Corporation. Ltd	2.2	0.15	-44.23	-38.93
6	Assam State Development Corporation for Other Backward Classes Ltd	3.4	0.03	-18.82	-15.42
7	Assam Minorities Development and Finance Corporation Ltd	2.41	0.01	0	0.02
8	Assam State Development Corporation for Scheduled Castes Ltd	5.59	1.89	-32.39	-22.29
9	Assam Hills Small Industries Development Corporation Ltd	2	-0.1	-11.47	-9.47
10	Assam Small Industries Development Corporation Ltd	6.67	-3.11	-17.63	-1096.00
11	Assam Electronics Development Corporation Ltd	9.46	2.05	0	23.1
12	Assam Mineral Development Corporation Ltd	4.89	25.76	0	65.61
13	Assam Trade Promotion Org	10	0.17	0	14.56
14	Assam Government Marketing Corporation Ltd	2.16	0.22	-17.5	-13.14
15	Assam State Textbook Production and Publication Corporation Ltd	1	1.95	0	4.59
16	Assam Gas Company Ltd	16.91	48.93	0	930.09
17	Assam Financial Corporation	26.85	-3.94	-30.09	2.31
18	Assam State Warehousing Corporation	8	0.06	-8.37	5.1
19	Assam Agro industries Development Corporation Ltd	2.2	-0.45	-22.56	-20.36
20	Assam State Minor Irrigation Development Corporation Ltd	17.35	-0.02	-63.76	-46.41
21	Assam Power Loom Development Corporation Ltd	3.54	0	0	1.47
22	Assam Government Construction Corporation Ltd	2	-0.15	-10.7	-8.7
23	Assam Conductors and Tubes Ltd	1.54	-2.01	-8.2	-6.66
24	Assam State Textiles Corporation Ltd	15.76	-0.12	-37.01	-21.57
25	Assam Spun Silk Mills Ltd	1.7	0	0	1.7
	All PSEs	193.82	111.83	-631.22	-512.70

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

Note: ₹ in crore

According to the data available on 2018, the aggregate equity of the government of Assam to these PSEs was ₹182.97 crores. The size of total equity of the government of Assam to these PSEs increases to ₹193.82 crores by the year 2019. Since then, there is no change in the equity of these PSEs till 2022 (presented in figure 1).

Figure 7.1: Year wise Government of Assam's Equity in PSEs (Group C PSEs)



Source: Authors' Estimation

Note: ₹ in Crore

As per the information of 2018, among the 25 PSEs, Assam Tea Corporation. Ltd. received the largest share of equity (₹29.54 Crore) followed by Assam Financial corporation (₹27.7 crore), Assam State Minor Irrigation Development Corporation Ltd. (₹17.35 crore), Assam Gas Company (₹16.91 crore) and Assam State Textiles Corporation Ltd (₹15.76 crore). The aggregate profit earned by all 25 PSEs was ₹48.30 crores with an accumulated profit of ₹164.72 crores. However, in 2019, these groups made a total loss of ₹3.82 crores. The total accumulated loss also increased to ₹607.36 crores. In 2020, these PSEs earned ₹73.36 crores as profit however with accumulated loss climbed to ₹631.73 crores. During 2022, these PSEs reported profit of ₹111.83 crores with an accumulated loss remaining around ₹631 crores (refer to Table 7.13).

Table 7.13: Statement of Profit/Loss and Accumulated Loss of PSEs with Equity between 1 to less than 50 crores

Year	Profit/ Loss	Accumulated Profit/ Loss
2017	44.32	137.92
2018	48.3	164.72
2019	-3.82	-607.36
2020	73.36	-631.73
2022	111.83	-631.22

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

Note: ₹ in crore

In 2022, significant amounts of profit are contributed by Assam Gas Company Ltd., Assam Tea Corporation Ltd., Assam Mineral Development Corporation Ltd. to the tune of ₹48.93, ₹39.72 and

₹25.76 crore respectively. Among these companies, Assam Small Industries Development Corporation Ltd., Assam Conductors and Tubes Ltd., Assam Plantation Crop Development Ltd., Assam Hills Small Industries Development Corporation Ltd, Assam Government Construction Corporation Ltd. and Assam State Minor Irrigation Development Corporation Ltd. reported losses for all the years during 2018-2022. Similarly, Assam Financial Corporation and Assam Agro Industries Development Corporation Ltd also reported losses during 2019, 2020 and 2022. In terms of accumulated losses, the top five companies are Assam Tea Corporation. Ltd., Assam State Minor Irrigation Development Corporation Ltd., Assam State Development Corporation for Scheduled Castes Ltd., Assam State Textiles Corporation Ltd and Assam Plains Tribes Development Corporation Ltd.

The list of companies with highest accumulated losses is presented in Table 7.14.

Table 7.14: PSE wise Accumulated loss of PSEs with Equity between 1 to less than 50 crores

Name of the PSE	2018	2019	2020	2022
Assam Tea Corporation. Ltd	-305.77	-305.77	-323.75	-284.03
Assam State Minor Irrigation Development Corporation Ltd.*	-63.76	-63.76	-63.76	-63.76
Assam Plains Tribes Development Corporation. Ltd	-30.87	-41.38	-44.06	-44.23
Assam State Textiles Corporation Ltd*	-22.94	-36.72	-36.72	-37.01
Assam State Development Corporation for Scheduled Castes Ltd	-23.74	-23.74	-23.74	-32.39
Assam Agro industries Development Corporation Ltd*	-22.56	-22.56	-22.56	-22.56
Assam Small Industries Development Corporation Ltd	-17.63	-17.63	-17.63	-17.63
Assam State Development Corporation for Other Backward Classes Ltd	-13.44	-15.79	-15.79	-18.82
Assam Plantation Crop Development Corporation. Ltd	-4.2	-13.71	-13.71	-13.71
Assam Seeds Corporation. Ltd	-13.17	-13.17	-13.17	-10.03
Assam State Warehousing Corporation	-11.35	-11.35	-9.06	-8.37
Assam Government Construction Corporation Ltd*	-10.34	-10.46	-10.5	-10.7
Assam Financial Corporation	-5.72	-9.73	-9.73	-30.09
Assam Hills Small Industries Development Corporation Ltd	-7.12	-8.57	-8.57	-11.47
Assam Conductors and Tubes Ltd*	-8.2	-8.2	-8.2	-8.2
Assam Government. Marketing Corporation Ltd	-5.53	-4.09	-9.74	-17.5

Source: CAG Audit Report on State Public Sector Enterprises (various edition)

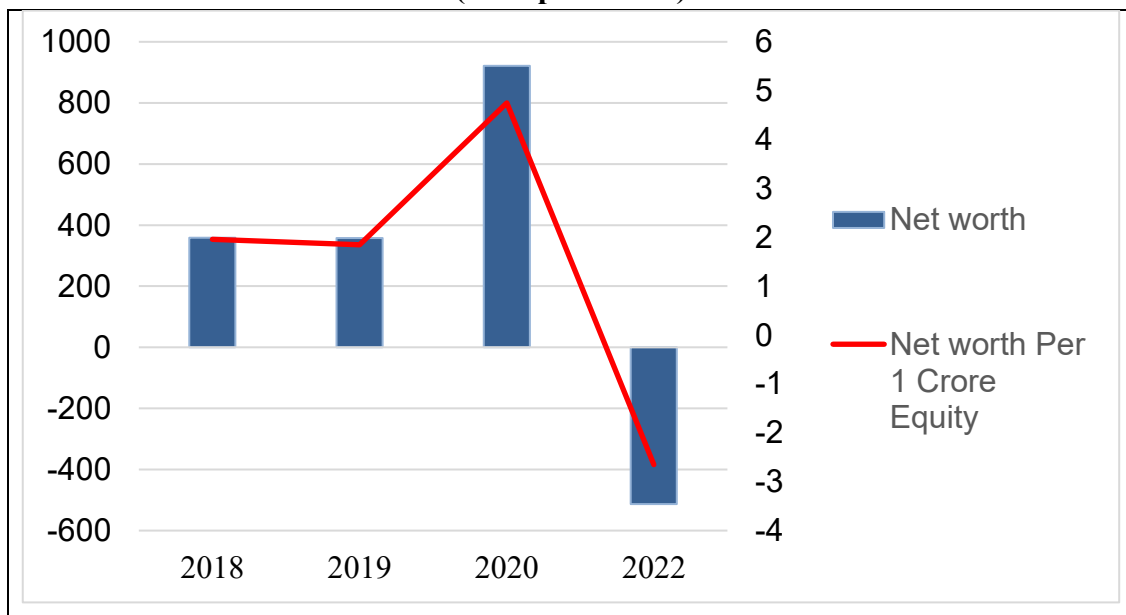
Note: ₹ in crore; NA indicates data not available

*These PSEs are closed under Assam Governance and Public Resource Management Program.

Table 7.14 reveals that accumulated losses for companies like Assam Plains Tribes Development Corporation Ltd., Assam State Development Corporation for Scheduled Castes Ltd., Assam State Development Corporation for Other Backward Classes Ltd., Assam Plantation Crop Development Corporation Ltd., Assam Financial Corporation, Assam Hills Small Industries Development Corporation Ltd and Assam Government. Marketing Corporation Ltd are continuously on the rise. This rise in accumulated losses indicates that these companies are underperforming perennially.

In order to assess these (all 25) companies, the aggregate net worth and net worth per crore equity is estimated and presented in figure 2. Overall, it is observed that the net worth per crore equity was 1.96 crore in 2018 which increase to 4.75 crore in 2020. However, sharp decline to -₹2.65 is reported in 2022. Thus, the aggregate liability of these companies is ₹2.65 crore per one crore of equity from GoA. Therefore, it is suggested that for those PSEs which are reporting recurrent losses and continuously accumulating losses, GoA may make assessment of the performance of these companies. Subsequently appropriate measures must be taken according to the need.

**Figure 7.2: Trends in Net worth and Net worth per 1 crore Equity
(Group: C PSEs)**



Source: Authors' Estimation

Note: ₹ in crore

7.6 Concluding Remark and Recommendation

Some of the important highlights that emerged from the analysis of performances of different PSEs above are-

- According to CAG report there are 35 working PSEs in Assam
- As on 2022, there are five large PSEs, each of which has more than ₹100 crore equity from the government of Assam.
- Out of these five, two PSEs namely Assam Power Distribution Company Ltd. and Assam State Transport Corporation reporting recurrent losses over the reference period. Together these two companies reported accumulated loss of ₹2289 crore as on 2022.
- The other three PSEs i.e., Assam Power Generation Company Ltd., Assam Industrial Development Corporation. Ltd and Assam Petrochemicals Ltd. have reported profit and shows signs o improvement in their performances.
- In the second category of PSEs where the size of government equity is ₹50 to ₹100 crore includes two PSEs Assam Electricity Grid Corporation Ltd. and Assam Hydrocarbon and Energy Company Ltd.
- The performance of Assam Electricity Grid Corporation Ltd. is not stable whereas Assam Hydrocarbon and Energy Company Ltd. is reporting small but continuous profit over the years.
- In the third category, those PSEs were included where the size of GoA's equity ranges between ₹1 to ₹50 crore.
- The aggregate equity in these PSEs is about ₹194 crores as on 2019.
- Out of 25 PSEs in this group, about 16 PSEs reported losses for all the years considered for the study. The total accumulated losses were about ₹631 crores as on 2022.
- Among the PSEs, the largest equity holder is Assam Tea Corporation. Ltd (about ₹29 crore) which also reported the largest accumulated losses about ₹284 crores
- Other major PSEs in terms of losses are Assam Plains Tribes Development Corporation. Ltd, Assam State Textiles Corporation Ltd, Assam State Development Corporation for Scheduled Castes Ltd and Assam Agro industries Development Corporation Ltd etc. These PSEs are recurrently reporting losses.

- It is suggested that those PSEs which are reporting recurrent losses and whose net worth is depleting over the years, government may take necessary measures to improve their performance or to reduce the inevitable fiscal burden.

Chapter VIII - Power Sector Performance & its Impact on State's Financial Health

8.1 Introduction

In an economy, the power sector plays a crucial role. This is because electricity is considered as an important input for all the sectors of the economy particularly agriculture, industry, irrigation, transport and communication. Therefore, the growth and development of the state closely corresponds with the growth of its power sector. In Assam with the rising population and changing aspirations of the people, the demand for power is also growing. The residential demand for electricity is found to be high relative to electricity demand for commercial purposes. This may be due to the increased global concern towards access to and use of clean energy sources like electricity in recent years. However, the power sector of the state is characterised by an energy deficit situation whereby there exists a significant gap between demand for power and supply of power. Due to this, the peak energy demand remains unfulfilled in the state. For ensuring uninterrupted supply of electricity, efficient functioning of the power sector is very essential, however, the entire process of power supply which starts from generation of power and ends with power getting transmitted to the final consumer is subjected to transmission, distribution and commercial losses. In such a situation, even fiscal intervention initiated by the government to boost the performance of the power sector seems ineffective. This necessitates the introduction of power sector reforms in the state which will not only revive the power sector but will also ensure effective mobilisation of government funds. In Assam, the decoupling of Assam State Electricity Board (ASEB) and formation of three power sector public sector undertakings (PSUs) marked the inception of power sector reforms. To ascertain the effectiveness of power sector reforms, evaluation of the financial and operational strength of the power sector PSUs of the state becomes paramount.

8.1.1 Status of power supply in Assam

Energy requirements in Assam have been growing over the years with the increase in the number of consumers in the state. The two most prominent categories of consumers are domestic and commercial consumers. The domestic categories of consumers include Jeevan Dhara, Lower Tariff (LT) (Domestic A, Domestic B) and Higher Tariff (HT) (Domestic) categories, while commercial categories include LT(Commercial) and HT (Commercial) categories.

Table: 8.1: Total Number of Electricity Consumers in Assam

Year	Domestic Consumers	Commercial Customers	Total
2012-13	2130992	181781	2312773
2013-14	2640938	188801	2829739
2014-15	2945360	196287	3141647
2015-16	3468173	205080	3673253
2018-19	5041035	273146	5314181
2019-20	5479471	281454	5760925
2020-21	5906863	294981	6201844
2021-22	6099774	349599	6449373
2022-23	6235032	345375	6580407

Source: Economic Survey Assam, related issues

(Note: Information on number of electricity consumers is not available for the years 2016-17 and 2017-18)

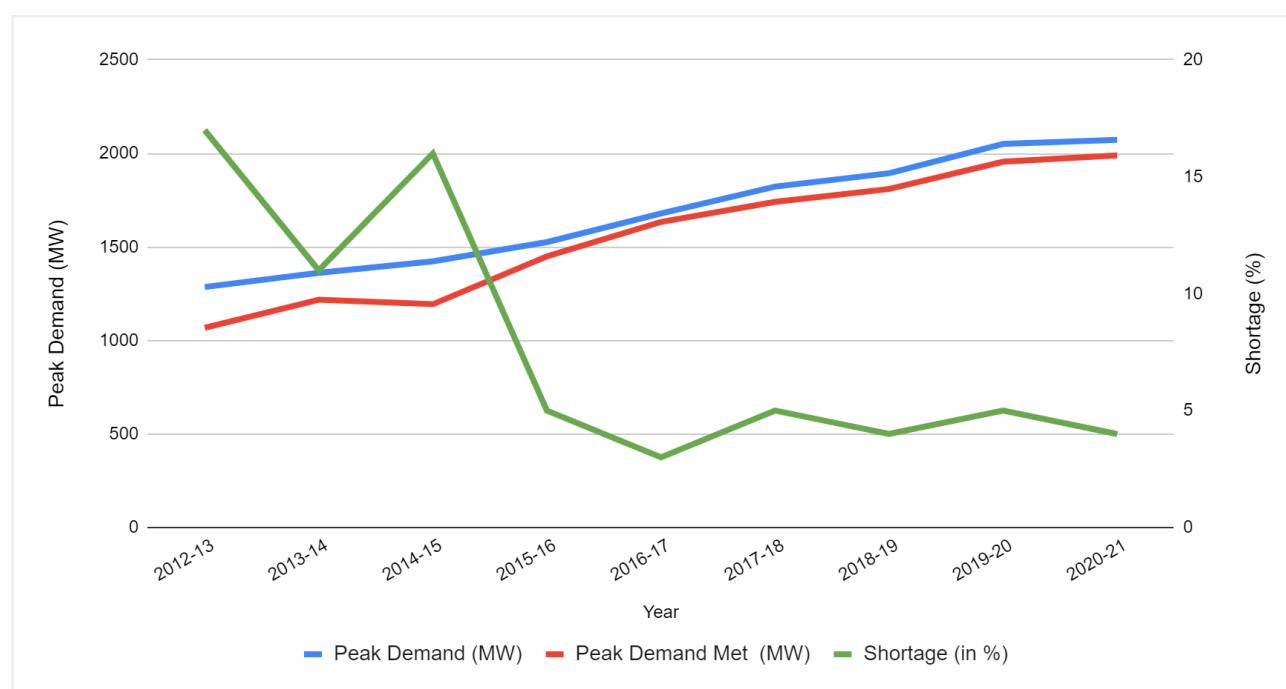
From the above Table 8.1 it is clear that the total number of electricity consumers in the state of Assam has increased from 2312773 in 2012-13 to 6580407 in 2022-23. In the state, electricity is primarily demanded for domestic use which is reflected in the relatively higher number of domestic consumers than commercial consumers. This may be attributed to the government's power sector initiatives to promote use of clean energy like electricity in the state.

Table 8.2: Year-wise Demand and Shortage of Electricity in Assam

Items	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Peak Demand (MW)	1286	1362	1423	1526	1679	1823	1894	2051	2073
Peak Demand MET (MW)	1068	1218	1194	1450	1634	1741	1810	1956	1990
Shortage (MW)	218	144	229	76	45	82	84	95	84
Shortage (in %)	17	11	16	5	3	5	4	5	4

Source: Economic Survey, Assam 2016-17; 2021-22

Figure 8.1: Year-wise Demand and Shortage of Electricity in Assam



Source: Authors' Estimation

From the standpoint of power requirements of consumers, the state's current power generation status is not quite satisfactory. There has always been a shortage of power supply in the State due to less power generation in comparison to requirements of consumers. From the above Table 8.2 and Figure 8.1, the percentage of power shortage in the state has been highest in the year 2012-13 but in the succeeding year 2013-14, the state has been able to meet the peak demand of the consumers and hence the percentage of power shortage is found to shrink. However, in the year 2014-15, the percentage of power shortage in the state again rose up and this indicates that the state's effort to cater the consumers power needs in the preceding year had a temporary impact. Therefore, post 2014-15, the state is working towards finding a long-lasting solution to the problem of power shortage in the state and this is reflected in gradual decline in the percentage of power shortage. This decline can be attributed to increasing government expenditure in the power sector of the state. Moreover, the government has been working to provide electricity to every household and almost 25,000 census villages have been electrified by the end of 2017.

The increasing trend in peak demand for electricity in the state is indicating that as the population is increasing in the state, the demand for electricity is also increasing. This clearly indicates that people in the state have a positive attitude towards modern and clean energy sources like electricity. However, the state's struggling efforts to meet the peak power needs of the consumers is reflecting

the state of energy poverty in the state. Moreover, a large number of consumers use backup power, leading to higher carbon emissions as it is either diesel- or battery-powered. To cope with the unstable power supply in rural areas, individuals stack fuel such as kerosene, solar home systems, and solar pumps in addition to the grid (Institute for Energy Economics and Financial Analysis, 2023).

8.1.2 Brief description of the power transmission process

Transmission of electricity is defined as bulk transfer of power over long distances at high voltages, generally at 132KV and above. Electric power generated at relatively low voltages in power plants is stepped-up to high voltage power before it is transmitted so as to reduce the loss in transmission and to increase efficiency in the Grid. Sub-stations (SSs) are the facilities within the high voltage electric system used for stepping-up or stepping-down voltages from one level to another, connecting electric systems and switching equipment in and out of the system. The step-up transmission SSs at the generating stations use transformers to increase the voltages for transmission over long distances.

Transmission Lines (TLs) carry high voltage electric power. The step-down transmission SSs thereafter decrease voltages to sub-transmission voltage levels for distribution to consumers. The distribution system includes lines, poles, transformers and other equipment needed to deliver electricity at specific voltages. Electrical energy cannot be stored; hence, generation must be matched to need. Therefore, every transmission system requires a sophisticated system of control for effective Grid management to ensure balancing of power generation closely with demand.

8.1.3 Transmission, Distribution and Commercial Losses of Energy

The power supplied through various stages of transmission from the source of power generation to final consumers results in loss of energy and is known as transmission, distribution and commercial losses of energy. Such losses are a matter of concern especially when there is an increasing growth in the peak energy demand for the state.

Table: 8.3: Transmission, Distribution and Commercial Losses of Energy

Year	Energy Input (MUs)	Energy Billed (MUs)	T&D Losses (MUs)	T&D Losses (%)	Amount Billed (Rupees in crore)	Amount realized (Rupees in crore)	Collection Efficiency (%)	AT&C Losses (%)
2012-13	5871	4205	1666	23.38	2275	2180	95.84	28.94
2013-14	6462	4763	1699	26.29	2740	2654	96.87	28.6
2014-15	6955	5485	1470	21.13	3037	2924	96	24
2015-16	7571	6199	1372	18.12	3808	3606	94.69	22.47
2016-17	7948	6526	1422	17.89	4234	3933	92.91	23.71
2017-18	8273	6814	1459	17.64	4759	4871	102.34	15.71
2018-19	8678	6968	1710	19.7	5080	5065	99.71	19.94
2019-20	8912	7257	1655	19.06	5392	5268	97.7	20.92
2020-21	9156	7458	1698	18.55	5374	5343	99.43	19.02
2021-22	10259	8520	1739	16.95	6017	6303	104.76	13
2022-23	10984	9203	1781	16.22	7301	7344	100.59	15.73

Source: Economic Survey Assam, related issues

T&D losses: Transmission and Distribution losses

AT&C losses: Aggregate Transmission and Commercial losses

From the above Table 8.3, it is found that the amount billed for consumption of electricity has been increasing in the state. In 2012-13, the bill amount was ₹2275 crores which has increased more than threefold times to Rs 7301 crores in 2022-23. This increase can be attributed to insufficient supply of electricity in response to its increasing demand. Transmission and Distribution losses are a significant cause for insufficient electricity supply in the state and it is clear that it has increased from 1666 MU in 2012-13 to 1781 MU in 2022-23. However, the Aggregate Transmission and Commercial losses of the state power sector have reduced over the years. This implies that schemes aimed at reducing power transmission losses of the state, such as the Integrated Power Development Scheme (IPDS), have been effectively implemented.

8.2 Fiscal Intervention in the Power Sector of the State

Fiscal intervention plays an important role to ensure efficiency of the power sector by means of its expenditure and revenue receipts. This also helps in undertaking power sector reforms effectively.

8.2.1 Government Expenditure on Power Sector of the State

The government can play a crucial role to transform the power deficit conditions of the state power sector by pumping resources. Table 8.4 gives a clear picture of government expenditure on the power sector of the state.

Table 8.4: Government Expenditure on Power Sector of Assam (in ₹ crores)

Year	Power			Total
	Revenue Expenditure	Capital Expenditure	Loans and Advances	Total
2012-13	21.02	202.35	401.43	624.80
2013-14	151.44	417.17	284.96	853.57
2014-15	113.40	176.71	606.32	896.43
2015-16	2.58	164.50	146.17	313.25
2016-17	418.01	517.76	407.51	1,343.28
2017-18	1,562.16	803.99	188.35	2,554.50
2018-19	1,641.36	369.69	129.45	2,140.50
2019-20	1,404.16	112.37	285.11	1,801.64
2020-21	1,350.25	295.40	35.03	1,680.68
2021-22	1,300.77	3,698.39	69.24	5,068.40
2022-23	1,150.86	782.92	53.99	1,987.77
CAGR (in percent)	43.89	13.09	-16.67	11.09

Source: Assam Finance Accounts, related issues

From the Table 8.4, it is clear that the government's expenditure on power has increased from 2012-13 to 2017-18, however, it has declined thereafter till 2021-22. With an expenditure of around ₹5000 crore, the government expenditure on power has been the highest in 2021-22. This increase in government expenditure can be associated with increased capital expenditure in the same year for catering long term expenses of the power sector. However, the government pumps funds majorly in the form of revenue expenditure which helps to cover the initial investment in the power sector along with other day to day operating expenses. The Compound Annual Growth Rate (CAGR) of government expenditure on power has been around 11 percent.

8.2.2 Revenue Generation from the Power Sector of the State

Taxes and Duties on Electricity is a state level tax imposed on the consumption of electricity and the rate of tax varies from state to state. According to Section 3(1) of Assam Electricity Duty (Amendment) Act, 2018, electricity duty is fixed at 5% of the aggregate value, which comprises both energy charge and fixed charge. In Assam, the aggregate value of energy is either fixed by the Assam Power Distribution Company Limited (APDCL) or the Assam Electricity Regulation Commission (AERC).

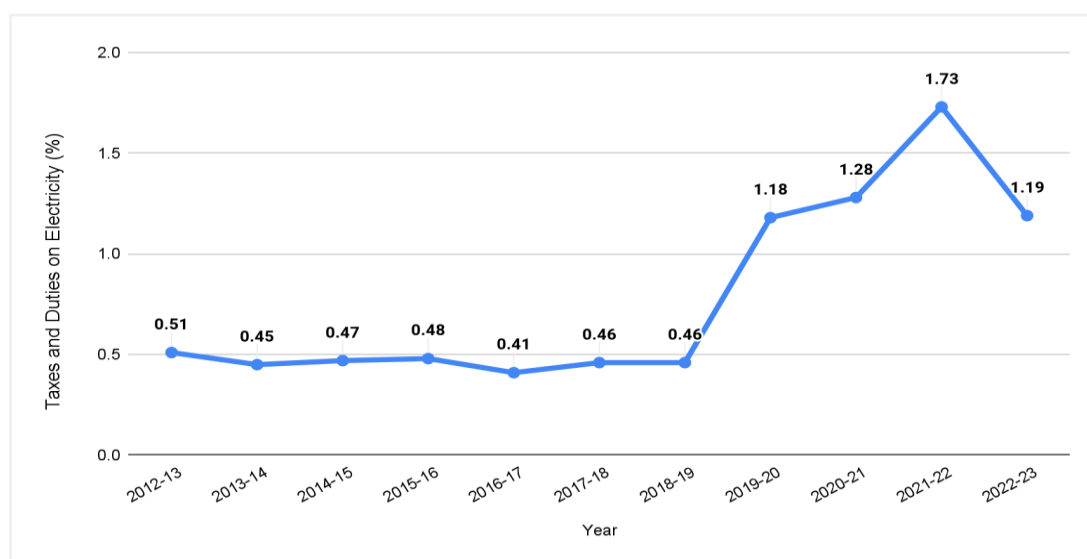
In Table 8.5 and Figure 8.5, Taxes and Duties on Electricity as a percent of Assam's Own Tax Revenue has been shown to indicate how much revenue is being generated through taxing consumers for their electricity consumption.

Table 8.5: Taxes and Duties on Electricity as a percent of SOTR (in ₹ crore)

Year	Taxes and Duties on Electricity	States' Own Tax Revenue	Taxes and Duties on Electricity as a percent of SOTR
2012-13	41.82	8,250.21	0.51
2013-14	40.54	8,994.92	0.45
2014-15	44.00	9,449.81	0.47
2015-16	48.64	10,106.50	0.48
2016-17	49.44	12,079.56	0.41
2017-18	60.19	13,215.52	0.46
2018-19	72.75	15,924.85	0.46
2019-20	194.56	16,528.69	1.18
2020-21	219.85	17,133.61	1.28
2021-22	337.90	19,533.10	1.73
2022-23	290.89	24,502.02	1.19

Source: Calculated from State Finances: A Study of Budgets, RBI; Economic Survey Assam

Figure 8.2: Year-wise Taxes and Duties on Electricity as a percent of SOTR



From the Figure 8.2, it is clear that the taxes and duties on electricity have been increasing continuously over the years in the state of Assam. Consequently, this implies that the contribution of taxes and duties on electricity in the State's Own Tax Revenue (SOTR) is also growing. Between the period 2012-13 to 2018-19, the revenue from taxes and duties on electricity as a percentage of SOTR is hovering around 0.51 percent to 0.46 percent. However, from 2019-20 onwards the revenue generated from electricity consumption has shown a drastic increase and the share of revenue from taxes and duties on electricity in SOTR is found to be the highest in the year 2021-22. This may be due to higher electricity consumption demand especially from residential consumers during the COVID-19 pandemic. Even though this indicates that the consumers are consuming cleaner energy like electricity, increasing taxes and duties on electricity consumption may induce consumers to go for the consumption of alternative forms of energy. This may be the reason for the fall in the share of revenue from electricity consumption in SOTR during 2022-23.

8.3 Power Sector Reforms

Power sector reforms often involve changing the ownership and structure of the power system of an economy with a focus to introduce private ownership and competition. Such reforms not only improve the financial and technological performance of the power sector, but also have relevant social and environmental implications (Dubash, 2004). The financial implication of power sector reforms involves revival of the loss-making state electricity boards and mobilisation of additional resources for the sector (Pachauri and Bhandari, 2004), whereas, its social implication is that such reforms result in equitable access to electricity, makes electricity affordable, boosts employability of the sector and ensures a reliable supply of electricity.

8.3.1 Power Sector Reforms in Assam

A distinguishing feature of the power sector of India is that the demand for power outgrows the supply of power in the country. There is prevalence of peak energy shortages and similar is the case for Assam. This is caused due to inadequate electricity generation, transmission, and distribution alongside inefficient electricity use. This in turn has resulted in huge technical and commercial losses for power sector utilities and have curtailed their financial operations. In order to revive the situation, power sector reforms were introduced. In Assam power sector reforms were initiated in 2001, even though power sector reforms in India began in early 1991 (Pachauri and Bhandari, 2004). The power sector reforms were introduced in Assam with an objective to make the power sector of the state

commercially viable so that its dependence on budgetary support could be gradually removed. Prior to the reforms, the Assam State Electricity Board (ASEB) has been responsible for electricity generation, transmission and distribution in the state. As a part of the power sector reforms ASEB has been unbundled into three power sector PSUs namely, Assam Power Generation Corporation Limited (APGCL), Assam Electricity Grid Corporation Limited (AEGCL) and Assam Power Distribution Company Limited (APDCL). This move is in sync with the basic essence of power sector reforms that thrives for private ownership and competition in the power sector. Even the Electricity Act of 2003 encourages competition with appropriate regulatory intervention. It is anticipated that competition would increase the efficiency of the power sector and as a result consumers will have access to quality electricity supply at competitive prices.

8.3.2 Financial performance of the State Power Sector PSUs

As power sector reforms were initiated to maintain the financial viability of the sector, it is very important to assess the financial performance of the power sector PSUs of the state. In this section the financial performance of the state's three power sector PSUs has been examined along with the pattern of government investment in the same. This indeed will be insightful to understand the financial health of the power sector PSUs of Assam and how it is further strengthened due to government investment. This will also be helpful for policymakers in formulating power sector reforms especially those concerned with gradual budgetary allocations.

The Assam Power Generation Corporation Ltd. (APGCL)

The Assam Power Generation Corporation Ltd. (APGCL) was constituted to look after power generation in the State Sector. It was constituted after unbundling of ASEB in Dec 2004 through State Power Sector Reform Programme under the provision of Electricity Act 2003. The final Transfer Scheme was implemented in August, 2005. The company is mainly responsible for development of Thermal & Hydel Power Projects to generate electricity to meet the energy demand in the state to the extent feasible.

Table 8.6: Financial Performance of APGCL (in ₹ crore)

Year	Total Revenue	Total Expenditure	Profit/loss	Profit/loss before tax (excluding exceptional item)	Tax Expenses	Profit/loss after tax
2014-15	633.09	648.98	-15.89	-1.01	0.18	-1.19
2015-16	690.55	664.90	25.65	1.16	0.23	0.93
2016-17	552.62	523.04	29.58	21.87	4.66	17.21
2017-18	512.18	486.23	25.95	25.95	5.53	20.42
2018-19	587.57	558.26	29.31	29.31	6.78	22.53
2019-20	561.48	556.04	5.44	5.44	1.16	4.28
2020-21	440.32	466.27	-25.95	-25.95	0.00	-25.95
2021-22	535.07	680.21	-145.14	251.33	43.49	207.84

Source: Calculated from Accounts Statements of APGCL, related issues

From the Table 8.6 it is clear that the total revenue generated by APGCL has declined over the years. The revenue majorly comes from the operations carried out by the APGCL which basically involves generation of power to meet the energy needs of the state. The expenses incurred by APGCL has increased from ₹648.98 crores in 2014-15 to ₹680.21 crores in 2021-22.

Initially the PSU allocates its expenses to cover the cost of procuring inputs excluding lubricants, however, the PSU began to spend a substantial amount towards employee benefits, indicating an increase in the number of employees in the PSU over the years.

APGCL is majorly a profit-making power sector PSU except for the years 2014-15 and 2020-21 when the PSU had to incur losses. The after-tax profits of APGCL have drastically increased from ₹0.93 crores in 2015-16 to ₹17.21 crores in 2016-17 and it continuously increased to ₹22.53 crores in 2018-19. However, the after-tax profits of the PSU have drastically shrank to ₹4.28 crores in 2019-20 before incurring a loss in 2020-21. It is also evident that whenever the PSU incur losses it can hardly make its tax payments, whereas when significant profits are made its tax contribution also increases. APGCL has made the highest tax contribution in the year 2021-22 which is when it has made the highest profit among all the years. Moreover, the profit-making PSUs are relatively less dependent

on assistance from the government and their profits can be further re-invested to develop the power sector so that the energy needs of the state can be met.

Assam Electricity Grid Corporation Limited (AEGCL)

AEGCL was formed out of the erstwhile Assam State Electricity Board (ASEB) in 2003. This power sector PSU is registered under the ‘Company Act, 1956’. Its core business is to efficiently transport electrical power from electrical power bulk heads to the distribution company networks in the state of Assam. Assam Electricity Grid Corporation Limited inherited 3862 circuit kms of EHV lines above 66 kV voltage class and 38 numbers of EHV sub-stations having a total transformation capacity of 1636.50 MVA at its inception in 2003.

Table 8.7: Financial Performance of AEGCL (in ₹ crore)

Year	Total Revenue	Total Expenditure	Profit/loss	Profit/loss before tax (excluding exceptional item)	Tax Expenses	Profit/loss after tax
2012-13	597.7	473.8	123.9	123.9	4.66	119.24
2013-14	520.76	527.51	-6.75	-6.75	0	-6.75
2014-15	555.76	636.31	-80.55	-80.55	0	-80.55
2015-16	623.91	823.65	-199.74	-199.74	0	-199.74
2016-17	628.78	1008	-379.22	-379.22	0	-379.22
2017-18	1400.71	948.52	452.19	452.19	94.8	357.39
2018-19	1296.49	1123.7	172.79	172.79	26.85	145.94
2019-20	342.94	524.54	-181.6	-181.6	0	-181.6
2020-21	451.99	474.61	-22.62	-22.62	0	-22.62
2021-22	568.28	462.82	105.46	105.46	0	105.46

Source: Calculated from Annual Accounts AEGCL, related issues

From the above Table 8.7, it is clear that the total revenue generated by AEGCL has reduced from ₹597.7 crores in 2012-13 to ₹568.28 crores in 2021-22. However, in 2017-18 the PSU has registered

the highest growth in its revenue among all the years. Even though there has been high peak demand for electricity in the state, the company has been unable to generate enough revenue by transmitting electricity. The expenditure incurred by AEGCL has initially increased from ₹473.8 crores to ₹1008 crores in 2016-17 and then it is reduced to ₹948.52 crores in 2017-18. The expenses of AEGCL are the highest in the year 2018-19 but thereafter the company reduced its expenses and in 2021-22 its expenditure is relatively less than the amount spent during 2012-13. A major share of the expenditure of AEGCL is incurred for other expenses followed by expenses on employee benefits. The PSU spends the least on finance related costs.

AEGCL is mostly a loss-making power sector PSU of the state. Only in 2017-18, the PSU had made a significant profit and thereby in the same year it has made a relatively high tax contribution of ₹94.8 crores. The company has been able to generate an after-tax profit of ₹357.39 crores in 2017-18 due to its high revenue generation particularly from its operational activities. However, during the years the company has incurred losses, it did not make any tax contributions. This implies that loss making companies are undesirable for the fiscal health of the state as they do not make any contribution into the state's revenue.

Assam Power Distribution Company Limited (APDCL)

Assam Power Distribution Company Limited (APDCL) incorporated on the 23rd of October 2009 is a public limited company wholly owned by the Government of Assam. It is registered under Indian Companies Act 1956. The Company has been formed with the aim to take over, manage and operate the electricity distribution system, assets, liabilities, undertaking of the erstwhile Assam State Electricity Board (ASEB) as suggested in Part XIII of the Electricity Act, 2003. The primary purpose of the company is to undertake distribution, trading and supply of electricity in the state of Assam or outside. It has also the mandate to develop, maintain and operate the power distribution system in the state of Assam. APDCL supplies power to every part of the state. It has also implemented off-grid solar projects in those areas where the distribution network could not reach such as Amarpur area under Chapakhowa Sub-division and the 'Char' areas of Brahmaputra River. The Company has a consumer base of more than 64 lakhs and it is expanding year after year. Even the major industrial centres in Assam such as Coal India Limited (Ledo, Margherita), Brahmaputra Gas Cracker & Polymer Limited (Lepetkata, Dibrugarh), Cement Corporation of India Limited (Bokajan), Hindustan Paper Corporation Limited (Panchgram&Jagiroad), Assam Petrochemicals Limited (Namrup) etc. are have received the supply of power from APDCL.

Table: 8.8 Financial Performance of APDCL (in ₹ crore)

Year	Total revenue	Total Expenditure	Profit/Loss	Profit/loss before tax (including exceptional item)	Tax Expenses	Profit/loss after tax
2012-13	2,638.36	3,140.41	-502.05	-502.05	83.91	-418.14
2013-14	3,031.14	3,577.77	-546.63	-546.63	18.70	-527.93
2014-15	3,548.77	4,120.04	-571.27	-577.50	0.00	-577.50
2015-16	4,110.38	4,473.07	-362.69	-103.90	0.00	-103.90
2016-17	4,709.36	4,866.38	-157.02	-33.98	0.00	-33.98
2017-18	5,903.47	5,743.90	159.57	164.42	0.00	164.42
2018-19	6,371.96	6,373.95	-1.99	21.01	0.00	21.01
2019-20	6,625.81	6,963.43	-337.62	202.69	0.00	202.69
2020-21	7,158.13	7,450.55	-292.42	-292.42	0.00	-292.42
2021-22	7,943.45	7,834.88	108.57	336.35	0.00	336.35

Source: Calculated from Annual Statements of Accounts, APDCL, related issues

From the above Table 8.8, it is clear that the total revenue generated by APDCL has increased over the years. Being a power distribution company (DISCOM), the revenue of APDCL mainly comes from distribution power in the state. Initially the operations of APDCL only included sale of power. However, from 2014-15 onwards the company has broadened its operation activities and thereby the revenue generated from the same has also increased. In addition to these, a significant portion of revenue of APDCL is derived from grants and subsidies (refer to Table 8.9)

To be able to distribute power throughout the state, APDCL has to purchase power from power generating companies viz APGCL. Therefore, a major share of the expenditure incurred by APDCL is for purchasing power. Even with the increasing demand for power in the state, the cost of purchasing power of APDCL has also increased over the years. In addition to this, APDCL has to bear the expenses of hiring employees and also the depreciation cost of the DISCOM.

Therefore, even though APDCL has been generating a significant amount of revenue particularly

from its operational activities, the relatively higher levels of expenditure of the DISCOM attributed to higher cost of purchasing power, have weakened the financial health of the PSU. Although APDCL has been profitable from 2017-18 to 2019-20 and in the year 2021-22, the revenue generated by the DISCOM has surpassed its total expenditure only by a slight margin. However, despite being profitable, the company has not made any tax contributions in these years. APDCL has made a tax contribution of ₹83.91 crores in 2012-13 even when it has been facing an after-tax loss of ₹418.14 crores and the tax contribution further reduced to ₹18.7 crores in the succeeding year. Thereafter, the company has not made any tax payments over the years and this puts a pressure on the financial health of the state.

Power distribution companies (DISCOMs) are the backbone of the country's power sector and their poor financial health can have a ripple effect on the efficient functioning of the electricity generation and transmission process. Hence, to revive them the government provides grants and subsidies. Table 8.9 shows the grants and subsidies received by APDCL over the years.

Table 8.9: Grants and Subsidies received by APDCL

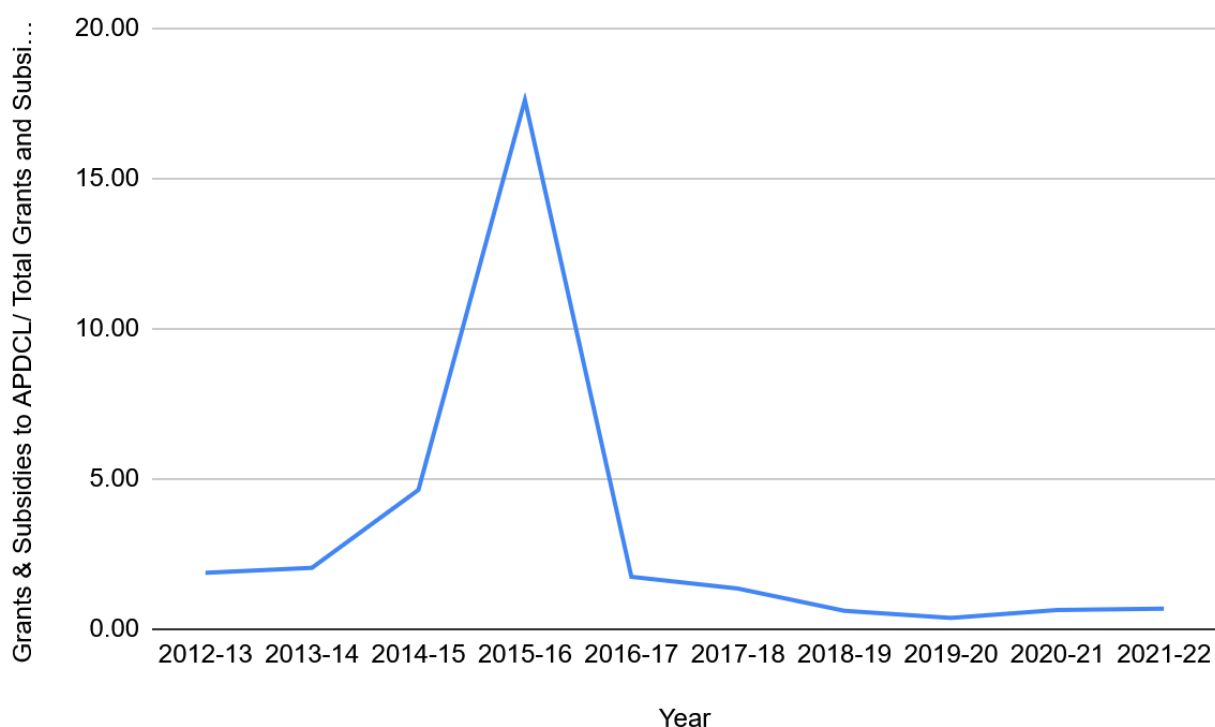
Year	Grants & Subsidies to APDCL (in ₹ crore)	Total Grants & Subsidies(in ₹ crore)	Total Revenue (in ₹ crore)	Grants & Subsidies as a percent of Total Revenue (in percent)	Grants & Subsidies to APDCL/ Total Grants and Subsidies
2012-13	150.00	80.00	2,638.36	5.69	1.88
2013-14	165.22	81.00	3,031.14	5.45	2.04
2014-15	268.82	58.00	3,548.77	7.58	4.63
2015-16	334.68	19.00	4,110.38	8.14	17.61
2016-17	394.53	226.74	4,709.36	8.38	1.74
2017-18	950.68	703.84	5,903.47	16.10	1.35
2018-19	892.31	1,464.93	6,371.96	14.00	0.61
2019-20	548.81	1,473.23	6,625.81	8.28	0.37

2020-21	1,247.41	1,966.15	7,158.13	17.43	0.63
2021-22	1,362.88	2,005.69	7,943.45	17.16	0.68

Source: Calculated from Annual Statements of Accounts, APDCL, related issues

From the Table 8.9, it is clear that the grants and subsidies allocated to APDCL have increased over the years from Rs 150.00 crores in 2012-13 to Rs 1362.88 crores in 2021-22. In order to understand how much helpful this financial aid has been to revive the DISCOM, it is essential to look into the percentage of grants and subsidies to total revenue of APDCL for the same time period. Moreover, the ratio of grants and subsidies to total state grants and subsidies have been calculated. This has been represented graphically in Figure 8.3

Figure 8.3: Percentage of Grants and Subsidies to APDCL to Total State Grants & Subsidies



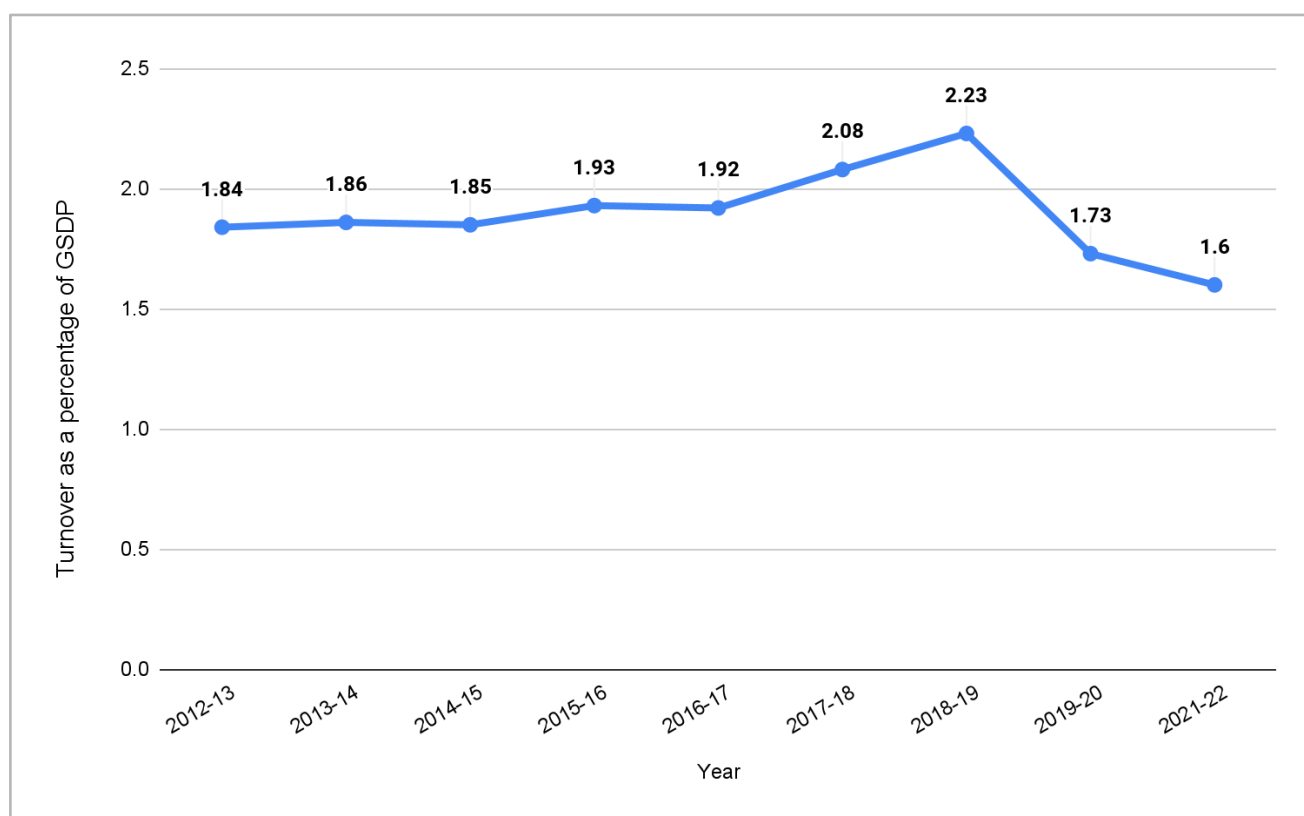
Source: Authors' Estimation

From Figure 8.3, it can be observed that the share of grants and subsidies to APDCL in proportion to grants and subsidies to the state of Assam has increased upto 2015-16 and thereafter it has declined drastically. Therefore looking the current condition the government must increase its grants towards APDCL as the grants and subsidies from the government are very essential to ensure the profitability as well as financial health of the DISCOM.

8.3.3 Turnover of the State Power Sector PSUs

The power sector companies play an important role in the economy of the State. Apart from providing critical infrastructure required for development of the State's economy, the sector also adds significantly to the Gross State Domestic Product (GSDP). The ratio of PSUs turnover to GSDP shows the extent of power sector PSUs activities in the state and this has been represented graphically in Figure 8.4.

Figure 8.4: Percentage of Power sector PSUs Turnover to GSDP



Source: Authors' Estimation calculated from Report of The Comptroller and Auditor General of India on Public Sector Undertakings, Government of Assam, related issues; Economic Survey, Assam

The percentage of power sector PSUs turnover to GSDP has increased continuously from 2012-13 to 2018-19 on account of several factors like increase in consumer base, periodic tariff revision,

improved billing efficiency etc (Report of The Comptroller and Auditor General of India on Public Sector Undertakings, Government of Assam). However, it declined thereafter in the succeeding years indicating poor financial performance of the power sector PSUs of the state.

8.3.4 Investment in power sector PSUs of the State

Table 8.10: Investments in APGCL (in ₹ crore)

Year	Equity				Long term loans				Total investment in APGCL
	GoI	GoA	Others	Total Equity	GoI	GoA	Others	Total Loans	
2012-13	0.00	455.86	0.00	455.86	0.00	114.21	306.61	420.82	876.68
2013-14	0.00	455.86	0.00	455.86	0.00	132.78	333.51	466.29	922.15
2015-16	0.00	455.86	0.00	455.86	0.00	-	-	630.74	1,086.60
2016-17	0.00	455.86	0.00	455.86	0.00	-	-	630.74	1,086.60
2017-18	0.00	455.86	0.00	455.86	0.00	551.52	414.02	965.54	1,421.40
2018-19	0.00	455.86	0.00	455.86	0.00	577.93	406.33	984.26	1,440.12
2019-20	0.00	455.86	0.00	455.86	0.00	636.59	364.92	1,001.51	1,457.37
2021-22	0.00	2,428.71	0.00	2,428.71	0.00	4.00	420.34	424.34	2,853.05

Source: Calculated from Report of The Comptroller and Auditor General of India on Public Sector Undertakings, Government of Assam, related issues

Table 8.10 shows that the main sources of investment in APGCL are equity and long-term loans. Investments in the form of equity are made only by the state government whereas long term loans are provided by the Government of Assam as well as other sources. It is found that the total investment made towards APGCL has grown substantially over the years from ₹876.68 crores in 2012-13 to ₹2853.05 crores in 2021-22. In the total investment, the share of equity provided by the state government has been constant from 2012-13 to 2019-20 at ₹455.86 crores. However, in 2021-22 the state government's equity share increased to ₹2428.71. Even though from 2012-13 to 2019-20, the state government majorly provided long term loans to APGCL, in the year 2021-22 APGCL had to

rely on other sources as the major source of long-term loans as the state government provided a long-term loan of merely ₹4 crores to the PSU.

Table: 8.11: Investments in AEGCL (in ₹ crore)

Year	Equity				Long term loans				Total investment in AEGCL
	GoI	GoA	Others	Total Equity	GoI	GoA	Others	Total Loans	
2012-13	0.00	99.93	0.00	99.93	0.00	213.19	48.67	261.86	361.79
2013-14	0.00	99.93	0.00	99.93	0.00	255.42	66.22	321.64	421.57
2015-16	0.00	99.93	0.00	99.93	0.00	-	-	392.18	492.11
2016-17	0.00	99.93	0.00	99.93	0.00	-	-	443.76	543.69
2017-18	0.00	99.93	0.00	99.93	0.00	473.10	94.28	567.38	667.31
2018-19	0.00	99.93	0.00	99.93	0.00	504.33	95.68	600.01	699.94
2019-20	0.00	99.93	0.00	99.93	0.00	535.34	95.68	631.02	730.95
2021-22	0.00	99.93	0.00	99.93	0.00	551.52	95.68	647.20	747.13

Source: Calculated from Report of The Comptroller and Auditor General of India on Public Sector Undertakings, Government of Assam, related issues

Table 8.11 clearly indicates that the total investment in AEGCL has been increasing over the years. In the total investment the share of equity investment has remained constant at ₹99.93 crores from 2012-13 to 2021-22 and only the Government of Assam is incurring this equity investment. Therefore, the total investment in the PSU has increased due to increasing investment in the form of long-term loans. These long-term loans are majorly provided by the state government even though there are other sources. Hence, it can be understood that the state government is incurring heavy investments to revive AEGCL.

Table 8.12: Investments in APDCL (in ₹ crore)

Year	Equity				Long term loans				Total investment in APDCL
	GoI	GoA	Others	Total Equity	GoI	GoA	Others	Total Loans	
2012-13	0.00	251.45	0.00	251.45	0.00	406.44	0.00	406.44	657.89
2013-14	0.00	251.45	0.00	251.45	0.00	583.03	0.00	583.03	834.48
2015-16	0.00	162.77	0.00	162.77	0.00	-	-	1,055.59	1,218.36
2016-17	0.00	162.77	0.00	162.77	0.00	-	-	1,048.20	1,210.97
2017-18	0.00	251.45	0.00	251.45	0.00	1,752.21	583.75	2,335.96	2,587.41
2018-19	0.00	251.45	0.00	251.45	0.00	1,825.62	583.75	2,409.37	2,660.82
2019-20	0.00	534.58	0.00	534.58	0.00	914.45	628.77	1,543.22	2,077.80
2021-22	0.00	4,824.81	0.00	4,824.81	0.00	56.44	350.04	406.48	5,231.29

Source: Calculated from Report of The Comptroller and Auditor General of India on Public Sector Undertakings, Government of Assam, related issues

From Table 8.12 it is found that the state government has invested in APDCL through equity as well as long term loans. Even though the equity investments in APDCL is solely made by the Government of Assam, the share of equity has increased in contrast to the falling share of long term loans in the total amount invested.

8.4 Major Power Sector Schemes of the State

The Deen Dayal Upadhyaya Gram Jyoti Yojana

The Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) seeks to electrify every village in rural India and ensure a steady supply of electricity to other consumers. Additionally, the program seeks to improve the sub-transmission and distribution infrastructure, including metering at all levels in rural areas, and to assure consumers of sufficient supply of electricity.

The objective of DDUGJY is to decrease losses by enhancing the metering and reliability and quality. This would assist in giving agricultural consumers enough electricity and power to rural households around-the-clock. The scheme's main elements are feeder separation, improved sub-transmission and

distribution network, metering at all points—input, feeders, and distribution transformers—micro grid and off-grid distribution network, and rural electrification to finish projects that have already received approval.

The Union Government plans to invest 756 billion rupees in rural electrification through the DDUGJY scheme. Under the DDUGJY scheme, the Union Government contributes 60% of the project cost (85% for special states). In addition, upon reaching predetermined benchmarks, the Union Government offers an extra grant of up to 15% (5% for Special Category States). Accelerating other social and economic rural changes is another benefit of implementing the DDUGJY scheme. Financial support for the scheme's implementation is also provided by state governments. From their own budgets, they set aside money to assist with electrification initiatives in rural areas. All 25,372 nos. of census villages have been electrified on 31st December, 2017.

Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA)

The GoI concentrated on electrifying every unconnected household in the nation while slowly working towards 100% rural electrification. After analysing a number of studies, it was determined that the main obstacles to household electrification were lack of knowledge, the expense of establishing new connections, complexity, and other logistical challenges. The Union Government meticulously planned and implemented the Pradhan Mantri Sahaj Bijli Har Ghar Yojana, or Saubhagya, in October 2017 with a particular emphasis on providing last-mile connectivity and electrical connections to all of the nation's unelectrified households. The Centre and States have worked together to create the largest universal electrification programme in the world, the Saubhagya project. It runs in parallel with the DDUGJY scheme.

As of March 31, 2019, all households were reported to be electrified by the states under the initiative, with the exception of 18,734 households in Chhattisgarh's Left Wing Extremist affected areas. Following that, seven states—Assam, Chhattisgarh, Jharkhand, Karnataka, Manipur, Rajasthan, and Uttar Pradesh—reported that around 19.09 lakh families that were previously unwilling to receive power connections but were discovered before March 31, 2019, had now shown a readiness to do so. According to the recent data (Jan 2019), almost 100 percent household electrification has taken place in every district of Assam.

Integrated Power Development Scheme (IPDS)

The GoI launched the Integrated Power Development Scheme (IPDS) in December 2014 with the goals of enhancing electricity distribution and transmission, lowering losses, and expanding power

availability. The scheme aims to achieve 24/7 power supply. The main objectives of this scheme are reinforcement of the distribution and sub-transmission networks in urban areas, metering of urban distribution transformers/feeders/consumers and strengthening the distribution network and enabling the distribution sector through IT. The scheme will contribute to lower Aggregate Technical & Commercial (AT&C) losses, the development of an IT-enabled energy accounting and auditing system, more accurate energy billing based on metered consumption, and more effective collection.

Ujwal Discom Assurance Yojana (UDAY)

The government of India launched the Ujjwal DISCOM Assurance Yojana (UDAY), a financial turnaround and revival package for electricity distribution firms of India (DISCOMs), with the goal of finding a long-term solution to the financial predicament the power distribution is in. As of September 30, 2015, it permits state governments—which control the DISCOMs—to assume over 75 percent of their debt and use bond sales to reimburse lenders. To cover the remaining 25 percent of their debt, DISCOMs are anticipated to issue bonds. As per MoU, APDCL proposed to reduce the AT&C losses & ACS-ARR Gap by 2019-20 by 15 percent and ₹0.05 respectively.

Revamped Distribution Sector Scheme (RDSS)

RDSS has been launched by the Government of India with an outlay of Rs. 3,03,758 crores and estimated Gross Budgetary Support (GBS) from the Central Government worth Rs. 97,631 crores for the period 2021-22 to 2025-26. The scheme aims to reduce the Aggregate Technical and Commercial (AT&C) losses to almost 12–15% across India. RDSS also intends to bring down the gap between Average Cost of Supply (ACS) and Average Revenue Realised (ARR) to zero by 2024-25. The scheme is divided into two parts, where Part A deals with providing financial support for Prepaid Smart Metering & System Metering and upgradation of the Distribution Infrastructure and Part B emphasises on Training & Capacity Building and other Enabling & Supporting Activities. A total of Rs. 2,77,136 crores worth of projects have been approved under the RDSS, of which Rs. 1,30,671 crores are allocated towards smart metering. The remaining amount is used for building infrastructure to reduce distribution losses. The GBS for smart metering is Rs.24,173 crore.

Under RDSS a total of 75.43 lakh smart meters have been installed across the country as on December 2024. Assam is the leading state with a total of 23.30 lakh smart meters being installed, of which 22.89 lakh are consumer smart meters. Around 80 per cent of the consumer meters are installed in rural areas of Assam. In FY2024 Rs. 5,51,314.39 lakh has been awarded for installation of consumer metering, Rs.48,954.68 lakh for DT metering and Rs.1,931.37 lakh for feeder metering. Therefore,

in total Rs.6,02,200.44 has been awarded for smart metering in the state.

8.5 STATE'S EFFORT TOWARDS ADOPTION OF RENEWABLE ENERGY

In Assam, as the demand for electricity exceeds the supply of the same, there is a crucial need that renewable energy is no longer considered as an alternate energy source but should be looked upon as a solution to cater the rising energy demands of the state. To explore the renewable energy potential of the state as well as to develop the sector, government expenditure becomes very crucial. Table 8.13 shows the level of government expenditure over the years towards the new and renewable energy sector of the state.

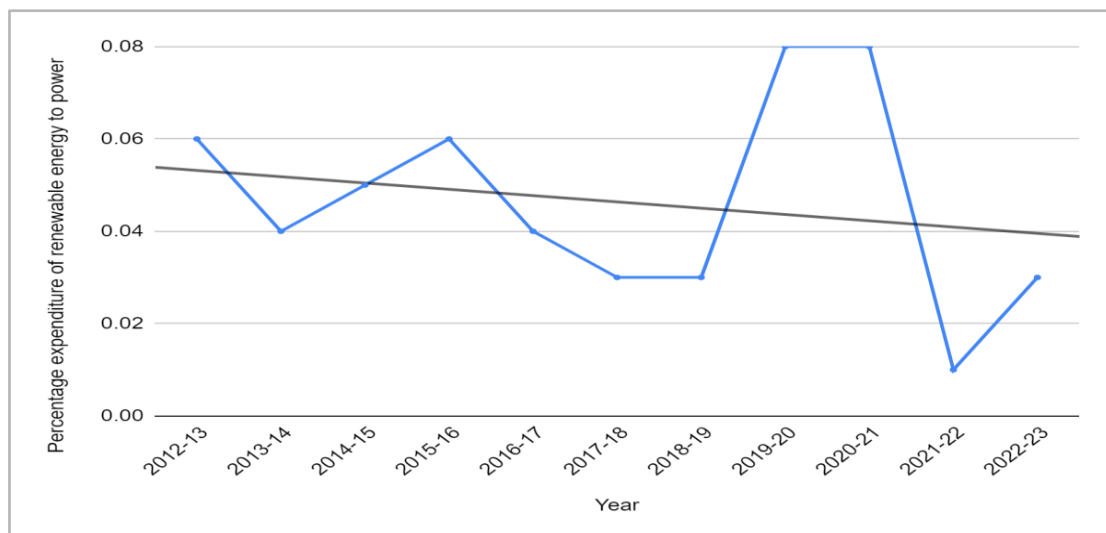
Table 8.13: Government Expenditure on New and Renewable Energy

Year	Expenditure on New and Renewable Energy (in ₹ crore)	Total Expenditure on Power Sector (in ₹ crore)	Expenditure on New & Renewable Energy as a percent of Total Expenditure on Power Sector (in percent)
2012-13	0.40	625.20	0.06
2013-14	0.37	853.94	0.04
2014-15	0.46	896.89	0.05
2015-16	0.19	313.44	0.06
2016-17	0.55	1,343.83	0.04
2017-18	0.66	2,555.16	0.03
2018-19	0.70	2,141.20	0.03
2019-20	1.45	1,803.09	0.08
2020-21	1.30	1,681.98	0.08
2021-22	0.63	5,069.03	0.01
2022-23	0.68	1,988.45	0.03

Source: Assam Finance Accounts, related issues

From Table 8.13, it is clear that there has been a very insignificant increase in government expenditure towards the new and renewable energy sector of the state. The government has incurred expenses in this sector in the form of revenue expenditure and this indicates that the government is providing funds to an extent that the initial and basic costs of the renewable energy sector can be covered. The government has not yet made any long term or substantial expenditure in this sector. The percentage of expenditure on new and renewable energy to total expenditure on the power sector is a better indicator of how much this sector has been given priority while allocating funds. This has been represented graphically in Figure 8.5.

Figure 8.5: Percentage of expenditure on new and renewable energy to total expenditure on the power sector of Assam



Source: Authors' Estimation

It is observed in Figure 8.5 that the trend of government expenditure on new and renewable energy relative to the power sector as a whole has declined. This indicates that renewable energy is not even considered as an alternative of electricity in the state. This may be because there is hardly any demand for renewable energy or the potential of the same has hardly been discovered in the state. However, with the increasing energy needs of the consumers as well as growing awareness towards use of clean and reliable energy sources have led to the inception of programmes to promote the use of renewable energy.

As solar energy is one of the most reliable sources of renewable energy, the Government of India has come up with a scheme called PM-Surya Ghar: Muft Bijli Yojana that seeks to supply free power to

Indian households. Prime Minister Narendra Modi introduced the plan on February 15, 2024. Households that install solar panels on their rooftops will receive financial assistance under the program. Up to 40% of the solar panels' total cost will be covered by the subsidy. One crore households in India are anticipated to benefit from the programme. The program is expected to reduce the government's annual electricity costs by ₹75,000 crore. The Assam government announced the Assam Renewable Energy Policy, 2022, to encourage the development of rooftop solar power plants that are connected to the grid inside the state. Establishing a favourable atmosphere for the installation of rooftop solar power plants on homes will contribute to reducing electricity costs through the utilization of solar energy. This will facilitate the generation of additional revenue through the sale of excess power to APDCL. The State Government will offer a subsidy of ₹15,000 per kW, up to a maximum of ₹45,000 per consumer, in order to encourage the development of Grid Connected Rooftop Solar Power Plants under EXIM metering arrangements on a wide scale in residential sectors. APDCL will distribute the State Subsidy to the same customer's bank account where the Central Subsidy is released, in addition to the Central Subsidy that is accessible from the Ministry of New and Renewable Energy (MNRE), GoI.

8.6 Conclusion

The power sector plays a pivotal role in driving economic growth of a state. In Assam, the rising population and changing needs have significantly increased the demand for power, particularly in the residential sector. However, there is a persistent energy deficit condition due to inefficiencies in the power supply chain, marked by transmission, distribution, and commercial losses. To improve the operational performance of the power sector, fiscal interventions have been made by the government in the form of government expenditure and collection of revenue by imposing taxes and duties for consuming electricity. To analyse the impact of such fiscal interventions as well as power sector reforms, it becomes essential to evaluate the financial performance of power sector PSUs of the state. APGCL has been found to be a relatively profitable PSU, however, its profitability keeps fluctuating and its tax contributions also vary accordingly. In contrast, AEGCL has largely been loss-making, and thereby it could make tax contributions only during those years in which it has been profitable. This essentially highlights the fiscal burden of loss-making entities on the state's finances. Despite generating substantial revenue through distribution of power in the state, the profitability and tax contributions of APDCL have been limited due to high costs of purchasing power. This implies that the financial performance of the power sector PSU concerned with generation of power is quite satisfactory, however, the financial performance of the PSUs concerned with transmission and

distribution of power is very alarming. Even, the poor financial health of the DISCOM of the state is very concerning as it can disrupt the entire power supply chain. Therefore, government grants and subsidies become crucial for maintaining the profitability and financial stability of these entities. The power sector of the state is largely dependent on government funds and assistance to ensure that its power sector PSUs are financially viable and also to maintain the required supply of power in the state. Even, the power sector schemes of the state are majorly operated through government allocations. In recent times, renewable energy has been viewed as a potential solution for catering the rising energy needs. However, government expenditure in this sector found to be insignificant for the state of Assam. Therefore, to create a robust and sustainable power sector, government assistance will be of utmost requirement.

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Chapter IX - Analysis of Contingent Liabilities

9.1 Introduction

Contingent liabilities have emerged as a critical component in the analysis of public finances in understanding a government's true financial position. Their potential to undermine fiscal sustainability has led to heightened importance. The IMF's 2001 Government Finance Statistics Manual (GFSM) defines contingent liabilities as including guarantees and the net present value of accrued social security obligations. Contingent liabilities are obligations whose timing and magnitude depend on uncertain future events which are beyond the government's control. This definition emphasizes the uncertainty of both the timing of payment and amount, including the possibility of no payment at all. While numerous alternative definitions exist, they are less relevant for analyzing fiscal risks.

The IMF's manual further highlights the disagreement about whether contingent liabilities become liabilities upon inception or only when the contingent event occurs. Current accounting standards recognize contingent liabilities at the time of occurrence if the event is more likely than not and the payments can be reasonably measured. In contrast, current statistical standards recognize contingent liabilities only when the contingency materializes and payment is due, primarily to ensure consistent national accounts.

Contingent liabilities represent a hidden financial risk. While their immediate costs may not be apparent, they can significantly impact future government finances, as demonstrated by past financial crises. Unlike traditional liabilities with fixed obligations, contingent liabilities are subject to the occurrence of uncertain and unforeseen events, such as defaults by borrowing entities. To better understand the implications of contingent liabilities, it is essential to examine their various types. By categorizing these liabilities, policymakers can more effectively assess their potential risks and develop strategies for managing them. In a report on Contingent Liability Management Framework, CRISIL highlights that strategically employed contingent liabilities, when can serve as valuable tools for enhancing the fiscal health of state institutions. By mitigating credit risks, they can attract private sector investment and support the achievement of broader socioeconomic goals. Moreover, in the

case of market failure or to address income inequality, contingent liabilities can be utilized to stimulate infrastructure development.¹⁰

9.2 Types of Contingent Liabilities

Contingent liabilities can be categorized as either explicit or implicit. Explicit liabilities are formal obligations arising from contracts, laws, or specific policy commitments. These are liabilities that governments consciously undertake, such as guarantees for subnational governments or public and private entities. Examples include loan guarantees, export guarantees, and various other financial guarantees. The government guarantees are treated as contingent liabilities of the State.¹¹ In contrast, implicit liabilities are informal obligations stemming from political or moral considerations. These arise from the expectation that governments will intervene in crises or disasters, even when there is no formal commitment. Bailouts of public entities, natural disaster relief, and environmental clean-up efforts are examples of implicit liabilities. Additionally, contingent liabilities can be classified as funded or unfunded. Funded liabilities are backed by reserves or charges against profits, while unfunded liabilities lack such reserves. This distinction is crucial for understanding the potential financial impact of these liabilities.

The Assam FRBM Act allows state governments guarantee for loans by PSU, Boards, Companies, Corporations, Cooperative Societies, Autonomous organizations under state government. These do not form part of state government liability rather treated as contingent liabilities. State government of Assam reports outstanding guarantees they have explicitly given as liabilities. Other types of guarantees are not measured, reported, or regulated. This makes it hard to know how big these liabilities are and how they affect the state budget. For the purpose, relevant information was compiled from Statements laid before the Assam Legislative Assembly as required under the Assam Fiscal Responsibility and Budget Management Act, 2005 published for different years.¹² Moreover, CAG reports on State Finances and Audit Report, Government of Assam for various years are also utilised in gathering relevant information for the analysis.

¹⁰[Contingent Liability Management Framework.pdf \(https://fincomindia.nic.in/\)](https://fincomindia.nic.in/Contingent%20Liability%20Management%20Framework.pdf)

¹¹Statement laid before the Assam Legislative Assembly as required under the AFRBM Act, 2005

¹²These statements are accessed from <https://finance.assam.gov.in/>

9.3 Contingent Liabilities of Assam

As Assam government reports guarantees are contingent liabilities that are ultimately borne by the Consolidated Fund of the State in the event of default by the guaranteed entity. The Fiscal Responsibility and Budget Management Act (FRBM Act) stipulates that state governments may extend guarantees up to 50 per cent of their total tax and non-tax revenue for the second preceding fiscal year.

The government established a ‘Guarantee Redemption Fund’ in September 2009 to cover the costs of guarantees it had issued for bonds and other borrowings by state-level public sector undertakings or other organizations. This fund would be used exclusively to pay off government guarantees that were not honoured by the institutions for which they were originally issued. The initial contribution to the fund was five crore rupees, and the government was required to contribute at least 3% of the total outstanding guarantees each year, based on the records kept by the Accountant General (Accounts & Entitlement).¹³

Table 9.1 presents the aggregate outstanding liabilities of the government of Assam

Table 9.1: Year wise outstanding guarantees in the State Government Finances (in crores)

Year	Outstanding amount of guarantees including interest liabilities
2013-14	90
2014-15	143
2015-16	143
2016-17	130
2017-18	90.24
2018-19	85.02
2019-20	83.42
2020-21	77.72
2021-22	311.76
2022-23	1166.49

Source: Statements laid before the Assam Legislative Assembly as required under the Assam Fiscal Responsibility and Budget Management Act, 2005

¹³https://cag.gov.in/webroot/uploads/download_audit_report/2016/Report_No_4_of_2016_State_Finances_Government_of_Assam.pdf

Within the outstanding liabilities, guarantees issued by the state government including interest liabilities for the period of last ten years are reported. Broadly, the amount of liabilities averaged around ₹100 crores during the first eight years from 2013-14 to 2020-21. However, in the subsequent year (2021-22) the contingent liabilities of the state government increased to ₹311.76 crore which further escalated to ₹1166.49 crore in 2022-23.

In order to assess the rapid increment in the contingent liabilities in the form of government guarantees for the last five years, year wise and sector wise outstanding guarantees are presented in Table 9.2 to Table 9.8 for the year 2016-17 to 2022-23 respectively.

Table 9.2: Statement of Guarantees given by the Government (Outstanding at the end of FY 2016-17)

Sl No	Sector	Principal	Interest
Power Sector			
1	Assam Power Distribution Company Ltd.	0	0
2	Assam Power Generation Company Ltd.	39.62	0
Corporation Sector			
3	Assam State Co-operative Marketing & Consumer Federation Ltd.	0	0
4	Assam State Cooperative Agriculture & Rural Development (ASCARD) Bank Ltd	2.14	3.62
5	Assam State Cooperative Housing Federation Ltd. (HOUSEFED)	18.13	0
Government Companies			
6	Assam Electronics Development Corporation Ltd (AMTRON).	0	0
7	Assam State Development Corporation for OBC Ltd.	3.59	2.07
8	Assam Plain Tribes Development Corporation Ltd.	15.25	14.78
9	Assam State Development Corporation for Scheduled Caste Ltd.	4.95	4.15
10	Assam State Development Corporation for Scheduled Caste Ltd.	6.08	3.95
11	Assam Minorities Development and Finance Corporation Ltd.	8.8	2.8
Local Bodies, Boards and others			
12	Amguri Town Committee	0	0
13	Barpeta Municipal Board	0	0

14	Hojai Municipal Board	0	0
	TOTAL	98.56	31.37
	GRAND TOTAL	129.93	

Source: Statement laid before the Assam Legislative Assembly as required under the AFRBM Act, 2005

Table 9.3: Statement of Guarantees given by the Government (Outstanding at the end of FY 2017-18)

Sl No	Sector	Principal	Interest
Power Sector			
1	Assam Power Distribution Company Ltd.	0	0
2	Assam Power Generation Company Ltd.	31.29	0
Corporation Sector			
3	Assam State Co-operative Marketing & Consumer Federation Ltd.	0	0
4	Assam State Cooperative Agriculture & Rural Development (ASCARD) Bank Ltd	2.14	3.79
5	Assam State Cooperative Housing Federation Ltd. (HOUSEFED)	2.14	3.79
Government Companies			
6	Assam Electronics Development Corporation Ltd (AMTRON).	0	0
7	Assam State Development Corporation for OBC Ltd.	0	1.31
8	Assam Plain Tribes Development Corporation Ltd.	15.26	16.23
9	Assam State Development Corporation for Scheduled Caste Ltd.	0	4.15
10	Assam State Development Corporation for Scheduled Caste Ltd.	0	3.99
11	Assam Minorities Development and Finance Corporation Ltd.	8.89	3.22
Local Bodies, Boards and others			
12	Amguri Town Committee	0	0
13	Barpeta Municipal Board	0	0
14	Hojai Municipal Board	0	0
	TOTAL	57.58	32.66
	GRAND TOTAL	90.24	

Source: Statement laid before the Assam Legislative Assembly as required under the AFRBM Act, 2005

Table 9.4: Statement of Guarantees given by the Government (Outstanding at the end of FY 2018-19)

SI No	Sector	Principal	Interest
Power Sector			
1	Assam Power Distribution Company Ltd.	0	0
2	Assam Power Generation Company Ltd.	22.94	0
Corporation Sector			
3	Assam State Co-operative Marketing & Consumer Federation Ltd.	0	0
4	Assam State Cooperative Agriculture & Rural Development (ASCARD) Bank Ltd	2.14	3.96
5	Assam State Cooperative Housing Federation Ltd. (HOUSEFED)	2.14	3.96
Government Companies			
6	Assam Electronics Development Corporation Ltd (AMTRON).	0	0
7	Assam State Development Corporation for OBC Ltd.	0	2.17
8	Assam Plain Tribes Development Corporation Ltd.	15.26	17.84
9	Assam State Development Corporation for Scheduled Caste Ltd.	0	4.15
10	Assam State Development Corporation for Scheduled Caste Ltd.	0	3.96
11	Assam Minorities Development and Finance Corporation Ltd.	8.87	3.73
Local Bodies, Boards and others			
12	Amguri Town Committee	0	0
13	Barpeta Municipal Board	0	0
14	Hojai Municipal Board	0	0
	TOTAL	49.22	35.8
	GRAND TOTAL	85.02	

Source: Statement laid before the Assam Legislative Assembly as required under the AFRBM Act, 2005

Table 9.5: Statement of Guarantees given by the Government (Outstanding at the end of FY 2019-20)

SI No	Sector	Principal	Interest
Power Sector			
1	Assam Power Generation Company Ltd.	14.6	0
Corporation Sector			
2	Assam State Cooperative Agriculture & Rural Development (ASCARD) Bank Ltd	2.14	3.96
Government Companies			
3	Assam State Development Corporation for OBC Ltd.	0	1.18
4	Assam Plain Tribes Development Corporation Ltd.	15.26	19.44
5	Assam State Development Corporation for Scheduled Caste Ltd.	4.15	2.86
6	Assam State Development Corporation for Scheduled Caste Ltd.	5.54	0.81
7	Assam Minorities Development and Finance Corporation Ltd.	8.87	4.43
	TOTAL	50.56	32.68
	GRAND TOTAL	83.24	

Source: Statement laid before the Assam Legislative Assembly as required under the AFRBM Act, 2005

Table 9.6: Statement of Guarantees given by the Government (Outstanding at the end of FY 2020-21)

SI No	Sector	Principal	Interest
Power Sector			
1	Assam Power Generation Company Ltd.	6.28	0
Corporation Sector			
2	Assam State Cooperative Agriculture & Rural Development (ASCARD) Bank Ltd	2.14	4.12
Government Companies			
3	Assam State Development Corporation for OBC Ltd.	0	1.19
4	Assam Plain Tribes Development Corporation Ltd.	15.26	21.21
5	Assam State Development Corporation for Scheduled Caste Ltd.	4.15	3.03
6	Assam State Development Corporation for Scheduled Caste Ltd.	5.54	1.04

7	Assam Minorities Development and Finance Corporation Ltd.	8.87	4.88
	TOTAL	42.24	35.47
	GRAND TOTAL	77.71	

Source: Statement laid before the Assam Legislative Assembly as required under the AFRBM Act, 2005

Table 9.7: Statement of Guarantees given by the Government (Outstanding at the end of FY 2021-22)

Sl No	Sector	Principal	Interest
Corporation Sector			
1	Assam State Cooperative Agriculture & Rural Development (ASCARD) Bank Ltd	2.14	4.13
Government Companies			
2	Assam Plain Tribes Development Corporation Ltd.	15.26	23.08
3	Assam State Development Corporation for Scheduled Caste Ltd.	4.15	3.19
4	Assam State Development Corporation for Scheduled Caste Ltd.	5.54	1.26
5	Assam Minorities Development and Finance Corporation Ltd.	8.87	5.49
Any Other			
6	Assam Infrastructure Financing Authority (AIFA)	238.63	0
	TOTAL	274.59	37.15
	GRAND TOTAL	311.74	

Source: Statement laid before the Assam Legislative Assembly as required under the AFRBM Act, 2005

Table 9.8: Statement of Guarantees given by the Government (Outstanding at the end of FY 2022-23)

Sl. No.	Sector	Principal	Interest
Corporation Sector			
1	Assam State Cooperative Agriculture & Rural Development (ASCARD) Bank Ltd	2.14	4.15
Government Companies			
2	Assam Plain Tribes Development Corporation Ltd.	15.26	24.56
3	Assam State Development Corporation for Scheduled Caste Ltd.	4.15	3.19

4	Assam State Development Corporation for Scheduled Caste Ltd.	5.54	1.26
5	Assam Minorities Development and Finance Corporation Ltd.	8.87	6.14
Any Other			
6	Assam Infrastructure Financing Authority (AIFA)	1091.23	0
	TOTAL	1127.19	39.3
	GRAND TOTAL	1166.49	

Source: Statement laid before the Assam Legislative Assembly as required under the AFRBM Act, 2005

As of 2016-17, the government had guaranteed loans for various corporations and other entities, which totaled ₹130 crores. This amount was 1.10 per cent of the state's own tax and non-tax revenue for the second preceding year, well within the legal limit. Of the total outstanding guarantees, ₹39.62 crores (30 percent) were related to the Assam Power Generation Company Ltd. while the rest of the liabilities went to different government companies and corporate sectors. Among these, the bulk of the guarantees were extended to Assam State Cooperative Housing Federation Ltd. (HOUSEFED) and Assam Plain Tribes Development Corporation Ltd.

In the subsequent year, the government had guaranteed loans for various corporations and other entities, which totaled ₹90 crores at the end of 2017-18. This amount was 0.70 per cent of the state's own tax and non-tax revenue for the second preceding year, well within the legal limit. Of the total outstanding guarantees, ₹31.29 crore rupees (35 per cent) were related to the Assam Power Generation Company Ltd. Out of these ₹90 crores 36 per cent were in the form of interest liability.

During 2018-19, the government guarantee for loans for various corporations and other entities, totaled ₹85.02 crore. This amount was 0.52 per cent of the state's own tax and non-tax revenue for the second preceding year, well within the limit prescribed in the State FRBM Act. Of the total outstanding guarantees, ₹22.94 crores (27 per cent) were related to the power sector. During 2018-19, the interest liability to the government was 71 per cent.

In the subsequent year, the amount of guarantee totaled ₹83.24 crores at the end of 2019-20. This amount was 0.48% of the state's own tax and non-tax revenue for the second preceding year (₹17,287.49 crore rupees), well within the limit prescribed in the State FRBM Act. Of the total outstanding guarantees, ₹14.60 crores (18 per cent) were related to the power sector. The amount of interest liability stood at 32.68 crore which is more than 64 per cent of the total guarantee of the government.

The government had guaranteed loans of ₹77.71 crores by the end of 2020-21. This amount was 0.32 per cent of the state's own tax and non-tax revenue for the second preceding year (₹ 24,146.14 crore), well within the limit prescribed in the State FRBM Act. Of the total outstanding guarantees, ₹6.28 crores (8 per cent) were related to the power sector. Out of these ₹77 crores, 82 per cent were liability against the interest payment.

The government guaranteed loans for various services jumped to ₹311.74 crores at the end of 2021-22. This amount was well within the limit prescribed in the State FRBM Act. Of the total outstanding guarantees, ₹238.63 crore (76.54 per cent) were related to the Assam Infrastructure Financing Authority (AIFA).¹⁴

At the end of 2022-23, these outstanding guarantees further escalated to ₹1,166.49 crore. This amount constituted 5.82 percent of the state's total tax and non-tax revenue for the second preceding fiscal year (₹20,033.22 crore), within the limits prescribed by the State FRBM Act. Of the total outstanding guarantees, ₹1,091.24 crore (93.55 percent) were extended to the Assam Infrastructure Financing Authority (AIFA).

Concluding Remark:

The following points emerged out of the above analysis-

- Explicit contingent liabilities include loan guarantees, export guarantees, and various other financial guarantees by the state government.
- State government of Assam reports outstanding guarantees they have explicitly given as liabilities. Other types of guarantees are not reported. Thus, information other than explicit guarantees are difficult to obtain.
- The amount of liabilities in terms of guarantee averaged around ₹100 crores during the first eight years from 2013-14 to 2020-21 with some ups and down. However, in the subsequent year (2021-22) the contingent liabilities of the state government increased to ₹311.76 crore which further increased to ₹1166.49 crore in 2022-23.

¹⁴The Assam Infrastructure Financing Authority (AIFA) was constituted in 2009 by the Government of Assam. AIFA is an infrastructural project financing authority. AIFA has approved a number of projects in the last couple of years (list available at <https://aifa.assam.gov.in/projects/ongoing-projects>). The increase in liabilities may be because of these infrastructural projects.

- Most of the liabilities during 2013-14 to 2020-21 originated in Assam Power Generation Company Ltd. which falls under power sector. Assam Plain Tribes Development Corporation Ltd. is the other government company with large outstanding liabilities during these periods.
- Assam Infrastructure Financing Authority reported the largest outstanding guarantee to the tune of ₹238.63 (out of total ₹311.74) and 1191.23 (out of total ₹1166.49 crore) in the year 2021-22 and 2022-23 respectively.
- Government guarantees for some companies such as Assam Plain Tribes Development Corporation Ltd., Assam State Development Corporation for Scheduled Caste Ltd., Assam State Development Corporation for Scheduled Caste Ltd. and Assam Minorities Development and Finance Corporation Ltd. remained unchanged during the period from 2016-17 to 2022-23. This indicates possible mismanagement as the amount of contingency liability hard to remain unchanged by its nature.
- Sharp rise in guarantee to AIFA is somewhat indicative of government's focus on infrastructure projects. But at the same time, it requires a meticulous assessment in the swelling of government liability in terms of guarantee.

Chapter X - Subsidies given by the State and its Evaluation

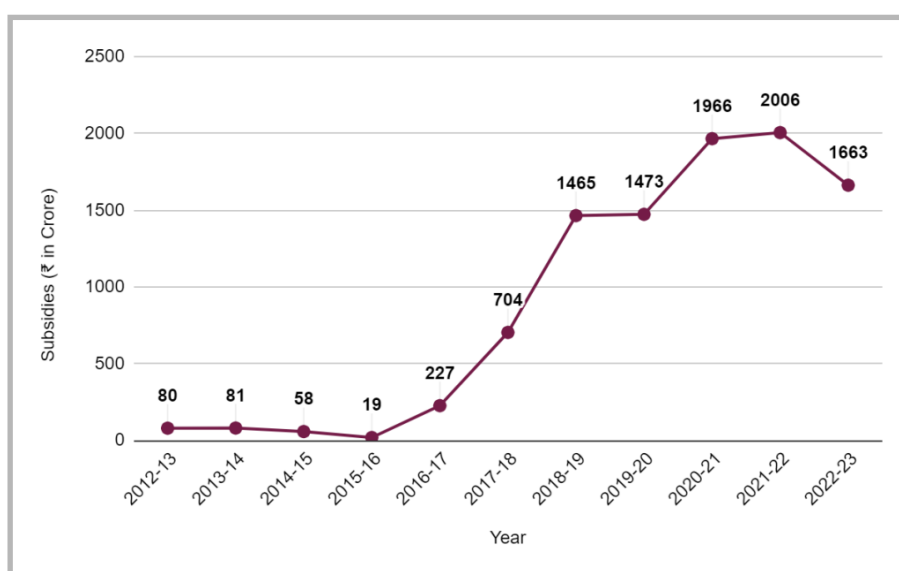
10.1 Introduction

A subsidy is an incentive or assistance given by the government to an entity. Subsidies can be used to offset market failures and correct externalities to achieve greater economic efficiency. A powerful welfare instrument of fiscal policy, the aim of government subsidies is to bolster the welfare of the society. Subsidies can promote economic growth by increasing labour productivity through quality education and healthcare. Subsidies are advocated generally in case of public goods and merit goods, and also in sectors with increasing returns to scale. The government grants this financial privilege to lessen a related burden levied against the subsidy recipient. Consumers benefit from the reduced prices of subsidised essential commodities. Likewise, producer subsidies ensure them with guaranteed returns against any market fluctuations.

10.2 Subsidy Allocation in Assam

Subsidies are very important for the economic growth and social welfare of a society. The government of Assam has increased its allocation of expenditure on subsidies over the years.

Figure 10.1: Trend of Expenditure on Subsidies



Source: Authors' Estimation calculated from Comptroller and Auditor General of India Report

In Figure 10.1, expenditure of the Government on subsidies is given for 10 years, that is, from 2012-13 to 2022-23. It is seen that there is slight increase in the allocation for subsidies from ₹80 crore in

2012-13 to ₹81 crore in 2013-14 can be observed. However, this allocation decreased significantly, dropping to ₹58 crore in 2014-15 and reaching an all-time low of ₹19 crore thereafter.

From 2016-17 onwards, the allocation for subsidies began an upward trend, starting with ₹227 crore in 2016-17. It rose sharply to ₹ 704 crore in 2017-18, and further to ₹1,465 crore in 2018-19. The allocation continued to increase, reaching ₹1,473 crore in 2019-20. This trend of increasing subsidy allocations peaked at an all-time high of ₹2,006 crore in 2021-22. However, the following year, 2022-23, saw a slight reduction in the allocation, which decreased to ₹1,663 crore.

The detailed allocation of subsidies across various departments are given for 11 years, that is, from 2012-13 to 2022-23 is given in Table 10.1.

Table 10.1: Year-wise details of Allocation of Subsidies (₹ in crore)

Year	Co-operation Department	Industry & Commerce Department	Welfare of SCs, STs and OBCs	Rural Development	Hill Areas Development	Power Department	Finance Department	National Food Security Scheme	PM Awas Yojana	Ujjwala Scheme	Others	Total Subsidies
2012-13	8.8	63.2	8	-	-	-	-	-	-	-	0.00	80
2013-14		40.5	38.88	-	-	-	-	-	-	-	1.62	81
2014-15	12.18	37.12	-	5.22	-	-	-	-	-	-	3.48	58
2015-16	-	18.76	-	-	0.26	-	-	-	-	-		19
2016-17	11.43	29.06	-	-	-	150	-	-	-	-	36.25	226.74
2017-18	14.25	42.64	-	-	-	527	-	-	-	-	119.95	703.84
2018-19	4.69	23.42	-	-	-	852	342.5		-	-	242.32	1464.93
2019-20	0.27	12.81	-	-	-	715.95	25	378.9	237.77	98.18	4.35	1473.23
2020-21	1.8	47.5	-	-	-	903.34	17.59	598.37	432.7	-	14.15	1966.15
2021-22	-	12.05	-	-	-	943	-	767.68	257.91	-	37.10	2005.69
2022-23	1.56	1.9	-	-	-	625	5	648.41	380.24	-	0.48	1662.58

Source: Comptroller and Auditor General of India Report; Finance Accounts, Government of Assam

10.3 Various social-welfare schemes of the Assam Government

In a bid to promote ‘Sabka Saath, Sabka Vikas’, the Assam Government has launched a host of social-welfare schemes, particularly targeting the economically underprivileged sections of people. Designing target specific schemes, the intention is to address poverty alleviation and meet the developmental needs of marginalised communities. Some of the flagship schemes are detailed below.

➤ Assam Nijut Moina Asoni

Assam Nijut Moina Asoni is one of the most recently introduced schemes, launched in 2024, by the Government of Assam. This scheme aims to prevent child marriage and encourage education of young girls by offering monthly financial grants between ₹1000 to ₹2500 to 10 lakh girls pursuing higher education.

➤ Swahid Kushal Konwar Sarbajanin Briddha Pension Scheme

Launched on 2nd October 2018, the scheme "Swahid Kushal Konwar Sarbajanin Briddha Pension Achoni" was introduced to streamline the payment of old-age pension to 13 lakh beneficiaries. The beneficiary, a resident of Assam, will be granted a sum of ₹250 per month through Direct Benefit Transfer (DBT). The scheme is expected to cover 15,000-20,000 people in every constituency.

➤ Assam Pragyan Bharati Scheme

Launched in 2016, under the Assam Pragyan Bharati Scheme, the Assam Government provides scooty to all the meritorious girls students who pass with 1st division in class 12 examination. Moreover, the State government provides fee waiver to college students whose family income is less than 2 lakh per annum. The aim is to foster higher education and promote inclusivity by empowering students from underprivileged sections.

Table 10.2: Year-wise details of Pragyan Bharati Scheme

Year	Number of Enrolled Students	Amount Paid to Colleges (₹ in Crore)
2016-17	1,38,085	44.15
2017-18	2,34,280	74.5
2018-19	2,78,729	91.73
2019-20	1,89,434	77.23
2020-21	4,07,581	161.92
2021-22	3,57,903	89.87
2022-23	3,29,612	183.87
2023-24	2,94,633	103.09

Source: Directorate of Information & Public Relations, Assam

In Table 10.2, it is observed that the number of students enrolled under the Pragyan Bharati Scheme has increased from 1,38,085 in 2016-17 to 2,94,633 in 2023-24.

➤ **Chief Minister's COVID 19 Widows Support Scheme**

This scheme was launched during COVID-19 pandemic to provide financial assistance to women who lost their husbands due to the pandemic and belonged to the low-income group category with an annual income of ₹5 lakhs. A one-time financial assistance of ₹2.50 lakhs was provided to those women.

➤ **Assam Microfinance Relief Scheme**

Launched in 2021, this scheme aims to encourage timely repayments of interest and principal amount. A one – time incentive between ₹16,000 and ₹25,000 each is provided to the borrowers who have been repaying on time. This works as an incentive for the people to make timely payments and maintain good credit discipline.

➤ **Assam One Time Grant for Media Personality Scheme**

Launched in 2020, the objective of this scheme is to promote good journalism, to uphold the dignity of the media persons and to support the journalists in pursuit of outstanding achievements. Under this scheme, a one-time grant of ₹50,000 is provided to journalists who have no affiliation to any political party.

➤ **Atal Amrit Abhiyan Health Insurance Scheme**

Launched in 2016, this scheme aims to provide insurance coverage of up to ₹2 lakh per year to BPL and APL families of the state besieged with chronic, sudden, or acute health issues. This scheme aims to make treatment more affordable as a total of 437 diseases would be covered under this scheme.

➤ **Swanirbhar Nari–Atmanirbhar Assam Scheme**

Launched in the year 2020, this scheme aims to empower economically weak women by creating employment opportunities for them. This scheme would be implemented under MGNREGA with the convergence of schemes of various state departments and missions. It includes Assam State Rural Livelihood Mission, Agriculture & Horticulture, Fishery, Environment & Forest, Handloom and Textiles, Sericulture, Veterinary, and Animal Husbandry, etc.

➤ **Aponar Apon Ghar Home Loan Subsidy Scheme**

Under this scheme, the state Government. will provide ₹2.5 lakh subsidy on home loans up to ₹40 lakh. This house loan subsidy is only for those who are purchasing their first house, whose family income is less than 20 lakhs and have not availed of loans under the previous Apun Ghar Scheme. The maximum family income should be less than 20 Lakhs. Under this scheme, families get home loans at subsidized rates.

Table 10.3: Profile of Aponar Apon Ghar Home Loan Subsidy Scheme

Loan Amount	Subsidy Amount
₹ 5 lakh to ₹ 10 lakhs	₹ 1 lakh
₹ 10 lakhs to ₹ 20 lakhs	₹ 1.5 lakh
₹ 20 lakhs to ₹ 30 lakhs	₹ 2 lakh
₹ 30 lakhs to ₹ 40 lakhs	₹2.5 lakhs

Source: *Assam State Portal*

➤ **Sarothi-The Start Up Assam**

This scheme aims to promote and encourage new ventures and entrepreneurs by helping them get loans which are supported by the Assam Government through Interest Subvention at 5 percent P.A. The Assam Government launched “Sarothi” in 2016-17 with an initial amount of ₹10 crores. The maximum loan amount that can be availed by the beneficiaries is ₹10 lakhs.

➤ **Assam Abhinandan Education Loan Subsidy Scheme**

Launched on 26 December, 2019, this scheme aims to provide loans of up to ₹50,000 to meritorious students pursuing higher education from reputed institutions at subsidized rates. All major commercial banks such as Federal Bank and HDFC are included under this scheme.

➤ **Assam Orunodoi Scheme**

Launched on 2nd October 2020, ‘Orunodoi’ Scheme provides monetary benefits to the women of the household, as they are the primary caretakers of the family. The women of the family will receive ₹1000 on the first day of every month through the Direct Benefit Transfer (DBT) scheme. The scheme also provides minimum guarantee to the poorest for nutrition and health.

➤ **Swami Vivekananda Assam Youth Empowerment Scheme**

Launched in 2017, this scheme is to encourage the youths of Assam to take up income generating activities in the manufacturing, trading, and service sector. The total budget of the scheme was ₹ 1000 crore. This scheme also promotes entrepreneurship amongst the youth of the state by supporting micro and small businesses.

➤ **Arundhati Gold Scheme**

Assam is fortunate enough to be free of evils like the dowry system. But every parent still desires to give something to their daughters in the form of gifts. Launched in the financial year 2019-20, this scheme aims to share the joy of such parents who are getting their daughters married by providing ₹30,000 as a token of blessings to the daughters of these parents for purchasing gold. The amount is credited to the bride's account and the amount cannot be used for any other purpose.

10.4 Subsidy to GSDP Ratio

Subsidy/GSDP ratio is an important indicator to assess the scale of subsidies to the overall size of a state's economy. A high subsidy to GSDP ratio can indicate a significant fiscal burden on the state's finances, potentially crowding out investments in infrastructure, health, education, and other development sectors. On the other hand, a low ratio may suggest a more balanced approach to fiscal management, focusing on sustainable growth.

Year-wise subsidies/GSDP ratio is given in Table 10.4 from the year 2012-13 to 2022-23.

Table 10.4: Profile of Subsidy and GSDP

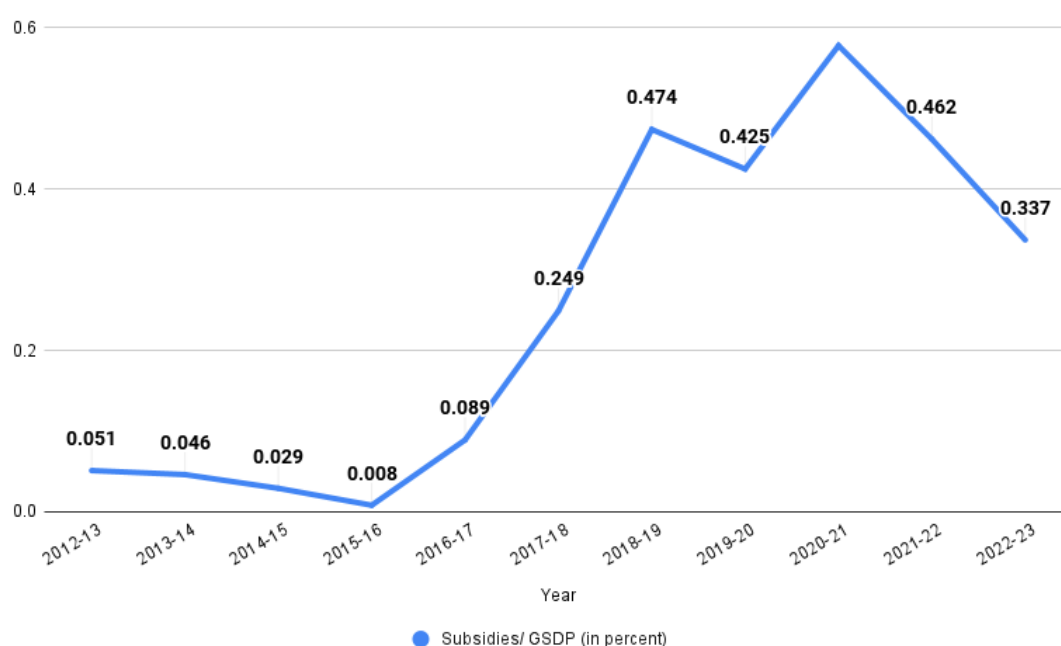
Year	GSDP (₹ in Crore)	Subsidies (₹ in Crore)	Subsidies/ GSDP (in percent)
2012-13	1,56,864	80	0.051
2013-14	1,77,745	81	0.046
2014-15	1,98,098	58	0.029
2015-16	2,24,234	19	0.008
2016-17	2,54,382	226.74	0.089
2017-18	2,83,165	703.84	0.249
2018-19	3,09,336	1,464.93	0.474
2019-20	3,46,851	1,473.23	0.425

2020-21	3,40,177	1,966.15	0.578
2021-22	4,33,925	2,005.69	0.462
2022-23	4,93,167	1662.58	0.337

Source: Comptroller and Auditor General of India Report

Trends in subsidy, GSDP and their ratio during 2012-2022 are given in Figure 10.2.

Figure 10.2: Trend of Subsidy/GSDP Ratio



Source: Authors' Estimation calculated from Comptroller and Auditor General of India Report

Figure 10.2 provides a detailed illustration of the subsidies-to-GSDP ratio (expressed in percentage) from the fiscal year 2012-13 to 2022-23, showcasing the fluctuations and trends in the allocation of subsidies relative to the state's economic output. The ratio is 0.051 percent in the fiscal year 2012-13, indicating a modest proportion of subsidies compared to the overall GSDP.

This proportion then declines steadily over the next two years, reaching 0.029 percent in 2014-15. In the fiscal year 2015-16, the ratio falls to an all-time low of 0.008 percent. This sharp decline is particularly notable and can be attributed to a significant drop in the allocation for subsidies, which was reduced to a mere ₹19 crore.

Following this, the ratio showed an upward trend, increasing from 0.089 percent in 2016-17 to 0.249 percent in 2017-18 and further to 0.474 percent in 2018-19. However, in 2019-20, the ratio experiences a slight decline to 0.425 percent. A fluctuating pattern can be observed, with the ratio rising to 0.578 percent in 2020-21 before declining to 0.462 percent in 2021-22 and further to 0.337 percent in 2022-23.

10.5 Subsidy to Revenue Expenditure

The subsidy to revenue expenditure ratio is a key metric used to assess the proportion of a government's total revenue expenditure that is spent on subsidies. A high subsidy to revenue expenditure ratio indicates that a significant portion of the government's spending is directed towards subsidies, which can strain fiscal resources and limit the government's ability to invest in developmental and capital projects. Conversely, a lower ratio suggests a more sustainable fiscal approach, where the government focuses on balancing welfare objectives with fiscal prudence.

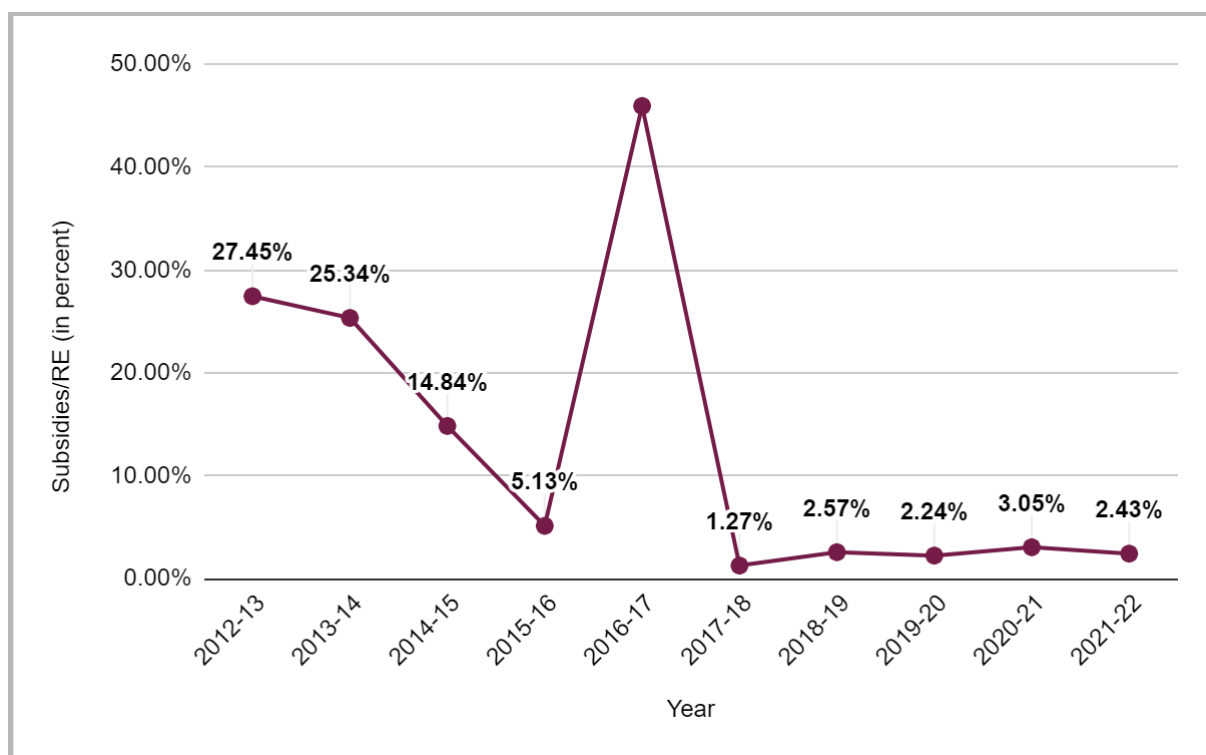
Year-wise subsidy/revenue expenditure ratio is given in Table 10.5, from 2012-13 to 2021-22.

Table 10.5: Year-wise Subsidy and Revenue Expenditure

Year	Revenue Expenditure (₹ in Crore)	Subsidies (₹ in Crore)	Subsidies/RE (in percent)
2012-13	291.4	80	27.45%
2013-14	319.7	81	25.34%
2014-15	390.8	58	14.84%
2015-16	370.1	19	5.13%
2016-17	493.6	226.74	45.94%
2017-18	55,480.90	703.84	1.27%
2018-19	56,899.00	1,464.93	2.57%
2019-20	65,817.30	1,473.23	2.24%
2020-21	64,519.60	1,966.15	3.05%
2021-22	82,548.00	2,005.69	2.43%

Source: Comptroller and Auditor General of India Report; RBI State Finance Report

Figure 10.3 Trend of Subsidy/Revenue Expenditure Ratio



Source: Authors' Estimation calculated from Comptroller and Auditor General of India Report

Figure 10.3 illustrates the trend in the subsidies-to-revenue expenditure ratio over a period of 11 years, from 2012-13 to 2022-23. The ratio shows a notable decline from 27.45 percent in 2012-13 to 25.34 percent in 2013-14, followed by a more pronounced drop to 14.84 percent in 2014-15, and reaching a low of 5.13 percent in 2015-16. This dramatic decline can be attributed to the mere ₹ 19 crore allocation for subsidies in 2015–16.

But the ratio dramatically increased the next year, from 2016 to 2017, reaching 45.94 percent. This unexpected increase resulted from a comparatively low GSDP of ₹493.6 crore, of which a sizeable ₹226.74 crore was set aside for subsidies. This exceptionally high allocation in comparison to revenue expenditure resulted in a sharp hike in the ratio.

In contrast, the ratio dropped to as low as 1.27 percent in 2017-18, coinciding with a significant increase in revenue expenditure, which rose to ₹55,480.90 crore. The allocation for subsidies did not rise in line with the growth in revenue expenditures in the following years, which resulted in lower ratios in those years, namely, in 2018–19, 2.57 percent, 2019–20, 3.05 percent, 2020–21, and 2.43 percent were the subsidies–to–revenue expenditure ratios.

This overall downward trend in the ratio, despite occasional spikes, reflects the gap between rising revenue expenditure and relatively slower growth in subsidy allocations suggesting that even though the overall amount spent on subsidies has increased, it has not kept up with the growth in revenue expenditure overall, indicating that the share of subsidies in the state budgetary framework is declining.

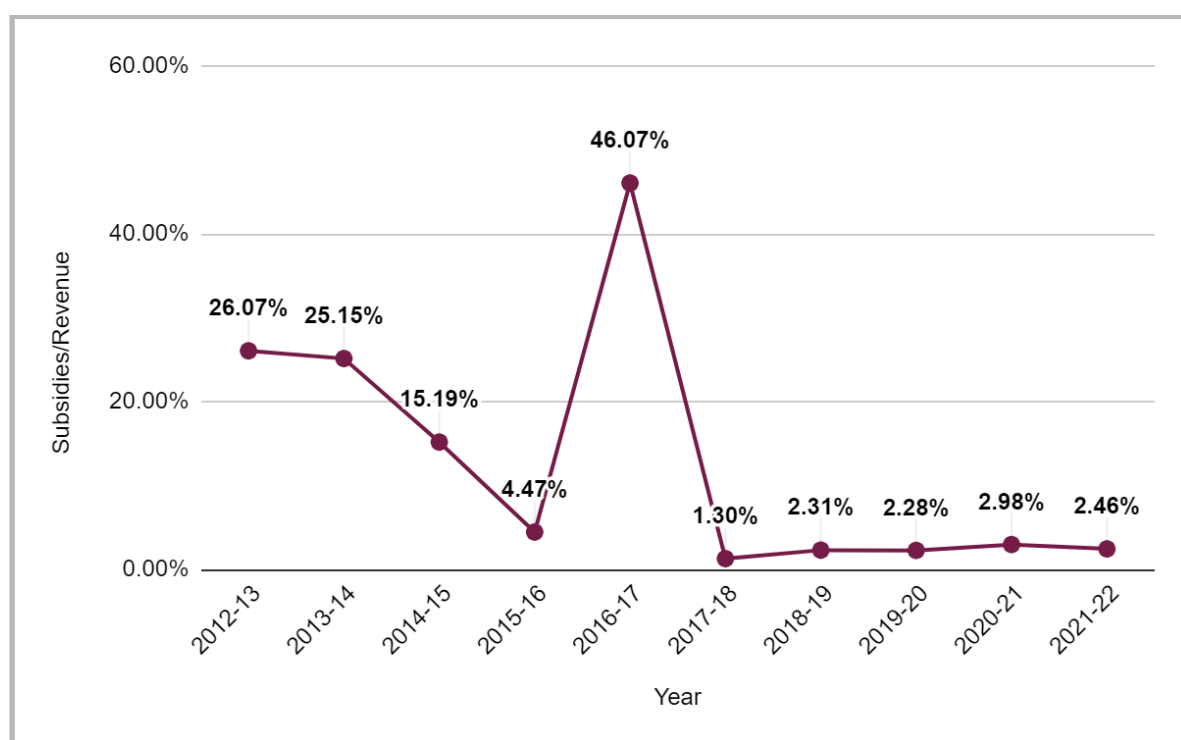
10.6 Subsidy to Revenue Receipts

Table 10.6: Year-wise Subsidy/Revenue Receipts Ratio

Year	Subsidies (₹ in Crore)	Revenue Receipts (₹ in Crore)	Subsidies/Revenue in percent)
2012-13	80	306.9	26.07
2013-14	81	322.1	25.15
2014-15	58	381.8	15.19
2015-16	19	424.6	4.47
2016-17	226.74	492.2	46.07
2017-18	703.84	54,130.90	1.30
2018-19	1,464.93	63,479.20	2.31
2019-20	1,473.23	64,495.10	2.28
2020-21	1,966.15	65,896.20	2.98
2021-22	2,005.69	81,589.10	2.46
2022-23	1,662.58	89,742.30	1.85

Source: Comptroller and Auditor General of India Report

Figure 10.4: Trend of Subsidy/Revenue Ratio



Source: Authors' Estimation calculated from Comptroller and Auditor General of India Report

In Figure 10.4, diagrammatic representation of subsidies-to-revenue receipts is shown from 2012-13 to 2022-23. From 26.07 percent in 2012–13 to 25.15 percent in 2013–14, the data shows a distinct downward trend. The ratio drops further in subsequent years, reaching 15.19 percent in 2014–15 and then dropping sharply to 4.47 percent in 2015–16.

Due to an increase in subsidy allocations from ₹19 crore in 2015–16 to ₹226.74 crore in 2016–17, the ratio spiked to 46.07 percent in 2016–17. However, this increase was only temporary, as the ratio fell drastically the following year, reaching a low of 1.3 percent in 2017–18. The ratio ranges from 1.75 to 3 percent between 2018-19 and 2022-23, stabilizing within a narrow range.

10.7 Targeting and Evaluation of Subsidy

An appraisal of the economic consequences of a subsidy program provides for its full assessment. However, the most commonly used substitute for assessment of a subsidy, both price subsidy and cash transfer is in terms of its incidence, that is, the intended beneficiaries. This is determined through policy decisions on targeting. Targeting is the process of identifying and selecting a specific group of people eligible for receiving a subsidy. The intention is to help the poor and the needy who are entitled

to. It is widely recognized that efficiency in targeting is one of the critical factors determining the effectiveness and impact of the subsidy program. The choice of the types of targeting systems which are intended to deliver particular targeting outcomes depends on the targeting objectives and the objectives of the subsidy program. Targeting has far-reaching economic, political, and social impacts. Targeting also involves high administrative costs. Targeting creates poverty traps. In short, targeting is riddled with conceptual and implementation errors.

It is felt that targeting may result in arbitrary outcomes as there can be loopholes concerning the identification of potential recipients. This is especially so if the identification process is based on old poverty estimates when entitlement is actually put into effect. As a consequence, there may arise moral and immoral hazards. The former arises from the fact that if a household obtains a benefit only if it is classified as poor, they will be induced to enter or stay in it. This prompts the immoral hazard. Someone gaining a little more income will have an incentive to conceal it, so as not to lose entitlement to the benefit. As the Chairman of the Saxena Committee observed, the failure of targeting was shown up by the National Statistical Survey, which revealed that vast numbers of the poor were excluded from having a BPL card, while many who were not poor were allocated one (Saxena, 2010). Surveys in Gujarat, Delhi and Madhya Pradesh have shown that a large proportion of those in need do not have cards or have been denied them for some spurious reason (Standing, *et al.*, 2010). The incidence of possession is often regressive, with the poorest least likely to have them. Besides, cash transfers create questions regarding issues of whether it should be paid on a household, family or individual basis.

10.7.1 Arguments for Subsidy

Subsidies promote social welfare by uplifting the marginalised sections of the society. Price subsidies lower the cost of essential commodities, apart from reducing price fluctuations as well. The ration programs of the government reduce poverty and strengthen social solidarity and reduce inequality. Despite the long gestation period, cash transfers act as social investments as they directly or indirectly improve social health, education, and productivity, thereby boosting human development. This is necessary for rapid adoption of new technologies and economic growth and to arrest diminishing marginal returns. Cash transfers in the form of a basic income provide basic economic security and economic freedom, leading to reduced social costs. Particularly, subsidies intended for specific sections of the society will address women empowerment and ensure gender equity. These positive externalities constitute a powerful justification for public subsidies. Subsidies in education are advocated on the grounds of providing equality of opportunity irrespective of social or economic

background (Tilak, 2004). Arrow (1993) argued that capital market imperfections and asymmetric information are relevant justifications for the public subsidisation of higher education. Moreover, the education sector being subject to economies of scale, it may be more efficient for the government to produce it and provide it at a subsidised cost.

10.7.2 Arguments against Subsidy

Critics are of the opinion that subsidies induce corruption, epitomised by generation of a black market. Inadequate management of a subsidy program can lead to market distortions, further expanding economic inequality. Contingency-based benefits, such as unemployment insurance, are ineffective and inequitable as they seldom reach those working informally or those involved in the gig economy. Cash transfers create an illusion and hamper productive public services by promoting dependency and laziness, reducing labour supply due to the availability of a guaranteed income (Dreze, 2011). This is distinctly visible in Assam as the availability of free rice, gold ornaments, house, scooty and cash benefits is working as a demotivating factor behind labour supply. The situation is such that it is very difficult to find indigenous labourers working in the agricultural or construction sectors. Such dampening work culture is injurious to the self-dependent and innovative attitude of the workforce. Freebies inhibit sustainable economic growth as the burden of the public budget has to be borne by future generations. In the extreme scenario, it might create a situation of debt trap in Assam. Modest user charges for public services and utilities are necessary in the interests of both quality and efficiency. But free provision induces carelessness, lack of appreciation and a disincentive to sustainably utilise resources. Public subsidisation of education can be cut if there is ability and willingness to pay on the part of the people, which needs to be tapped. Efforts must be undertaken to increase cost recovery rates as the social rates of return are found to be consistently lower than private rates of return to education (Tilak, 2004).

10.8 Strategies for Optimizing Last Mile Delivery of Subsidies

Successfully implementing subsidy programs presents many administrative challenges. Among the most critical is limiting the sale of subsidised commodities in the higher priced general market. In most cases, the government faces challenges in identifying, and tracking the impact of the subsidy program. Moreover, practical challenges remain that cash transfers have substantial leakages (Standing, 2014). Leakages are generally high in any targeted scheme, because targeting gives scope for discretion by bureaucrats and policymakers. Adequate and transparent information about the target population, and the nature of governance are important prerequisites for the successful

implementation of any subsidy program. Therefore, designing and allocating subsidies involves significant challenges, including ensuring affordability, accessibility, and effective claims management. It is crucial for governments to regularly evaluate the effectiveness and impact of subsidies and consider implementing measures to minimise the risks associated with it.

One effective strategy for optimising any subsidy program can be the adoption of technology.

Technology such as optically scanned smart cards can provide cost-effective monitoring mechanisms, and is equally suitable for use with rations and Public Distribution System (PDS). The use of technology helps in direct transfer of benefits and reduces inefficiency. Technology-enabled direct benefits transfer through the use of JAM (Jan-Dhan [bank account], Aadhar [unique identity card] and Mobile phone) are being encouraged by the Assam Government to effectively target public resources for the needy without any middlemen. Such practices also eliminate the risk of pseudo-beneficiaries.

10.9 Conclusion

In summary, subsidies play a multifaceted role in Assam's economic development and social welfare strategy. The state government's allocation to subsidies has changed dramatically over the past decade, indicating the government's responsive approach to the growing economic and social demands. Changes in expenditure on subsidies reflect the government's ability to achieve a balance between social welfare and fiscal sustainability. While subsidies increased significantly in some years, these rises often coincided with broader economic challenges, leading to a reassessment of fiscal priorities.

In addition, the launch of social welfare programs like the *Pragyan Bharati Scheme*, *Swahid Kushal Konwar Sarbajanin Briddha Pension Scheme*, and *Assam Nijut Moina Asoni* highlights the government's efforts in addressing issues of health, education, empowerment of marginalized communities, and poverty alleviation. By ensuring that subsidies reach the most vulnerable members of society, these programs aim to promote inclusive growth and economic resilience. The fluctuation in the ratios of subsidies to gross state domestic product (GSDP) and subsidies to revenue expenditure over time indicates a shift towards a more targeted and long-term approach to subsidy management, which is consistent with more general fiscal restraint.

Nevertheless, our analysis also highlights the difficulties involved in targeting and allocating subsidies. Subsidies are necessary to promote economic growth and increase social welfare, but they must be continuously assessed to maximize their efficiency and minimize costs of the government.

Assam needs a more balanced strategy that carefully takes into account both short-term welfare needs and long-term economic sustainability. To improve the effectiveness of government expenditure and achieve developmental objectives, the government has to implement effective targeting, transparent allocation, and ongoing evaluation of subsidy impacts.

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Chapter XI - Outcome Evaluation: Recommendation of 14th and 15th Finance Commission

11.1 Devolution of Resources to the State and Financial Autonomy of the State

Financial autonomy is the ability of an organization to manage its finances and resources without a lot of outside intervention. It means having the power to create revenue, distribute funds, and set budgetary priorities in accordance with specific needs and objectives of the organization. The primary focus of financial autonomy is on the different revenue streams that state governments can independently make use of. The central government supervises local governments and, in certain cases, serves as a co-financier. The amount of activities supported by a government's own revenues and the type of financial support from the central government both influence the degree of financial autonomy in terms of income. The level of support provided may vary based on the terms and conditions associated with the funding.

On the expenditure side, financial autonomy is assessed by looking at the roles and authority for decision-making that local governments hold. Income and expenses are the two primary facets of financial autonomy. The first aspect is normative, implying that consistency in financial practices should always be pursued, while the second is more relative, depending on the context. By analyzing both dimensions together, a comprehensive assessment of fiscal balance and the central government's approach to local governments can be conducted. This detailed evaluation serves as an analytical tool to monitor the progress of decentralization and the autonomy of local governments.

Achieving financial autonomy and accountability for local governments requires fiscal decentralization. In order to truly become financially independent, local governments need to be in charge of their own revenue streams. At the highest level of financial autonomy, local governments would be free to choose the kinds of taxes, fees, and charges they collect without any obligatory tasks imposed by the central government. The financial autonomy would be strong and the overall system of financing local governments would still make sense even if these local revenues were augmented with unrestricted grants from the federal government.

Over the last 10 years, from 2012–13 to 2022–23, the Central Government established three Central Finance Commissions (XIII FC, XIV FC, and XV FC). Based on the suggestions provided by these FCs, the State Government received a fair portion of devolved taxes and other grants. Additionally, the Central Government has provided the State with significant funding to implement a number of

initiatives within the State. The GoI's funds-in-Aid (GIA) increased significantly during the XIV-FC term (2015–20) in comparison to funds given out in the XIII-FC era (2010–15). Throughout the XV-FC era, this pattern continued as well. Central Ministries provide significant funding to PRIs annually to operate a range of Centrally Sponsored Schemes, with State Share added to each program. Important schemes implemented by PRIs include Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), National Social Assistance Programme (NSAP), Pradhan Mantri Awaas Yojana Gramin (PMAY(G), NSAP), Rastriya Gram Swaraj Abhiyan (RGSA), National Rurban Mission (RURBAN), and National Rural Livelihood Programme (NRLM). These schemes aim to enhance livelihood security, construct houses for BPL households, provide pension schemes, strengthen PRIs for achieving the Sustainable Development Goal (SDG), and alleviate poverty in rural areas. The State Budget typically does not transfer funds to ULBs, but routes the State share of several Centrally Sponsored Schemes, such as National Urban Livelihoods Mission (NULM), Swachh Bharat Mission - Urban (SBM(U)), Pradhan Mantri Awas Yojana - Urban (PMAY(U)), and Atal Mission for Rejuvenation and Urban Transformation (AMRUT), to ULBs for implementation.

With respect to grants provided by the Central Government to the State, a comprehensive analysis and report has already been discussed in Chapter 6.

Table 11.1: Recommended amount, actual release and transfers of Grant-in-Aid(₹ in Crore)

Particulars	Recommendation of the XIV-FC & XV-FC			Actual release by Gol			Release by State Government		
	2015-20	2020-21	Total	2015-20	2020-21	Total	2015-20	2020-21	Total
1	2	3	4	5	6	7	8	9	10
Local Bodies	6,387.12	2,376.00	8,763.12	5,782.69	2,183.00	7,965.69	5,549.77	1,015.48	6,565.25
(i) Grants to PRIs	5,416.58	1,604.00	7,020.58	5,101.34	1,604.00	6,705.34	5,101.34	802.00	5,903.34
(ii) Grants to ULBs	970.54	772.00	1,742.54	681.35	579.00	1,260.35	448.43	213.48	661.91
State Disaster Response Fund	2,287.00	772.00	3,059.00	2,286.90	772.00	3,058.90	2,286.90	579.00	2,865.90
Grand Total	8,674.12	3,148.00	11,822.12	8,069.59	2,955.00	11,024.59	7,836.67	1,594.48	9,431.15

Source: Director of Finance (Economic Affairs) Department and Finance Accounts

Table 11.1 shows that the 14th Finance Commission (XIV FC) recommended ₹8,674.12 crore for allocation to local bodies and disaster relief for the period 2015-16 to 2019-20, of which the Government of India (GoI) released ₹8,069.59 crore. Additionally, the 15th Finance Commission (XV FC) recommended ₹3,148.00 crore for these sectors in 2020-21, and the GoI released ₹2,955.00 crore during that year.

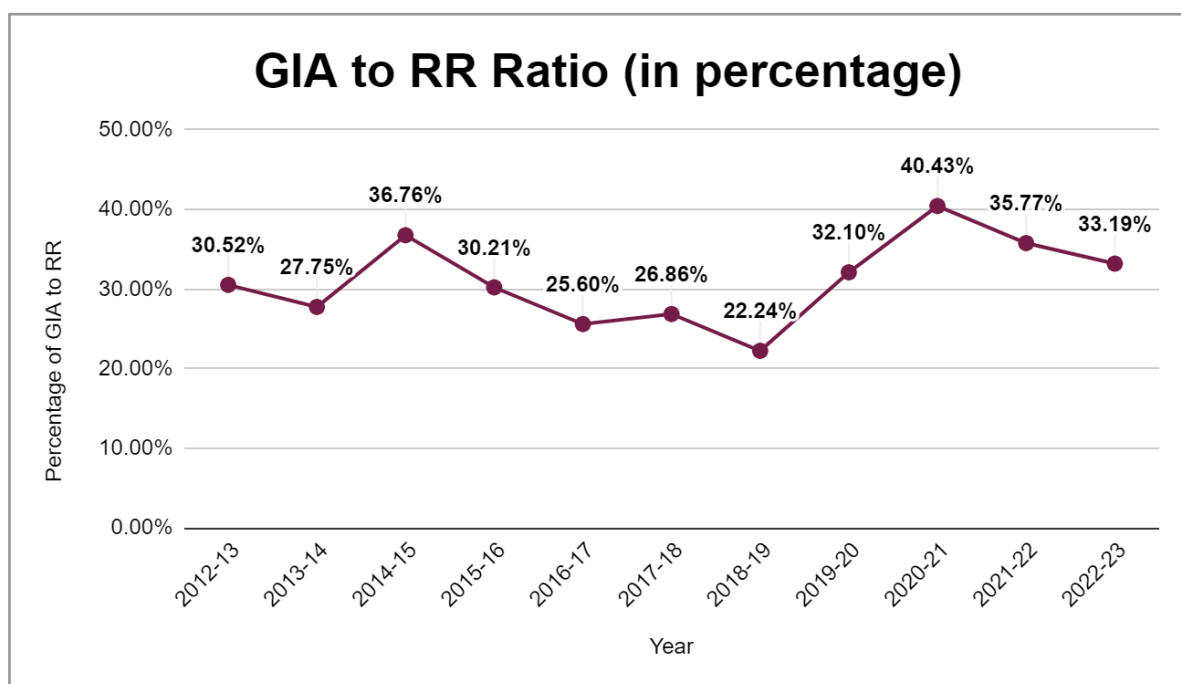
Table 11.2 provides an overview of the financial assistance received by the state government in the form of Grants-in-Aid and Contributions (GIA) and the state's overall revenue receipts.

Table 11.2: Profile of Grants-in-Aid and Contribution (GIA) and Revenue Receipts

Year	Grants-in-Aid and Contribution (₹ in Crore)	Revenue Receipts (RR) (₹ in Crore)	Percentage of GIA to RR
2012-13	9,365.92	30,690.98	30.52
2013-14	8,939.31	32,212.79	27.75
2014-15	14,035.08	38,181.49	36.76
2015-16	12,824.75	42,457.70	30.21
2016-17	12,598.48	49,219.81	25.60
2017-18	14,541.91	54,130.94	26.86
2018-19	14,117.17	63,479.16	22.24
2019-20	20,705.61	64,495.08	32.10
2020-21	26,239.65	64,902.19	40.43
2021-22	28,551.79	79,815.19	35.77
2022-23	29,784.71	89,742.30	33.19

Source: State Finances Audit Report of the Comptroller and Auditor General of India, GoA, related issues

Figure 11.1: Trend of Grants-in-Aid and Contribution (GIA)-to-Revenue Receipts Ratio



Source: *State Finances Audit Report of the Comptroller and Auditor General of India, GoA, related issues.*

Figure 11.1 shows Grants in Aids as a percentage of Revenue receipts for 11 years, i.e., from 2012-13 to 2022-23. GIA refers to the funds provided to the state by the central government, typically for specific schemes, centrally sponsored programs, or disaster relief. A rise in GIA indicates increased support from the central government, which can sometimes be due to increased central schemes or specific needs like disaster relief. However, excessive reliance on GIA can suggest a lack of fiscal autonomy or challenges in the state's own revenue generation capacity.

This ratio (**Grants in-aids** as a percentage of Revenue receipts) reflects the proportion of GIA in relation to the state's total Revenue Receipts. A lower percentage indicates better financial independence, while a higher percentage suggests more dependency on external financial support.

The percentage of GIA to RR decreased from 30.52 percent in 2012-13 to 22.24 percent in 2018-19. This steady decline indicates an improvement in the state's ability to generate its own revenue. However, from 2019-20 onwards, the percentage shows fluctuations, peaking at 40.43 percent in 2020-21, then stabilizing around 33.19 percent. This fluctuation could be due to external factors like the COVID-19 pandemic, followed by a nationwide lockdown, which impacted states' revenue generation capacities. During emergencies or economic downturns, the central government tends to increase grants to support state finances, which is another reason for higher ratios.

The analysis of devolution of resources and financial autonomy shows that while central grants have supported state development and disaster relief, reliance on these funds varies, impacting fiscal independence. A lower Grants-in-Aid (GIA) to Revenue Receipts ratio suggests better financial autonomy, while a higher ratio indicates dependency on central funds. Strengthening local governments' own revenue generation and minimizing its dependency on central assistance should be the primary focus to achieve true financial independence.

11.3 Fiscal Deficit

Fiscal deficit is the difference between a government's total revenue and total expenses, excluding borrowings. It shows by how much the government spending exceeds what it takes in from taxes and other non-debt sources.

An increasing fiscal deficit is a cause of concern because it indicates that the government is taking on more debt to cover its spending requirements. To evaluate the stability and financial health of a country, it is essential to understand the patterns and growth of its fiscal deficits, as prolonged high deficits can impact economic stability, interest rates, inflation, and overall growth prospects.

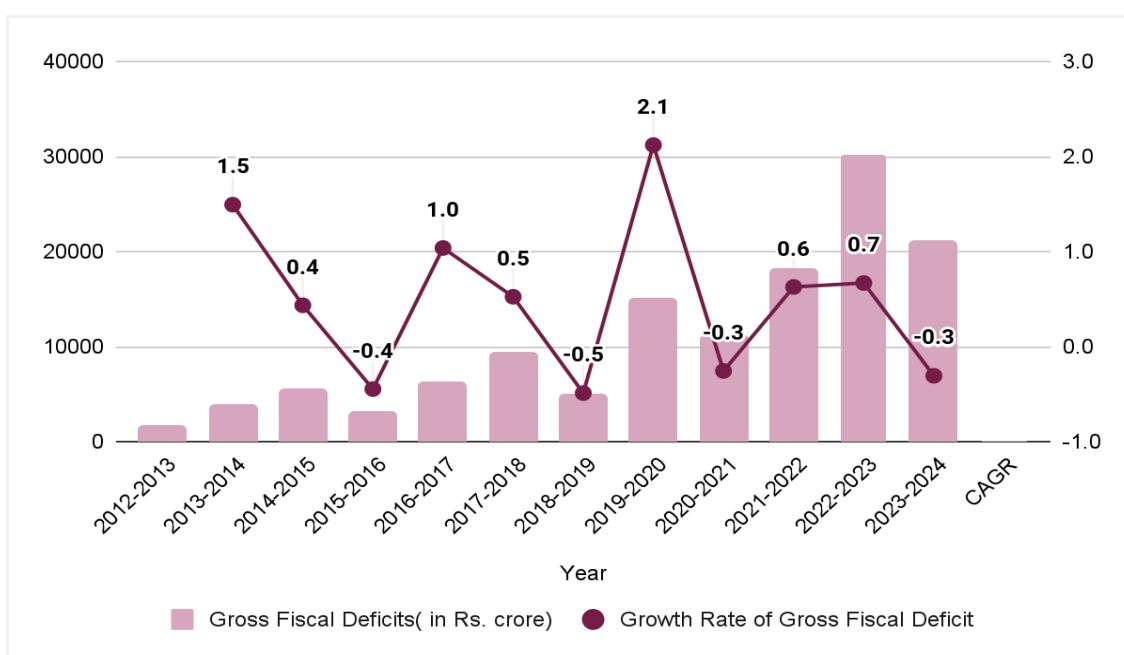
The trend and pattern of fiscal deficit and its growth for 12 years, ie, from 2012-13 to 2023-24, is shown in Table 11.3 and Figure 11.2.

Table 11.3: Profile of Gross Fiscal Deficit and its Growth

Year	Gross Fiscal Deficits (₹ in Crore)	Growth Rate of Gross Fiscal Deficit (in percent)
2012-2013	1516.49	
2013-2014	3782.3	1.5
2014-2015	5429.54	0.4
2015-2016	3005.47	-0.4
2016-2017	6125.78	1.0
2017-2018	9342.21	0.5
2018-2019	4779.06	-0.5
2019-2020	14915.8	2.1
2020-2021	11108.03	-0.3
2021-2022	18089.25	0.6
2022-2023	30204.83	0.7
2023-2024	20956.6	-0.3

Source: Economic Survey, Assam

Figure 11.2: Growth Rate of Fiscal Deficit



Source: Authors' Estimation

In Figure 11.2, the gross fiscal deficit and its growth from 2012-13 to 2023-24 are analyzed. The compound annual growth rate (CAGR) for this period is 26.96 percent. From 2013-14 to 2015-16, the growth rate exhibited a declining trend, dropping from 1.5 percent to 0.4 percent, and then to a negative 0.4 percent. This decline is a positive indicator, as the fiscal deficit decreased from ₹5,429.54 crore in 2014-15 to ₹3,005.47 crore in 2015-16. However, the fiscal deficit rose in the following two years, reaching ₹6,125.78 crore and ₹9,342.21 crore, with growth rates of 1 percent and 0.5 percent, respectively. The growth rate fell again to -0.5 percent in 2018-19. The highest growth rate occurred in 2019-20, as the fiscal deficit surged from ₹4,779.06 crore in 2018-19 to ₹11,108.03 crore in 2019-20. 2020-21 and 2023-24 experienced a negative growth rate of 0.3 percent.

11.5 Role of the Government in Women Empowerment: Case of Orunodoi Scheme

The aftermath of the COVID-19 pandemic has seen the importance of unpaid domestic care work (UDCW) worldwide. The hard work of domestic care has never been observed through the feminist lens. The state assembly of 2021 in India has succeeded in recognizing the UDCW and women are promised to get support financially in various states throughout India. In Assam, Congress pledged an amount of ₹2000 per month, while BJP offered ₹830 per month to the homemakers. With these schemes, women have received an opportunity to strengthen the welfare of the family and in a broader sense, the state.

With the rise of power in the state of Assam, Chief Minister Himanta Biswa Sarma introduced the 'Orunodoi' scheme, which was launched on 2nd October 2020. This initiative has been taken to support economically disadvantaged families. Empowering women is the central focus of the scheme, transferring the aid fund to the female family member of a household. In a way, it is a recognition of the never-appreciated labour that certainly needs to be exposed in the light. The state government provides ₹2400 crore annually to support 24 lakh families who have registered under the scheme. The Orunodoi online application recipients get a total benefit of ₹12,000 per year for dietary and medical assistance, which means ₹1000 per month.

Economic independence plays a significant role in the process of women's empowerment. The Orunodoi scheme provides direct cash transfer to eligible women. This helps women meet their daily financial needs and reduces dependency on others, most likely a male character, providing them with a sense of security. Financial stability provided by the scheme can encourage women to pursue employment or entrepreneurial opportunities. It reduces the immediate pressure to rely solely on informal or low-paying jobs and can support women in starting their businesses. By receiving support

through the Orunodoi Scheme, women gain a sense of recognition and inclusion in societal development programs. This recognition can boost their confidence and social standing, enabling them to participate more actively in community and decision-making processes.

The scheme addresses some economic barriers that disproportionately affect women. Some critics argue that this transfer of money would result in greater demands for unpaid work and reinforce gender stereotypes, while others believe that it is an exceptional way of providing support to UDCW. The 2011 Census of India shows 160 million women with “household work” as their main occupation, and there are possibly more. Hence, even a basic payment will offer the much-needed recognition of UDCW. It will likely enhance the homemaker’s economic bargaining power where they now rely on their husbands’ benevolence, help them set time boundaries on UDCW, resist domestic violence for not doing enough UDCW, learn a skill, or exit marriage.

The Orunodoi Scheme is designed to support women financially and socially, fostering greater independence and empowerment. Its benefits extend beyond immediate financial aid, contributing to broader goals of gender equality and economic development.

11.6 Role of the Government in Healthcare Spending: Case of Atal Amrit Abhiyan Health Insurance

The fatal expenditure of health care is seen to be one of the leading causes among the Indians which pushes them in a critical position often making them go bankrupt. Statistics suggest that almost 63 million people in India are pushed into poverty every year. Therefore, it has become a front desk matter for the government to look upon its common mass.

Keeping this serious cause in mind, the government of Assam has launched the Atal Amrit Abhiyan Health Insurance Scheme on 25th December, 2016. It targets the underprivileged residents of the state who come under the BPL (Below Poverty Line) to provide medical insurance coverage on a cashless basis. Later, it also included the APL (Above Poverty Line) residents within the scheme.

Its primary aim is to provide financial protection against medical expenses for individuals and families, particularly those from economically weaker sections. The scheme offers coverage for hospitalisation expenses, including both pre-hospitalization and post-hospitalization costs. It typically covers expenses for surgeries, treatments, and diagnostic tests. Beneficiaries are provided with a sum insured amount which can be used to cover medical expenses. The specific amount can vary, but it is designed to be sufficient to handle major health issues.

This historic scheme attempts to provide the much needed, untroubled, and cashless treatment and coverage to the civilians who earn a very little amount. The scheme generally offers treatment at network hospitals, reducing the need for upfront payments by the insured. There are a total of six critical diseases the scheme covers, and they are cancer, heart disease, kidney disease, neurological disorder, neonatal diseases, and burns.

The enrollment into the Atal Amrit Abhiyan may involve a process where eligible individuals or families apply through designated channels. Details on the application process can usually be obtained from local government offices or health centers. Overall, this scheme by the state government of Assam aims to improve access to healthcare and reduce the financial burden of medical treatments for the underprivileged sections of society in Assam.

11.7 Recommendations for Generating State Climate Fund

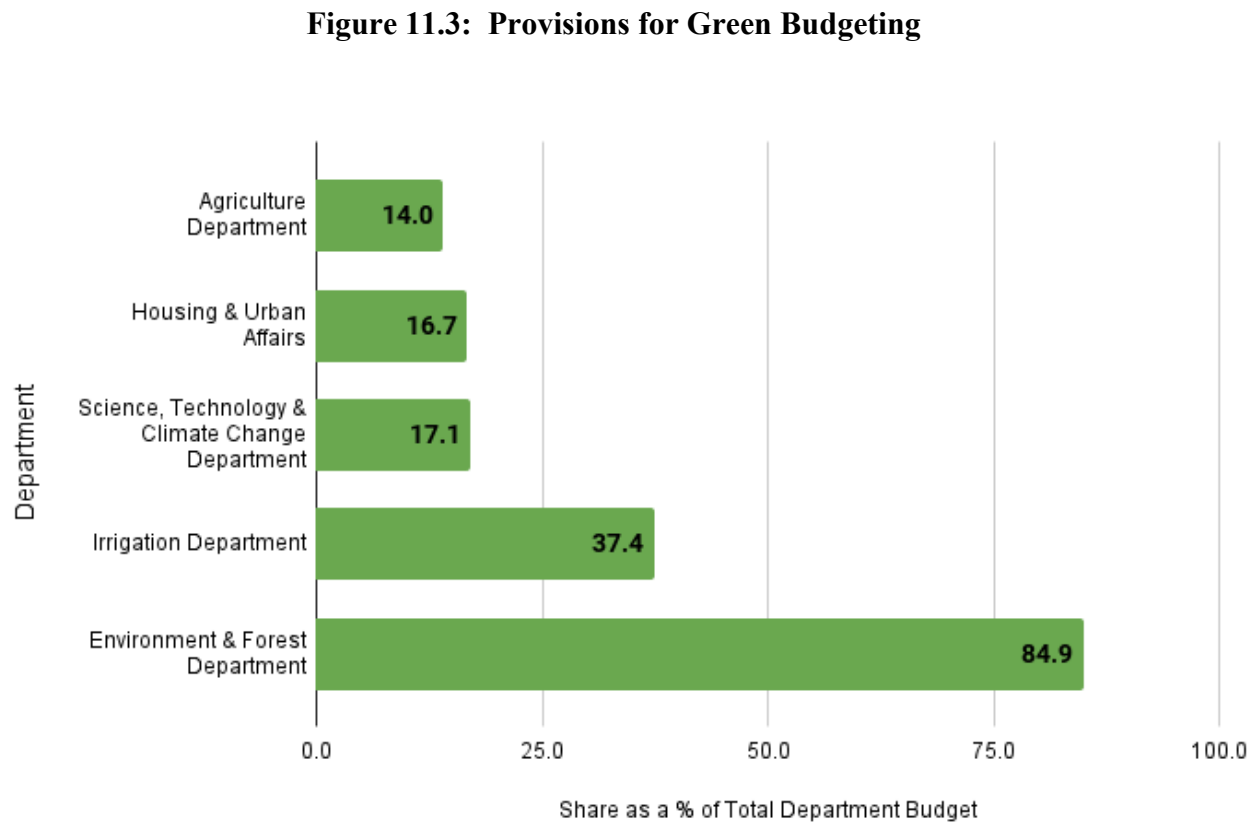
Assam is highly vulnerable to the impacts of climate change, regularly facing extreme natural disasters like floods that cause substantial economic and ecological damage. Situated in the Northeastern Himalayan region, Assam is blessed with two major river systems—the Brahmaputra and the Barak—and their numerous tributaries, which provide abundant surface water resources. However, Assam experiences frequent and intense flooding that devastates large areas of agricultural land, displaces people, and destroys infrastructure. These recurring floods not only disrupt the lives of millions but also result in loss of biodiversity and degradation of the environment. Given the state's heavy dependence on climate-sensitive sectors like agriculture, forestry, and water resources, Assam's vulnerability to climate risks presents significant challenges to sustainable development.

To address these challenges, the Assam government has introduced "Green Budgeting" to incorporate environmental and climate considerations into its financial planning. Green budgeting is a strategy to integrate environmental sustainability into the fiscal framework by directing resources towards climate-resilient infrastructure, renewable energy, and other green initiatives. With the launch of its Green Budget for FY 2023-24, Assam is leading this effort in Northeast India, ensuring that public spending supports climate and sustainability goals and promoting better policy alignment and accountability for these objectives

The primary focus is on reducing greenhouse gas (GHG) emissions and promoting renewable energy (RE), energy efficiency (EE), and sustainable transport systems. Various studies conducted over the last decade suggest the urgent need for Assam to transition to a low-carbon economy due to its

vulnerability to climate change, despite its relatively low per capita emissions. It is in this context that steps are being undertaken by the state government for adapting to climate change.

Figure 11.3 represents the different departments are taking steps towards green budgeting.



Source: Authors' Estimation calculated from Green Budget for FY 2023-24, Finance Department, Government of Assam

Figure 11.3 depicts the departments with highest share of 'highly favourable' schemes (based on Green Budget submission from departments) with Environment and Forest Department being in the top (84.9 percent share), followed by Irrigation Department with 37.4 percent.

Key Steps and Recommendations

- **Existing Emissions Profile and Energy Mix:** Assam's GHG emissions have increased over time, with the energy sector being the major contributor. The state's power generation heavily relies on thermal and large hydropower, with limited utilization of solar potential.

- **Policy and Institutional Framework:** The Assam State Action Plan on Climate Change (SAPCC) and Sustainable Development Goals (SDGs) outline strategies for renewable energy capacity addition, energy conservation, and low-carbon transport systems.
- **Existing State Financing Framework and Budget Analysis:** The state primarily finances clean energy projects through the Electricity and Irrigation Departments, leveraging funds from Central Finance Assistance (CFA) and institutions like IREDA and SECI. Challenges include low utilization of solar energy potential and inadequate financial linkages between SAPCC targets and public financial flows.
- Improve the state's financial framework by introducing climate budgeting. Create a publicly accessible web-based dashboard to monitor climate finance inflows, expenditures, and project outcomes. This will improve transparency, facilitate better decision-making, and encourage stakeholder engagement.
- Encourage solar-based irrigation, better purchase tariffs for small hydropower projects, and promote electric mobility and integrated water transport systems with appropriate financial incentives and infrastructure development.
- Establish a Dedicated Climate Fund, Implement Climate Budget Tagging, Leverage Central Finance Assistance and Green Bonds, encourage Private Sector Participation, promote a Performance-Based Grant System, and create a Public Dashboard for Climate Finance.
- The Assam government's budget for the transport sector currently focuses on conventional fuel-based bus systems. Given the Central Government's push towards cleaner fuel-based mobility, a portion of this budget should be redirected to support electric mobility by increasing the number of electric buses, setting up charging stations, and establishing manufacturing units. Additionally, budgetary provisions can enhance connectivity through an intermodal transport system for better efficiency.

By implementing these strategies, Assam can enhance its climate finance readiness and effectively mobilize resources to meet its climate mitigation and adaptation goals.

11.8 Conclusion

In this chapter, we explore Assam's fiscal health by examining its financial autonomy, fiscal deficit trends, social welfare programs, and climate resilience efforts. While the state benefits significantly from central grants and schemes, such as Grants-in-Aid (GIA) and Centrally Sponsored Schemes (CSS), a heavy reliance on these transfers signals a need for improved local revenue generation. The declining Grants-in-Aid-to-Revenue Receipts ratio suggests some progress in fiscal independence, but recent

fluctuations highlight the need for better local financial management to achieve sustained autonomy. The analysis of Assam's fiscal deficit trends reveals volatility driven by external shocks, economic cycles, and policy decisions, emphasizing the need for prudent fiscal practices like expenditure rationalization and diversification of revenue sources.

The chapter also underscores the importance of targeted government interventions in promoting social equity and climate resilience. Schemes like the Orunodoi and Atal Amrit Abhiyan play important roles in supporting vulnerable populations by enhancing women's financial independence and providing cashless healthcare to low-income families, respectively. However, achieving long-term social empowerment requires more comprehensive approaches. In terms of climate resilience, the proposed creation of a State Climate Fund and climate budget tagging are essential steps for mobilizing resources to mitigate and adapt to climate change. Overall, the chapter calls for a balanced approach that strengthens financial autonomy, manages fiscal deficits prudently, empowers vulnerable populations, and builds climate resilience, paving the way for a more sustainable and inclusive development path for Assam.

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Chapter XII - Debt Management and Sustainability

12.1 Introduction

Public debt is the total money a government owes to external lenders or domestic creditors. It is multifaceted as the debt can be incurred through borrowing by issuing bonds, loans, or other financial instruments such as government securities, treasury notes, zero-coupon bonds, inflation-linked bonds, etc. in a broader spectrum. Although public debt is crucial for the economy's fiscal health and economic stability, consistent higher borrowing can be counterproductive. High government borrowing can generate inflationary conditions and impose a burden for future generations.

A key component in ensuring the long-term viability of the public debt is effective management of public debt. Effective debt management requires a comprehensive approach that includes assessing the optimal level of borrowing. Managing debt is a balancing act for Assam as it aims to support economic growth while maintaining fiscal stability and ensuring that debt levels do not become unsustainable.

12.2 Trend of Public Debt

As the economy grows, the government requires more borrowing to support its initiatives and expenditures. However, excessive borrowing negatively impacts the economy because it comes with a high interest rate which makes debt repayment more burdensome. This may put a burden on government finances and eventually hinder the growth of the economy.

Thus, the primary goal of public debt management is to ensure that the government's financial requirements and its payment obligations are met at an affordable cost, which is sustainable for the state, both in the short run and in the long run.

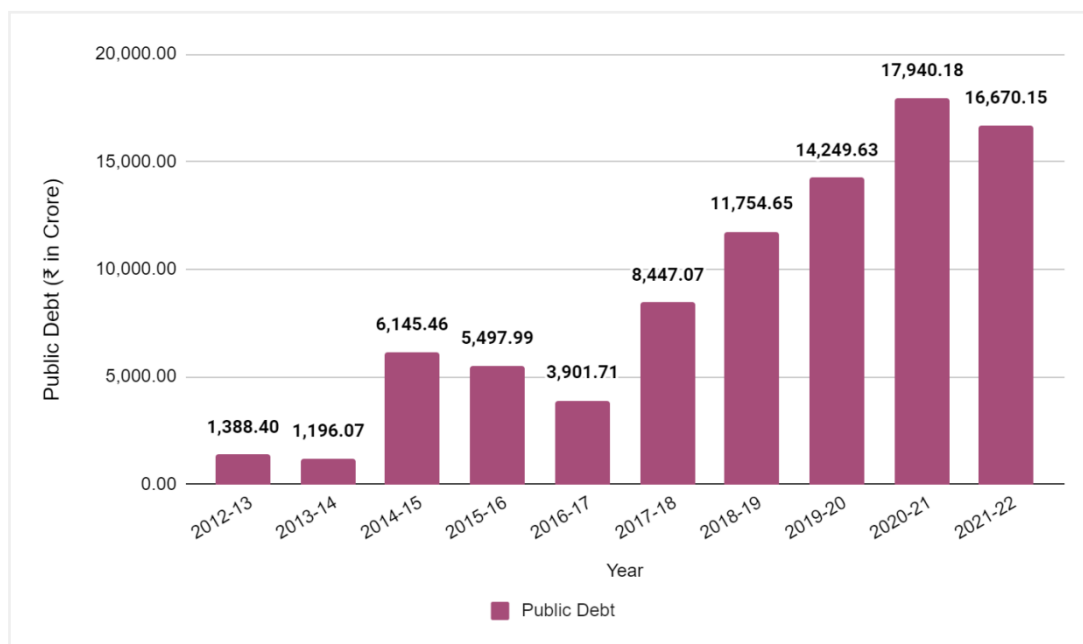
The profile of public debt (receipts) in Assam is shown in Table 12.1 and Figure 12.1.

Table 12.1: Profile of Public Debt of the State

Year	Public Debt (₹ in Crore)	Growth of Public Debt (in percent)
2012-13	1,388.40	45.79
2013-14	1,196.07	-13.85
2014-15	6,145.46	413.8
2015-16	5,497.99	-10.54
2016-17	3,901.71	-29.03
2017-18	8,447.07	116.5
2018-19	11,754.65	39.16
2019-20	14,249.63	21.23
2020-21	17,940.18	25.9
2021-22	16,670.15	-7.08
CAGR of Public Debt	28.22%	

Source: Finance Accounts, Government of Assam

Figure 12.1: Trend of Public Debt



Source: Authors' Estimation

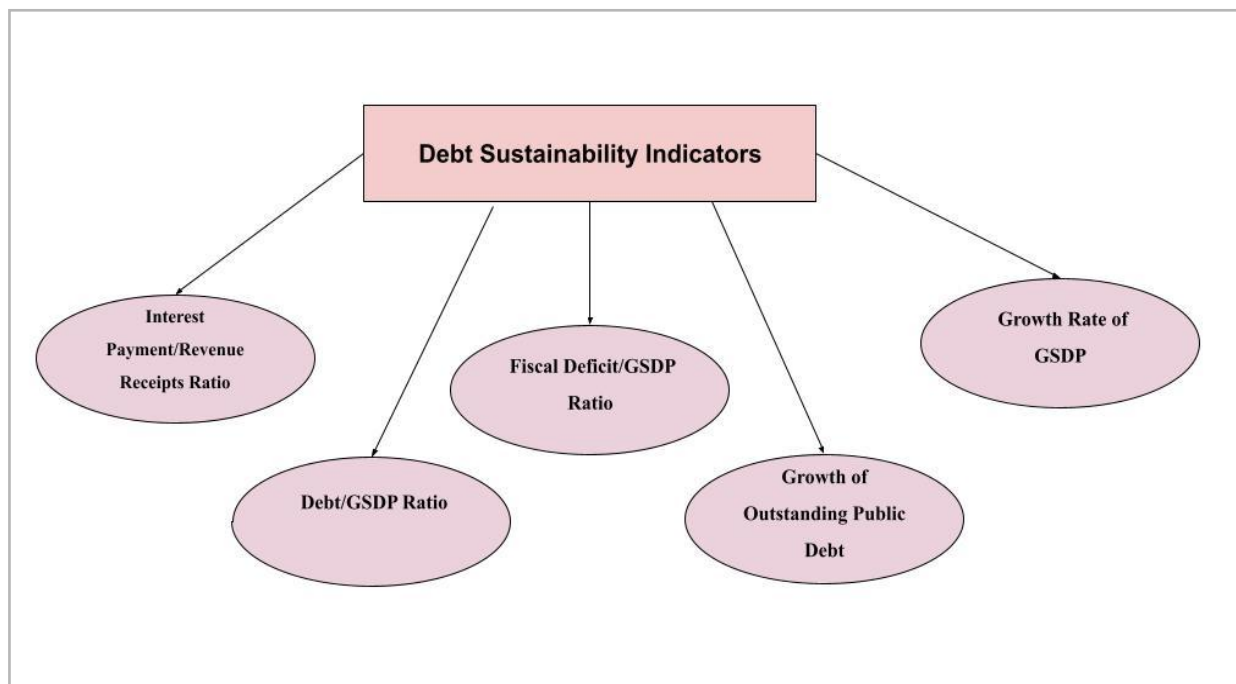
In Figure 12.1, the trend of public debt (receipts) can be observed for 10 years, i.e., from 2011-12 to 2021-22. The compound annual growth rate of public debt is 28.22 percent for the period under consideration. Public debt was ₹952.32 crore in 2011-12, which grew to ₹16,670.15 crore in 2021-22. A detailed analysis of the growth of public debt is discussed in Section 12.3.4.

12.3 Indicators of Debt Sustainability

Debt sustainability indicators help us in evaluating a government's ability to repay its debt over time without shifting to unsustainable fiscal practices. It is crucial for a government to maintain financial stability and avoid excessive borrowing, which could lead to unsustainability. These indicators reveal whether a country or state can sustain fiscal stability and avoid excessive borrowing while satisfying its present and future debt obligations. The key indicators of debt sustainability are-

- Fiscal Deficits/GSDP Ratio
- Debt/GSDP Ratio
- Interest Payments/Revenue Receipts Ratio
- Growth of Outstanding Debt
- Growth rate of GSDP

Figure 12.2: Debt Sustainability Indicators



Source: Authors' Estimation

The indicators are thoroughly analysed in the next section.

12.3.1 Fiscal Deficit/GSDP Ratio

The Fiscal Deficit/GSDP Ratio measures a government's fiscal health by comparing its fiscal deficit (the gap between total expenditure and total revenue) to the Gross State Domestic Product (GSDP). This ratio is crucial because it indicates the extent to which a government is borrowing to fund its spending. A lower ratio suggests better fiscal management and sustainability, while a higher ratio may signal potential financial instability. Monitoring this ratio helps assess the government's ability to manage debt and maintain economic stability.

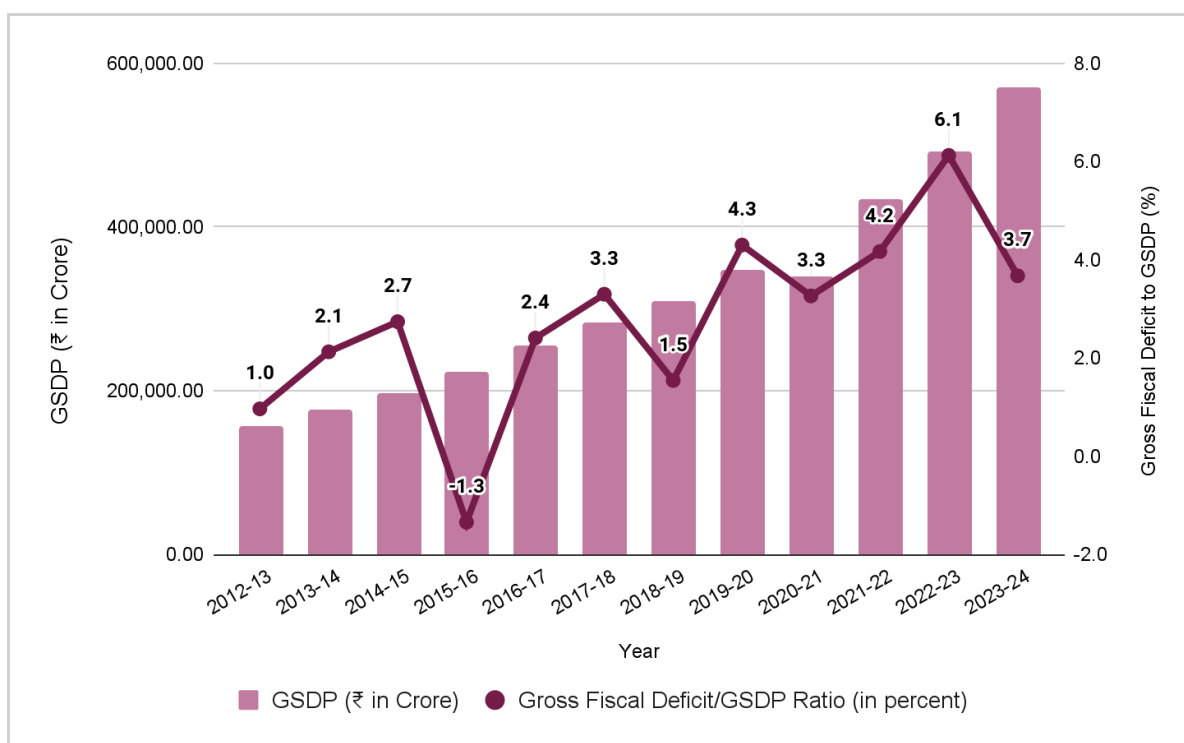
The status of the gross fiscal deficit-to-GSDP ratio is shown in Table 12.2 and Figure 12.3.

Table 12.2: Profile of Gross Fiscal Deficit and GSDP

Year	Gross Fiscal Deficits (₹ in Crore)	GSDP (₹ in Crore)	Gross Fiscal Deficit/GSDP Ratio (in percent)
2012-13	1,516.49	156,864.00	1.0
2013-14	3,782.30	177,745.00	2.1
2014-15	5,429.54	198,098.00	2.7
2015-16	3,005.47	224,234.00	-1.3
2016-17	6,125.78	254,382.00	2.4
2017-18	9,342.21	283,165.00	3.3
2018-19	4,779.06	309,336.00	1.5
2019-20	14,915.80	346,851.00	4.3
2020-21	11,108.03	340,177.00	3.3
2021-22	18,089.25	433,925.00	4.2
2022-23	30,204.83	493,167.00	6.1
2023-24	20,956.60	570,243.00	3.7

Source: Comptroller and Auditor General of India Report; State Finance Report, RBI

Figure 12.3: Trend of Fiscal Deficit as a percentage of GSDP



Source: Authors' Estimation

Figure 12.3 presents the trend of gross fiscal deficit/GSDP ratio (expressed in percentage) from the period 2012-13 to 2023-24. The ratio was 1 percent in 2012-13 which rose to 6.1 percent in 2022-23 and again fell to 3.7 percent in 2023-24. The ratio is negative in 2015-16.

A higher level of fiscal deficit has two major negative effects- debt financing and private investments gets crowded out. A decline in confidence, increased interest costs, and a slower rate of GDP growth can result from unsustainable deficits. Government taxation and spending reduction are two ways to reduce the fiscal deficit, but doing so might slow down the growth of the economy. To support the growth of businesses, tax policies should be implemented with a comprehensive structure, which includes tax benefits and other incentives.

The 15th Finance Commission recommended fiscal deficit limits (as a percentage of GSDP) of: (i) 4 percent for 2021-22, (ii) 3.5 percent for 2022-23, and (iii) 3 percent for 2023-26. In 2021-22, the actual ratio was slightly higher at 4.4 percent. The gross fiscal deficit/GSDP ratio surged to 6.1 percent in 2022-23, nearly doubling the recommended target. However, it decreased to 3.7 percent the

following year, aligning closer to the 15th Finance Commission's recommendations. For improved fiscal health, the ratio needs to decrease further.

12.3.2 Debt/GSDP Ratio

The debt as a percentage of GSDP is a crucial metric for assessing an economy's fiscal stability. It demonstrates the ability of an economy to pay back loans. A lower debt-to-GSDP ratio indicates a healthy fiscal management as it indicates that the economy is generating enough income to cover its debt obligations. On the other hand, a higher ratio negatively impacts the growth of the economy and reduces investors' confidence in the long run stability of the economy.

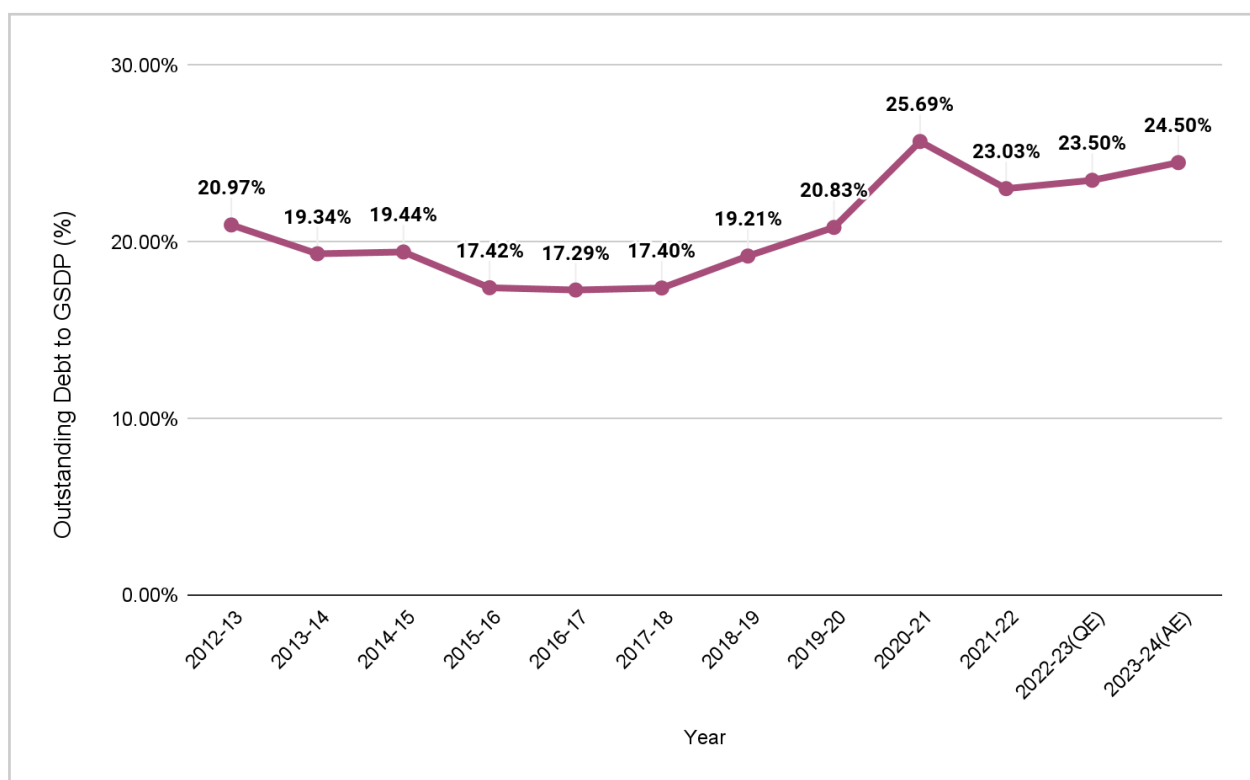
Table 12.3 shows the outstanding debt as a percentage of GSDP for 12 years, that is, from 2012-13 to 2023-24.

Table 12.3: Profile of Outstanding Debt and GSDP

Year	GSDP (₹ in Crore)	Outstanding Debt (₹ in Crore)	Outstanding Debt/GSDP (in per cent)
2012-13	156,864.00	32,897.00	20.97
2013-14	177,745.00	34,376.00	19.34
2014-15	198,098.00	38,512.00	19.44
2015-16	224,234.00	39,054.59	17.42
2016-17	254,382.00	43,980.56	17.29
2017-18	283,165.00	49,274.88	17.40
2018-19	309,336.00	59,425.61	19.21
2019-20	346,851.00	72,256.52	20.83
2020-21	340,177.00	87,407.79	25.69
2021-22	433,925.00	99,918.54	23.03
2022-23(RE)	493,167.00	11,575.32	23.50
2023-24(BE)	570,243.00	1,38,388.30	24.50

Source: Economic Survey, Assam

Figure 12.4: Trend of Outstanding Debt as a percentage of GSDP



Source: Authors' Estimation calculated from Economic Survey of Assam

Figure 12.4 presents the trend of Debt-to-GSDP (Gross State Domestic Product) ratio over the period from 2012-13 to 2023-24. Over the decade from 2012-13 to 2021-22, the compound annual growth rate (CAGR) of the Debt-to-GSDP ratio experienced a slight decline of 0.91 percent. Starting at 21 percent in 2012-13, the ratio displayed a downward trend, reaching 17.3 percent in 2016-17. In 2017-18, the ratio showed a slight increase to 17.4 percent, marking the beginning of an upward trend. This upward trajectory continued, culminating in a peak of 25.7 percent in 2020-21. Subsequently, the ratio decreased to 23 percent in 2021-22.

The 15th Finance Commission recommends that a state's debt should not exceed 25 percent of its GSDP. Except for the fiscal year 2020-21, the state has consistently managed to keep its debt-to-GSDP ratio below this recommended threshold. This achievement indicates that, in terms of the debt-to-GSDP ratio, the state has been able to maintain a stable and sustainable fiscal position.

12.3.3 Interest Payment/Revenue Receipts Ratio

For debt sustainability analysis, interest payments to revenue receipts (IP/RR) suggest the ability of a state to service its debt without putting pressure on borrowings or productive expenditure (Kaur et al., 2018).

A high ratio can be a strain for the government as it implies that a large portion of the government's revenue is being used on interest payments, leaving less budget for the government to spend on more important sectors like infrastructure development, public services and social welfare, which helps to boost the economy.

Conversely, a lower ratio is a positive sign for the government as it suggests that a smaller portion of revenue is needed for interest payments. This indicates a healthier financial position of the government and gives it more flexibility to allocate more funds on activities which increases the productive capacity and productivity of the economy.

In Table 12.4 and Figure 12.5, we analyse interest payment-to-revenue receipts ratio in details.

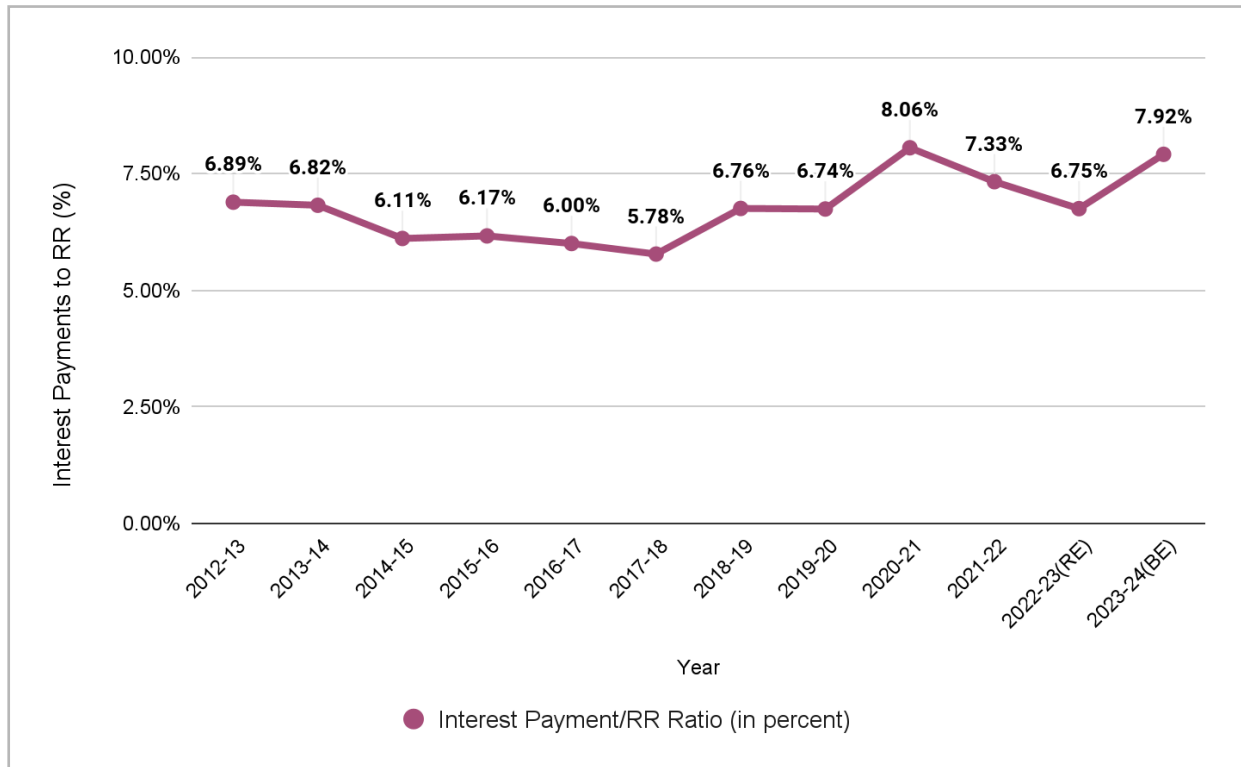
Table 12.4: Profile of Interest Payments and Revenue Receipts

Year	Revenue Receipt (RR) (₹ in Crore)	Interest Payments (IP) (₹ in Crore)	Interest Payment/RR Ratio (in percent)
2012-13	30,690.98	2,114.91	6.89
2013-14	32,212.79	2,198.45	6.82
2014-15	38,181.49	2,333.74	6.11
2015-16	42,457.70	2,618.44	6.17
2016-17	49,362.72	2,963.75	6.00
2017-18	55,480.95	3,205.32	5.78
2018-19	56,899.90	3,844.37	6.76
2019-20	65,817.28	4,438.87	6.74
2020-21	64,519.59	5,199.18	8.06
2021-22	82,547.96	6,051.47	7.33
2022-23(RE)	101814.64	6,874.97	6.75
2023-24(BE)	111336.59	8,815.37	7.92
	CAGR	11.09%	

Source: Economic Survey, Assam

Data shows that interest payments have increased from ₹2,114.91 crore in 2012-13 to ₹6,051.47 crore in 2021-22, registering a compound annual growth rate of 11.09 percent during the period under consideration.

Figure 12.5: Trend of Interest Payments/Revenue Receipts Ratio



Source: Authors' Estimation calculated from Economic Survey of Assam

A relatively stable ratio can be observed ranging from 5.5 percent to 8.5 percent during the period under consideration.

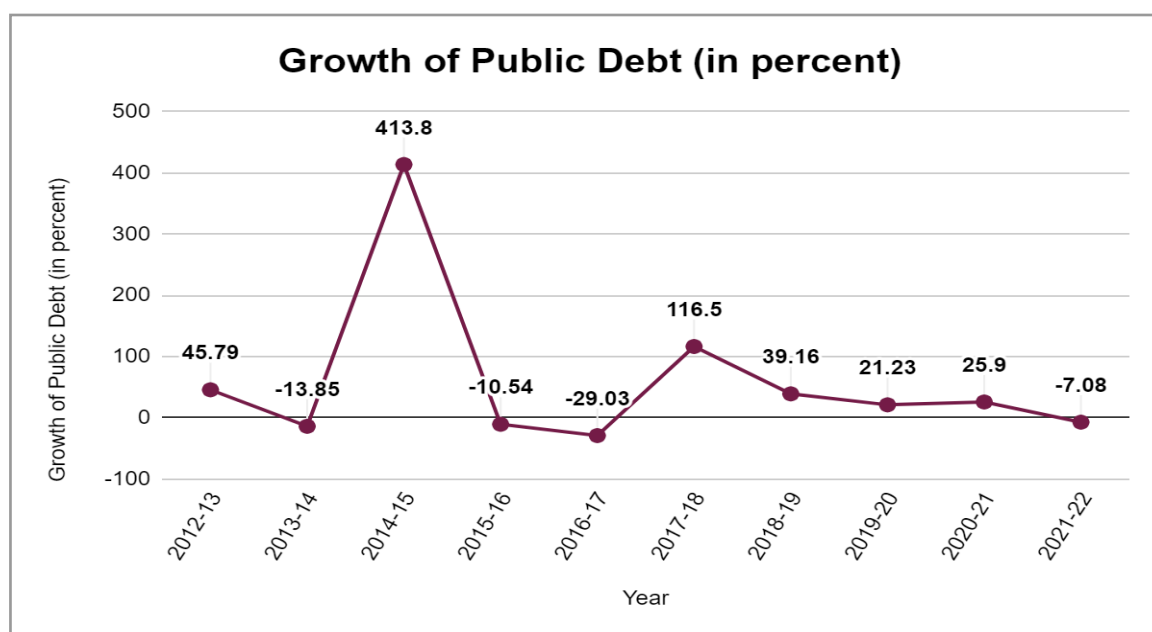
In the year 2012-13, interest payments to revenue receipts ratio was 6.89 percent, followed by a downward trend to 5.78 percent in 2017-18. However, in the year 2018-19, the ratio rises to 6.76 percent and reaches 8.06 percent in the year 2020-21. According to the revised estimate, the interest payments to revenue receipts ratio in the year 2022-23 is 6.75 percent and during 2023-24, the state budget estimated a ratio of 7.92 percent.

12.3.4 Growth of Outstanding Public Debt:

A higher level of public debt places a significant burden not only on the government but also on the public, particularly if the debt is not managed effectively. The growth rate of public debt tells us how quickly the amount of government debt is increasing over time. The growth rate of public debt should not outpace economic growth; otherwise, it will become unsustainable in the long term, leading to concerns and a loss of public confidence.

In Figure 12.6, a diagrammatic representation of the trend of the growth rate of public debt is observed.

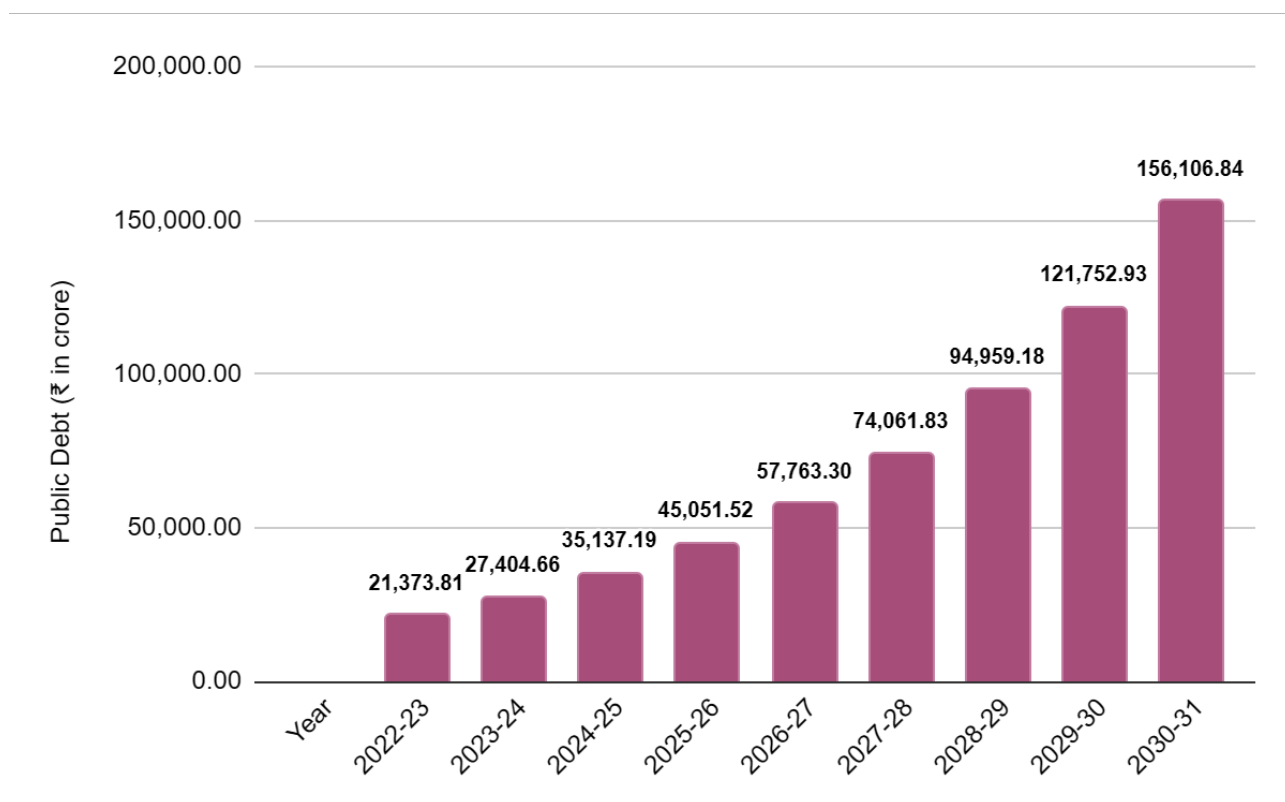
Figure 12.6: Growth of Public Debt



Source: Authors' Estimation calculated from Finance Accounts, Government of Assam

In Figure 12.6, the growth rate of public debt is shown for 10 years, i.e., from 2012-13 to 2021-22. As already mentioned above, the compound annual growth rate of public debt for the period under consideration is 28.22%.

Figure 12.7: Projection of Public Debt from 2022-23 to 2030-31



Source: Authors' Estimation calculated from Finance Accounts, Government of Assam

Note: The projections are made using compound annual growth rate of public debt

Furthermore, projections indicate that with a CAGR of 28.22%, the state's public debt will continue to grow, rising from ₹21,373.81 crore in 2022-23 to ₹1,56,106.84 crore in 2030-31. The trend shows sharper increases after 2025-26, suggesting heightened borrowing levels. While this could support economic development, it also raises concerns about fiscal sustainability and effective debt management.

12.3.5 Growth Rate of GSDP

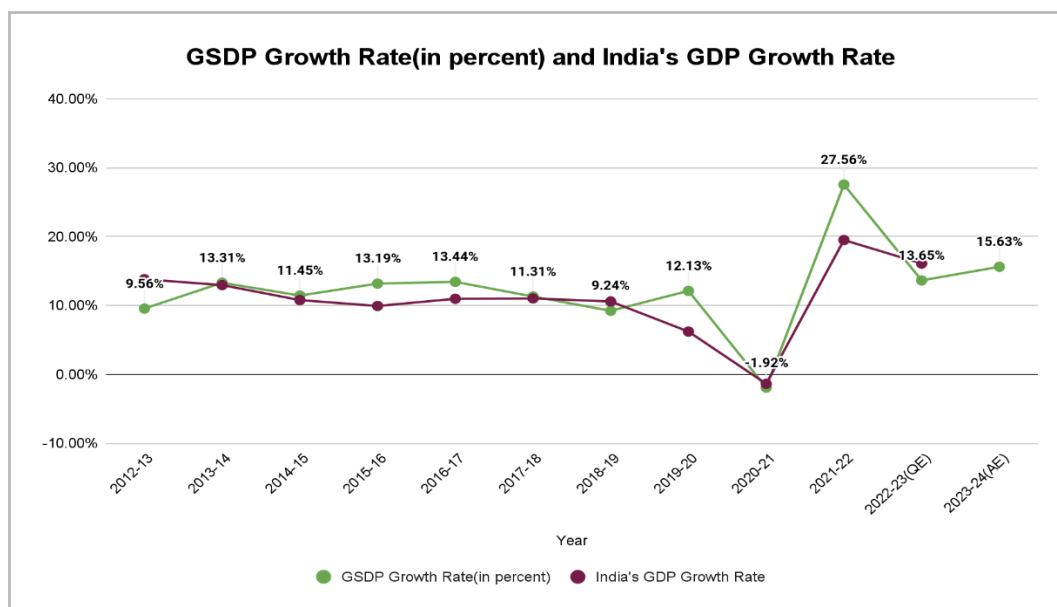
Gross Domestic Product (GDP) is an important parameter of a country's economic health. It represents the total monetary value of all final goods and services produced within the domestic territory of a country over a one-year period. Similarly, the Gross State Domestic Product (GSDP) contributes significantly to India's overall GDP growth. It is a crucial measure for assessing the economic prosperity, growth, and development of individual states, as well as the country as a whole.

Table 12.5: Profile of GDP and GSDP

Year	GSDP (₹ in Crore)	GSDP Growth Rate (in percent)	India's GDP Growth Rate
2012-13	1,56,864	9.56	13.82
2013-14	1,77,745	13.31	12.97
2014-15	1,98,098	11.45	10.79
2015-16	2,24,234	13.19	9.94
2016-17	2,54,382	13.44	10.98
2017-18	2,83,165	11.31	11.03
2018-19	3,09,336	9.24	10.59
2019-20	3,46,851	12.13	6.22
2020-21	3,40,177	-1.92	-1.36
2021-22	4,33,925	27.56	19.51
2022-23(QE)	4,93,167	13.65	16.10
2023-24(AE)	5,70,243	15.63	NA

Source: Comptroller and Auditor General of India Report

Figure 12.8: Trend of India's GDP and GSDP of Assam



Source: Authors' Estimation calculated from Comptroller and Auditor General of India Report

In Figure 12.8, a graphical comparison is shown between India's GDP and Assam's GSDP from 2012-13 to 2022-23. The compound annual growth rate (CAGR) of Assam's GSDP from during the period under consideration is recorded at 11.17 percent.

In 2012-13, Assam's GSDP growth rate was 9.56 percent. Over the period from 2012-13 to 2019-20, the growth rate remained relatively stable, fluctuating between 9.5 percent and 13.5 percent. However, a significant decline occurred in 2020-21, with the growth rate dropping to -1.92 percent. This downturn coincided with a nationwide contraction in India's GDP, largely attributable to the impact of the COVID-19 pandemic and the resulting lockdowns.

Despite this setback, Assam demonstrated a strong recovery in 2021-22, achieving a growth rate of 27.56 percent. According to quick estimates, the GSDP growth rate for 2022-23 is projected to be 13.65 percent, while advance estimates for 2023-24 suggest a further increase to 15.63 percent.

12.4 Comparison of Outstanding Debt and GSDP

For a stable economy, the growth rate of the Gross State Domestic Product (GSDP) should be higher than the growth rate of outstanding debt. This ensures that the economy can sustain its debt levels over the long term. When GSDP grows faster than debt, it implies that the state's economic output is increasing more rapidly than its debt obligations, which is a good sign as it helps the government to maintain or reduce the debt-to-GSDP ratio. This dynamic supports fiscal stability, as the state can generate sufficient economic resources to manage and service its debt without compromising fiscal health or risking unsustainable debt levels.

However, if the amount of outstanding debt is increasing faster than the economy, the government's financial situation is getting worse as it implies that the rate at which the government's debt obligations are growing is faster than the economy's total output. This makes it difficult for the government to pay down its debt, which could put the debt load above what the economy can bear in terms of total productivity. This could pose a serious threat to long-term economic stability and lead to serious fiscal challenges.

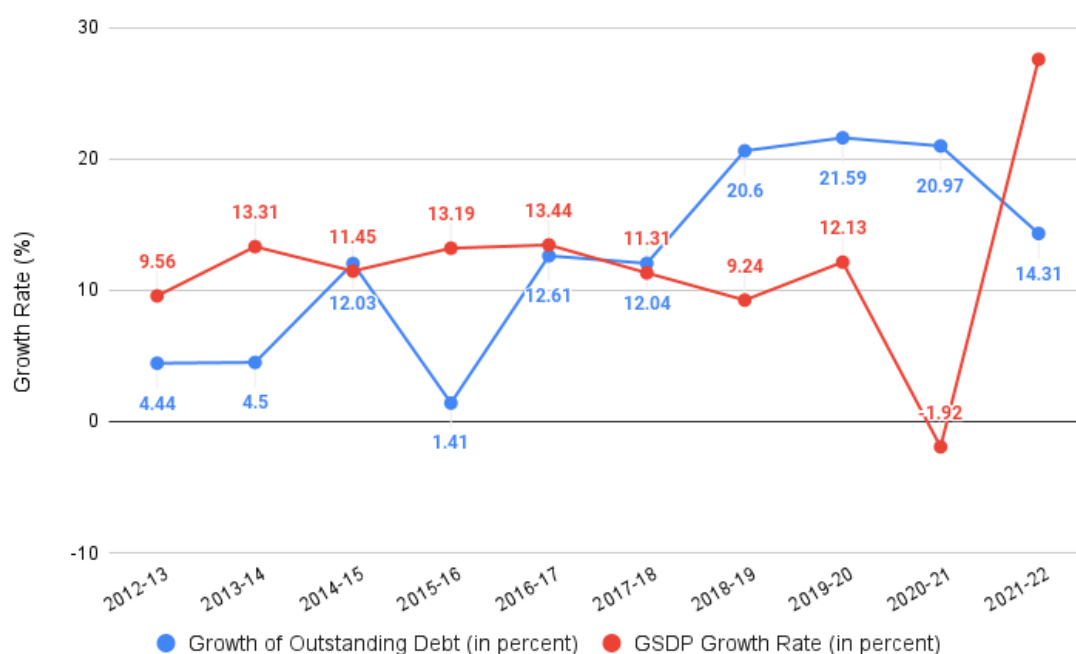
In this section we examine the trend of the growth rates of outstanding debt and State GDP of Assam. Table 12.6 and Figure 12.8 shows a detailed analysis of the above.

Table 12.6: Profile of Outstanding Debt and GSDP

Year	Outstanding Debt (₹ in Crore)	GSDP (₹ in Crore)	Growth of Outstanding Debt (in percent)	GSDP Growth Rate (in percent)
2012-13	32,897	1,56,864	4.44	9.56
2013-14	34,376	1,77,745	4.5	13.31
2014-15	38,512	1,98,098	12.03	11.45
2015-16	39,054.59	2,24,234	1.41	13.19
2016-17	43,980.56	2,54,382	12.61	13.44
2017-18	49,274.88	2,83,165	12.04	11.31
2018-19	59,425.61	3,09,336	20.6	9.24
2019-20	72,256.52	3,46,851	21.59	12.13
2020-21	87,407.79	3,40,177	20.97	-1.92
2021-22	99,918.54	4,33,925	14.31	27.56

Source: Comptroller and Auditor General of India Report

Figure 12.9: Growth of Outstanding Debt and GSDP Growth Rate (in percent)



Source: Authors' Estimation calculated from Comptroller and Auditor General of India Report

Figure 12.9 provides a diagrammatic representation of a comparison between the growth rate of outstanding debt and GSDP growth rate from 2012-13 to 2021-22. Over this period, the compound annual growth rate (CAGR) of outstanding debt registered an increase of 11.75 percent.

12.4 Conclusion

Examining the trend and pattern of public debt of Assam, we observe that debt serves as a tool for development but also poses a risk to fiscal stability. The state's public debt increased at a compound annual growth rate (CAGR) of 28.22 percent between 2012–13 and 2021–2022. This growth indicates that the government's dependency on borrowing has been increasing, while it also highlights a significant increase in investment in public services and development. The fluctuating nature of the fiscal deficit and debt-to-GSDP ratio highlights the challenges faced by the government in achieving a balance between careful fiscal management and growth. To reduce risks like inflation and the long-term burden on future generations, it is important to implement effective debt management strategies, ensuring that borrowing increases economic growth and stability rather than undermines it.

The indicators of debt sustainability reveal a mixed fiscal scenario. The fiscal deficit/GSDP ratio has experienced significant volatility, with peaks and troughs reflecting both economic pressures and policy responses. For instance, the fiscal deficit surged to 6.1 percent in 2022-23, well above the recommended limit, before decreasing to 3.7 percent in 2023-24. Similarly, the debt-to-GSDP ratio has remained largely within the recommended threshold of 25 percent, except for the fiscal year 2020-21. This stability suggests that while Assam has managed its debt levels prudently, the higher interest payments and variations in fiscal deficit ratios necessitate ongoing vigilance and strategic adjustments to maintain fiscal health.

The state's fiscal dynamics can be better understood by comparing the growth of debt and GSDP. Even though Assam's GSDP has increased faster than debt in the majority of years, there have been times when debt growth has outpaced economic output, especially during economic downturns like the COVID-19 pandemic. This disparity shows the importance of aligning debt management strategies with economic growth to prevent unsustainable debt levels. For fiscal stability to be maintained and for economic development to continue, it is important that growth of debt does not exceed the growth of GSDP. Moving forward, strategic debt management, coupled with a focus on economic diversification and revenue enhancement, will be crucial in achieving a balanced and sustainable fiscal framework for Assam.

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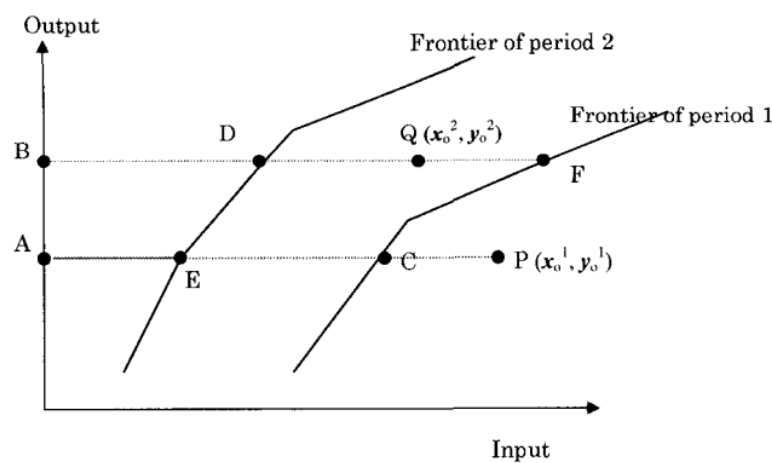
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Annexure 2A: Estimation of Malmquist Index

Malmquist index is a frequently used non-parametric method to evaluate productivity or efficiency in economics. It is based on the concept of efficiency analysis between two time period using distance function constructed on the efficiency frontier. The distance function is assessed using Data Envelopment Analysis using data on the input and output quantities of a Decision-Making Units (DMU).

Malmquist productivity index is defined as ratio of two output distance function which corresponds to the different sets of input output combinations and state of technology. Malmquist index is used to evaluate productivity/efficiency change between two time periods. Cooper et al. (2007) defined Malmquist index as the product of “catch up effect” and “frontier shift effect”. Out of these two effects, the former relates to the degree of changes in efficiency of a Decision-Making Unit (DMU a state in the present case) while the latter relates to the changes in efficiency between two time periods. Malmquist index can be constructed using Data Envelopment Analysis (DEA). It allows to include multiple inputs and outputs and no prior specification of functional relationship between inputs and outputs is needed. A DMU is said to be efficient if it operated on the frontier while if it produces less than what can be attained, would be termed as inefficient. DEA methodology is used to measure the distances which in turn are used to estimated Malmquist TFP index.

Figure 2A1: Catch up and Frontier shift in Malmquist index



Source: Cooper et al. (2007)

Figure 2A1 presents the catch up and frontier shift in the estimation of Malmquist index.

The catch-up effect is measured as:

$$C = \frac{\text{Efficiency of } (x_0, y_0)^2 \text{ with respect to period 2 frontier}}{\text{Efficiency of } (x_0, y_0)^1 \text{ with respect to period 1 frontier}}$$

In the above example (Figure A1), the catch-up effect can be measured as-

$$\text{Catch - up} = \frac{BD/BQ}{AC/AP}$$

If catch-up is found to be larger than 1, it indicates progress in relative efficiency from this over the previous period.

The frontier shifts i.e. the innovation with reference to time period 1 is measured as-

$$F1 = \frac{\text{Efficiency of } (x_0, y_0)^1 \text{ with respect to period 1 frontier}}{\text{Efficiency of } (x_0, y_0)^1 \text{ with respect to period 2 frontier}}$$

Similarly, the frontier shift effect compared at time period 2 is measured as-

$$F2 = \frac{\text{Efficiency of } (x_0, y_0)^2 \text{ with respect to period 1 frontier}}{\text{Efficiency of } (x_0, y_0)^2 \text{ with respect to period 2 frontier}}$$

Thus, the overall frontier shift is estimated as the geometric mean of the F1 and F2.

Subsequently, the Malmquist index is computed as the product of catch-up and frontier shift effect as shown below.

$$\text{Malmquist Index} = \text{Catch up} \times \text{Frontier shift}$$

Thus, the Malmquist index capture the efficiency within the same time period and their intertemporal comparison. If Malmquist index is found to be greater than one then it indicates progress in the total factor productivity from period 1 to 2. In contrast if it is found to be less than one it indicates deterioration in the total factor productivity. The DEA approach is used to estimate the distance function and Malmquist index.

As discussed in Chapter 2, the present study uses a similar methodology adopted by Mohanty & Bhanumurthy (2018) to estimate the efficiency among states. Per capita GSDP is considered as output

while per capita revenue and capital expenditure are taken as inputs in the model.¹⁵ Malmquist productivity index is estimated. In the present study, instead of presenting year wise Malmquist index, the geometric means for each of the states are calculated over the sample period. Popular statistical software R's 'malm' code is used in an output-oriented efficiency estimation for the present purpose. As noted earlier, Per capita GSDP is considered as output while per capita revenue and capital expenditure are taken as inputs in the estimation of the efficiency score.

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¹⁵ see Mohanty & Bhanumurthy (2018) for detailed methodology.

Annexure 4A: Findings on UDAN

UDAN: The objective of *Ude Desh ka Aam Naagrik* (UDAN) scheme is to connect small and medium cities with big cities through air service. Under the UDAN scheme, the airfare for a one-hour journey by a 'fixed wing aircraft' or half an hour's journey by a helicopter for about 500 km, has been fixed at Rs.2500. UDAN Bond: About UDAN Scheme/Overall/ Last five years.

Under the UDAN scheme Airport Authority of India, the implementing agency has disbursed Rs. 79,60,680 in 2021 to Selected Airline Operator (SAO) operating Flights in Assam. AAI has identified following UDAN airports / helicopter / water aerodromes for operating of UDAN flights of Assam:

Airport: Jorhat, Lilabari, Tezpur, Rupsi

Helicopter: Nagaon, Misa, Geleki

Water Aerodrome: Guwahati River Front, Umrangso Reservoir

AAI has identified 24 routes in Assam under the 1st phase of UDAN 4.0.

Table 4A1 List of Airports, Heliports and Water Aerodromes of Assam under UDAN-1, 2 & 3 selected for audit

scheme	Name of the Airport	Airports/ Water Aerodrome / Heliports	Owner Agency	Unserved/ Underserved Airports and non- operational/ operational Heliports	Total Expenditure (in crore)
UDAN 2	Rupsi	Airport	AAI	Unserved	82
UDAN 3	Umarangso Reservoir	Water Aerodrome	State Govt.	Unserved	4

Source: CAG report of Regional Connectivity Scheme-UDAN 2023

Table 4A2 Details of expenditure towards electricity and water at RCS Airports

Name of Airport	State	Region	Amount (in Rs)
Rupsi	Assam	Eastern	32,79,236

Source: CAG report of Regional Connectivity Scheme-UDAN 2023

Table 4A3 List of Assam's RCS Routes under UDAN-1, 2 & 3 selected for audit

Schemes	Departure	Arrival Airport	Operator	Date of commencement	Stage Length	VGF per RCS seat sought	Maximum Air Fare	Total VGF per week	Flights per week	Per Day VGF	Per Km VGF per flight allowed
UDAN - 2	Kolkata (West Bengal)	Tezpur (Assam)	Zoom Air	26/04/2018	715	5019	3200	878325	7	12475	175
UDAN - 2	Kolkata (West Bengal)	Lilabari (Assam)	Spice Jet	15/01/2019	867	0	3470	0	7	0	0
UDAN - 2	Lilabari (Assam)	Kolkata (West Bengal)	Spice Jet	15/01/2019	878	0	3470	0	7	0	0
UDAN - 3	Guwahati (Assam)	Lilabari (Assam)	Spice Jet	31/03/2019	330	1200	1931	327600	7	46800	142

Source: CAG report of Regional Connectivity Scheme-UDAN 2023

Annexure 5A: Gross Fiscal Deficit and Outstanding Liabilities of All States

Table 5A1 Gross Fiscal Deficit and Outstanding Liabilities of All States

State		GFD			Outstanding Liabilities			
		2021-22	2022-23 (RE)	2023-24 (BE)	2021	2022	2023 (RE)	2024 (BE)
1		2	3	4	6	7	8	9
1	Andhra Pradesh	2.2	3.6	3.8	36.9	33.6	32.5	33.5
2	Arunachal Pradesh	3.1	7.5	5.9	46.1	45.3	48	50.4
3	Assam	4.4	8.1	3.7	25.4	24.8	25.6	26.6
4	Bihar	3.9	9.2	3	40.1	39.6	39.1	37
5	Chhattisgarh	1.5	3.2	3	28.8	26.2	24	24
6	Goa	3.2	5.1	4.7	35.2	35.4	35.5	38.3
7	Gujarat	1.2	1.5	1.8	22.5	20.1	18.6	18.2
8	Haryana	3.6	3.3	3	33.2	32.1	30.7	29.9
9	Himachal Pradesh	3	6.4	4.6	44.4	41.7	44.3	44.2
10	Jharkhand	0.7	2.2	2.7	36.8	31.6	30.2	30.1
11	Karnataka	3.3	2.7	2.5	25.9	25.7	23.9	22.7
12	Kerala	4.9	3.5	3.4	40.3	38.6	37.2	36.9
13	Madhya Pradesh	3.3	3.6	3.8	30.2	28.6	27.6	28.7
14	Maharashtra	2.1	2.7	2.5	20.9	19.5	18.5	18.6
15	Manipur	4.9	6.4	5.7	43.9	41.9	43.4	39.5
16	Meghalaya	5.6	4.4	3.3	43.5	43.6	44.1	42.1
17	Mizoram	1.3	7	3.2	42.7	39.4	39.5	36.2
18	Nagaland	0.8	6.3	2.7	51.1	49.6	53.2	44.3
19	Odisha	-3.1	2.8	3	26.1	20.7	16.8	13.9
20	Punjab	4.5	4.9	4.7	47.9	46.4	47	47.6
21	Rajasthan	4	4.3	4	40.3	38.1	35.3	35.7
22	Sikkim	2.4	4.4	4.3	29.2	30.6	31.2	31
23	Tamil Nadu	4	3.2	3.4	31.8	32.2	31.4	31
24	Telangana	4.1	3.8	4	28.8	27.9	26.8	27.8
25	Tripura	-0.1	4	5.3	40.2	35.9	32.2	32
26	Uttar Pradesh	2	3.6	3.2	36.5	32.7	30.7	28.6
27	Uttarakhand	1.4	2.7	2.7	31.8	29	26.5	26.9
28	West Bengal	3.7	4	3.8	43	40.2	38.4	38.3

29	Jammu and Kashmir	5.6	3.1	4.7	33.3	34.1	32.1	30.4
30	NCT Delhi	0.8	0.4	0.9	1.2	1.7	1.4	1.7
31	Puducherry	-0.1	0	1.8	29.2	28.1	29	30.8
	All States and UTs	2.8	3.4	3.1	31	29.3	27.5	27.6

Notes: In 2023-24, the aggregate fiscal deficit of states is budgeted to be 3.1% of GSDP. In 2023-24, the fiscal deficit limit of states has been set at 3% of GSDP, as per the recommendation of the 15th Finance Commission. An additional borrowing of 0.5% of GSDP is permitted if states undertake certain reforms in the power sector. Ten states have estimated their fiscal deficit in 2023-24 to be lower than 3% of their GSDP.

At the end of 2022-23, outstanding liabilities of state governments is estimated to be 29.5% of GSDP.

Source: RBI State Finance study of Budget 2023; PRS Legislative Research, Institute for Policy Research Studies.

Annexure 7A: About Assam Financial Corporation

The Assam Financial Corporation (AFC) was established in 1954 as a Joint State Financial Corporation under Section 3(A) of the State Finance Corporations Act, 1951, covering the undivided Assam along with Manipur and Tripura. As a key financial institution in the North East, AFC has a strong grassroots presence, providing financial assistance to Micro, Small, and Medium Enterprises (MSMEs) in both manufacturing and service sectors. Its operations focus on promoting industrial development, supporting first-generation entrepreneurs, and generating employment. AFC also plays a crucial role in microfinance, implementing government-backed schemes and offering financial aid at subsidized interest rates particularly for women entrepreneurs and small businesses. The Corporation balances commercial objectives with socio-economic responsibilities, enhancing service delivery through digital solutions and operational reforms. AFC's funding sources include share capital from state governments and SIDBI, borrowings through SIDBI refinance, market borrowings via SLR Bonds, ad-hoc borrowings from RBI, and loan recoveries. By continuously adapting to the evolving financial landscape, AFC strengthens its loan portfolio, improves financial sustainability, and contributes to Assam's economic growth.

The portfolio of AFC is presented in table 7A1

Table 7A1: Position of the Principal Portfolio from FY 2018-19 to FY 2022-23 *(in Lakhs)*

Particulars	2018-19	2019-20	2020-21	2021-22	2022-23
Loan Disbursed	2014.51	1732.35	509.04	547.61	2398.05
Total Recovery	2588.56	2255.84	1410.02	1794.93	2036.11
Gross Income	909.72	825.56	754.2	810.74	919.07
Total Expenditure	1238.04	1507.55	1586.75	1205.12	1140.32
Net Profit/ Loss before Tax	-328.31	-681.99	-832.55	-394.39	-221.26
Net Worth	2542.53	1713.17	898.25	507.05	247.92

Source: Compiled from Assam Financial Corporation: Annual Reports 2020-21, 2022-23

It is evident that over the past five years (2018-19 to 2022-23), the Corporation's loan disbursement has risen from ₹2014.51 lakhs to ₹2398.05 lakhs. Following the impact of COVID-19, the Corporation has achieved a substantial growth of over 300% in loan disbursement. In FY 2022-23, the total loan recovery amounted to ₹2036.11 lakhs, marking a 21.34% decline from ₹2588.56 lakhs in FY 2018-19. Meanwhile, the Corporation's gross income saw a marginal increase from ₹909.72 lakhs in FY 2018-19 to ₹919.07 lakhs in FY 2022-23. However, a significant decline in the Corporation's Net Worth is evident, dropping from ₹2542.53 lakhs to ₹247.92 lakhs over the years.

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