

Outcome Evaluation of State Finances of Arunachal Pradesh

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Executive Summary

1 Introduction

Arunachal Pradesh, formerly known as the North-East Frontier Tract, was administered by the Ministry of External Affairs from 1947 to 1956. In 1956, it came under the jurisdiction of the Ministry of Home Affairs and was later designated as a Union Territory. It attained full statehood in 1986–1987. The economy of the State was traditionally primitive, with community land ownership being the prevalent system. However, with modernization, individual land ownership has been gradually replacing community-based ownership. While talking about the terrain, the 95 per cent of the area of the state is hilly and rest is plain.

The state has been undergoing a rapid transformation in agriculture, which has also influenced the scenario property rights of the state. The commercialization of agriculture and the expansion of horticultural activities have played a significant role in reshaping land ownership patterns. Property rights over land in Arunachal Pradesh remain largely undefined, with a considerable portion still under community ownership or overlapping jurisdictions of various state and non-state authorities.

However, this shift in property rights, combined with the growing commercialization of agriculture, has led to a decline in areas under shifting cultivation. In 2018, for the first time, land ownership rights were introduced in Arunachal Pradesh through the Land Settlement Records Amendment Bill. The previous Land Settlement Bill of 2000 granted only land possession certificates to indigenous citizens without conferring land titles. The 2018 amendment, however, provided a valid land possession certificate along with the provision to lease land for up to 33 years. This reform has facilitated increased investment in the agricultural sector, attracting not only local but also external investors (Saikia, 2018). While looking at the Monthly average consumption expenditures, it is higher in Arunachal Pradesh than the National Average (HCES, 2022-23).

In 1971-72, the State's per capita income was around 56.14 per cent of the national level which has been improved to 119.56 per cent of the national average in 2020-21. The GSDP and per capita income of the state has experienced a compound annual growth rate of 4.93 per cent and 3.88 per cent respectively during the period of 2011-12 to 2022-23. If looking at the sectoral share to the GSDP of Arunachal Pradesh, it is found that around 40 per cent of the GSDP is coming from Tertiary sector followed by Primary and Secondary sector with their relative share of 35 and 17 per cent.

The present study evaluates the fiscal health of Arunachal Pradesh, focusing on revenue capacity, government expenditure, public debt, and financial sustainability. The findings highlight key challenges, including a heavy dependence on central transfers, a narrow tax base, and rising fiscal deficits. While revenue collection has improved, structural inefficiencies in public sector undertakings (SPSUs) and the power sector continue to strain state finances. Also, the growing public debt, subsidy burden, and contingent liabilities pose long-term risks. The key findings and recommendations are discussed in the successive parts. With the above background, the main objectives of the present study are:

- To examine the major deficit indicators, including Fiscal Deficit, Revenue Deficit, and Primary Deficit.
- To analyse the main sources of revenue.
- To study the key components of public expenditure.
- To assess the outstanding debt stock and its composition.
- To examine the performance of public enterprises and the power sector.
- To analyse the financial performance of urban local bodies and rural local bodies in the state.

2 Sources of Data

The main data sources for the study are:

- Reserve Bank of India (RBI)
- Report of the Comptroller and Auditor General (CAG) of India
- Government of Arunachal Pradesh data submitted to the 15th Finance Commission
- Department of Statistics, Government of Arunachal Pradesh

3 Key Findings

a. Revenue Capacity & Dependence on Central Transfers

- The state's own revenue generation remains weak, with **central transfers accounting for 88.5%** of total revenue in 2022-23.
- Own tax revenue has grown **8.1 times between 2012-13 and 2023-24**, yet the tax-to-GSDP ratio remains below 5%, limiting fiscal self-sufficiency.

- Indirect taxes dominate the tax structure, contributing **98.53% of own tax revenue in 2022-23**, while direct taxes (land revenue, stamps, registration) remain negligible.

b. Expenditure Patterns & Fiscal Deficits

- Government spending has grown significantly, particularly capital expenditure on infrastructure since 2016-17.
- Arunachal Pradesh has maintained **consistent revenue surpluses**, yet **fiscal deficits have risen**, increasing from **₹2,318 million in 2012-13 to ₹25,152 million in 2023-24**.
- Interest payments have nearly **tripled from ₹2,719 million in 2012-13 to ₹9,123 million in 2023-24**, signalling rising debt servicing costs.

c. Public Debt & Fiscal Responsibility

- The state's total debt surged from **₹350,000 lakh (37.79% of GSDP) in 2010-11 to ₹1,885,030 lakh (53.69% of GSDP) in 2022-23**, indicating growing fiscal stress.
- Arunachal Pradesh **met its FRBM Act targets**, but its fiscal sustainability remains uncertain due to high reliance on borrowings and a declining contingency reserve.
- Arunachal Pradesh generally remains **solvent**, as GSDP growth exceeds interest payment growth, but **debt sustainability falters** because debt expands faster than borrowing costs.
- **Only 2013–14 satisfies the ideal $k \leq r \leq g$ condition**, showing prudent debt management and strong fiscal capacity, unlike other years with mixed trends.
- **Projections for 2023–30 suggest continued solvency but weak sustainability**, underscoring the need to restrain debt growth for long-term fiscal stability

d. Public Sector Undertakings (SPSUs) & Governance

- The state has **eight SPSUs**, of which **two are under liquidation** due to financial distress.
- Most SPSUs **fail to adhere to corporate governance norms**, leading to inefficiencies.
- The **Arunachal Police Housing Welfare Corporation (APHWC)** remains the only profitable SPSU, with cumulative profits of ₹31.39 crore by 2023.

e. **Power Sector Inefficiencies**

- The Department of Power (APDOP) continues to **monopolize power distribution**, but inefficiencies remain high.
- Arunachal Pradesh **imports a significant portion of its power**, as state-sector generation remains insufficient (only **124.98 MU in 2023-24**).
- High **Aggregate Technical & Commercial (AT&C) losses (56.24%)** reflect weak revenue collection and power theft, increasing financial stress.

f. **Local Governance & Resource Transfers**

- Urban Local Bodies (ULBs) were established in 2013 but **continue to rely heavily on centrally sponsored schemes (CSS)** due to limited financial autonomy.
- Programs like **AMRUT and DAY-NULM** have improved urban infrastructure and employment, but progress remains slow.

g. **Subsidy Burden & Fiscal Risks**

- The rising subsidy burden exacerbates fiscal stress, with approximately **50% of subsidies allocated to non-merit categories** (those that do not directly benefit the poor).
- Poorly targeted subsidies strain state resources, requiring a **more efficient and transparent mechanism for distribution**.

4 Actionable Recommendations

a. Strengthening Own Revenue Generation

- **Expand the tax base** by incentivizing industrialization and increasing revenue from direct taxes.
- **Enhance property tax collection** by empowering ULBs with better valuation and collection mechanisms.
- **Improve efficiency in tax administration** by digitalizing services and reducing leakages.

b. Fiscal Discipline & Expenditure Rationalization

- **Reduce fiscal deficits** through expenditure control, prioritizing productive capital spending.
- **Implement stricter debt management strategies**, including improved repayment structures and limiting unnecessary borrowing.

c. Revitalization of Public Sector Undertakings (SPSUs)

- **Restructure inefficient SPSUs** through privatization or public-private partnerships (PPP).
- **Enforce corporate governance norms** to ensure transparency and financial discipline.

d. Power Sector Reform & Efficiency Gains

- **Implement power sector unbundling** to separate generation, transmission, and distribution, allowing private participation.
- **Reduce AT&C losses** through better metering, billing, and theft prevention measures.
- **Encourage renewable energy investments** to reduce reliance on costly power imports.

e. Reforming Subsidy Delivery for Better Targeting

- **Introduce Direct Benefit Transfers (DBT)** for subsidies to prevent leakages and ensure that funds reach intended beneficiaries.

f. **Strengthening Local Governance & Financial Autonomy**

- **Increase financial devolution to ULBs**, allowing them to raise more revenue independently.
- **Encourage innovative revenue streams**, such as land monetization and municipal bonds, for infrastructure financing.

g. **Improving Fiscal Sustainability & Debt Management**

- **Establish an independent Fiscal Council** to monitor debt sustainability and advice on fiscal management.
- **Increase state revenue buffers** by creating contingency reserves to absorb fiscal shocks.

5 Conclusion

Arunachal Pradesh's fiscal management shows **both strengths and vulnerabilities**. While revenue collection has improved, high dependence on central transfers, rising debt, and financial inefficiencies in SPSUs and the power sector pose significant risks. Strengthening revenue generation, improving expenditure efficiency, and enhancing governance in key sectors are **critical to ensuring long-term fiscal stability and economic growth**.

Chapter 1

An Analysis of Revenue Capacity of Arunachal Pradesh

Chapter I

An Analysis of Revenue Capacity of Arunachal Pradesh

1.1 Introduction

Fiscal capacity of a nation is estimated in terms of its tax-GDP (Gross Domestic Product) ratio. However, the estimation of fiscal capacity at sub-national (State) levels poses challenges as many data which are published at national level are not available for the sub-national level (Raychaudhuri et al., 2013). Fiscal capacity of a State is usually measured in terms of ex-post collection of State's own revenue to Gross State Domestic Product (GSDP) ratio. The tax to GDP or GSDP ratio can be used as a measure of tax effort while making a cross country comparison. But when it is used to measure effectiveness in revenue mobilization, tax-GSDP ratio does not reflect the true tax capacity of a country or a State (Min Le et al. (2008). Tax capacity of a State is the predicted tax-GSDP ratio which is estimated from a regression by taking various factors that determine tax revenue collection. The tax-GSDP of a depends on a number of factors like the size of tax base, the level of tax rates, administrative efficiency, compliance rate (Jenkins et al., (2000). The tax is collected by the State mainly from the organised manufacturing, construction and services sectors. Therefore, if a State has a very high proportion of the above activities in unorganised sector, it is likely have low tax-GSDP ratio.

Arunachal Pradesh is predominantly a hilly State of India located in the easternmost corner of the country. It shares international border with Tibet (China) in the North and North-East, Bhutan in the West and Myanmar in the East, which poses both opportunities and challenges. The State has a natural disadvantage as national markets are located far away and border with China is closed for trade. It is a remote State of India and is inhabited mainly by different groups of tribal population, with each group having distinct language, culture, tradition and way of life. It is the largest State of North eastern Region (NER) of India with a geographical area of 83,743 sq. km. But the State is one of the least populated States of the country with only 13.84 lakh persons and population density of only 17 persons per sq. km (as per 2011 Census). The people of the State live in isolated villages and practise mainly shifting cultivation in hilly slopes and sedentary cultivation in foothills for their livelihood. However, in recent years there has been significant increase in the proportion urban population owing to developmental activities and expansion of education system. At the same time, there has been change in cropping pattern in favour of commercial crops and horticultural crops in

certain areas of the State propelled by improvement in road network and subsequent linkages with the markets both within and other States. All these changes have ushered in an era of economic transformation in various areas of the State.

The agriculture is an important sector as it contributes around one-third of the Gross State Domestic Product (GSDP) (32.38 per cent share in GSDP in 2017-18) and provides employment to more than 60 Per cent of workforce. The economy of the State is characterized by lopsided development with secondary sector accounting for only 22.70 of GSDP and tertiary sector (mostly public administration) accounting for the largest share in GSDP (40.93 per cent) in 2017-18.

The State is characterized by low level of industrial activities. The manufacturing activities contribute less than 2 per cent to the Gross State Domestic Product (GSDP). In 2017-18, manufacturing activities accounted for only 1.81 per cent of GSDP (GoAP, 2022). The low level of industrial activities can be attributed to its hilly terrain, large forest cover (79.33 per cent of its geographical area, FSI, 2021), peculiar land tenure system (community ownership of land) as well as inappropriate policy.

Therefore, the State has a very low tax base and consequently low tax-GSDP ratio (4.67 per cent) in 2021 which is relatively low. So, it is highly dependent on central inflow of funds for meeting its expenditure requirements. The revenue receipts of the State comprises of own tax revenue, own non-tax revenue, share in central taxes, and grant-in-aids from the centre. The revenue generation from the State's own sources of is highly inadequate to finance its expenditure requirement. The State's own revenue finances only around 10 per cent of its total expenditure. For example, in 2021-22, the State's own revenue could finance only 10.81 per cent of its total expenditure (RBI, 2023). In the same year, the State's own total revenue accounted for only 11.37 per cent of its aggregate revenue receipts. The low level of internal revenue of the State can be attributed to its low level industrial as well as trade and business activities. The low share of the State's own revenue can also be attributed to inadequate revenue effort owing to dependency habit on central transfers of fund.

Thus, the State finance of Arunachal Pradesh is largely dependent on transfer of funds from the Centre (share in Central taxes and Grant-in aid). The Central transfer accounts around 90 per cent of the State's aggregate revenue. For instance, In 2021-22, the share of central transfer accounted for 88.63 per cent of its aggregate revenue (RBI, 2022). The excessive dependence on the Central transfer is not a healthy practice as sudden fall in central transfers can adversely affect the developmental and welfare activities of the State. For instance, withdrawal of the status of special category States from the 14th Finance Commission period

resulted drastic fall in grants-in-aid to the States from 2015-16 onwards. Such changes can have a significant adverse impact on the State finance. Therefore, the State needs to promote industrial and business activities and explore new sources of revenue. Further, it has to make sincere efforts to enhance revenue generation from the internal sources so as to move on the path of self-sufficiency for ensuring the long-term sustainability of its finance.

In the recent years, the State has witnessed growth of certain small-scale agro-based industries, breweries, fabrication plants and forest based industries which have been set up by local entrepreneurs. Further, there has been significant growth in business activities (hotels, restaurants and transports) owing to increase in tourism resulting from substantial infrastructure development (highways, railway connectivity and airport at Itanagar and Pasighat) as well as promotional activities like tourism festivals (Ziro Music festivals, Raang Mahotsav, Tawang festival etc.). The growth of industrial and business activities (hotels, restaurants and transports) provides income and employment opportunities for the people and revenue source for the government.

In this background, this chapter analyses trend and growth in the tax and non-tax revenue, tax-GSDP ratio, changes in share of own tax and own-non tax revenue in total revenue receipts of the government of Arunachal Pradesh. Further, it deals with the estimation of tax or fiscal capacity and measures to enhance tax-GSDP ratio and make suggestions to enhance revenue productivity.

1.2 Data Source and Methodology

The study analyses trend and growth in revenue, composition of revenue the tax-GSDP ratio of Arunachal Pradesh for the period 2012-13 to 2023-24. The data on revenue and GSDP has been collected from the State Finances: A Study of Budget and Basic Statistics on Indian Economy published by Reserve Bank of India in its website. For estimation of revenue capacity, the time series data of the variables for the period 2012-13 to 2021-22 have been used as GSDP data up to 2023-24 was not available.

The data have been analysed by using percentage, ratio, annual growth rate and regression analysis. The standard approach to estimate the revenue capacity is to run regression of tax ratio on some variable (Minh Le et al. (2008)). Therefore, in order to calculate the taxable capacity or taxation potential, the following equation has been applied. The model is specified as:

$$Y = a + b_1PCI + b_2AGRI + b_3TB + u_i$$

Where,

$$Y = f(PCI, AGRI, TB)$$

Y = Own tax revenue (OTR) to GSDP ratio

PCI = per capita NSDP

AGRI = Agricultural gross value added to GSDP ratio

TB = Tax base (manufacturing and industry GVA + Construction GVA + Services GVA to GSDP ratio)

The regression analysis was based on the data for the period 2004-05 to 2021-22. Since agriculture is hard to tax sector and so in most countries it is exempted from tax, the higher level of agricultural valued added is expected to be associated with low a lower level of revenue capacity. But higher per capita NSDP and higher tax base are expected to be positively correlated with revenue capacity.

The dependent variable (own tax revenue to GSDP ratio) varies between 0 and 1, the logistic transformation function has been as follows:

$$Y^* = \text{Log}(Y/1-Y)$$

After the transformation, linear regression model has been applied to estimate the above function.

1.3 Sources of State's Own Tax Revenue

The various sources of the State's own non-tax revenue are as follows:

- (i) Taxes on property and capital transactions
- (ii) Land revenue
- (iii) Stamps and registration fee
- (iv) State sales tax / VAT
- (v) SGST
- (vi) State excise
- (vii) Taxes on vehicles
- (viii) Taxes on goods and passengers

1.4 Sources of State's Own Non- Tax revenue

The various sources of the State's own non-tax revenue are as follows:

- (i) **Interest receipts** – includes revenue from interest receipts on loans and advances given by the State government to its employees and interest from deposits in the banks.
- (ii) **Dividends and profits** – includes dividends and profits from departmental and non-departmental commercial enterprises of the State government.
- (iii) **General services** – includes revenue from administrative services like fees, license, permit, fines and penalties etc.
- (iv) **Social services** – includes revenue from education, sports, art and culture, medical and public health, family welfare, housing, urban development, labour and employment, social security and welfare, water supply and sanitation etc.
- (v) **Economic services** – includes revenue from power, crop husbandry, animal husbandry, fisheries, forestry and wildlife, cooperation, agricultural programmes, minor irrigation projects, industries, village and small-scale industries, road transport, tourism etc.

1.5 Trend and Growth in State's Own Revenue and Central Transfers

The analysis of the trend and growth in the State's own revenue and central transfers showed that the own tax revenue (OTR) of the State has increased by 8.11 times from Rs. 31,650 lakh in 2012-23 to Rs. 256,759.3 lakh in 2023-24. The State's own non-tax revenue (ONTR) has increased by 3.21 times from Rs. 28,422 lakh in 2012-13 to Rs. 91,115.8 lakh in 2023-24. The total own revenue has increased by 5.8 times from Rs. 60,072 lakh in 2012-13 to Rs. 347,875.10 lakh in 2023-24. On the other hands, the share in central taxes has increased by 20.26 times from Rs. 95,793 lakh in 2012-23 to Rs. 1,940,597.0 lakh in 2023-24. The grant-in aid from the Centre has increased only by 1.53 times from Rs. 420,288 lakh in 2012-13 to Rs. 642,800.0 lakh in 2023-24 (Annexure I(a)). This was on account of withdrawal of special category status by the 14th Finance Commission and greater emphasis of formula based transfer (tax sharing).

The total central transfer to the State has increased from Rs. 516,081 lakh in 2012-13 to Rs. 25,83,397 lakh in 2023-24. During the period under review, the total central transfers has increased by 5 times as compared to 5.8 times increase in total own revenue. Thus, during the period under review, State's own revenue of the State has increased faster than the central transfers which represents a move towards self-reliance. The total revenue receipts of the State has increased by 5 times from 576,152 lakh in 2012-23 to Rs. 2,931,272 lakh in 2023-24 (Annexure 1.1)

Table 1.1
Growth Rate of Own Tax Revenue, Own Non-tax Revenue and Total Revenue
Receipts of Arunachal Pradesh (in percentage)

Year	Own tax revenue	Own non-tax revenue	Total Own Revenue
2012-13	-0.36	-21.20	-11.44
2013-14	37.29	42.52	39.76
2014-15	6.36	12.98	9.56
2015-16	15.77	-14.31	0.81
2016-17	32.46	38.93	35.20
2017-18	146.51	-32.79	68.58
2018-19	-27.11	66.27	-10.93
2019-20	-3.52	6.98	-0.12
2021-22	33.45	18.93	28.42
2022-23	36.44	31.39	34.82
2023-24(RE)	14.76	-10.48	6.87

Source: Computed using the data from State Finances: A Study of Budget, RBI.

The analysis of annual growth rate of revenue of the State showed high degree of fluctuations (table 1.1). the total own revenue of the State grew at 39.76 per cent in 2013-14, but grew at only 0.81 per cent in 2015-16 mainly due to high negative growth in revenue from own non-tax revenue. In 2017-18, total own revenue of the State grew at 68.58 per cent. It was mainly on account of exceptionally high growth rate in tax revenue by 146.51 per cent due to GST implementation. In the next two years, there was a negative growth in State's own total revenue. In 2021-22, the total own revenue grew at high rate of 28.42 per cent on account of growth in both tax and non-tax revenue. Further, it grew by 34.82 per cent in 2022-23 mainly due to high growth in tax revenue. The own tax revenue of the State is expected to grow at 6.87 per cent in 2023-24. The non-tax revenue in some years (2012-13, 2015-16 and 2017-18) grew at negative rate which was mainly on account of decline in revenue from power, interest receipts and general services. The revenue from power accounts for nearly half of the non-tax revenue. Negative growth in revenue from power was mainly due to high AT & C losses. The negative growth in own tax revenue during 2018-19 and 2019-20 was mainly on account of decline in revenue from SGST and VAT (Annexure 1.2).

1.6 Composition of Revenue of the Government of Arunachal Pradesh

The analysis of the composition of revenue receipts of the government of Arunachal Pradesh revealed that the State's own revenue accounted for only 10.43 per cent of total revenue receipts in 2012-13, which improved to 14.42 per cent in 2013-14. The improvement in own revenue was jointly contributed by both own tax and own non-tax revenue. The details are presented in table 1.2.

Table 1.2
Composition of revenue receipts of the Government of Arunachal Pradesh
(as percentage of total revenue receipts)

Year	Own tax revenue	Own non-tax revenue	Total Own Revenue	Share in Central Taxes	Grant-in-aid from Centre	Total Central transfer
2012-13	5.49	4.93	10.43	16.63	72.95	89.57
2013-14	7.47	6.96	14.42	17.97	67.61	85.58
2014-15	5.06	5.01	10.07	12.15	77.78	89.93
2015-16	5.07	3.72	8.79	67.05	24.17	91.21
2016-17	6.02	4.63	10.64	71.21	18.15	89.36
2017-18	12.68	2.66	15.34	60.31	24.35	84.66
2018-19	7.86	3.76	11.62	63.17	25.21	88.38
2019-20	8.25	4.38	12.63	60.37	27.01	87.37
2021-22	7.72	3.65	11.37	68.97	19.66	88.63
2022-23	9.41	4.28	13.68	70.16	16.16	86.32
2023-24(RE)	8.76	3.11	11.87	66.20	21.93	88.13

Source: State Finances: A Study of Budget, RBI.

The share of own revenue fell sharply to 8.79 per cent in 2015-16. Thereafter, its share improved to 15.34 per cent in 2017-18, owing to substantial improvement in the share of own tax revenue resulting from the implementation of Goods and Services Tax (GST) from 1st July, 2017 in the State. After that a declining trend in the share of own revenue is observed. In 2022-23, the State's own revenue accounted for 11.50 per cent of the total revenue receipts and it is estimated to be 13 per cent in 2023-24. **The improvement in the share of own revenue can be attributed to the rise in share of own tax revenue after the implementation of GST.** The share of own tax revenue has increased over the years from 5.49 per cent in 2012-13 to 9.41 per cent in 2022-23. But the share of own non-tax revenue has declined from 4.93 per cent to 4.28 per cent during the same period.

In case of central transfers, it was found that while the share of the revenue from share in central taxes has increased substantially, the relative importance of grant-I aid has drastically fallen after 2014-15. The relative importance of the share in central taxes in the State's total revenue receipts increased from 16.63 per cent in 2012-13 to 68.97 per cent in 2021-22 and is

estimated to remain high at 66.20 per cent of the total revenue receipts in 2023-24. On the other hand, the share of grant-in aid has declined sharply from 72.95 per cent in 2012-13 to 25 per cent in 2021-22. Its share is estimated to be 21.93 per cent in 2023-24. **Thus, there has been significant change in composition of central transfers to the State particularly after 2014-15.** This is the result of the withdrawal of special category State status from 2015-16 (14th FC period).

1.7 Contribution of different Sources to State's Own Tax Revenue

The contribution of different sources to the State's own tax revenue in absolute terms is presented in Annexure II. The analysis showed that taxes on commodities and services is the largest contributor to the State's own tax revenue. It accounts for more than 95 per cent of the State's own tax revenue. In 2015-16, this source accounted for 97.29 per cent of the State's own tax revenue, which further improved to 98.53 per cent in 2022-23 (Annexure III). Within the commodities and services taxes, the share state excise and taxes on vehicles have declined over the years. It can be due to the fact that some taxes subsumed with GST. Since 2017, SGST has emerged as the largest contributor to tax revenue of the State. In 2022-23, it accounted for 71.83 per cent of the State's own tax revenue. The share of entertainment tax was found to be nil during the review period.

Table 1.3
Growth of revenue from different tax sources (in %)

Heads	AAGR (2016-17 to 2019-20)
1. Taxes on Property and Capital Transactions (i to iii)	36.44
i) Land Revenue	49.32
ii) Stamps and Registration Fees	20.12
2. Taxes on Commodities and Services (i to vii)	24.26
i) Sales Tax (a to e)	-7.40
a) State Sales Tax/VAT	-7.40
ii) State Excise	10.98
iii) Taxes on Vehicles	18.59
iv) Taxes on Goods and Passengers	-33.31
vii) SGST	-
Total Own tax revenue	24.46

Source: Based on Annexure 1.2

The main sources of direct tax revenue of the State are; land revenue and stamps and registration. It was observed that the direct taxes accounts from only around 2 per cent of the State's own tax revenue. Further, it was found that the share of direct taxes in own tax revenue has declined over the years. The share of taxes on property and capital has marginally improved

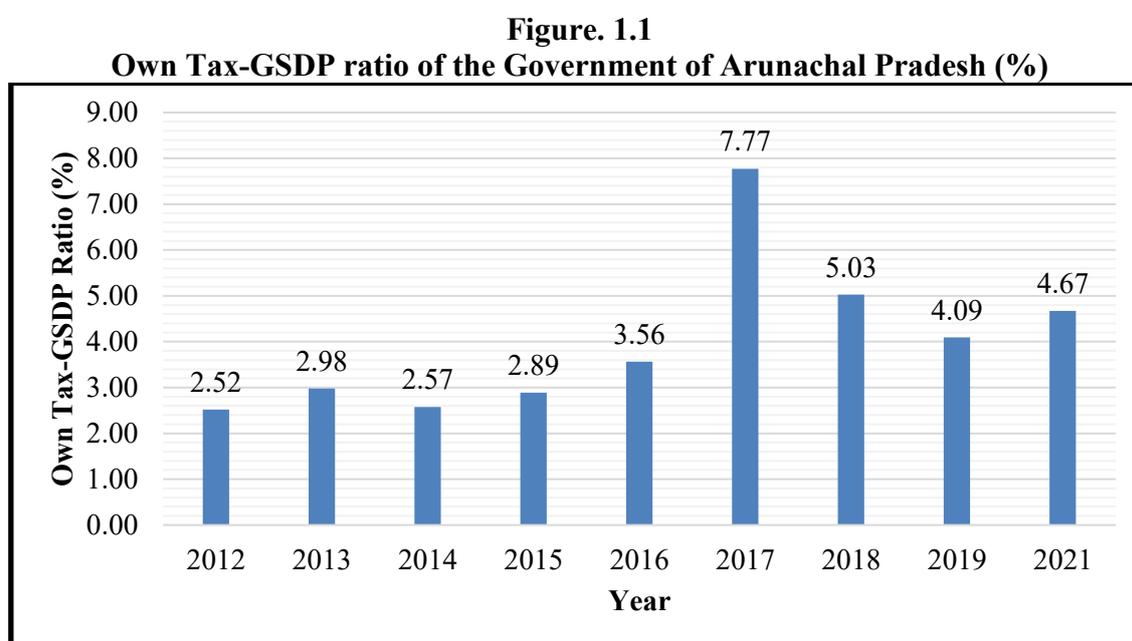
from 2.71 per cent in 2015-16 to 2.93 per cent in 2022-23. Within the property taxes, the share of land revenue improved from 1.66 per cent in 2015-16 to 2.13 per cent in 2022-23. The share of stamps and registration declined from 1.05 per cent in 2015-16 to 0.80 per cent in 2022-23.

Regarding the growth in revenue from different sources, it was found that average annual growth in the State's own tax revenue during 2016-17 to 2019-20 was 24.46 per cent which is fairly good (Table 1.3).

Among the various sources, growth in land revenue was the highest (49.32 per cent) followed by taxes on vehicles (18.59 per cent) and state excise (10.98 per cent).

1.8 Own Tax Revenue-GSDP Ratio of the Government of Arunachal Pradesh

The analysis showed that during the period under review the tax-GSDP ratio of the State improved over the years from 2.52 per cent in 2012-13 to 3.56 per cent in 2016-17. The tax-GSDP ratio substantially improved to 7.77 per cent in 2017-18. This was mainly on account of implementation of Goods and Services tax from 1st July, 2017. The sudden jump in tax revenue can be attributed to better tax compliance and elimination of leakages. Thereafter, it showed a declining trend (Figure 1.1). The details of revenue from different sources as percentage of GSDP are given in Annexure 1.3.



Source: State Finances: A Study of Budget, RBI

The tax-GSDP ratio of the State declined to 5.03 per cent in 2018-19 and it further declined to 4.09 per cent in 2019-20. In 2021-22, tax-GSDP ratio of the State improved marginally to 4.67 per cent. Thus, the tax-GSDP ratio of the State is relatively low as compared to other States which have above 6 per cent tax-GSDP ratio.

1.9 Actual Tax-GSDP ratio and Estimated tax-GSDP ratio of the Government of Arunachal Pradesh

The revenue or fiscal capacity of the State has been measured by using the regression model as specified in the methodology section. Initially, the regression was run with three explanatory variables namely, per capita NSDP, Agricultural GVA to GSDP ratio and tax base to GSDP ratio. However, to avoid multicollinearity per capita NSDP was removed and the final regression was estimated. The result of the regression is as follows:

Table 1.4
Descriptive Statistics of the Variables

Variables	N	Minimum	Maximum	Mean	Std. Deviation
OTR-GSDP ratio	18	.014	0.077	0.032	0.0158
AGRI GVA-GSDP ratio	18	0.11	0.27	0.176	0.050
Tax base-GSDP ratio	18	0.63	0.97	.757	0.108

Table 1.5

Results of the Regression for Determinants of Own Tax Revenue (OTR)

Dependent variable: Own Tax Revenue (OTR)

Variables	Coefficient	Std. Error	t-value	Sig.	VIF
Constant	-7.27	.578	-1.257	.228	-
AGRI	-4.006	1.480	-2.706	.016	1.001
Tax Base	-2.736	.683	-4.008	0.001	1.001
R ²	0.62	-	-	-	-
F-Statistics	11.975***	-	-	-	-

The above estimated regression equation has been used to calculate the estimated own tax revenue and predicted tax-GSDP ratio. The details are given in table 1.5.

The predicted tax-GSDP ratio represents the fiscal or revenue capacity of the State. The ratio of actual tax-GSDP and predicted tax-GSDP ratio indicates the tax effort of the State. Thus, tax effort can be measured as:

$$\text{Tax Effort} = \frac{\text{Actual tax - GSDP ratio}}{\text{Predicted tax - GSDP ratio}}$$

If the value of the ratio is above 1, it indicates better tax effort. But if the ratio value is below 1 it represents poor tax efforts of the State compared to its revenue capacity. The value of the ratio below 1 indicates that the State can increase revenue from the existing tax base by improving tax efforts.

The actual and predicted tax-GSDP ratios of the State for the period 2012-13 to 2021-22 are presented in table 1.6. The table 1.6 shows that during most of the fiscal year, the tax effort of the State was not up to the mark. It was found that only in 2013-14, 2017-18, 2018-19 and 2021-22, the tax effort of the State was good. In the year, 2017-18 the tax effort of the State was 2.26 which indicated a very good tax effort. This could be attributed to implementation of GST in the State from July, 2017. The actual tax-GSDP ratio was greater than predicted tax-GSDP ratio indicating good tax effort of the State. But in the next three years, the tax efforts of the tax were poor.

Table 1.6
Estimated Tax Effort

Year	Actual Tax-GSDP	Predicted tax-GSDP	Tax effort
2012-13	2.52	2.74	0.92
2013-14	2.98	2.84	1.05
2014-15	2.57	2.64	0.98
2015-16	2.89	3.32	0.87
2016-17	3.56	3.59	0.99
2017-18	7.77	3.44	2.26
2018-19	5.03	4.51	1.12
2019-20	4.09	5.21	0.79
2020-21	4.91	5.12	0.96
2021-22	4.67	4.68	1.00

Source: Computed using data in Annexure 1.1 and Handbook of Statistics on Indian Economy, RBI.

However, there has been improvement in the tax effort of the State. The analysis shows that tax efforts of the State has been fairly good, with few exceptions, during the period under

review. It implies that low tax-GSDP ratio of the State is mainly due to its low tax base. However, there is a need for the State to maintain consistent tax effort.

1.10 Key Findings

- The State has a low tax base as indicated by very low share of manufacturing sector in GSDP (less than 2 per cent). This is also reflected by tax-GSDP ratio of less than 5 per cent in most years during the period under review.
- The own tax revenue has increased by 8.10 times and the ONTR has increased by 2.98 times during the period 2012-13 to 2023-24. The State's own total revenue has increased by 5.68 times during the same period.
- The share of State's own revenue has stood between 10-15 per cent of the total revenue receipts of the State in most years during the period under review. In 2022-23, the State's own revenue accounted for 11.50 per cent of the total revenue receipts and the central transfers constituted 88.50 per cent.
- Within the State's own revenue, the share of own tax revenue has increased over the years from 5.49 per cent in 2012-13 to 8.49 per cent in 2022-23 and that of own non-tax revenue has from 4.93 per cent to 3 per cent during the same period.
- The analysis of annual growth rate of own revenue of the State showed high degree of fluctuations.
- The analysis showed that taxes on commodities and services is the largest contributor to the State's own tax revenue. It accounts for 98.53 per cent of the State's own tax revenue in 2022-23.
- The main sources of direct tax revenue of the State are; land revenue and stamps and registration. This source accounts for only around 2 per cent of the State's own tax revenue. Further, its share has been declining over the years. In 2022-23, it accounted for only 1.47 per cent of the State's own tax revenue.
- The average annual growth in the State's own tax revenue during 2016-17 to 2019-20 was 24.46 per cent which is fairly good. The growth in land revenue was the highest (49.32 per cent) followed by taxes on vehicles (18.59 per cent) indicating potential of these sources to contribute revenue.

- The tax-GSDP ratio of the State has hovered between 2 per cent to 5 per cent during the period under review, except in 2017-18. The State's tax-GSDP improved over the years from 2.52 per cent in 2012-13 to 3.56 per cent in 2016-17 and substantially improved to 7.77 per cent in 2017-18. This was mainly on account of implementation of Goods and Services tax from 1st July, 2017. In 2021-22, tax-GSDP ratio of the State stood at 4.67 per cent.
- The revenue capacity of the State was estimated to be low. The analysis shows that tax efforts of the State has been fairly good, with few exceptions, during the period under review. It implies that low tax-GSDP ratio of the State is mainly due to its low tax base. However, there is a need for the State to maintain consistent tax effort.

1.11 Suggestions

The following suggestions can be considered for enhancing the revenue from the State's own non-tax sources:

- The State should increase tax coverage by imposing taxes which are yet to be imposed in the State. There are taxes like taxes on profession, trade and employment and tax on urban immovable property, entertainment tax and taxes and duties on electricity which contribute revenue in other state. But these taxes are not imposed in Arunachal Pradesh.
- Land revenue is supposed to be an important source of State own tax revenue. However, it contributes only a meagre share in own tax revenue of the State. Hence, efforts should be made to enhance land revenue by imposing land tax in a comprehensive manner by carrying out cadastral survey of land.
- Further, GST on services shall be imposed in a comprehensive manner as service sector is the largest contributor to GSDP of the State. This can be done by removing concessions and exemptions.
- The revenue capacity of the State was estimated to be low owing to low tax base. It implies that the State has fiscal disability due to geographical and institutional constraints. Hence, the State may be helped to enlarge tax base by encouraging investment in industrial and trade activities to enhance own tax revenue.
- Promote development of industries and manufacturing activities in different parts of the State based on suitability and resource availability. The State has potentials in agro-based, forest based, handlooms and handicraft and pharmaceutical industries.

- The State has high potential in tourism and this sector is growing fast. Hence, the steps shall be taken to promote tourism and capture revenue from this sector.
- Tax administration can be further improved to prevent revenue leakage and improve tax compliance. In this regard, there is a need for imparting proper training of tax officials.
- Finally, the own revenue can be enhanced by improving tax effort, administrative efficiency, tax coverage and ensuring tax compliance.

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Annexure 1.1

Revenue from different Sources of the Government of Arunachal Pradesh

(Rs. in Lakh)

Year	Own Tax Revenue	Own Non-Tax Revenue	Total Own Revenue	Share in Central Taxes	Grants-in Aid from Centre	Total Central transfer	Total Revenue receipt	GSDP (at current price)
2012-13	31,650.00	28,422.00	60,072.00	95,793.00	420,288.00	516,081.00	576,152.00	1254666
2013-14	43,451.00	40,506.00	83,957.00	104,585.00	393,501.00	498,086.00	582,043.00	1458106
2014-15	46,216.00	45,764.00	91,980.00	110,997.00	710,627.00	821,624.00	913,605.00	1795941
2015-16	53,506.00	39,216.00	92,722.00	707,558.00	255,033.00	962,591.00	1,055,314.00	1850916
2016-17	70,875.00	54,482.00	125,357.00	838,830.00	213,770.00	1,052,600.00	1,177,957.00	1990212
2017-18	174,712.9	36,618.7	211,331.60	830,723.0	335,405.7	1,166,128.70	1,377,460.30	2247478
2018-19	127,354.0	60,886.6	188,240.65	1,023,064.1	408,291.1	1,431,355.23	1,619,595.88	2533487
2019-20	122,873.1	65,137.5	188,010.60	898,757.2	402,087.5	1,300,844.70	1,488,855.30	3002365
2021-22	163,978.4	77,467.4	241,445.80	1,464,390.1	417,327.9	1,881,718.00	2,123,163.80	3512354
2022-23 (RE)	223,268.9	79,231.1	302,500.00	1,668,917.0	659,100.0	2,328,017.00	2,630,517.00	-
2023-24(BE)	256,503.7	84,777.3	341,281.00	1,794,684.0	479,800.0	2,274,484.00	2,615,765.00	-
CAGR	23.27	11.55	18.97	34.05	1.33	15.99	16.33	-

Source: State Finances: A Study of Budget, RBI (2012-13 to 2023-24).

Annexure 1.2

State's Own Tax Revenue from different Sources of the government of Arunachal Pradesh (Rs. in Lakh)

Heads	2015-16	2016-17	2017-18	2018-19	2019-20	2021-22	2022-23 (RE)	2023-24(BE)	AAGR (2016-17 to 2019-20)
1. Taxes on Income	-	-	-	-	-	-	-	-	NA
i) Agricultural Income Tax	-	-	-	-	-	-	-	-	NA
ii) Taxes on Professions, Trades, Callings and Employment	-	-	-	-	-	-	-	-	NA
2. Taxes on Property and Capital Transactions (i to iii)	1,451.0	1,152.0	2,373.6	2,374.1	2,411.5	1,931.1	3,284.7	3,620.7	36.44
i) Land Revenue	889.0	644.0	1,332.0	1,458.3	1,596.9	682.9	2,075.4	2,220.7	49.32
ii) Stamps and Registration Fees	562.0	508.0	1,041.7	915.8	814.6	1,248.2	1,209.4	1,400.0	20.12
iii) Urban Immovable Property Tax	0.0	0.0	-	0.0	-	-	-	-	-
3. Taxes on Commodities and Services (i to vii)	52,055.0	69,723.0	172,339.3	124,979.9	120,461.6	162,047.3	219,984.2	252,883.0	24.26
i) Sales Tax (a to e)	19,022.0	28,254.0	28,512.5	26,874.4	21,981.8	32,460.4	25,002.0	28,752.0	-7.40
a) State Sales Tax/VAT	19,022.0	28,254.0	28,512.5	26,874.4	21,981.8	32,460.4	25,002.0	28,752.0	-7.40
b) Central Sales Tax	-	-	-	0.0	-	-	-	-	-
c) Surcharge on Sales Tax	-	-	-	0.0	-	-	-	-	-
d) Receipts of Turnover Tax	-	-	-	0.0	-	-	-	-	-

e) Other Receipts	–	–	–	0.0	–	–	–	–	–
ii) State Excise	8,633.0	10,905.0	12,261.0	13,673.4	14,497.2	11,591.9	21,058.0	24,217.0	10.98
iii) Taxes on Vehicles	1,930.0	2,447.0	3,140.4	3,242.7	3,811.9	4,893.9	3,564.2	4,000.0	18.59
iv) Taxes on Goods and Passengers	22,470.0	28,117.0	12,896.2	539.7	15.8	1.2	–	–	-33.31
v) Taxes and Duties on Electricity	–	–	–	0.0	–	–	–	–	–
vi) Entertainment Tax	–	–	–	0.0	–	–	–	–	–
vii) SGST	–	–	115,529.2	80,649.8	80,155.0	113,099.9	170,360.0	195,914.0	–
viii) Other Taxes and Duties	–	–	–	0.0	–	0.0	0.0	–	–
TOTAL (1+2+3)	53,506.0	70,875.0	174,712.9	127,354.0	122,873.1	163,978.4	223,268.9	256,503.7	24.46

Source: State Finances: A Study of Budget, RBI (2012-13 to 2023-24).

Annexure 1.3

Contribution of different sources to State's Own Tax Revenue of Arunachal Pradesh (in percentage).

1. Taxes on Income	2015-16	2016-17	2017-18	2018-19	2019-20	2021-22	2022-23 (RE)	2023-24(BE)
1. Taxes on Property and Capital Transactions (i to ii)	2.71	1.63	1.36	1.86	1.96	1.18	1.47	1.41
i) Land Revenue	1.66	0.91	0.76	1.15	1.30	0.42	0.93	0.87
ii) Stamps and Registration Fees	1.05	0.72	0.60	0.72	0.66	0.76	0.54	0.55
2. Taxes on Commodities and Services (i to vii)	97.29	98.37	98.64	98.14	98.04	98.82	98.53	98.59
i) State Sales Tax/VAT	35.55	39.86	16.32	21.10	17.89	19.80	11.20	11.21
ii) State Excise	16.13	15.39	7.02	10.74	11.80	7.07	9.43	9.44
iii) Taxes on Vehicles	3.61	3.45	1.80	2.55	3.10	2.98	1.60	1.56
iv) Taxes on Goods and Passengers	42.00	39.67	7.38	0.42	0.01	0.00	0.00	0
v) Taxes and Duties on Electricity	0.00	0.00	0.00	0.00		0.00	0.00	0
vi) Entertainment Tax	0.00	0.00	0.00	0.00		0.00	0.00	0
vii) SGST	0.00		66.13	63.33	65.23	68.97	76.30	76.38
TOTAL (1+2)	100	100						

Source: Based on Annexure 1.2.

Annexure 1.4

Revenue from different sources of the Government of Arunachal Pradesh (As percentage of GSDP)

Year	Own tax revenue	Own non-tax revenue	Total Own Revenue	Share in Central Taxes	Grant-in-aid from Centre	Total Central transfer	Total Revenue receipt
2012-13	2.52	2.27	4.79	7.63	33.50	41.13	45.92
2013-14	2.98	2.78	5.76	7.17	26.99	34.16	39.92
2014-15	2.57	2.55	5.12	6.18	39.57	45.75	50.87
2015-16	2.89	2.12	5.01	38.23	13.78	52.01	57.02
2016-17	3.56	2.74	6.30	42.15	10.74	52.89	59.19
2017-18	7.77	1.63	9.40	36.96	14.92	51.89	61.29
2018-19	5.03	2.40	7.43	40.38	16.12	56.50	63.93
2019-20	4.09	2.17	6.26	29.93	13.39	43.33	49.59
2021-22	4.67	2.21	6.87	41.69	11.88	53.57	60.45

Source: Computed based on data in Annexure 1.1.

Chapter 2

Analysis of State's Own Non- Tax Revenues of Arunachal Pradesh

Chapter II

Analysis of State's Own Non-Tax Revenues of Arunachal Pradesh

2.1 Introduction

Arunachal Pradesh is a hilly State of India. It is characterized by low level of industrial activities. For instance, in 2019-20, manufacturing activities accounted for only 1.16 per cent of GSDP (GoAP, 2022). Agriculture is the main source of livelihood of majority of the people and its agriculture is traditional in nature. The State has a low population density of 17 persons per sq. km (Census 2011) and peculiar land tenure system (community ownership of land). Therefore, the State has low revenue base and is highly dependent on central inflow of funds for meeting its expenditure requirements. The revenue receipts of the State comprises of own tax revenue, own non-tax revenue, share in central taxes, and grant-in-aids from the centre. The revenue generation from the internal sources of the State is highly inadequate to finance its expenditure requirement. The State's own revenue finances only around 10 per cent of its total expenditure. For example, in 2021-22, the State's own revenue could finance only 10.81 per cent of its total expenditure (RBI, 2023). In the same year, the State's own total revenue accounted for only 11.37 per cent of its aggregate revenue receipts (Annexure 2.1 (b)). The low level of internal revenue of the State can be attributed to its economic isolation, low level industrial and business activities as well as exemptions and concessions.

Thus, the State finance of Arunachal Pradesh is heavily dependent on transfer of funds from the Centre in the form share in Central taxes and Grant-in aid (Arunachal Pradesh Development Report 2009). The Central transfer (share in central taxes and grant-in-aid) accounts around 90 per cent of the State's aggregate revenue. For instance, In 2021-22, the share of central transfer accounted for 88.63 per cent of its aggregate revenue (RBI, 2022).

The excessive dependence on the Central transfer is not conducive for the State's financial health as sudden fall in inflow of the funds from the Centre, due to unforeseen circumstances, can adversely affect its developmental and welfare activities. Arunachal Pradesh was one of the special category States of India and it use to get generous grant-in aid from the Centre till 2014-15. However, the 14th Finance Commission has withdrawn the special category States and as a result the inflow of grants-in-aid to the States has drastically reduced from 2015-16 onwards. Such changes can have a significant adverse impact on the finances of those States which are highly dependent on the Central transfer of funds for their

budgetary operations. Therefore, the State has to make sincere efforts to enhance revenue generation from the internal sources such that it can finance higher proportion of its expenditure from own revenue and move on the path of self-sufficiency for long term sustainability of its finance. In this regard, the State need to enlarge its tax base, widen tax nets, improve tax efficiency, improve the performance of departmental and non-departmental enterprises and focus more on revenue generating activities, like power.

In this background, this chapter analyses trend and growth in the State's own non-tax revenue and make suggestions to enhance revenue generation from the State's own non-tax sources.

2.2 Sources of State's Own Non- Tax revenue

The various sources of the State's own non-tax revenue are as follows:

- (i) **Interest receipts** – includes revenue from interest receipts on loans and advances given by the State government to its employees and interest from deposits in the banks.
- (ii) **Dividends and profits** – includes dividends and profits from departmental and non-departmental commercial enterprises of the State government.
- (iii) **General services** – includes revenue from administrative services like fees, license, permit, fines and penalties etc.
- (iv) **Social services** – includes revenue from education, sports, art and culture, medical and public health, family welfare, housing, urban development, labour and employment, social security and welfare, water supply and sanitation etc.
- (v) **Economic services** – includes revenue from power, crop husbandry, animal husbandry, fisheries, forestry and wildlife, cooperation, agricultural programmes, minor irrigation projects, industries, village and small-scale industries, road transport, tourism etc.

State's Own Non-Tax Revenue: Contribution, Trend and Growth

The analysis of the contribution of State's Own Non-Tax Revenue of Arunachal Pradesh showed that the share of ONTR in total revenue receipts of the State was 4.93 per cent in 2012-13, which improved to 6.96 per cent in 2013-14. Thereafter, the share of ONTR has declined over the years to 2.66 per cent in 2017-18 and improved to 4.38 per cent of the State's total revenue receipts in 2019-20. Thereafter, ONTR has shown declining trend and stood at 3.11 per cent of the State's total revenue receipts in 2023-24. The analysis shows that

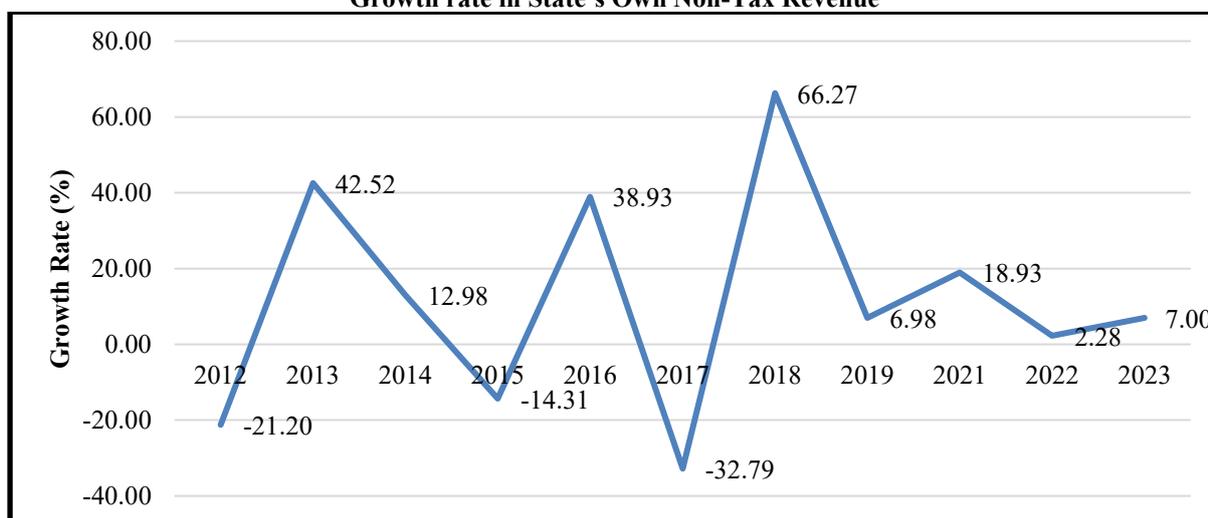
the ONTR of the State has hovered in between 3 per cent to 4 per cent of the State's total revenue receipts in recent years. The details are presented in table 2.1 and figure 2.1.

Table 2.1
Trend in Own Non-Tax Revenue (ONTR) of the Government of Arunachal Pradesh
(in Lakh Rupees)

Year	Own Non-Tax Revenue	Total Revenue Receipt	ONTR as % of Total Revenue Receipts	Growth rate of ONTR (%)
2012-13	28,422.0	576,152.0	4.93	-21.20
2013-14	40,506.0	582,043.0	6.96	42.52
2014-15	45,764.0	913,605.0	5.01	12.98
2015-16	39,216.0	1,055,314.0	3.72	-14.31
2016-17	54,482.0	1,177,957.0	4.63	38.93
2017-18	36,618.7	1,377,460.30	2.66	-32.79
2018-19	60,886.61	1,619,595.88	3.76	66.27
2019-20	65,137.5	1,488,855.30	4.38	6.98
2021-22	77,467.4	2,123,163.80	3.65	18.93
2022-23	101,786.9	2,378,813.60	4.28	31.39
2023-24(RE)	91,115.8	2,931,272.10	3.11	-10.48

Source: State Finances: A Study of Budget, RBI

Figure 2.1
Growth rate in State's Own Non-Tax Revenue



The analysis of trend and growth in State's Own Non-Tax Revenue (ONTR) has been found to be fluctuating during the period under review (Table 1). The ONTR of the State increased from Rs. 28,422 lakh in 2012-13 to Rs. 45,764 lakh in 2014-15. Thereafter, it fell to Rs. 39,216 lakh in 2015-16. The ONTR increased sharply by 38.93 per cent to Rs. 54,482

lakh in 2016-17. However, it declined substantially by 32.79 per cent to Rs. 36,618.70 lakh in 2017-18. The reason for negative growth in non-tax revenue in some years (2012-13, 2015-16 and 2017-18) is mainly on account of decline in revenue from power, interest receipts and general services (Table 2.2). The revenue from power accounts for nearly half of the non-tax revenue. Negative growth in revenue from power is mainly due to high AT & C losses (66% in 2012-3, 57.7% in 2015-16, 58% in 2017-18) and decline in electricity generated in State sector from 64.38 MU in 2016-17 to 61 MU in 2017-18.

After that there was a substantial increase in ONTR of the State. It increased by 66.27 per cent to Rs. 60,886.61 lakh in 2018-19 (Table 2.1). This was mainly due to sharp increase in revenue from power by 115.19 per cent in 2018-19 (Table 2.2). The State receive power royalty from Hydro Power Companies (NEEPCO). The power alone contributed to 47.15 per cent of the States' own non-tax revenue in 2018-19). It is to be noted that the State government receives 10 per power royalty from the Central Power Companies.

Table 2.2
Growth in Revenue from Power and its Share in Own Non-tax Revenue

Year	Revenue from Power (in Lakh Rs.)	Growth rate (%)	Revenue from power as % of own non-tax revenue
2012-13	11,307.00	-22.04	39.78
2013-14	14,541.00	28.60	35.90
2014-15	18,263.00	25.60	39.91
2015-16	11,704.00	-35.91	29.84
2016-17	25,961.00	121.81	47.65
2017-18	13,340.90	-48.61	36.43
2018-19	28,708.45	115.19	47.15
2019-20	24,794.60	-13.63	38.07
2021-22	38,435.10	55.01	49.61
2022-23	53,284.5	38.63	52.35
2023-24(RE)	44,275.0	-16.91	48.59

Source: State Finances: A Study of Budget, RBI

In 2019-20, the State's ONTR increased by 6.98 per cent to Rs. 65,137.50 lakh and further increased by 18.93 per cent to 77,467.4 lakh in 2021-22. The main contributing factor was the hike in revenue from power by 55 per cent in 2021-22 (Table 2.2). The ONTR of the State further improved to Rs. 101,786.9 lakh in 2022-23.

The analysis showed that ONTR of the State has increased 3.21 times from 28,422 lakh in 2012-13 to 91,115.8 lakh in 2023-24. However, it is observed that there has been

drastic fluctuations in growth rate ONTR of the State (Figure 2.1) during the period under review, which was mainly on account of fluctuations in revenue from power.

2.3 Contribution of Different Sources to State's Own Non-Tax Revenue

The analysis of the contribution of different sources to ONTR of the State showed that economics services contributes to more than 60 per cent of the total ONTR of the State. Within the economic services, power contributes the highest share. The details are presented in table 2.3.

Table 2.3:
Contribution of different Sources to State's Own Non-Tax Revenue(in percentage)

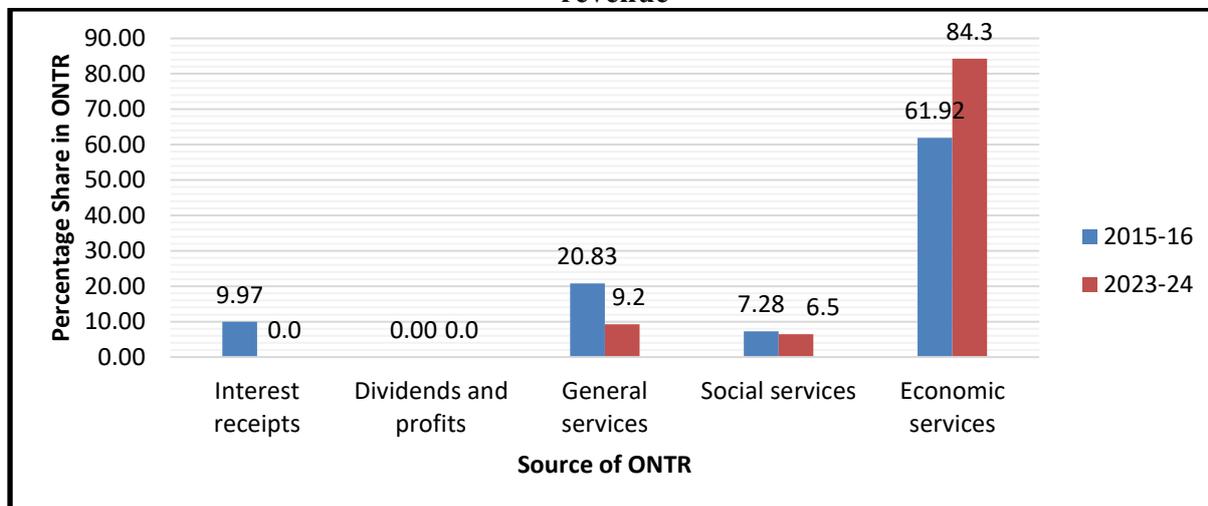
Heads	2015-16	2016-17	2017-18	2018-19	2019-20	2021-22	2022-23	2023-24(RE)
I) Interest receipts	9.97	10.35	12.83	14.45	9.59	6.09	9.15	0
II) Dividends and profits	0.00	0.00	0.00	0.0004	0.00	0.00	0.00	0.00
III) General services	20.83	20.00	11.06	8.79	23.97	18.55	10.90	9.24
IV) Social services	7.28	3.22	9.79	6.78	10.64	6.19	4.72	6.48
V) Economic services	61.92	66.43	66.32	69.97	55.80	69.16	75.23	84.28
<i>Of which (a)</i> <i>Power</i>	29.84	47.65	36.43	47.15	38.07	49.61	52.35	48.59
<i>(b) Industries</i>	22.11	11.20	13.34	9.25	11.06	12.42	12.99	17.39
A. Total Own-Non Tax Revenue	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Computed using the data in Annexure 2.2

It was found that in 2015-16, economic services accounted for 61.92 per cent of the State's total ONTR, out of which power contributed to 29.84 per cent and industries contributed to 22.11 per cent of total ONTR. The second highest contributor to ONTR of the State in 2015-16 was general services (20.83 per cent) followed by interest receipts (9.97 per cent) and social services (7.28 per cent). It is to be noted that dividends and profits did not contribute any amount to ONTR of the State in 2015-16 which is quite unhealthy. It is observed that the share of economic services in State's ONTR has increased over the years and it is mainly on account of increase in revenue from power. On the other hand, share of industries in the State's ONTR has declined over the years which is an unhealthy trend. It was observed that

the share of interest receipts and general services in the State's ONTR has declined over the years.

Figure 2.2
Change in Share of different sources in the State's own non-tax revenue



The contribution of economic services improved to 75.23 per cent in 2022-23, of which power contributed to 52.35 per cent and industries contributed to 12.99 per cent of the total ONTR. In the same year, general services accounted for 10.90 per cent of the State's ONTR. In 2022-23, the contribution of interest receipts improved to 9.15 per cent, but that of social services declined to 4.72 per cent of the State's ONTR as compared to previous year (Table 2.3).

The contribution of economic services has further improved to 84.28 per cent of the State's ONTR in 2023-24. But the share of general services and social services declined to 9.24 per cent and 6.48 per cent respectively in 2022-23 (Figure 2.2). The relative importance of interest receipts and general services in the State's ONTR has substantially declined over the years. On the other hand, the importance of economic services has improved significantly.

Further, **it was observed that the revenue from dividends and profits from departmental and non-departmental enterprises has not improved at all (contributed negligible or no revenue)**. The revenue from dividends and profits is found to be zero during the period under review, with exception of Rs. 20,000/- in 2017-18 and Rs. 30,000/- in 2018-19 (Annexure 2.2). This indicates very poor performance of departmental and non-departmental commercial enterprises of the State. However, there is a need to undertake indebt study to find out the reasons for such poor contribution and take necessary steps to revamp those enterprises.

The contribution of different sources to the State's ONTR in absolute term is presented in Annexure 2.2.

2.4 Growth in Revenue from Different Non-Tax Sources

The analysis of the growth in State's ONTR during the period 2015-16 to 2019-20 showed that average annual growth rate (AAGR) in the State's ONTR was 16.52 per cent which is fairly high. The analysis of growth in revenue from different non-tax sources indicated during the period 2015-16 to 2019-20, social services recorded for the highest growth in revenue followed by general services. The details are presented in table 2.4.

Table 2.4
Growth rate in revenue from different Own Non-Tax sources

Heads	(in percentage) AAGR (2015-16 to 2019-20)
I) Interest receipts	14.95
II) Dividends and profits	NA
III) General services	22.78
IV) Social services	35.73
V) Economic services	12.42
<i>Of which (a) Power</i>	27.96
<i>(b) Industries</i>	-4.23
A. Total Own-Non Tax Revenue	16.52

Source: Computed using the data in Annexure 2.2.

The table 2.4 shows that the revenue from social services grew at 35.73 per cent per annum on an average. The revenue from general services grew at an annual average growth rate of 22.78 per cent and that from interest receipts grew at an annual average growth rate of 14.95 per cent. The average annual growth rate in revenue from economics services was 12.42 per cent during the period 2015-16 to 2019-20. Within the economic services, the revenue from power grew at an annual average growth rate of 27.96 per cent and that from industries grew at -4.23 per cent during the same period.

In 2022-23, the revenue for interest receipts grew at a high rate of 97.24 per cent followed by economic services (42.92 per cent). It was due to high growth in revenue from power as well as industry. The aggregate ONTR grew by 31.39 per cent in 2022-23 over previous year

Table 2.5
Growth in Revenue from Sub-Components of Social Services

Heads	2012-13	2021-22	AAGR (%)
Social Services (i to ix)	1,697.0	4,797.9	20.3
i) Education, Sports, Art and Culture	204.0	649.2	24.2
ii) Medical and Public Health	49.0	475.0	96.6
iii) Family Welfare	-	-	0.0
iv) Housing	11.0	2..8	0.0
v) Urban Development	304.0	673.3	13.5
vi) Labour and Employment	725.0	1,856.1	17.3
vii) Social Security and Welfare	9.0	22.4	16.5
viii) Water Supply and Sanitation	393.0	1,112.4	20.3
ix) Others	3.0	6.9	14.4

Source: Calculated from the data compiled from *State Finances: A Study of Budget, RBI*.

The table 2.5 shows that revenue from social services grew at annual average growth rate of 18.30 per cent. It was mainly on account of substantial growth in revenue from medical and public health (61.78 per cent per annum), education, sports, arts and culture (59.92 per cent per annum) as well as water supply and sanitation (21.82 per cent per annum). The growth in revenue from general services could be attributed to expansion of administrative services. The reason for decline in revenue from industries during 2015-16 to 2019-20 could not be ascertained. However, thereafter there was an improving trend in revenue from industries.

2.5 Key Findings

- The States' own non-tax revenue has increased from ONTR of the State has increased 3.12 times from Rs. 28,422 lakh in 2012-13 to 91,115.8 lakh in 2023-24. The average annual growth in ONTR during 2015-16 to 2019-20 was 16.52 per cent. It grew at a rate of 31.39 per cent in 2022-23. However, a drastic fluctuations in year-to-year growth in ONTR was observed which was mainly due to fluctuations in revenue from power.

- The share of own non-tax revenue in total revenue receipts of the State has remained has hovered between 3-6 per cent during the period 2012-13 to 2023-24. In 2022-23, ONTR accounted for 4.28 per cent of total revenue receipts.
- The most important contributors to the State's own non-tax revenue are economics services (75.23 per cent in 2022-23) and general services (10.90 per cent in 2022-23). Within the economic services, power contributes the highest share in ONTR (52.35 per cent in 2022-23).
- It is observed that the share of economic services in State's ONTR has increased over the years and it is mainly on account of increase in revenue from power. On the other hand, share of industries in the State's ONTR has declined over the years. However, there has been improvement in recent years.
- It was observed that dividends and profits from departmental and non-departmental enterprises contributed negligible or no revenue during the period under review. It contributed meagre revenue of Rs. 0.2 lakh and Rs. 0.3 lakh in 2017-18 and 2018-19 respectively. After that there is no contribution of this source.
- The analysis of growth in revenue from different non-tax sources indicated during the period 2015-16 to 2019-20, the highest growth was recorded by social services (36 per cent) followed by power (28 per cent), General services (22 per cent) and interest receipts (15 per cent).

2.6 Suggestions

The following suggestions can be considered for enhancing the revenue from the State's own non-tax sources:

- The revenue from the State's own non-tax sources can be enhanced through revision of existing charges and rates of various services and products. The user charges may be fixed based on the cost of provision of services.
- The revenue from General services accounted for about 21 per cent of State's own non-tax revenue in 2015-16 declined sharply to 10.90 per cent in 2022-23. Hence, there is a need to improve efficiency and reviewed and revised the fees/rates of services.
- Power is the single largest contributor to the State's ONTR. This sector must be promoted and efficiency must be improved to increase revenue collection.

- Power royalty which the State receive from the Central Power Companies may be hiked from the current 10 per cent to enhance revenue from this source.
- Economic services contribute more than 60 per cent of State's own non-tax revenue. But the revenue from this source recorded a growth rate of 42.92 per cent in 2022-23 mainly on account of substantial growth in revenue from power. Hence, power sector needs to be given continued importance.
- The revenue from economic services can be enhanced by applying economic principle in fixing the tariff rates and prices. The supply of services at subsidised rate should be provided only to the BPL (below poverty line) households. At the same time, T&D losses of power should be lowered by making investment in improving distribution networks and checking power pilferage.
- The industries have come to emerge an important source of ONTR of the State in the recent years since 2011-12. In 2015-16, it accounted for 22 per cent of the total ONTR of the State. But its share fell to 12.99 per cent in 2022-23. Hence, there is a need to promote industrial activities in the State by providing incentives and concessions to the entrepreneurs and reforming land laws.
- The revenue from dividends and profits is found to be negligible or nil in most of the years under review. These sources did not contribute any revenue during the period under review, except in 2017-18 and 2018-19. This indicates very poor performance of Non-Departmental Commercial Enterprises. Hence, is a need to conduct a detail study to evaluate the performance of such enterprises and prepare a road map to revamp those enterprises.
- The share of interest receipts in the State's ONTR has declined over the years. Hence, efforts should be made to generate more revenue from this source by offering loans at attractive rates.

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Annexure 2.1 (a)
Revenue from different Sources of the Government of Arunachal Pradesh

(Rs. In Lakh)

Year	Own Tax Revenue	Own Non-Tax Revenue	Total Own Revenue	Share in Central Taxes	Grants-in-Aid from Centre	Total Central transfer	Total Revenue receipt
2012-13	31,650.00	28,422.00	60,072.00	95,793.00	420,288.00	516,081.00	576,152.00
2013-14	43,451.00	40,506.00	83,957.00	104,585.00	393,501.00	498,086.00	582,043.00
2014-15	46,216.00	45,764.00	91,980.00	110,997.00	710,627.00	821,624.00	913,605.00
2015-16	53,506.00	39,216.00	92,722.00	707,558.00	255,033.00	962,591.00	1,055,314.00
2016-17	70,875.00	54,482.00	125,357.00	838,830.00	213,770.00	1,052,600.00	1,177,957.00
2017-18	174,712.9	36,618.7	211,331.60	830,723.0	335,405.7	1,166,128.70	1,377,460.30
2018-19	127,354.0	60,886.6	188,240.65	1,023,064.1	408,291.1	1,431,355.23	1,619,595.88
2019-20	122,873.1	65,137.5	188,010.60	898,757.2	402,087.5	1,300,844.70	1,488,855.30
2021-22	163,978.4	77,467.4	241,445.80	1,464,390.1	417,327.9	1,881,718.00	2,123,163.80
2022-23 (RE)	223,268.9	79,231.1	302,500.00	1,668,917.0	659,100.0	2,328,017.00	2,630,517.00
2023-24 (BE)	256,503.7	84,777.3	341,281.00	1,794,684.0	479,800.0	2,274,484.00	2,615,765.00

Source: State Finances: A Study of Budget, RBI (2012-13 to 2023-24).

Annexure 2.1 (b)
Share of different Sources in Total Revenue Receipts of Arunachal Pradesh
(in Percentage)

Year	Own tax revenue	Own non-tax revenue	Total Own Revenue	Share in Central Taxes	Grant-in-aid from Centre	Total Central transfer
2012-13	5.49	4.93	10.43	16.63	72.95	89.57
2013-14	7.47	6.96	14.42	17.97	67.61	85.58
2014-15	5.06	5.01	10.07	12.15	77.78	89.93
2015-16	5.07	3.72	8.79	67.05	24.17	91.21
2016-17	6.02	4.63	10.64	71.21	18.15	89.36
2017-18	12.68	2.66	15.34	60.31	24.35	84.66
2018-19	7.86	3.76	11.62	63.17	25.21	88.38
2019-20	8.25	4.38	12.63	60.37	27.01	87.37
2021-22	7.72	3.65	11.37	68.97	19.66	88.63
2022-23 (RE)	8.49	3.01	11.50	63.44	25.06	88.50
2023-24(BE)	9.81	3.24	13.05	68.61	18.34	86.95

Source: Source: State Finances: A Study of Budget, RBI (2012-13 to 2023-24).

Annexure 2.2

Own Non-Tax Revenue of the Government of Arunachal Pradesh from Different Sources

(Rs. In Lakh)

Heads	2015-16	2016-17	2017-18	2018-19	2019-20	2021-22	2022-23 (RE)	2023- 24(BE)	AAGR (2015-16 to 2019- 20)
I) Interest receipts	3,911.0	5,639.0	4,697.8	8,800.8	6,249.1	4,721.5	-	-	14.95
II) Dividends and profits	0	0	0.2	0.3	-	-	-	-	NA
III) General services	8,169.0	10,896.0	4,048.6	5,352.8	15,612.2	14,368.4	7,323.0	7,835.6	22.78
IV) Social services	2,853.0	1,757.0	3,586.0	4,127.6	6,930.3	4,797.9	5,136.0	5,495.5	35.73
V) Economic services	24,284.0	36,190.0	24,286.1	42,605.1	36,346.0	53,579.7	66,772.1	71,446.2	12.42
<i>Of which</i>									
<i>(a) Power</i>	11,704.0	25,961.0	13,340.9	28,708.5	24,794.6	38,435.1	38,500.0	41,195.0	27.96
<i>(b) Industries</i>	8,672.0	6,102.0	4,885.8	5,629.9	7,204.0	9,618.9	13,775.5	14,739.7	-4.23
A. Total Own-Non Tax Revenue	39,216.0	54,482.0	36,618.7	60,886.6	65,137.5	77,467.4	79,231.1	84,777.3	16.52

Source: State Finances: A Study of Budget, RBI (2015-16 to 2023-24)

Chapter 3

Trend and Pattern of Government Expenditure in Arunachal Pradesh

Chapter III

Trend and Pattern of Government Expenditure in Arunachal Pradesh

3.1 Aggregate Expenditure

Government expenditure broadly consists of revenue expenditure and capital expenditure. Total expenditure of the Government of Arunachal Pradesh was Rs.59959 million in 2012-13(A) and it reached Rs. 342704million in 2024-25 (BE) with Compound Annual Growth Rate (CAGR) of 15 per cent (Table 3.1). Total expenditure declined in 2019-20(A) which was accompanied by declined in both revenue expenditure as well as capital expenditure. One possible reason for decline of government expenditure in 2019-20 may be the outbreak of Covid pandemic. Revenue expenditure increased from Rs. 47862 million in 2012-13(A) to Rs. 259319 million in 2024-25 (BE) with CAGR 14 per cent and it has increased continuously during the period except in 2019-20. Likewise, capital expenditure also increased from Rs. 12097 million in 2012-13 (A) to Rs. 83385 million in 2024-25 (BE) and CAGR during the period was 20 per cent. During the study period, trend in capital expenditure was inconsistent. There was decline in capital expenditure in 2014-15(A), 2016-17(A), 2019-20(A) and 2024-25(BE) during the study period.

Table 3.1
Trends of expenditure(Rs. in million)

Year	Revenue Expenditure	Capital Expenditure	Total Expenditure
2012-13 (A)	47862	12097	59959
2013-14 (A)	57314	16982	74296
2014-15 (A)	71566	14881	86447
2015-16 (A)	83627	20062	103689
2016-17 (A)	93945	15502	109447
2017-18 (A)	109005	31932	140936
2018-19(A)	124295	57476	181771
2019-20 (A)	122187	37091	159278
2020-21 (A)	130875	51281	182156
2021-22 (A)	158466	64952	223418
2022-23 (A)	174177	81122	255299
2023-24 (RE)	236017	94789	330806
2024-25 (BE)	259319	83385	342704
CAGR ¹	14%	20%	15%

Source: State Finances: A Study of Budgets, RBI

Note: A-Account, BE-Budget Estimate, RE-Revised Estimate

¹It is calculated using regression analysis.

Table 3.2 presents the growth of expenditure as a per cent of GSDP at current (2011-12) prices. As a Per cent of GSDP at current (2011-12) prices, total expenditure increased from 47.79 per cent in 2012-13(A) to 84.73 per cent in 2023-24(RE). During the period, total expenditure as a Per cent of GSDP at current (2011-12) prices varied from 47.79 per cent in 2012-13(A) to 84.73 per cent in 2023-24(RE). In 2019-20 (A), there was sharp decline in total expenditure as a per cent of GSDP at current (2011-12) prices and it may be due to the emergence of Covid pandemic. However, in subsequent years, there was continuous increase in total expenditure of the government of Arunachal Pradesh as a per cent of GSDP at current (2011-12) prices. There was increase in both revenue expenditure and capital expenditure as a per cent of GSDP at current (2011-12) prices in 2023-24(RE) as compared to 2012-13(A). As a per cent of GSDP at current (2011-12) prices, capital expenditure became more than double in 2023-24 (RE) as compared 2012-13(A) while the increase of revenue expenditure as a per cent of GSDP at current (2011-12) prices during the period was less than double.

Table 3.2
Expenditure as a per cent of GSDP at current (2011-12) prices

Year	Revenue Expenditure	Capital Expenditure	Total Expenditure
2012-13 (A)	38.15	9.64	47.79
2013-14 (A)	39.31	11.65	50.95
2014-15 (A)	39.85	8.29	48.13
2015-16 (A)	45.18	10.84	56.02
2016-17 (A)	47.20	7.79	54.99
2017-18 (A)	48.50	14.21	62.71
2018-19(A)	49.06	22.69	71.75
2019-20 (A)	40.70	12.35	53.05
2020-21 (A)	42.87	16.80	59.67
2021-22 (A)	48.45	19.86	68.31
2022-23 (A)	49.71	23.15	72.86
2023-24 (RE)	60.45	24.28	84.73

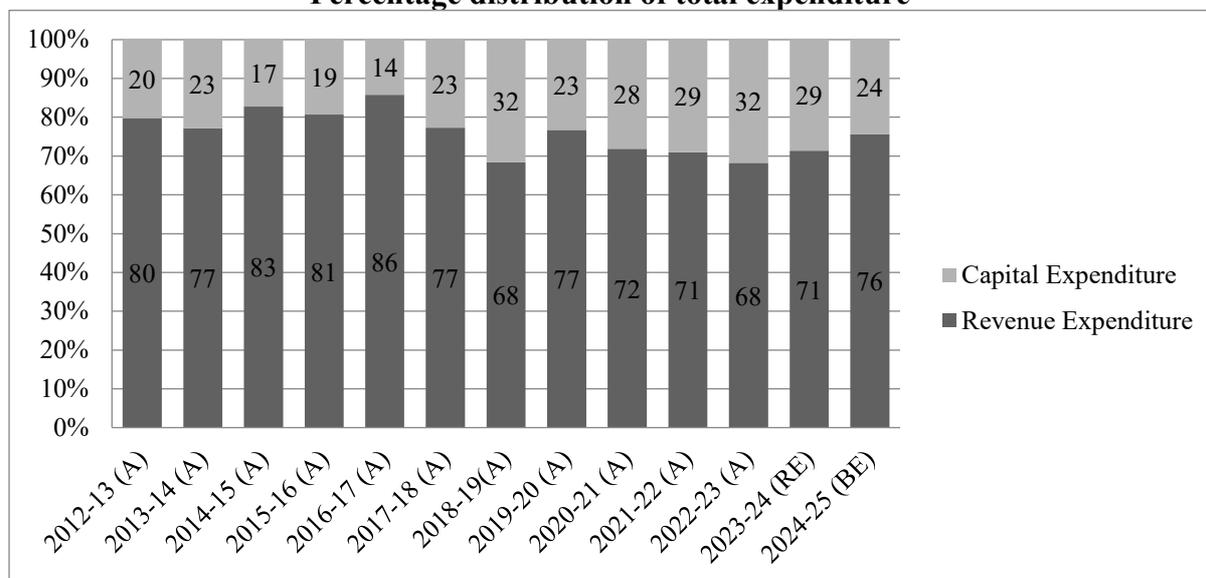
Source: State Finances: A Study of Budgets, RBI; MoSPI

Note: A-Account, RE-Revised Estimate

For Arunachal Pradesh, GSDP data is available only up to 2023-24

Revenue expenditure is the dominant component of total government expenditure of the Arunachal Pradesh during the study period. Figure 3.1 depicts that the share of capital expenditure in total expenditure was less than 1/3 throughout the period 2012-13 (A) to 2024-25(BE). However, it is important to note that from 2020-21(A) share of capital expenditure increased gradually for the three consecutive years but it has declined again in subsequent years.

Figure 3.1
Percentage distribution of total expenditure



Source: State Finances: A Study of Budgets, RBI

Note: A-Account, BE-Budget Estimate, RE-Revised Estimate.

Among the components of revenue expenditure, expenditure under general services, social services and economic services increased during the period 2012-13(A) to 2024-25 (BE) in the absolute amount (Table 3.3). In 2012-13(A), expenditure under general services, social services and economic services were Rs.14235 million, Rs.15063 million and Rs. 18565 million respectively and by 2024-25 (BE), they became Rs.79020 million, Rs.78196 million and Rs.102103 million respectively. Interest payments increased from Rs.2719 million in 2012-13(A) to Rs.9564 million in 2024-25(BE). However, except on general services, the expenditure on social services, economic services and interest payment declined in between 2012-13(A) and 2024-25(BE). In 2019-20(A), expenditure on both social services and economic services declined but increased constantly thereafter. Regarding the components of capital expenditure, capital outlay increased during the period 2012-13(A) to 2024-25(BE) but loans and advances decreased during the period. Capital outlay increased from Rs. 12063 million in 2012-13(A) to Rs. 83355 million in 2024-25(BE) and loan and advances decreased from Rs.34 million to Rs. 30 million during the same period. There was also increase of capital expenditure on social services, economic services and general services during the period 2012-13(A) to 2024-25(BE). As compared to the components of revenue expenditure, components of the capital expenditure were fluctuated more during the study period and in 2019-20(A), there was decline of capital expenditure under the major heads like capital outlay, loan and advances, social services, economic services and general services.

As a per cent of GSDP at current (2011-12) prices, except loan and advances, all the major components of both revenue expenditure and capital expenditure has increased during the period 2012-13(A) to 2023-24 (RE). Regarding the revenue expenditure, expenditure on general services, social services and economic services were 11.35%, 12.01% and 14.8% of GSDP at current (2011-12) prices respectively in 2012-13(A) and corresponding figures became 16.49%, 18.78% and 25.19% respectively by 2023-24 (BE). Interest payments is found to be increased from 2.17 per cent of GSDP at current (2011-12) prices in 2012-13(A) to 2.34 per cent in 2023-24(BE). Capital outlay as a per cent of GSDP at current (2011-12) prices was 9.61 per cent in 2012-13(A) and rose to 24.27 per cent in 2023-24(BE) whereas loans and advances declined marginally from 0.03 per cent of GSDP at current (2011-12) prices to 0.01 per cent during the period. As a per cent of GSDP at current (2011-12) prices, capital expenditure on general services, social services and economic services increased from 0.67%, 2.23% and 6.72 % respectively in 2012-13(A) to 4.53%, 5.17% and 14.57% respectively in 2023-24(BE).

Table 3.3
Composition of expenditure (Rs. in million)

Head	2012-13 (A)	2013-14 (A)	2014-15 (A)	2015-16 (A)	2016-17 (A)	2017-18 (A)	2018-19(A)	2019-20 (A)	2020-21 (A)	2021-22 (A)	2022-23 (A)	2023-24 (RE)	2024-25 (BE)
Revenue Expenditure	47862	57314	71566	83627	93945	109005	124295	122187	130875	158466	174177	236017	259319
General Services	14235	17801	20626	25181	27678	34848	38233	38311	42166	48340	52046	64375	79020
<i>Interest Payments</i>	<i>2719</i>	<i>3125</i>	<i>3509</i>	<i>4156</i>	<i>3992</i>	<i>4674</i>	<i>5261</i>	<i>6145</i>	<i>7523</i>	<i>7776</i>	<i>8346</i>	<i>9127</i>	<i>9564</i>
Social Services	15063	17702	23584	25567	30465	39508	44724	42562	43595	57600	58442	73304	78196
Economic Services	18565	21812	27356	32880	35803	34649	41337	41315	45115	52527	63689	98338	102103
Capital Expenditure	12097	16982	14881	20062	15502	31932	57476	37091	51281	64952	81122	94789	83385
Capital Outlay	12063	16797	14832	19933	15440	31881	57274	36930	51233	64883	81074	94753	83355
<i>General Services</i>	<i>839</i>	<i>1878</i>	<i>1207</i>	<i>3456</i>	<i>1131</i>	<i>5449</i>	<i>10620</i>	<i>6579</i>	<i>7440</i>	<i>16184</i>	<i>16452</i>	<i>17675</i>	<i>24540</i>
<i>Social Services</i>	<i>2798</i>	<i>5038</i>	<i>4425</i>	<i>4223</i>	<i>5799</i>	<i>8548</i>	<i>12273</i>	<i>7250</i>	<i>6474</i>	<i>13503</i>	<i>14185</i>	<i>20185</i>	<i>17214</i>
<i>Economic Services</i>	<i>8427</i>	<i>9881</i>	<i>9200</i>	<i>12254</i>	<i>8510</i>	<i>17884</i>	<i>34381</i>	<i>23102</i>	<i>37319</i>	<i>35197</i>	<i>50436</i>	<i>56893</i>	<i>41601</i>
Loans and Advances	34	185	49	130	62	51	202	160	48	69	49	36	30
As a percentage of GSDP at current (2011-12) prices													
Revenue Expenditure	38.15	39.31	39.85	45.18	47.20	48.50	49.06	40.70	42.87	48.45	49.71	60.45	
General Services	11.35	12.21	11.48	13.60	13.91	15.51	15.09	12.76	13.81	14.78	14.85	16.49	
<i>Interest Payments</i>	<i>2.17</i>	<i>2.14</i>	<i>1.95</i>	<i>2.25</i>	<i>2.01</i>	<i>2.08</i>	<i>2.08</i>	<i>2.05</i>	<i>2.46</i>	<i>2.38</i>	<i>2.38</i>	<i>2.34</i>	
Social Services	12.01	12.14	13.13	13.81	15.31	17.58	17.65	14.18	14.28	17.61	16.68	18.78	
Economic Services	14.80	14.96	15.23	17.76	17.99	15.42	16.32	13.76	14.78	16.06	18.18	25.19	
Capital Expenditure	9.64	11.65	8.29	10.84	7.79	14.21	22.69	12.35	16.80	19.86	23.15	24.28	
Capital Outlay	9.61	11.52	8.26	10.77	7.76	14.19	22.61	12.30	16.78	19.84	23.14	24.27	
<i>General Services</i>	<i>0.67</i>	<i>1.29</i>	<i>0.67</i>	<i>1.87</i>	<i>0.57</i>	<i>2.42</i>	<i>4.19</i>	<i>2.19</i>	<i>2.44</i>	<i>4.95</i>	<i>4.70</i>	<i>4.53</i>	
<i>Social Services</i>	<i>2.23</i>	<i>3.46</i>	<i>2.46</i>	<i>2.28</i>	<i>2.91</i>	<i>3.80</i>	<i>4.84</i>	<i>2.41</i>	<i>2.12</i>	<i>4.13</i>	<i>4.05</i>	<i>5.17</i>	
<i>Economic Services</i>	<i>6.72</i>	<i>6.78</i>	<i>5.12</i>	<i>6.62</i>	<i>4.28</i>	<i>7.96</i>	<i>13.57</i>	<i>7.69</i>	<i>12.23</i>	<i>10.76</i>	<i>14.40</i>	<i>14.57</i>	
Loans and Advances	0.03	0.13	0.03	0.07	0.03	0.02	0.08	0.05	0.02	0.02	0.01	0.01	

Source: State Finances: A Study of Budgets, RBI; MoSPI

Note: A-Account, BE-Budget Estimate, RE-Revised Estimate; For Arunachal Pradesh, GSDP data is available only up to 2023-24

As asset creation in a state is reflected in capital expenditure, the ratio of capital expenditure to total expenditure has been examined. Table 3.4 and Figure 3.3 present the ratio of capital expenditure to total government expenditure expressed in percentage. Ignoring the budget estimate and revised estimate, i.e., excluding periods 2022-23 and 2023-24, the ratio of capital expenditure to total government expenditure are found to be increased in 2021-22(A) as compared to 2012-13(A). Capital expenditure on social services as well as on economic services as a whole to total expenditure has increased from 18.72 per cent in 2012-13(A) to 21.80 per cent in 2021-22(A) which is a positive sign for the state. The ratio of capital expenditure on social services to total expenditure increased from 4.67 per cent in 2012-13(A) to 6.04 per cent in 2021-22(A). Likewise, the ratio of capital expenditure on economic services to total expenditure increased from 14.05 per cent in 2012-13(A) to 15.75 per cent in 2021-22(A). During the period of study, as a percentage to total expenditure, capital expenditures on both social services as well as on economic services have been found to be fluctuated. The ratio of capital expenditure on social services to total expenditure was varied from **3.55 per cent in 2020-21(A) to 6.75 per cent in 2018-19(A) during the period 2012-13(A) to 2021-22(A) while the variation in case of** the ratio of capital expenditure on economic services to total expenditure was **7.78 in 2016-17(A) to 20.49 per cent in 2020-21(A). On an average, during the period 2012-13(A) to 2021-22(A), the ratio** of capital expenditure on social services to total expenditure was constant while **the ratio** of capital expenditure on economic services to total expenditure followed an upward trend particularly after 2016-17 which was basically accompanied by increased expenditure on transport. The substantial improvement in expenditure on roads and bridges lead to such increase in transport expenditure of the state.

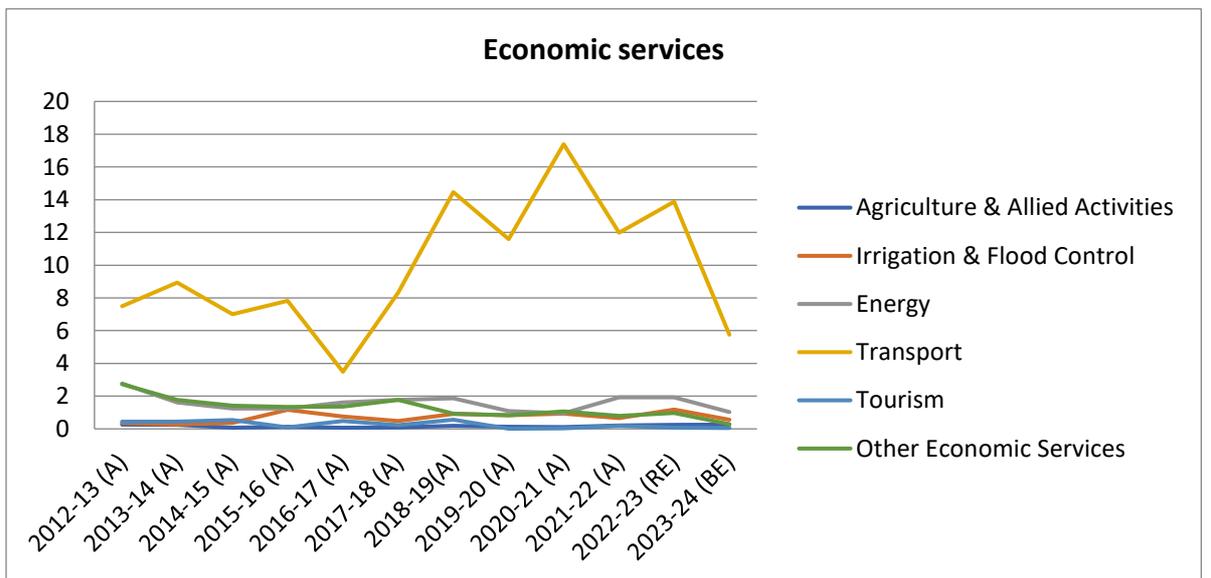
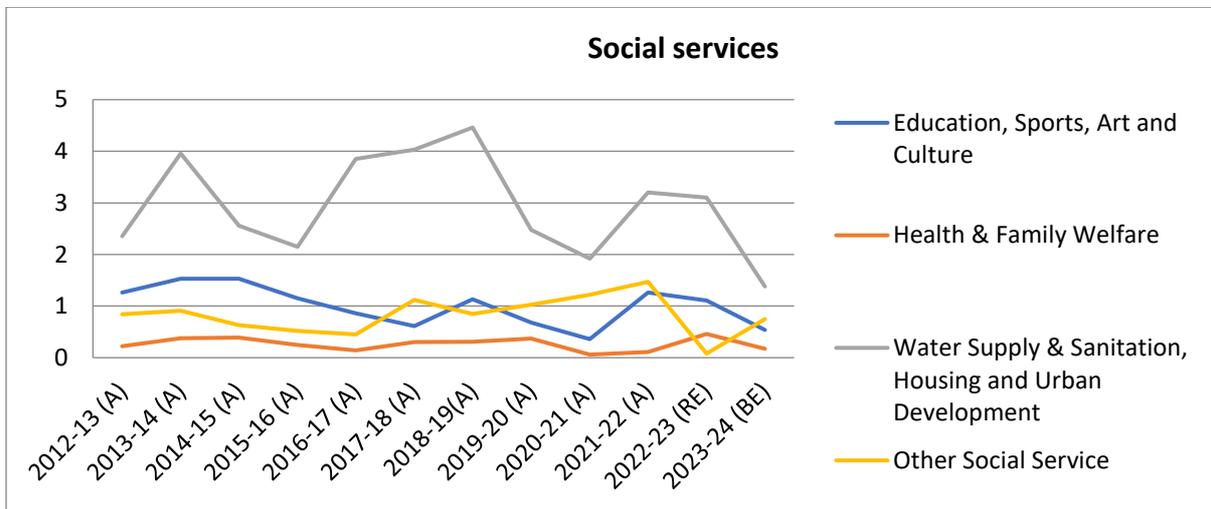
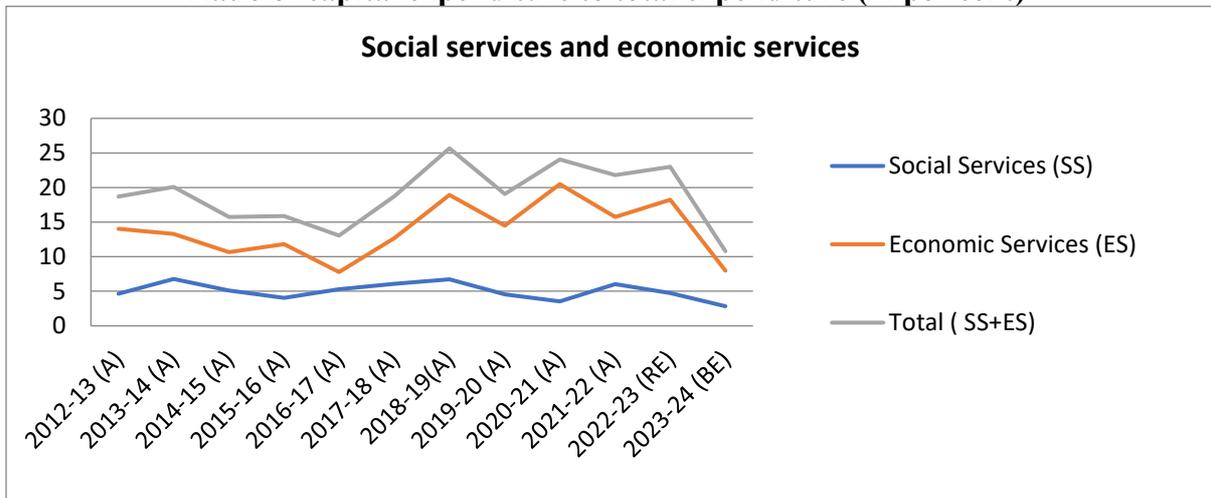
Table 3.4
Ratio of capital expenditure to total expenditure (in per cent)

Head	2012-13 (A)	2013-14 (A)	2014-15 (A)	2015-16 (A)	2016-17 (A)	2017-18 (A)	2018-19(A)	2019-20 (A)	2020-21 (A)	2021-22 (A)	2022-23 (RE)	2023-24 (BE)
Social Services (SS)	4.67	6.78	5.12	4.07	5.30	6.07	6.75	4.55	3.55	6.04	4.75	2.84
<i>Education, Sports, Art and Culture</i>	1.26	1.53	1.53	1.15	0.86	0.61	1.13	0.68	0.36	1.26	1.11	0.54
<i>Health & Family Welfare</i>	0.22	0.38	0.39	0.25	0.14	0.30	0.31	0.37	0.06	0.11	0.46	0.17
<i>Water Supply & Sanitation, Housing and Urban Development</i>	2.35	3.96	2.56	2.15	3.85	4.03	4.46	2.48	1.92	3.20	3.10	1.38
<i>Other Social Service</i>	0.84	0.91	0.63	0.52	0.45	1.12	0.85	1.03	1.22	1.47	0.08	0.75
Economic Services (ES)	14.05	13.30	10.64	11.82	7.78	12.69	18.91	14.50	20.49	15.75	18.25	7.96
<i>Agriculture & Allied Activities</i>	0.26	0.25	0.08	0.14	0.07	0.10	0.18	0.13	0.11	0.20	0.24	0.26
<i>Irrigation & Flood Control</i>	0.37	0.27	0.36	1.17	0.75	0.49	0.91	0.84	0.94	0.66	1.18	0.56
<i>Energy</i>	2.77	1.61	1.24	1.24	1.61	1.78	1.87	1.09	0.95	1.93	1.92	1.02
<i>Transport</i>	7.49	8.94	7.00	7.82	3.49	8.33	14.47	11.60	17.39	11.99	13.87	5.76
<i>Tourism</i>	0.44	0.44	0.55	0.10	0.49	0.22	0.56	0.01	0.03	0.18	0.08	0.05
<i>Other Economic Services</i>	2.73	1.77	1.42	1.34	1.36	1.77	0.94	0.83	1.07	0.80	0.97	0.29
Total (SS+ES)	18.72	20.08	15.76	15.89	13.07	18.75	25.67	19.06	24.04	21.80	23.00	10.80

Source: State Finances: A Study of Budgets, RBI

Note: A-Account, BE-Budget Estimate, RE-Revised Estimate

Figure 3.2
Ratio of capital expenditure to total expenditure (in per cent)



Source: State Finances: A Study of Budgets, RBI
 Note: A-Account, BE-Budget Estimate, RE-Revised Estimate

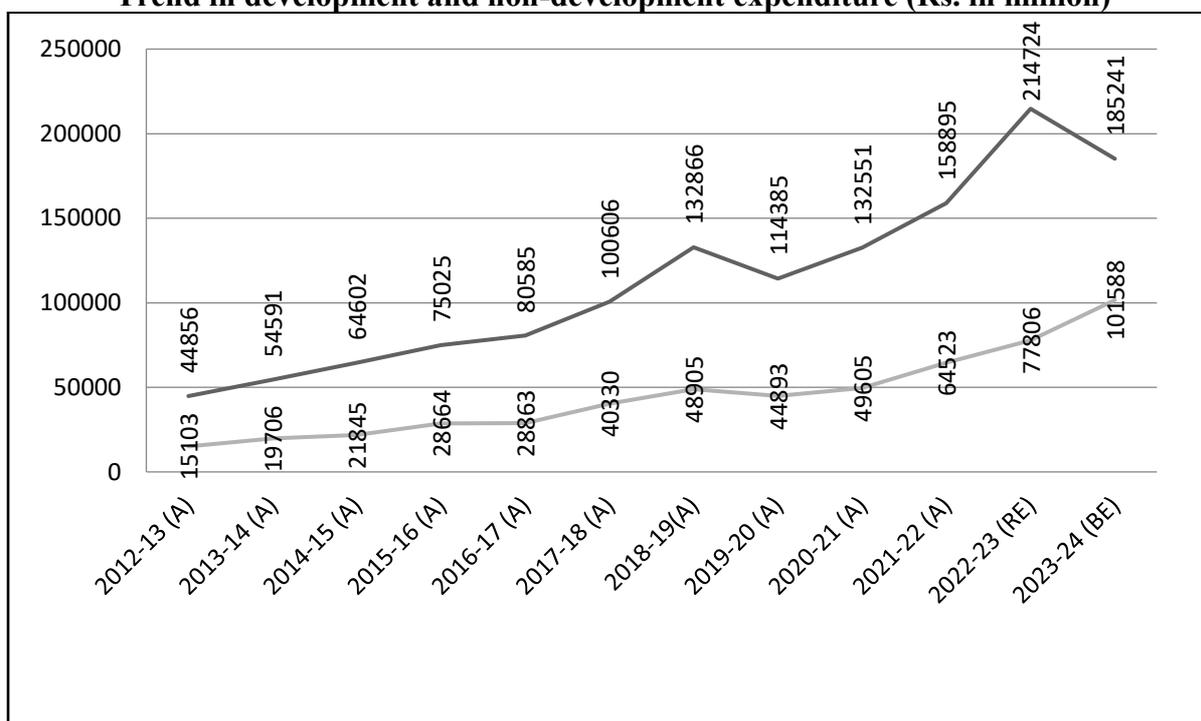
3.2 Development and Non-development Expenditure

Public expenditure in India is categorized into two classes – developmental and non-developmental. Development expenditure includes revenue expenditure on social and economic services, capital outlay on social and economic services and loan and advances. Non-development expenditure includes revenue expenditure on organ of states, fiscal services, interest payment and servicing of debt, administrative services, pensions and miscellaneous, capital expenditure on general services and loans and advances. Development expenditure basically focuses on growth and improvement and hence it has a direct impact on economic growth. On the other hand, non-development expenditure is often more about maintaining existing obligations and it may not contribute directly to growth but is essential for governance and public services.

The development expenditure² of the government of Arunachal Pradesh increased from Rs.44856 million in 2012-13(A) to Rs.185241 million in 2023-24(BE) with CAGR 14% (Figure 3.3). During the study period, development expenditure declined in 2019-20(A) when Covid pandemic occurred and in 2023-24(BE) but it was as per budget estimate. On the other hand, in 2017-18(A) and 2020-21(A), there was sharp rise in development expenditure with the increase in both revenue expenditure as well as capital outlay. With some ups and downs, the non-development expenditure also increased from Rs.15103 million in 2012-13(A) to Rs. 101588 million in 2023-24(BE) and CAGR during the period was 17%. Thus, the growth of non-development expenditure was more than development expenditure during the study period.

²Development expenditure includes revenue expenditure (on social and economic services), capital outlay (on social and economic services) and loan and advances.

Figure 3.3
Trend in development and non-development expenditure (Rs. in million)



Source: State Finances: A Study of Budgets, RBI

Note: A-Account, BE-Budget Estimate, RE-Revised Estimate

Regarding the components of development expenditure, revenue expenditure, capital outlay and loan and advances improved during the study period. Revenue expenditure, capital outlay and loan and advances increased from Rs. 33,628 million, Rs. 11,224 million and Rs.4 million respectively in 2012-13(A) to Rs. 154,228 million, Rs. 30,972 million and Rs.42 million respectively in 2023-24(BE) (Table 3.5). Similarly, non-development expenditure under the heads of revenue expenditure and capital expenditure on general services increased from Rs. 14,235 million and Rs.839 million respectively in 2012-13(A) to Rs. 76,720 million and Rs.24,867 million respectively in 2023-24(BE).

Table 3.5
Expenditure by development and non-development composition (in million)

Head	2012-13 (A)	2013-14 (A)	2014-15 (A)	2015-16 (A)	2016-17 (A)	2017-18 (A)	2018- 19(A)	2019-20 (A)	2020-21 (A)	2021-22 (A)	2022-23 (RE)	2023-24 (BE)
A. Development expenditure	44,856	54,591	64,602	75,025	80,585	100,606	132,866	114,385	132,551	158,895	214,724	185,241
1. Revenue expenditure	33,628	39,513	50,940	58,447	66,268	74,157	86,062	83,877	88,709	110,127	147,405	154,228
<i>Social services</i>	15,063	17,702	23,584	25,567	30,465	39,508	44,724	42,562	43,595	57,600	67,722	74,152
<i>Economic services</i>	18,565	21,812	27,356	32,880	35,803	34,649	41,337	41,315	45,115	52,527	79,683	80,075
2. Capital outlay	11,224	14,919	13,625	16,477	14,309	26,432	46,654	30,351	43,794	48,699	67,279	30,972
<i>Social services</i>	2,798	5,038	4,425	4,223	5,799	8,548	12,273	7,250	6,474	13,503	13,884	8,152
<i>Economic services</i>	8,427	9,881	9,200	12,254	8,510	17,884	34,381	23,102	37,319	35,197	53,394	22,820
3. Loans and advances	4	159	37	102	7	18	150	157	48	69	40	42
B. Non-development expenditure	15,103	19,706	21,845	28,664	28,863	40,330	48,905	44,893	49,605	64,523	77,806	101,588
1. Revenue expenditure	14,235	17,801	20,626	25,181	27,678	34,848	38,233	38,311	42,166	48,340	58,515	76,720
<i>Organ of states</i>	564	834	1,297	798	1,240	1,408	1,802	2,454	2,258	1,920	2,064	7,098
<i>Fiscal services</i>	212	264	311	332	417	509	2,830	959	945	750	706	765
<i>Interest payment and servicing of debt</i>	2,919	3,325	3,709	6,156	5,492	6,674	7,661	8,545	9,928	9,781	9,586	9,834
<i>Administrative services</i>	7,230	9,389	10,499	12,333	14,113	17,003	16,983	17,508	18,163	22,251	26,177	33,822
<i>Pensions</i>	3,307	3,984	4,807	5,553	6,406	9,240	8,944	8,823	10,856	13,623	19,969	25,188
<i>Miscellaneous</i>	4	4	3	8	10	15	13	21	15	14	12	14
2. Capital expenditure on general services	839	1,878	1,207	3,456	1,131	5,449	10,620	6,579	7,440	16,184	19,291	24,867
3. Loans and advances	30	27	12	28	55	33	51	3	0	-	-	-

Source: State Finances: A Study of Budgets, RBI

Note: A-Account, BE-Budget Estimate, RE-Revised Estimate

Table 3.6
Expenditure by development and non-development composition as a percent of GSDP at current (2011-12) prices

Head	2012-13 (A)	2013-14 (A)	2014-15 (A)	2015-16 (A)	2016-17 (A)	2017-18 (A)	2018- 19(A)	2019-20 (A)	2020- 21 (A)	2021- 22 (A)
A. Development expenditure	35.75	37.44	35.97	40.53	40.49	44.76	52.44	38.10	43.39	45.24
1.Revenue expenditure	26.80	27.10	28.36	31.58	33.30	33.00	33.97	27.94	29.04	31.35
<i>Social services</i>	12.01	12.14	13.13	13.81	15.31	17.58	17.65	14.18	14.27	16.40
<i>Economic services</i>	14.80	14.96	15.23	17.76	17.99	15.42	16.32	13.76	14.77	14.95
2.Capital outlay	8.95	10.23	7.59	8.90	7.19	11.76	18.41	10.11	14.34	13.87
<i>Social services</i>	2.23	3.46	2.46	2.28	2.91	3.80	4.84	2.41	2.12	3.84
<i>Economic services</i>	6.72	6.78	5.12	6.62	4.28	7.96	13.57	7.69	12.22	10.02
3.Loans and advances	0.00	0.11	0.02	0.06	0.00	0.01	0.06	0.05	0.02	0.02
B. Non-development expenditure	12.04	13.51	12.16	15.49	14.50	17.94	19.30	14.95	16.24	18.37
1. Revenue expenditure	11.35	12.21	11.48	13.60	13.91	15.51	15.09	12.76	13.80	13.76
<i>Organ of states</i>	0.45	0.57	0.72	0.43	0.62	0.63	0.71	0.82	0.74	0.55
<i>Fiscal services</i>	0.17	0.18	0.17	0.18	0.21	0.23	1.12	0.32	0.31	0.21
<i>Interest payment and servicing of debt</i>	2.33	2.28	2.07	3.33	2.76	2.97	3.02	2.85	3.25	2.78
<i>Administrative services</i>	5.76	6.44	5.85	6.66	7.09	7.57	6.70	5.83	5.95	6.33
<i>Pensions</i>	2.64	2.73	2.68	3.00	3.22	4.11	3.53	2.94	3.55	3.88
<i>Miscellaneous</i>	0.003	0.003	0.002	0.004	0.005	0.01	0.01	0.01	0.00	0.00
2. Capital expenditure on general services	0.67	1.29	0.67	1.87	0.57	2.42	4.19	2.19	2.44	4.61
3. Loans and advances	0.02	0.02	0.01	0.01	0.03	0.01	0.02	0.001		

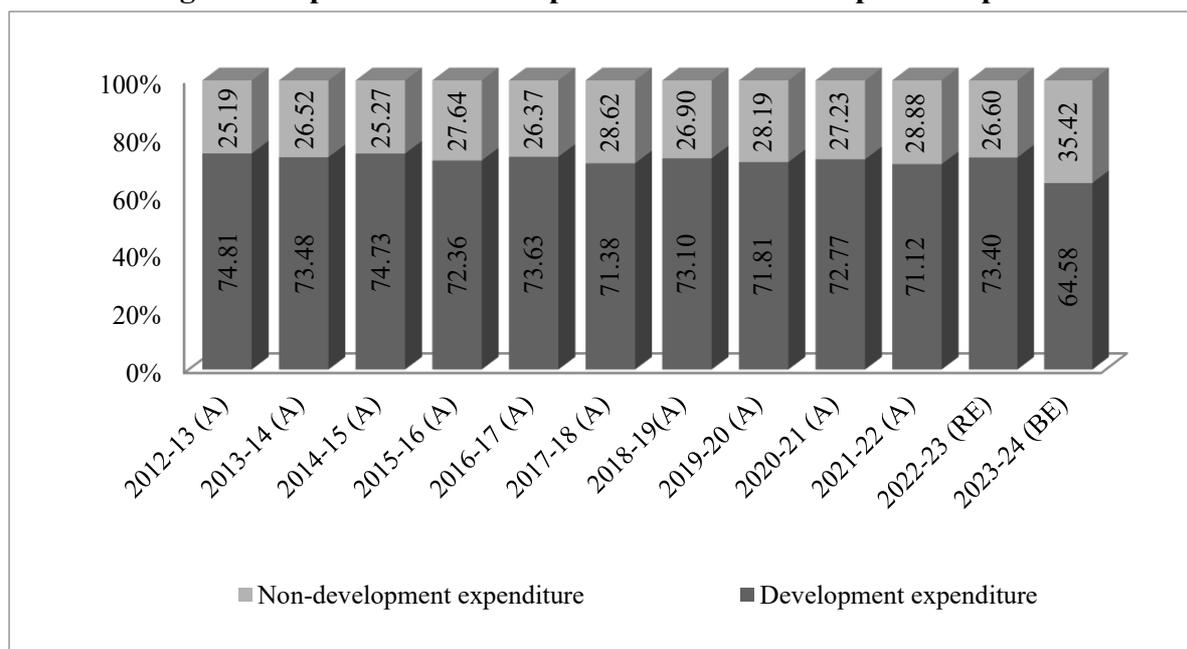
Source: State Finances: A Study of Budgets, RBI; Handbook on Indian States, RBI

Note: A-Account

As a per cent of GSDP at current (2011-12) prices, development expenditure increased from 35.75 per cent in 2012-13(A) to 45.24 per cent in 2021-22 (A) (Table 3.6). Similarly, non-development expenditure increased from 12.04 per cent of GSDP at current (2011-12) prices in 2012-13(A) to 18.37 per cent in 2021-22(A). The various components of development expenditure like revenue expenditure, capital outlay and loans and advances also recorded increased in percentage share to GSDP at current (2011-12) prices in 2021-22(A) as compared to 2012-13(A). In case of non-development expenditure too, revenue expenditure and capital expenditure on general services as a per cent to GSDP at current (2011-12) prices increased during the period 2012-13(A) to 2021-22(A).

Figure 3.4 depicts that government expenditure is dominated by development expenditure. Except in 2023-24(BE), more than 2/3 of government expenditure in the study period was development expenditure in nature. However, there has been a gradual change in composition of government expenditure in Arunachal Pradesh. Over the years, on an average, the share of development expenditure in total government expenditure has been declining which is because of higher growth of later type than the former type but not due to decline in absolute amount of development expenditure.

Figure 3.4
Change in composition of development and non-development expenditure



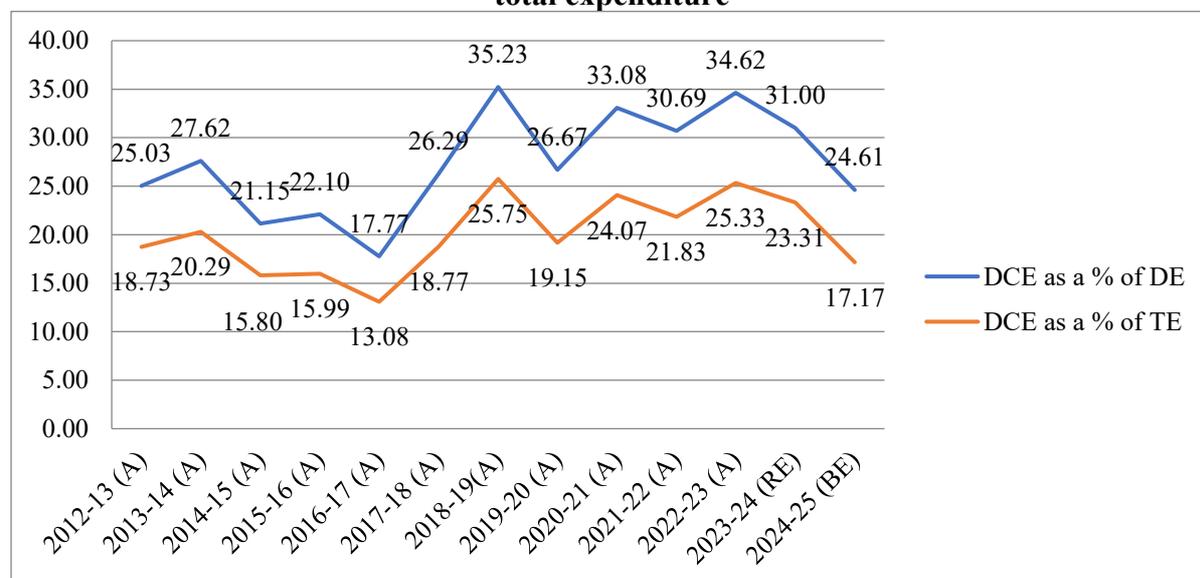
Source: State Finances: A Study of Budgets, RBI

Note: A-Account, BE-Budget Estimate, RE-Revised Estimate

The share of Development Capital Expenditure (DCE) in total development expenditure and total expenditure has shown a declining trend till 2016-17(A) and reversed thereafter with

some fluctuations. This was mainly due to the change in capital expenditure on economic services which dominated the overall developmental capital expenditure. In 2016-17(A), share of DCE in total developmental expenditure and total expenditure were 17.77 per cent and 13.08 per cent respectively. From 2022-23 (A), share of DEC in both DE and TE continue to decline. In 2023-24(RE), share of DCE has declined despite its absolute increase because there was proportionately larger increase of TE and DE than DCE. Again, in 2024-25 (BE), there was decline in both DCE as well as DE but proportion was higher for former than the later which reduces the DCE as a percentage of DE. Moreover, increased TE caused the decline in DCE as a percentage of TE in 2024-25 (BE). During the period 2012-13(A) to 2024-25(BE), share of DCE in total developmental expenditure and total expenditure were highest in 2018-19(A) with respective shares 35.23 per cent and 25.75 per cent.

Figure 3.5
Percentage share of developmental capital expenditure in development expenditure and total expenditure



Source: State Finances: A Study of Budgets, RBI

Note: A-Account, BE-Budget Estimate, RE-Revised Estimate

3.3 Efficiency of Government Expenditure in Arunachal Pradesh

This section highlights the efficiency (allocative) of expenditure use in the state. Table 3.7 and Figure 3.6 present the growth and pattern of committed expenditure (CME), which is unproductive in nature, for the period 2012-13 to 2022-23³. The overall CME has increased from Rs.2,716.98 crore in 2012-13 to Rs.10,075.67 crore in 2022-23 with a CAGR of 14%. While the growth of CME is same with total expenditure of the state, but it is more than that

³Data is available up to 2022-23.

of revenue expenditure⁴. This shows that the proportion of CME in revenue expenditure has declined over the years leading to proportionally less expenditure on maintenance of infrastructure. Out of the total committed expenditure, around 3/4th was on salaries and wages followed by expenditure on pensions and on interest payment respectively. The share of subsidies on CME is less than one percent. Among the components of CME, growth of expenditure on pension was highest (16%) followed by salaries and wages (14%) and interest payment (12%) respectively. Expenditure on subsidies has experienced a negative growth (-7%) during 2012-13 to 2020-21.

Table 3.7
Committed expenditure

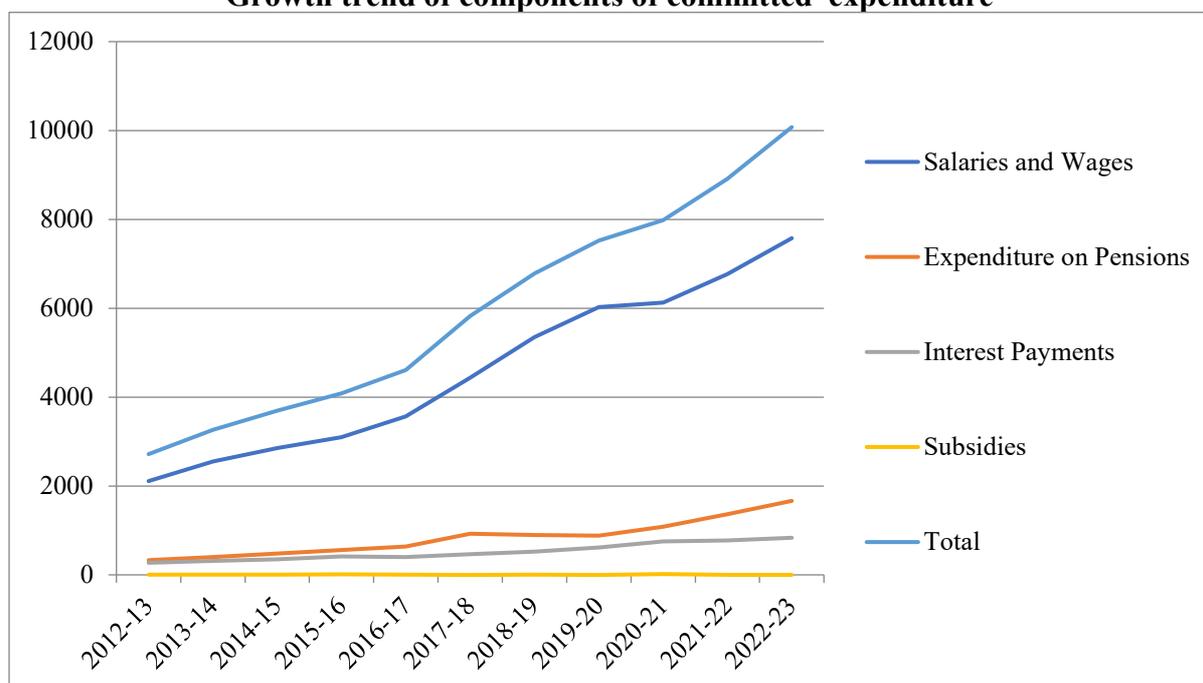
Year	Salaries and Wages		Expenditure on Pensions		Interest Payments		Subsidies		Total
	in crore	%	in crore	%	in crore	%	in crore	%	in crore
2012-13	2110.38	77.67	330.70	12.17	271.85	10.01	4.05	0.15	2,716.98
2013-14	2548.91	78.05	398.40	12.20	312.51	9.57	5.86	0.18	3,265.68
2014-15	2853.24	77.28	480.71	13.02	350.88	9.50	7.02	0.19	3,691.85
2015-16	3098.20	75.92	555.25	13.61	415.64	10.18	12.03	0.29	4,081.12
2016-17	3566.88	77.34	640.58	13.89	399.23	8.66	4.99	0.11	4,611.68
2017-18	4,434.61	76.11	923.97	15.86	467.36	8.02	0.82	0.01	5,826.76
2018-19	5,351.95	79.03	894.37	13.21	526.10	7.77	8.22	0.12	6,780.64
2019-20	6,023.86	80.10	882.31	11.73	614.53	8.17	0.4	0.01	7,521.10
2020-21	6,125.12	76.92	1,085.32	13.63	752.34	9.45	17.85	0.22	7,980.63
2021-22	6,770.84	75.99	1,362.29	15.29	777.62	8.73	0	0.00	8,910.75
2022-23	7,576.05	75.19	1,664.98	16.52	834.64	8.28	0	0.00	10,075.67
CAGR	14%		16%		12%		-7%		14%

Source: CAG Report, Various issues

Note: From 2018-19, in CAG report, subsidies are not shown as a component of committed expenditure

⁴ The CAGR calculation period for TE and RE is from 2012-13 to 2023-24(BE) against 2012-13 to 2022-23 for CME.

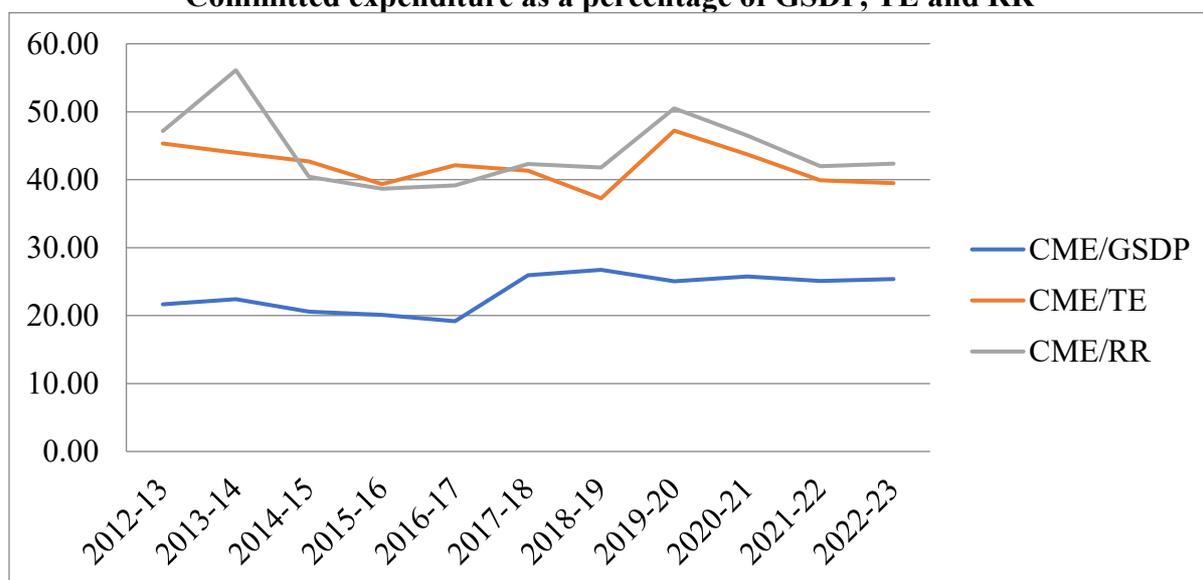
Figure 3.6
Growth trend of components of committed expenditure



Source: CAG Report, Various issues

Figure 3.7 depicts that committed expenditure as a percentage of total expenditure and revenue receipt has declined during the study period which is a positive indication as it allows the government to incur more expenditure for development purposes. As a percentage to GSDP, share of CME expenditure has increased from 21.65% in 2012-13 to 25.40% in 2022-23.

Figure 3.7
Committed expenditure as a percentage of GSDP, TE and RR



Source: CAG Report, Various issues

Table 3.8 shows that the total expenditure as a percentage of GSDP in 2012-13 was 47.79% and increased to 63.61% in 2021-22; and it was highest in 2018-19 (71.75%). Thus, on an average, productivity of government has not improved during the study period. Total expenditure as a percentage of revenue receipt was more than 100 in most of the years. This indicates, the state is not able to meet its expenditure from internally generated resources. In the state, share of revenue expenditure in total expenditure is much more than that of capital expenditure. However, excluding budget estimate and revised estimate, an increase in share of capital expenditure and decline in share of revenue expenditure during the study period has been found. This is a positive sign for the state as government is focusing more on future needs. With some fluctuation, expenditure on social services as a percentage of total expenditure has increased from 29.79% in 2012-13 to 31.83% in 2021-22 while share of expenditure on economic services remained more or less same during the period. During the study period, more than 60% of government expenditure was on economic and social services which indicating flow of government expenditure was more towards development purposes.

Table 3.8
Efficiency indicators

Year	TE/GSDP	TE/RR	REE/TE	CE/TE	ESS/TE	EES/TE
2012-13 (A)	47.79	104.07	79.82	20.18	29.79	45.02
2013-14 (A)	50.95	127.65	77.14	22.86	30.61	42.66
2014-15 (A)	48.13	94.62	82.79	17.21	32.40	42.29
2015-16 (A)	56.02	98.25	80.65	19.35	28.73	43.53
2016-17 (A)	54.99	92.91	85.84	14.16	33.13	40.49
2017-18 (A)	62.71	102.32	77.34	22.66	34.10	37.27
2018-19(A)	71.75	112.23	68.38	31.62	31.36	41.66
2019-20 (A)	53.05	106.98	76.71	23.29	31.27	40.44
2020-21 (A)	59.63	106.38	71.85	28.15	27.49	45.25
2021-22 (A)	63.61	105.23	70.93	29.07	31.83	39.26
2022-23 (RE)	73.74*	111.21	70.39	29.61	27.90	45.49
2023-24 (BE)	-	109.65	80.52	19.48	28.69	35.87

*GSDP data is from CAG and as per Advanced Estimates

Source: State Finances: A Study of Budgets, RBI; Handbook on Indian States, RBI, CAG

Note: A-Account, RE-Revised Estimate, BE- Budget Estimate, TE-Total Expenditure, RR- Revenue Receipt, REE-Revenue Expenditure, CE- Capital Expenditure, ESS- Expenditure on Social Services, EES-Expenditure on Economic Services

3.4 Conclusion and Policy Suggestion

The major findings from the above discussion are:

- Government expenditure has increased during 2012-13 to 2024-25 due to increase of both revenue expenditure and capital expenditure. However, revenue expenditure has larger share than capital expenditure. Of course, growth of capital expenditure is higher than the revenue expenditure depicting improvement of relative focus on infrastructure development.
- Both revenue expenditure and capital expenditure on social services has increased during the study period in absolute amount and as a percentage of GSDP.
- Capital expenditure as a ratio of total expenditure increased sharply after 2016-17 and maintained a relatively higher share with some fluctuations up to 2022-23(RE). This change has been primarily brought by the increase expenditure on transport.
- Examining the development non-development composition of government expenditure, it is found the both types have increased during the study period. The government expenditure has been dominantly development expenditure but during the study period, share of non-development expenditure has gradually rising.
- The productivity of the government expenditure has not improved during the study period as indicted by percentage share of total expenditure to GDSP. Further, internal revenue is not sufficient to meet the government expenditure. Of course, government spending on social services has increased.

It is found that the capital expenditure, especially for development purposes, of the government in Arunachal Pradesh has received relatively more attention after 2016-17 which is a positive step in achieving higher economic growth. However, there is further scope to develop the basic infrastructure in the state. Further, there is need to utilize the government expenditure more productively. On this consideration, further enhancement of share of capital expenditure in total expenditure is found necessary. The state government also needs to focus on increasing internal revenue generation for becoming self-reliant.

Chapter 4

Analysis of Deficits

Chapter IV

Analysis of Deficits

4.1 Trends in Deficits

The fiscal health of a state can be examined in terms of various types of deficits. Table 4.1 depicts that the state Arunachal Pradesh has maintained a surplus in its revenue account during 2012-13 (A) to 2023-24 (BE). In 2012-13(A), the surplus in revenue account was (-) Rs. 9753 million, which has further increased in the subsequent period and became (-) Rs. 30629 million in 2023-24(BE) with some variations in between. During the study period, the surplus in revenue account was lowest in 2013-14(A) and highest in 2022-23(RE). Thus, government's revenue expenditure is less than its revenue receipts which is in accordance of Arunachal Pradesh FRBM Act.

Unlike revenue account, in most of the years during 2012-13(A) to 2023-24(BE), there was fiscal deficit in the state. Fiscal deficit was Rs. 2318 million in 2012-13(A) and increased to Rs.25152 million in 2023-24(BE) (Table 3.1). There was fiscal surplus in the state for the years 2014-15(A) to 2016-17(A). During the study period, fiscal deficit was highest in 2022-23 (RE) and lowest in 2012-13(A) ignoring the years of fiscal surplus. It indicates excess of government's overall spending as compared to receipts of the government.

There was also primary deficit from 2018-19 (A) onwards while except in 2013-14(A), the state Arunachal Pradesh maintained a surplus in the account. During the reference period, primary deficit is found to be highly volatile.

Interest payment of the state has increased continuously, except in 2016-17(A), from Rs.2719 million in 2012-13(A) to Rs.9123 million in 2023-24(BE). Such increase in interest payment of the state is contributed by increased interest payment on internal debt as well as on small savings, state provident funds, etc. while interest payment for loans from centre has declined during the study period.

Table 4.1
Financial State of Arunachal Pradesh (Rs. in million)

Year	Revenue Deficit	Fiscal Deficit	Primary Deficit	Interest Payments
2012-13 (A)	-9753	2318	-400	2719
2013-14 (A)	-890	16058	12933	3125
2014-15 (A)	-19794	-5187	-8696	3509
2015-16 (A)	-21904	-1897	-6053	4156
2016-17 (A)	-23851	-8452	-12444	3992
2017-18 (A)	-28741	3134	-1540	4674
2018-19 (A)	-37665	19760	14499	5261
2019-20 (A)	-26698	10322	4177	6145
2020-21 (A)	-40360	10862	3339	7523
2021-22 (A)	-53850	11033	3257	7776
2022-23 (RE)	-57132	29378	20503	8875
2023-24 (BE)	-30629	25152	16029	9123

Source: State Finances: A Study of Budgets, RBI

Note: A-Account, BE-Budget Estimate, RE-Revised Estimate

N.B.: '+' indicates deficit and '-' indicates surplus

4.2 Deficits as a Per cent of GSDP

As a percent of GSDP at current (2011-12) prices, surplus in revenue account has increased from -7.77% in 2012-13(A) to -7.85% in 2023-24(BE) as presented in Table 4.2. Fiscal deficit as a per cent of GSDP at current (2011-12) prices increased from 1.85% in 2012-13(A) to 6.44% in 2023-24(BE). The substantial increase in capital outlay on economic and general services particularly from 2017-18 caused such large scale shift in fiscal deficit of the state. With a significant increase in government expenditure other than interest payment, in 2013-14 fiscal deficit as a per cent of GSDP at current (2011-12) prices was 11.01%, highest in the study period, but came down sharply in the subsequent period. Primary deficit as a per cent of GSDP at current (2011-12) prices was -0.32 in 2012-13(A) and it became 4.11 % in 2023-24(BE). As a per cent of GSDP at current (2011-12) prices, interest payment is remained more or less same in the reference period. As a per cent of GSDP at current (2011-12) prices, interest payment was 2.17% in 2012-13(A) and it became 2.34 per cent in 2023-24(BE).

Table 4.2
Deficits and interest payment as a per cent of GSDP at current (2011-12) prices

Year	Revenue Deficit	Fiscal Deficit	Primary Deficit	<i>Interest Payments</i>
2012-13 (A)	-7.77	1.85	-0.32	2.17
2013-14 (A)	-0.61	11.01	8.87	2.14
2014-15 (A)	-11.02	-2.89	-4.84	1.95
2015-16 (A)	-11.83	-1.02	-3.27	2.25
2016-17 (A)	-11.98	-4.25	-6.25	2.01
2017-18 (A)	-12.79	1.39	-0.69	2.08
2018-19 (A)	-14.87	7.80	5.72	2.08
2019-20 (A)	-8.89	3.44	1.39	2.05
2020-21 (A)	-13.22	3.56	1.09	2.46
2021-22 (A)	-16.47	3.37	1.00	2.38
2022-23 (RE)	-16.31	8.38	5.85	2.53
2023-24 (BE)	-7.85	6.44	4.11	2.34

Source: State Finances: A Study of Budgets, RBI; MoSPI

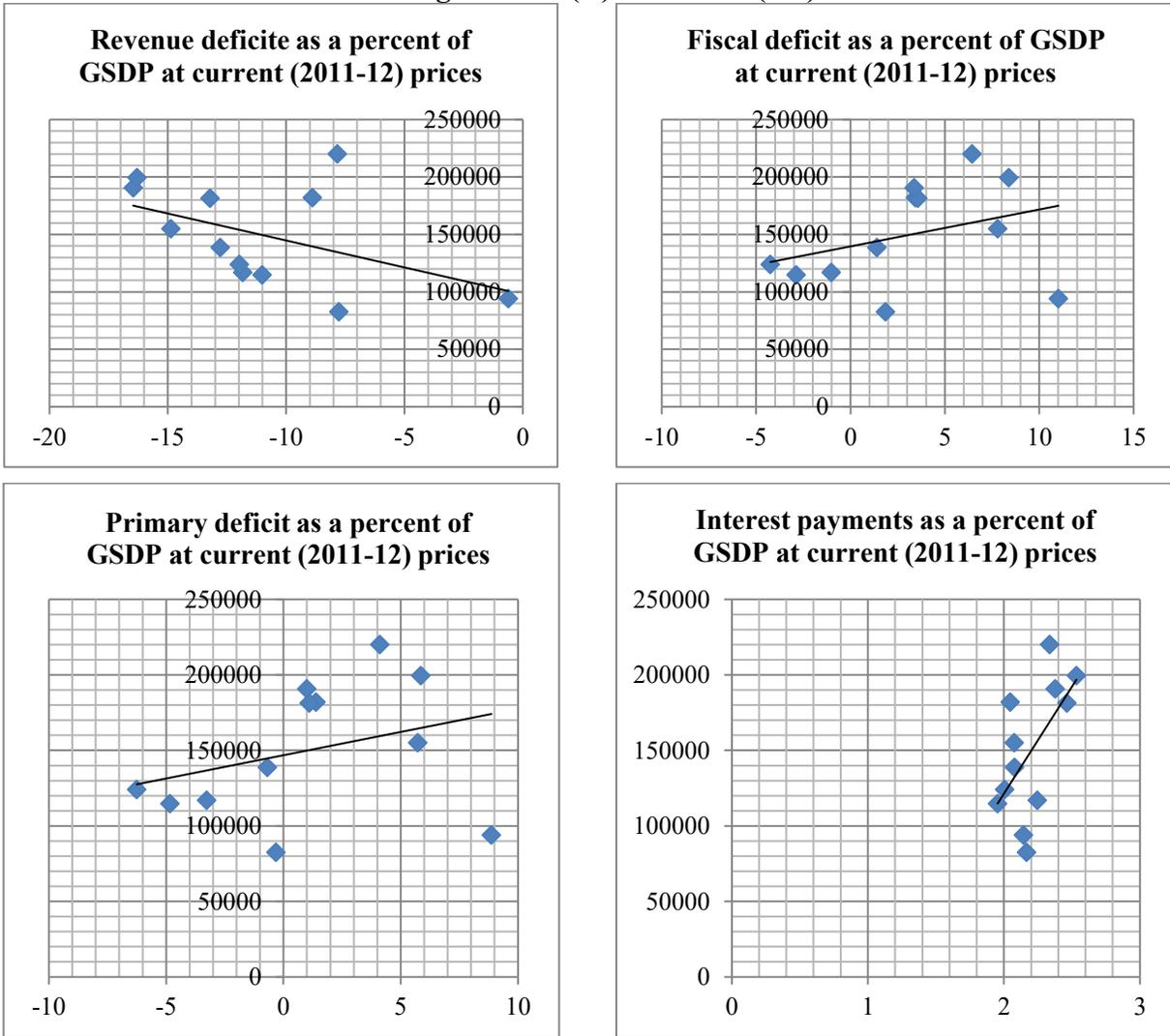
Note: A-Account

N.B.: '+' indicates deficit and '-' indicates surplus; GSDP data for Arunachal Pradesh is available only up to 2023-24

4.3 Economic Growth and Fiscal Situation

The economic growth of the state has been measured in terms of per Capita NSDP as it is a better indicator as compared to per capita GSDP. Examining the relation of important deficit indicators with economic growth, a negative relation between per capita NSDP at current (2011-12) prices and revenue deficit has been found during the study period (Figure 3.1). It shows correction in revenue accounts with higher economic growth. However, the relation between per capita NSDP at current (2011-12) prices and fiscal deficit is found to be positive. Thus, government's overall spending has been rising with higher economic growth. The positive relation of primary deficit with per capita NSDP at current (2011-12) prices depicts that capital outlay of the government is increasing with higher economic growth which is a positive sign for the state from the development perspective. Meanwhile, interest burden of the government is also positively associated with its economic growth.

Figure 4.3
Relation of per capita NSDP at current (2011-12) prices with deficits and interest burden
during 2012-13 (A) to 2023-24(BE)



Source: State Finances: A Study of Budgets, RBI; MoSPI
 N.B.: '+' indicates deficit and '-' indicates surplus

4.4 Conclusion

The above discussion shows that the state has maintained a surplus in its revenue account and also follows a rising trend in it as a percentage of GSDP. However, in most of the years in the study period, there were fiscal and primary deficits. Although there was fiscal deficit which followed a rising trend, it was associated largely with increased capital outlay showing more focus on asset creation and infrastructural development in the state.

Chapter 5

Public Debt and Fiscal Sustainability: Towards a Sustainable Debt Roadmap

Chapter V

Public Debt and Fiscal Sustainability: Towards a Sustainable Debt Roadmap

5.1 Introduction and Background

Public debt serves as a fundamental tool for optimally distributing public policies over time. By enabling governments to separate the timing of public goods provision from the taxation required to fund them, public borrowing facilitates flexibility in policy implementation. However, for debt to fulfil this role effectively, debt holders must trust that the government will honour its commitments. This trust hinges on the sustainability of fiscal policies.

The public debt of a country is deemed sustainable when it can meet budgetary constraints without undermining monetary or fiscal stability. Maintaining stable monetary and fiscal policies is, therefore, critical. Ultimately, meeting government budget constraints involves recognizing scenarios where default (non-payment) or debt monetization may occur, provided these actions align with consistent mathematical frameworks. In such cases, the equations representing transition from strict budget constraints to functioning as pricing mechanisms. These mechanisms address the fundamental question of the current value of debt, even in situations where full repayment may not be guaranteed.

The sustainability of debt is a concern for the Finance Commission. Excessive debt stock can strain interest payments, contributing to Revenue Deficits in the current year. However, when managed effectively, debt can facilitate asset creation and support economic growth. Debt sustainability is a key concept in public finance, serving as a valuable measure to assess the fiscal health of the state. Proper evaluation of debt sustainability enables states to identify vulnerabilities and implement corrective measures, ensuring long-term financial stability. In this chapter, we analyse the public debt position of the State, structured in two main parts. The first part examines the trend and composition of the total debt stock from 2010–11 to 2024–25. The second part assesses debt sustainability and solvency using the Domar model, and further develops a forward-looking sustainable debt roadmap with forecasts for the period 2024–25 to 2030–31.

The Finance Commissions are tasked with monitoring and evaluating the sustainability of state debt at regular intervals. As a state's debt stock increases, it exerts pressure on interest payments, often leading to Revenue Deficits in the current fiscal year. Since Finance Commissions are responsible for addressing revenue account shortfalls, they are particularly

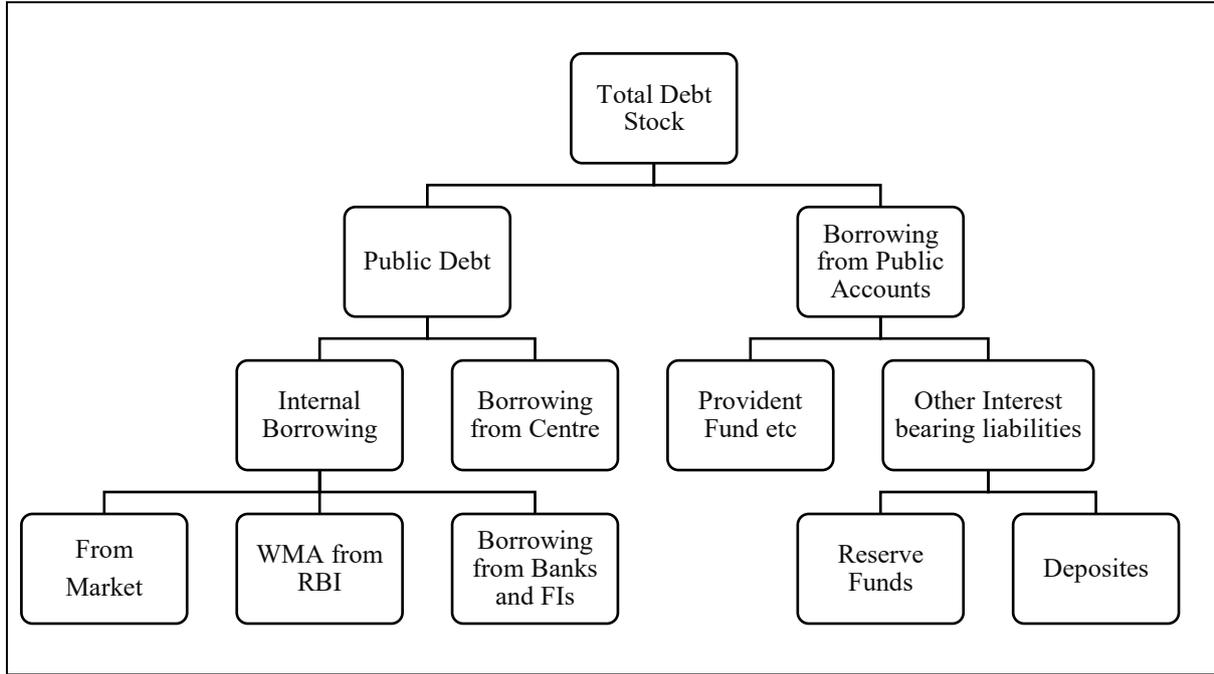
attuned to factors like rising debt, which can push the revenue account into deficit territory. This chapter examines the trends, patterns and composition of debt taken by the Government of Arunachal Pradesh for the period of 2010-11 to 2023-23 (BE).

The total debt stock of the Government of Arunachal Pradesh is categorized based on the Overall Debt Position outlined by the Finance Department in the Budget Documents. The primary components of the total debt stock are as follows (1+2+3):

1. Public Debt (i + ii)
 - i. Internal Debt (Market Loans, WMA from the RBI, loans from Banks and FIs)
 - ii. Loans and Advances from the Central Government
2. Provident fund, Small Savings etc.
3. Other interest-bearing obligations (a + b)
 - a. Reserve funds
 - b. Deposits bearing interest

All loans raised under the "Public Debt" category are included in the Consolidated Fund of the State, as established under Article 266(1) of the Constitution. Article 266(2) provides for the creation of the Public Account, which comprises funds where the Government acts as a banker and are not subject to approval by the State Legislature. Receipts and disbursements related to Provident Funds, Small Savings (including Insurance and Pension funds), Reserve Funds, and Deposits and Advances (such as Civil Deposits and deposits by PRIs) fall under the Public Account. Since debt from Provident Funds and Small Savings under the Public Account is reported separately from other interest-bearing obligations by the Government, we adhere to the same reporting convention. Figure 5.1 provides a clear depiction of the components comprising the Total Debt Stock of the Government of Arunachal Pradesh.

Figure 5.1
Debt Structure of the State Government



5.2 Detailed Methodology

5.2.1 Domar Model of Debt Sustainability

The Domar model of debt sustainability can be written as:

$$PD_t = TDS_t - TDS_{t-1} - r(TDS_{t-1}) \quad (1)$$

Here,

PD_t = Primary Deficit at time t

TDS_t = Total Stock of Debt at period t

TDS_{t-1} = Total Stock of Debt at period t-1

r = Rate of Interest

In order to attain solvency, present outstanding stock of debt must be equal to the sum of the discounted primary surplus of future years. In other words,

$$D_0 = - \sum_{t=1}^{\infty} \frac{PD_t}{(1+r)^t} \quad (2)$$

Equation 1 can be simplified in the following way:

$$TDS_t - TDS_{t-1} = PD_t + r(TDS_{t-1}) \quad (3)$$

Here, $TDS_t = (1+k) TDS_{t-1}$; therefore,

$$TDS_{t-1} = (1+k)^{-1} TDS_t$$

Now, we can rewrite the equation (3) as,

$$(1 + k)TDS_{t-1} - TDS_{t-1} = PD_t + r(TDS_{t-1})$$

$$TDS_{t-1}(1 + k - 1) = PD_t + r(TDS_{t-1})$$

$$k.TDS_{t-1} - r(TDS_{t-1}) = PD_t$$

$$PD_t = (k - r)TDS_{t-1} \quad (4)$$

Substituting the value of PD from equation 4 to equation 2, we get:

$$D_0 = - \sum_{t=1}^{\infty} \frac{(k - r)D_{t-1}}{(1 + r)^t}$$

$$D_0 = (r - k) \sum_{t=1}^{\infty} \frac{D_{t-1}}{(1 + r)^t} \quad (5)$$

It is clear from equation (5) that if make $D_0=0$, then $r=k$. In other words, interest must be equal to the growth rate of the debt stock. From equation (1), it can be written that,

$$D_t = PD_t + D_{t-1} + r(D_{t-1}) \quad (6)$$

$$D_t = (1 + r)D_{t-1} + PD_t \quad (7)$$

By dividing both sides of the equation (7) by Y_t ($Y_t = \text{GSDP at period } t$), we get:

$$\frac{D_t}{Y_t} = \frac{(1 + r)D_{t-1}}{Y_t} + \frac{PD_t}{Y_t} \quad (8)$$

Also, we know that $Y_t = (1+g)Y_{t-1}$; g is the growth rate of GSDP, So,

$$\frac{D_t}{Y_t} = \frac{(1 + r)D_{t-1}}{(1 + g)Y_{t-1}} + \frac{PD_t}{Y_t}$$

$$d_t = \frac{(1+r)}{(1+g)} d_{t-1} + pd_t \quad (9)$$

Where, $d_t = \frac{D_t}{Y_t}$, $d_{t-1} = \frac{D_{t-1}}{Y_{t-1}}$, $pd_t = \frac{PD_t}{Y_t}$

Since, targeted value of pd_t is a constant, the equation 9 is a first order difference equation. By solving the difference equation, we will get:

$$d_t = \left(\frac{1+r}{1+g}\right)^t d_0 - pd_t \left(\frac{1+r}{1+g}\right)^t \left(\frac{1+g}{g-r}\right) + pd_t \left(\frac{1+g}{g-r}\right) \quad (10)$$

So, in the long run, $t \rightarrow \infty$, therefore, $d_t \rightarrow pd_t \left(\frac{1+g}{g-r}\right)$ only,

When,

$$\begin{aligned} \left(\frac{1+r}{1+g}\right)^t &\rightarrow 0 \\ 0 &\leq \left(\frac{1+r}{1+g}\right) < 1 \\ \text{or, } 1+r &< 1+g \\ \text{or, } r &< g \end{aligned}$$

In other words, growth of interest payment must be less than annual nominal growth rate of the GSDP. Therefore, for solvency and sustainability of the debt, $k \leq r \leq g$, i.e., growth rate of the debt stock must be less than or equal to growth rate of the interest payment and must be less than the growth rate of the GSDP, when a sub-national economy is running by accumulating primary deficit.

5.2.2 Debt Sustainability Forecast

5.2.2.1 Description of the variables

For the analysis, annual data spanning 2010–11 to 2023–24 was collected from the state government's budget documents and Reserve Bank of India compilations. All monetary values are expressed in crore rupees at current prices. The dataset includes Gross State Domestic Product of Arunachal Pradesh, Interest Payments, and Total Debt Stock (liabilities of the state government).

5.2.2.2 ARIMA Model Framework

The ARIMA model, denoted as ARIMA (p, d, q), is defined by three parameters:

- a. **p (Auto-regressive term):** Number of lagged values in the model,

- b. **d (Integration order):** Number of times the series is differenced to achieve stationarity
- c. **q (Moving average term):** Number of lagged forecast errors in the prediction equation.

The general ARIMA model is specified as:

$$\Delta^d Y_t = \alpha + \sum_{i=1}^p \phi_i \Delta^d Y_{t-i} + \sum_{j=1}^q \theta_j U_{t-j} + U_t$$

Where Y_t is the observed variables, U_t is white noise, and Δ^d denotes differencing of order d.

5.2.2.3 Model Structure

ARIMA requires the variables to be stationary, and it is found that all the variables are stationary at 1st difference. ARIMA model orders (p, d, q) were selected based on the Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC). The final models selected for each variable are:

- **GSDP:** ARIMA(1,1,1)
- **Interest Payments:** ARIMA(1,1,1)
- **Total Debt:** ARIMA(1,1,1)

These models were estimated using **Maximum Likelihood Estimation (MLE)**. Each model yielded statistically significant AR and MA terms, suggesting a good fit to the data-generating process. Thereafter, for the period of 2024-25 to 2030-31, all the three series are forecasted.

5.3 Result and Discussion

5.3.1 Trend, Pattern and Composition of Total Outstanding Liability

Table 5.1 illustrates the composition of total debt stock (Accumulated debt over time) of Arunachal Pradesh across three Finance Commission periods: the 13th (2010-11 to 2014-15), 14th (2015-16 to 2019-20), and 15th (2020-21 to 2023-24). The data shows significant shifts in the structure of debt over the years.

During this period, the share of Public Debt declined steadily from 61.71% in 2010-11 to 49.27% in 2014-15, highlighting a falling reliance on direct government borrowing. Meanwhile, the contribution of Provident Funds to the total debt stock rose slightly, from 24.86% to 23.82%. Conversely, Other Interest-Bearing Obligations, which constituted a

significant portion of the debt, decreased from 13.43% in 2010-11 to 26.90% in 2014-15. This period reflects a balanced approach to debt management, with Public Debt emerging as a key component.

This period witnessed notable fluctuations in the debt composition. In 2015-16, the share of Public Debt decreased to 41.51%, but it rebounded to 59.29% by 2017-18 and 52.96% by 2019-20, indicating a growing reliance on government borrowing to meet fiscal requirements. Simultaneously, the share of Provident Funds showed stability, averaging between 26.43% and 28.02%, reflecting consistent contributions from employee savings. The share of Other Interest-Bearing Obligations saw a decline, dropping from 30.47% in 2015-16 to 26.40% in 2019-20. This period reflects an adaptive borrowing strategy in response to fiscal pressures.

The data for the 15th Finance Commission period highlights an increasing emphasis on Public Debt, which rose significantly, peaking at 69.22% in 2024-25. This trend underscores the state's strategy to leverage government borrowing to address fiscal challenges and fund developmental needs. In contrast, the contribution of Provident Funds declined modestly from 19.32% in 2020-21 to 12.69% in 2024-25. Similarly, the share of Other Interest-Bearing Obligations showed a downward trend, reducing from 24.12% in 2020-21 to 18.08% in 2024-25. This shift towards a heavier reliance on Public Debt indicates a focused approach toward managing state finances through direct borrowing.

Table 5.1
Components of Total Debt Stock of Arunachal Pradesh

(Value in Rs. Crore)

Finance Commissions	Year	Public Debt		Loan from Public Accounts				Total Debt Stock	
				Provident Funds		Other Interest Bearing Obligations			
		Value	%	Value	%	Value	%	Value	%
13 th Finance Commission	2010-11	2160.0	61.71	870.0	24.86	470.0	13.43	3500.0	100.0
	2011-12	2170.0	55.08	1000.0	25.38	770.0	19.54	3940.0	100.0
	2012-13	2280.0	53.52	1120.0	26.29	860.0	20.19	4260.0	100.0
	2013-14	2460.0	52.34	1270.0	27.02	970.0	20.64	4700.0	100.0
	2014-15	3040.0	49.27	1470.0	23.82	1660.0	26.90	6170.0	100.0
14 th Finance Commission	2015-16	2370.0	41.51	1600.0	28.02	1740.0	30.47	5710.0	100.0
	2016-17	2790.0	49.29	1760.0	31.10	1110.0	19.61	5660.0	100.0
	2017-18	4132.0	59.29	2002.5	28.74	834.1	11.97	6968.6	100.0
	2018-19	4984.7	59.13	2228.4	26.43	1217.4	14.44	8430.4	100.0
	2019-20	6420.8	52.96	2503.5	20.65	3200.7	26.40	12125.0	100.0
15 th Finance Commission	2020-21	7962.1	56.56	2719.4	19.32	3396.0	24.12	14077.5	100.0
	2021-22	8803.2	55.28	2962.9	18.61	4158.6	26.11	15924.7	100.0
	2022-23	10731.6	59.43	3117.6	17.26	4208.2	23.30	18057.6	100.0
	2023-24 (RE)	14258.5	65.22	3204.0	14.66	4398.2	20.12	21860.8	100.0
	2024-25 (BE)	17627.1	69.22	3233.0	12.69	4604.0	18.08	25464.1	100.0

Note: Percentage shows the share of each components in total debt stock.

Source: Various Budget Documents of the Govt. of Arunachal Pradesh.

5.3.2 Public Debt and Its Composition

Table 5.2 illustrates the composition of public debt in Arunachal Pradesh, categorizing it into internal debt and loans and advances from the Centre, along with their respective shares in public debt across three Finance Commission periods: the 13th (2010-11 to 2014-15), 14th (2015-16 to 2019-20), and 15th (2020-21 to 2023-24). The table provides insights into the evolving debt structure and the state's reliance on different borrowing sources.

During the 13th Finance Commission period, internal debt consistently dominated the public debt structure. Its share in public debt increased steadily from 82.41% in 2010-11 to 91.45% in 2014-15, reflecting a growing dependence on internal borrowing. Conversely, loans and advances from the Centre experienced a sharp decline, both in absolute terms (from Rs. 380 crore in 2010-11 to Rs. 260 crore in 2014-15) and as a percentage of public debt (falling from 17.59% to 8.55%). This trend indicates the state's gradual shift away from central loans towards internal debt mechanisms, possibly due to more favourable terms or autonomy associated with internal borrowing.

The 14th Finance Commission period saw an even stronger reliance on internal debt. Its share in public debt rose from 90.30% in 2015-16 to an unprecedented 98.08% in 2019-20. Internal debt increased substantially in absolute terms, from Rs. 2140 crore in 2015-16 to Rs. 6297.3 crore in 2019-20, highlighting the state's growing dependence on this borrowing source to meet fiscal demands. On the other hand, loans and advances from the Centre declined sharply, both in value and share. By 2019-20, these loans constituted only 1.92% of public debt, amounting to Rs. 123.5 crore. This period reflects the state's almost complete reliance on internal debt, indicating reduced dependency on central financial assistance in the form of loans and advances.

The 15th Finance Commission period reveals a reversal of the previous trend, marked by a gradual resurgence in loans and advances from the Centre as a significant component of public debt. While internal debt continued to dominate initially, its share began to decline, dropping from 95.85% in 2020-21 to 61.88% in 2024-25. Concurrently, loans and advances from the Centre increased substantially, both in absolute terms (from Rs. 330.3 crore in 2020-21 to Rs. 6719.0 crore in 2024-25) and as a percentage of public debt (rising from 4.15% to 38.12%). This shift indicates a renewed reliance on central assistance to address fiscal needs, potentially driven by policy changes or specific financial exigencies during this period.

Over these three Finance Commission periods, internal debt consistently played a dominant role in Arunachal Pradesh's public debt structure. However, its share peaked during the 14th Finance Commission and subsequently declined in the 15th Finance Commission period as loans and advances from the Centre regained prominence. This transition highlights the dynamic nature of the state's borrowing strategy, influenced by factors such as fiscal policies, economic conditions, and central government programs. The significant rise in central loans during the 15th Finance Commission period may also reflect increased financial support from the Union Government to address developmental and economic challenges in the state.

Table 5.2
Composition of Public Debt

(Value in Rs. Crore)

Finance Commissions	Year	Internal Debt	Internal debt to Public Debt	Loans and Advances from the Centre	Loans and Advances from the Centre to Public Debt
		Value	% Share	Value	% Share
13 th Finance Commission	2010-11	1780.0	82.41	380.0	17.59
	2011-12	1830.0	84.33	340.0	15.67
	2012-13	1970.0	86.40	310.0	13.60
	2013-14	2180.0	88.62	280.0	11.38
	2014-15	2780.0	91.45	260.0	8.55
14 th Finance Commission	2015-16	2140.0	90.30	230.0	9.70
	2016-17	2590.0	92.83	200.0	7.17
	2017-18	3953.4	95.68	178.6	4.32
	2018-19	4835.01	97.00	149.65	3.00
	2019-20	6297.3	98.08	123.5	1.92
15 th Finance Commission	2020-21	7631.8	95.85	330.3	4.15
	2021-22	8127.9	92.33	675.3	7.67
	2022-23	8518.2	79.37	2213.4	20.63
	2023-24 (RE)	9513.6	66.72	4744.9	33.27
	2024-25 (BE)	10907.7	61.88	6719.0	38.12

Source: Various Budget Documents of the Govt. of Arunachal Pradesh.

5.3.3 Debt to Public Accounts

Table 5.3 outlines the composition of Arunachal Pradesh's debt to public accounts from 2010-11 to 2023-24, highlighting contributions from State Provident Funds, Reserve Funds, and Deposits and Advances. These components are presented in absolute terms (Rs. crore) and as percentages of total public account debt, revealing significant shifts across the analysed years.

State Provident Funds consistently emerged as a dominant contributor, reflecting the state's reliance on long-term, low-cost borrowings from its employees and citizens. In the 13th

Finance Commission period (2010-11 to 2014-15), Provident Funds contributed between 46.96% and 64.93% of total public account debt. However, their share began to decline towards the end of this period, particularly in 2014-15, when Reserve Funds and Deposits surged, altering the composition of the debt structure.

Reserve Funds experienced a dramatic increase during the 14th Finance Commission period (2015-16 to 2019-20), growing from 6.71% in 2014-15 to over 51.50% by 2019-20. This trend suggests a shift towards earmarked funds, possibly to manage specific liabilities or infrastructure projects. Meanwhile, Deposits and Advances, which fluctuated between 3.88% and 46.33% during the 13th Finance Commission period, declined sharply during this period, stabilizing below 5% by 2019-20.

Table 5.3
Components of Debt to Public Account

(Values in Rs. Crore)

Year	State Provident Funds, etc.	Reserve Funds (net)	Deposits and Advances (net)	Debt to Public Account
2010–11	870.0 (64.93%)	90.0 (6.72%)	380.0 (28.36%)	1340.0 (100.00%)
2011–12	1000.0 (56.50%)	110.0 (6.21%)	660.0 (37.29%)	1770.0 (100.00%)
2012–13	1120.0 (56.57%)	130.0 (6.57%)	730.0 (36.87%)	1980.0 (100.00%)
2013–14	1270.0 (56.70%)	190.0 (8.48%)	780.0 (34.82%)	2240.0 (100.00%)
2014–15	1470.0 (46.96%)	210.0 (6.71%)	1450.0 (46.33%)	3130.0 (100.00%)
2015–16	1600.0 (47.90%)	410.0 (12.28%)	1330.0 (39.82%)	3340.0 (100.00%)
2016–17	1760.0 (61.32%)	590.0 (20.56%)	520.0 (18.12%)	2870.0 (100.00%)
2017–18	2002.5 (70.60%)	724.0 (25.52%)	110.1 (3.88%)	2836.6 (100.00%)
2018–19	2228.4 (64.67%)	1031.3 (29.93%)	186.1 (5.40%)	3445.8 (100.00%)
2019–20	2503.5 (43.89%)	2937.4 (51.50%)	263.3 (4.62%)	5704.2 (100.00%)
2020–21	2719.4 (44.47%)	3078.9 (50.35%)	317.1 (5.19%)	6115.4 (100.00%)
2021–22	2962.9 (41.60%)	3811.9 (53.53%)	346.7 (4.87%)	7121.5 (100.00%)
2022–23	3117.6 (42.56%)	3867.6 (51.43%)	340.8 (4.65%)	7326.0 (100.00%)
2023–24 (RE)	3204.0 (42.10%)	3970.6 (52.20%)	427.6 (5.60%)	7602.2 (100.00%)
2024–25 (BE)	3233.0 (41.30%)	4078.8 (52.00%)	525.2 (6.70%)	7837.0 (100.00%)

Source: Various Budget Documents of the Govt. of Arunachal Pradesh.

Note: Values in parentheses indicate percentage share in of each component in debt to public account.

During the 15th Finance Commission period (2020-21 to 2024-25), Reserve Funds retained their dominant share, peaking at 53.53% in 2021-22 before slightly decreasing to 52% in 2024-25. Provident Funds rebounded slightly, contributing around 43-45% during this period, signalling a continued reliance on this relatively stable funding source. Deposits and Advances saw modest growth, rising from 4.87% in 2021-22 to 6.7% in 2024-25, indicating a minor resurgence in this debt category.

The composition of Arunachal Pradesh's public account debt has evolved over the years, shaped by the state's shifting reliance on Provident Funds, Reserve Funds, and Deposits and Advances. While Provident Funds remained a crucial component throughout, Reserve Funds gained prominence during the 14th and 15th Finance Commission periods, reflecting strategic adjustments in debt management. These trends underscore the dynamic interplay of fiscal priorities and economic conditions in shaping the state's public account debt structure.

5.3.4 Interest Payments to Revenue Receipt and Revenue Expenditure

Table 5.4 presents the trends in total interest payments and their share in the revenue account of the Government of Arunachal Pradesh across the 13th, 14th, and 15th Finance Commission periods. It provides annual figures for total interest payments, revenue expenditure, and revenue receipts, along with the ratios of interest payments to revenue expenditure and revenue receipts, which are important indicators of fiscal sustainability.

Table 5.4
Total Interest Payments and Its share in Revenue Account

Finance Commissions	Year	Total Interest Payment (Rs. Lakh)	Revenue Expenditure (Rs. Lakh)	Revenue Receipt (Rs. Lakh)	Interest Payment to Revenue Expenditure (%)	Interest Payment to Revenue Receipt (%)
13 th Finance Commission	2010-11	39992.0	374424.0	542208	10.68	7.38
	2011-12	28181.0	441786.0	549906	6.38	5.12
	2012-13	27185.0	478624.0	576152	5.68	4.72
	2013-14	31251.0	573140.0	582043	5.45	5.37
	2014-15	35088.0	715659.0	913605	4.90	3.84
Change (10-11 to 14-15)					-5.78	-3.54
14 th Finance Commission	2015-16	41564.0	836274.0	1055314	4.97	3.94
	2016-17	39923.0	939454.0	1177957	4.25	3.39
	2017-18	46735.8	1090046.9	1377460	4.29	3.39
	2018-19	52609.7	1242947.6	1619596	4.23	3.25
	2019-20	61453.2	1221873.0	1488855	5.03	4.13
Change (15-16 to 19-20)					0.06	0.19
15 th Finance Commission	2020-21	75234.2	1308750.0	1712351	5.75	4.39
	2021-22	77761.6	1584664.1	2123164	4.91	3.66
	2022-23	83463.9	1741766.80	2378814	4.79	3.51
	2023-24 (RE)	91265.0	2360172.30	2931272.1	3.87	3.11
	2024-25 (BE)	95637.0	2593186.90	3126730.3	3.69	3.06
Change (20-21 to 24-25)					-0.18	-0.05

Source: Various Budget Documents of the Govt. of Arunachal Pradesh.

During the 13th Finance Commission period (2010–15), interest payments declined in absolute terms, from ₹39,992 lakh in 2010–11 to ₹35,088 lakh in 2014–15. More notably, the interest payment to revenue expenditure ratio declined sharply from 10.68% to 4.90%, and

the interest payment to revenue receipts ratio dropped from 7.38% to 3.84%. This indicates an improvement in the state's debt servicing capacity and reduced fiscal pressure.

In the 14th Finance Commission period (2015–20), interest payments increased modestly, yet their share in the revenue account remained stable. The interest-to-expenditure ratio stayed within the 4–5% range, while the interest-to-receipt ratio remained between 3.25% and 4.13%. The change in ratios from 2015–16 to 2019–20 was marginal, indicating a plateau in improvement.

The 15th Finance Commission period (2020–25) saw a rise in total interest payments, from ₹75,234 lakh in 2020–21 to a budgeted ₹95,637 lakh in 2024–25. However, due to a faster growth in revenues, the interest payment burden declined to 3.69% of revenue expenditure and 3.06% of revenue receipts. This trend suggests improved fiscal space and better debt sustainability in recent years. The growing debt burden of Arunachal Pradesh is significantly driven by large dam construction project on Siang River, which has faced prolonged delays due to environmental challenges, cost overruns, and public protests over displacement and ecological concerns. These delays not only stall revenue generation from completed infrastructure but also escalate the state's interest obligations, as loans taken for these capital-intensive projects begin accruing interest well before returns materialize. As the repayment schedule continues irrespective of project progress, the interest burden on the state's budget is rising, and future borrowings may carry higher rates, further compounding fiscal stress.

5.3.5 Public Debt to GSDP

Table 5.5 provides an analysis of Arunachal Pradesh's total debt stock as a percentage of its Gross State Domestic Product (GSDP), segmented into various components, across the 13th, 14th, and 15th Finance Commission periods. The components include public debt (internal debt and loans and advances from the Centre), state provident funds, and other interest-bearing obligations such as reserve funds and deposits and advances. The data highlights changing borrowing patterns and fiscal reliance over the years.

During the 13th Finance Commission period (2010-11 to 2014-15), public debt as a share of GSDP declined from 23.32% in 2010-11 to 16.93% in 2014-15. Internal debt was the primary component but decreased significantly from 19.22% to 15.48%. Loans and advances from the Centre also declined sharply, from 4.10% to 1.45%. State provident funds remained stable, contributing around 8-9% of GSDP. However, other interest-bearing obligations, particularly deposits and advances, increased notably from 4.10% to 8.07%, raising the total share of

these obligations. Overall, the total debt stock declined from 37.79% to 34.36% of GSDP, indicating a period of fiscal consolidation and reduced reliance on borrowing.

In the 14th Finance Commission period (2015-16 to 2019-20), public debt experienced a significant increase, rising from 12.80% in 2015-16 to 21.39% in 2019-20. This growth was driven by internal debt, which increased from 11.56% to 20.97%, while loans and advances from the Centre continued to decline, contributing only 0.41% by 2019-20. State provident funds maintained their share at approximately 8.5-9% of GSDP. Other interest-bearing obligations showed mixed trends, with reserve funds increasing sharply from 2.22% to 9.78%, while deposits and advances fell from 7.19% to 0.88%. Total debt stock increased significantly, from 30.85% in 2015-16 to 40.38% in 2019-20, reflecting heightened borrowing needs to address fiscal demands.

The 15th Finance Commission period (2020-21 to 2024-25) marked a sharp increase in public debt, which rose from 26.08% of GSDP in 2020-21 to 53.25% in 2024-25. Internal debt remained the dominant contributor, growing marginally from 25.00% to 25.31%. Loans and advances from the Centre increased substantially, from 1.08% in 2020-21 to 7.56% in 2022-23, reflecting renewed reliance on central assistance. State provident funds maintained stability at around 8.9% of GSDP. Other interest-bearing obligations, including reserve funds and deposits and advances, grew slightly from 11.13% in 2020-21 to 11.83% in 2022-23. The total debt stock rose significantly, from 46.12% in 2020-21 to 53.25% in 2024-25, reflecting increased borrowing to meet fiscal and developmental needs, particularly in the context of the COVID-19 pandemic.

Overall, Arunachal Pradesh's debt composition shows a shift in borrowing patterns over the three Finance Commission periods. Internal debt consistently remained the largest component of public debt, with its share peaking during the 14th Finance Commission period. Loans and advances from the Centre declined sharply during the 13th and 14th periods but rebounded significantly in the 15th period, signalling increased central financial assistance. The total debt stock as a share of GSDP declined during the 13th Finance Commission period, stabilized during the 14th, and surged in the 15th, reflecting evolving fiscal challenges and a growing reliance on borrowing to address developmental and economic pressures. And it can be said that the total debt stock as a percentage of GSDP remained high for Arunachal Pradesh.

The loan from the reserve fund is increasing because Arunachal Pradesh is relying on it to cover financial gaps caused by revenue shortfalls, and rising expenditures. The state is using

these funds as an internal borrowing source to meet its spending needs, especially for infrastructure, salaries, and welfare programs. As a result, withdrawals from the reserve fund have grown, leading to a higher debt burden.

Table 5.5
Percentage Share of Various components of Total Debt Stock in GSDP

Finance Commissions	Year	Public Debt			State Provident Funds, etc.	Other Interest Bearing Obligations			Total Debt Stock
		Internal Debt	Loans and Advances from the Centre	Total		Reserve Funds (net)	Deposits and Advances (net)	Total	
		(a)	(b)	(a+b)		(c)	(d)	(e)	
13 th Finance Commission	2010-11	19.22	4.10	23.32	9.39	0.97	4.10	5.07	37.79
	2011-12	16.54	3.07	19.62	9.04	0.99	5.97	6.96	35.62
	2012-13	15.70	2.47	18.17	8.93	1.04	5.82	6.85	33.95
	2013-14	14.95	1.92	16.87	8.71	1.30	5.35	6.65	32.23
	2014-15	15.48	1.45	16.93	8.19	1.17	8.07	9.24	34.36
Change (10-11 to 14-15)		-3.74	-2.65	-6.39	-1.2	0.2	3.97	4.17	-3.43
14 th Finance Commission	2015-16	11.56	1.24	12.80	8.64	2.22	7.19	9.40	30.85
	2016-17	13.01	1.00	14.02	8.84	2.96	2.61	5.58	28.44
	2017-18	17.59	0.79	18.39	8.91	3.22	0.49	3.71	31.01
	2018-19	19.08	0.59	19.68	8.80	4.07	0.73	4.81	33.28
	2019-20	20.97	0.41	21.39	8.34	9.78	0.88	10.66	40.38
Change (15-16 to 19-20)		9.41	-0.83	8.59	-0.3	7.56	-6.31	1.26	9.53
15 th Finance Commission	2020-21	25.00	1.08	26.08	8.91	10.09	1.04	11.13	46.12
	2021-22	24.85	2.06	26.92	9.06	11.66	1.06	12.72	48.69
	2022-23	24.31	6.32	30.63	8.90	11.04	0.97	12.01	51.54
	2023-24 (RE)	27.94	12.15	40.09	8.21	10.17	1.10	11.27	55.99
	2024-25 (BE)	22.81	14.05	36.86	6.76	8.53	1.10	9.63	53.25
Change (20-21 to 23-24)		-2.19	12.97	10.78	-2.15	-1.56	0.06	-1.5	7.13

Source: Various Budget Documents of the Govt. of Arunachal Pradesh.

5.3.6 Elasticity to Debt to GSDP

The **elasticity of debt to GSDP** is a measure of how sensitive the debt components are to changes in the Gross State Domestic Product (GSDP). It is calculated using the following formula:

$$Elasticity_i = \frac{\text{Percentage Change in Debt Component } i}{\text{Percentage Change in GSDP}}$$

Here, *i* represents various components of debt.

Table 5.6 evaluates the elasticity of various debt components relative to GSDP in Arunachal Pradesh, offering insights into how different debt types respond to changes in the state's economic output. Elasticity, calculated as the percentage change in a debt component divided

by the percentage change in GSDP, indicates whether the debt grows faster (elasticity > 1), slower (elasticity < 1), or declines (negative elasticity) relative to economic growth.

The elasticity of internal debt, a significant component of public debt, shows substantial fluctuations over the years. Positive values dominate, such as 12.68 in 2020-21, reflecting a sharp increase in internal borrowing during the pandemic relative to modest GSDP growth.

However, the variability is evident, with lower values like 0.14 in 2011-12 and a surge in 2020-21, highlighting the state's dependency on internal debt during fiscal challenges. In contrast, loans and advances from the Centre often exhibit negative elasticity, such as -0.54 in 2011-12 and -0.66 in 2012-13, indicating a decline in their share relative to GSDP during those years. However, exceptional spikes, such as 100.21 in 2020-21 and 31.94 in 2022-23, suggest increased central borrowing during periods of economic stress or special funding needs.

Table 5.6
Elasticity of Different Component of Debt to GSDP

Year	Public Debt			Loan From Public					Total Debt Stock
	Internal Debt	Loans and Advances from the Centre	Total	State Provident Funds, etc.	Other interest Bearing Obligations			Total	
					Reserve Funds (net)	Deposits and Advances (net)	Total		
11-12	0.14	-0.54	0.02	0.77	1.14	3.79	3.28	1.65	0.65
12-13	0.57	-0.66	0.38	0.89	1.36	0.79	0.87	0.88	0.61
13-14	0.66	-0.60	0.49	0.83	2.85	0.42	0.79	0.81	0.64
14-15	1.19	-0.31	1.02	0.68	0.45	3.71	3.07	1.71	1.35
15-16	-7.52	-3.77	-7.20	2.89	31.11	-2.70	1.57	2.19	-2.44
16-17	2.79	-1.73	2.35	1.33	5.83	-8.09	-4.81	-1.87	-0.12
17-18	4.07	-0.83	3.72	1.07	1.76	-6.10	-1.92	-0.09	1.79
18-19	1.75	-1.27	1.62	0.89	3.34	5.42	3.61	1.69	1.65
19-20	1.63	-0.94	1.56	0.67	9.99	2.24	8.80	3.54	2.37
20-21	12.68	100.21	14.36	5.16	2.88	12.23	3.65	4.31	9.63
21-22	0.91	14.63	1.48	1.25	3.33	1.31	3.14	2.30	1.84
22-23	0.67	31.94	3.07	0.73	0.20	-0.24	0.17	0.40	1.88
23-24 (RE)	2.46	10.01	2.88	0.24	0.23	2.23	0.40	0.33	1.84
24-25 (BE)	0.65	1.85	1.05	0.04	0.12	1.01	0.21	0.14	0.73

Source: Calculated from Various Budget Documents of the Govt. of Arunachal Pradesh.

Note: Column numbers represent the disaggregated components of debt.

Elasticity trends for state provident funds reveal steady and moderate growth, aligning with GSDP trends in most years. The elasticity of this component peaked at 5.16 in 2020-21, likely due to increased deposits during uncertain economic conditions. Conversely, other interest-bearing obligations, including reserve funds and deposits/advances, show erratic patterns. Reserve funds exhibit extreme fluctuations, such as 3.71 in 2014-15 and -8.09 in 2016-17, reflecting fiscal policy adjustments or financial rebalancing. Deposits and advances

also vary significantly, with values ranging from 3.79 in 2011-12 to -6.10 in 2017-18, underlining the volatility in this component's contribution to debt growth.

The total debt stock, encompassing all components, generally demonstrates positive elasticity, indicating that debt grows faster than GSDP in most years. Notable peaks, such as 9.63 in 2020-21, coincide with heightened borrowing during the pandemic, whereas periods of fiscal consolidation, like 2015-16 with an elasticity of -2.44, reflect efforts to control debt growth. Overall, the table underscores the dynamic nature of debt management, with internal debt and central loans responding differently to economic shifts, while other obligations display higher variability in their relationship to GSDP.

5.3.7 Analysis of Fiscal Sustainability of the State

Rangarajan and Srivastava (2005) conceptualize debt sustainability as the ability to maintain a balance between the cost of additional borrowing and the returns it generates. These returns may take the form of higher economic growth, which, in turn, leads to increased government revenues that can be used to service the new debt. They emphasize that sustainability should not be assessed by examining debt or fiscal deficit in isolation. Instead, it should consider the interplay between the two, as fiscal deficits often necessitate additional borrowing, and the burden of servicing this debt can further deepen fiscal imbalances.

Several variables help in assessing the sustainability of government debt. Scholars and researchers have developed a range of indicators to evaluate debt sustainability from different perspectives. In this analysis, we adopt the methodology proposed by Kaur and Mukherjee (2014) to construct various indicators of debt sustainability, as presented in Table 5.7. The indicators include the growth rate of GSDP relative to total debt, the primary balance as a ratio of GSDP, the primary revenue balance (PRB) as a ratio of GSDP, PRB adequacy for meeting interest payments, and trends in interest payments as ratios to GSDP, revenue expenditure, revenue receipts, and total debt to GSDP. The detailed analysis is given as follows

Growth in GSDP vs. Growth in Debt: A key sustainability condition is that the growth in GSDP should outpace the growth in total debt ($a - b > 0$). Arunachal Pradesh satisfied this criterion in only four out of thirteen years: 2011–12 (6.86), 2012–13 (5.29), 2013–14 (5.89), 2015–16 (10.52), and 2016–17 (8.40). However, from 2017–18 onwards, the indicator turned consistently negative, with particularly sharp contractions in 2019–20 (-25.32) and 2020–21

(-14.43), indicating rapid debt accumulation amidst weak economic performance. This trend signals growing fiscal stress and erosion of debt sustainability, especially post-2018.

Primary Balance to GSDP Ratio: A positive primary balance indicates the government’s ability to meet its non-interest expenditure from its own revenue sources. Arunachal Pradesh recorded positive primary balances only in select years: 2010–11 (0.04), 2012–13 (0.00), 2014–15 (0.05), 2015–16 (0.03), 2016–17 (0.06), 2017-18 (0.01), and 2024-25 (0.04). However, most years show a negative primary balance, notably -0.06 in 2011–12 and -0.07 in 2023–24 (RE). This suggests a reliance on borrowing to meet basic expenditure needs and an absence of consistent fiscal discipline.

Primary Revenue Balance (PRB) to GSDP Ratio: The PRB reflects the difference between revenue receipts and revenue expenditure. A positive PRB implies fiscal prudence. Arunachal Pradesh consistently maintained a positive PRB, ranging from 0.03 to 0.22 over the years. This appears to be one of the few sustainability criteria met reliably by the state. For instance, the PRB was 0.14 in 2015–16 and 0.17 in 2023-24 (RE). However, since primary balance (including capital expenditure) was mostly negative, it suggests that while current revenues exceeded current spending, capital spending was largely debt-financed.

Table 5.7
Fiscal Sustainability of the State of Arunachal Pradesh

Year	Criterion							
	Growth in GSDP (a) should be higher than the rate of growth of Total Debt (b)	Primary Balance as a ratio of GSDP (c) Should be greater than zero	Primary Revenue Balance as ratio to GSDP (d) should be greater than zero	Primary Revenue Balance (e) should be adequate to meet interest payments (f)	Interest Payments to GSDP ratio should decline over time	Interest Payments as a proportion of Revenue Expenditure should decline overtime	Interest Payments as a proportion of Revenue Receipts should decline overtime	Total Debt to GSDP ratio should decline over time
	$a - b > 0$	$c > 0$	$d > 0$	$e - f > 0$				
2010-11	---	0.04	0.22	168000.00	0.04	0.11	0.07	0.38
2011-12	6.86	-0.06	0.12	108000.00	0.03	0.06	0.05	0.36
2012-13	5.29	0.00	0.10	98000.00	0.02	0.06	0.05	0.34
2013-14	5.89	-0.09	0.03	9000.00	0.02	0.05	0.05	0.32
2014-15	-8.11	0.05	0.13	198000.00	0.02	0.05	0.04	0.34
2015-16	10.52	0.03	0.14	219000.00	0.02	0.05	0.04	0.31
2016-17	8.40	0.06	0.14	239000.00	0.02	0.04	0.03	0.28
2017-18	-10.19	0.01	0.15	287410.20	0.02	0.04	0.03	0.31
2018-19	-8.25	-0.06	0.17	376648.33	0.02	0.04	0.03	0.33
2019-20	-25.32	-0.01	0.11	266979.80	0.02	0.05	0.04	0.40
2020-21	-14.43	-0.01	0.16	403599.80	0.02	0.06	0.04	0.46
2021-22	-5.98	-0.01	0.19	542724.40	0.02	0.05	0.03	0.49
2022-23	-6.05	-0.03	0.21	637046.10	0.02	0.05	0.04	0.51
2023-24 (RE)	-9.86	-0.07	0.17	571105.00	0.02	0.04	0.03	0.56
2024-25 (BE)	6.01	0.04	0.13	533543.00	0.02	0.04	0.03	0.53

Source: Calculated from the data compiled from various budget documents and MOSPI.

PRB Adequacy for Interest Payments: This criterion assesses whether the Primary Revenue Balance (PRB) is adequate to cover interest payments — that is, whether $(a - b > 0)$ holds true. Arunachal Pradesh has met this condition in every year, indicating that its revenue surplus is consistently sufficient to meet interest obligations. For example, in 2010–11, the PRB was ₹168,000, higher than the interest burden; and by 2022–23 (RE), it reached ₹637,046.1, well above annual interest payments. This shows that while the overall fiscal position may have weaknesses, Arunachal Pradesh does not rely on fresh borrowing to pay interest, which is a significant positive for debt sustainability.

Trends in Interest Payments: The sustainability of interest payments was analysed through their ratios to GSDP, revenue expenditure, and revenue receipts. The interest payments to GSDP ratio remained constant at 0.02–0.03 in most years, showing no significant improvement. Similarly, interest payments as a proportion of revenue expenditure decreased marginally from 0.11 in 2010-11 to 0.04 in 2022-23, but still remained high, indicating significant fiscal pressure. The interest payments to revenue receipts ratio, while declining from 0.07 in 2010-11 to 0.03 in 2023-24, also reflects the limited fiscal space due to interest obligations.

Total Debt to GSDP Ratio: A declining total debt to GSDP ratio signifies better fiscal management. However, the state saw an increase from 0.38 in 2010-11 to 0.56 in 2023-24, failing to meet this criterion. The rising debt ratio underscores the growing debt burden relative to the state’s economic capacity.

5.3.8 Debt Sustainability and Solvency: Analysis of Arunachal Pradesh

Table 5.8 presents a detailed analysis of the debt sustainability and solvency of Arunachal Pradesh using the standard macro-fiscal condition: $k \leq r \leq g$, where g denotes the growth rate of Gross State Domestic Product (GSDP), r represents the growth in interest payments, and k signifies the growth in total public debt. The framework examines two dimensions: solvency, which is satisfied when $r \leq g$, indicating the economy is growing faster than the cost of debt servicing; and sustainability, which is met when $k \leq r$, implying that debt accumulation does not exceed the pace of interest obligations. The intersection of these two yields the ideal condition for fiscal health, i.e., $k \leq r \leq g$. Using these criteria, we classify each year from 2011–12 to 2029–30 as solvent, sustainable, both, or none.

The analysis begins with 2011–12, within the 13th Finance Commission period, where the economy experienced robust GSDP growth of 19.44%, yet interest payments contracted by

29.53%. Debt grew by 12.57%, resulting in $r < g$, satisfying solvency. However, $k > r$ indicates debt grew faster than the cost of borrowing, hence not sustainable. The same trend holds in 2012–13, where interest payments again declined and debt grew faster than interest payments, failing sustainability, but remaining solvent due to $r < g$.

The only year during the 13th Finance Commission period that fulfills both solvency and sustainability is 2013–14. GSDP grew by 16.22%, interest payments by 14.96%, and debt by 10.33%, neatly fitting $k \leq r \leq g$. This convergence reflects a strong fiscal position, where the state's capacity to service debt and its prudence in accumulating liabilities aligned well. However, the following year, 2014–15, while solvent due to a high GSDP growth rate of 23.17% against interest payment growth of 12.28%, failed the sustainability test with debt growing at 31.28%, a clear red flag on expenditure controls.

During the 14th Finance Commission (2015–16 to 2019–20), the sustainability-solvency dynamic fluctuated. In 2015–16, although GSDP growth was tepid at 3.06%, interest payment growth surged to 18.46%, and debt contracted by -7.46%. Here, satisfies sustainability but $r > g$ violates solvency. This combination is rare but signals an overhang of interest costs during a low-growth phase. Conversely, 2016–17 exhibited positive GSDP growth of 7.53% and negative growth in both interest payments (-3.95%) and debt (-0.88%). This again met the solvency condition but failed sustainability as $k > r$. In 2017–18 and 2018–19, the state remained solvent as GSDP growth outpaced interest growth, but high debt growth undermined sustainability. Notably, in 2019–20, despite a robust GSDP growth of 18.51% and moderate interest payment growth of 16.81%, debt expanded rapidly by 43.82%, compromising sustainability.

The 15th Finance Commission period (2020–21 onwards) begins in a challenging context shaped by the COVID-19 pandemic. In 2020–21, while GSDP growth sharply decelerated to just 1.67%, interest payments grew by 22.43%, and debt by 16.10%. Here, $k > r$ indicates sustainability, but $r > g$ clearly shows solvency is violated. This marks a stress point where the debt burden could become unmanageable if such trends persist. However, 2021–22 shows some improvement: GSDP grew by 7.14% while interest payments declined, marking solvency. Yet, debt grew by 13.12%, again failing sustainability.

In 2022–23, growth conditions strengthened with GSDP increasing by 7.34% and interest payments by 20.69%. Although $r > g$ violates solvency, debt growth remained at 18.37%, i.e., $k < r$, satisfying sustainability. The most recent years and projections (2023–24 to 2029–

30) show a consistent pattern: GSDP growth remains positive but moderate, averaging 4% to 11%; interest payments grow at slower rates, averaging between 2.8% and 4%; and debt growth stays moderate. In each of these years, $r < g$, so solvency holds. But $k > r$ fails the sustainability test, showing that although interest payments are controlled, debt expansion is relatively aggressive.

To sum up, Arunachal Pradesh has generally maintained solvency, meaning its economy grew faster than its interest payment obligations in most years. However, sustainability, i.e., whether debt grows slower than the cost of servicing it, remains a concern in many years. Only 2013–14 meets the ideal condition $k \leq r \leq g$. During the 13th and 14th Finance Commission periods, there was more volatility, with better solvency in the former. The 15th Finance Commission years begin with fiscal strain during the pandemic but stabilize in terms of interest burden relative to growth. Still, unless debt growth is moderated in future years, especially beyond 2023, long-term sustainability risks may persist.

Table 5.8
Analysis of Debt Sustainability

(Values are in Rs. Lakh)

Periods	Year	Outstanding Debt Stock		Interest Payment		GSDP		Remarks (Solvent / Sustainable / Both / None)
		Value	Growth (k)	Value	Growth (r)	Value	Growth (g)	
13 th FC	2010-11	350000	---	39992	---	926250	---	---
	2011-12	394000	12.57	28181	-29.53	1106269	19.44	Solvent
	2012-13	426000	8.12	27185	-3.53	1254662	13.41	Solvent
	2013-14	470000	10.33	31251	14.96	1458106	16.22	Both
	2014-15	617000	31.28	35088	12.28	1795941	23.17	Solvent
14 th FC	2015-16	571000	-7.46	41564	18.46	1850916	3.06	Sustainable
	2016-17	566000	-0.88	39923	-3.95	1990213	7.53	Solvent
	2017-18	696860	23.12	46736	17.06	2247475	12.93	None
	2018-19	843040	20.98	52610	12.57	2533486	12.73	Solvent
	2019-20	1212500	43.82	61453	16.81	3002365	18.51	Solvent
15 th FC (Extended)	2020-21	1407750	16.10	75234	22.43	3052536	1.67	Sustainable
	2021-22	1592470	13.12	73538	-2.26	3270523	7.14	Solvent
	2022-23	1885030	18.37	88752	20.69	3510720	7.34	Sustainable
	2023-24	2186080	15.97	91265	2.83	3904070	11.20	Solvent
	2024-25	2409219	10.21	94977	4.07	4127394	5.72	Solvent
	2025-26	2613465	8.48	98689	3.91	4350112	5.40	Solvent
16 th FC	2026-27	2800418	7.15	102401	3.76	4572225	5.11	Solvent
	2027-28	2971541	6.11	106113	3.62	4793735	4.84	Solvent
	2028-29	3128175	5.27	109825	3.50	5014642	4.61	Solvent
	2029-30	3271547	4.58	113537	3.38	5234950	4.39	Solvent
	2030-31	3460315	5.77	117624	3.60	5483086	4.74	Solvent

Source: Calculated from the data compiled from RBI data on state finances.

Note: Shaded period represent calculations using forecasted values.

This framework highlights the need for prudent fiscal management, particularly in aligning borrowing with productive spending that stimulates growth, thus ensuring the returns from borrowing outweigh the cost of debt. Finance Commissions should continue to emphasize state-level debt targets, incentivize fiscal discipline, and enable transparent monitoring of debt indicators to avert medium-term fiscal stress.

Comparing Finance Commission periods, the 13th Commission stands out for its relative stability and balance, although it concludes on a weaker note. The 14th Commission reveals increasing fiscal volatility, culminating in widespread sustainability breaches. The 15th Commission period showcases the profound impact of the pandemic, intensifying existing challenges. Forecasts for the 16th Finance Commission period, while indicating slight improvements, suggest continued struggles in aligning debt growth with economic expansion.

These findings, in short, can be summed up as:

- i. **Consistent Negative Primary Balance:** The Primary Balance as a ratio of GSDP remained negative throughout the period, indicating fiscal deficits and insufficient revenue generation to cover expenses.
- ii. **Declining GSDP Growth vs. Rising Debt:** Growth in GSDP was consistently lower than the growth in total debt, highlighting a rising debt burden that outpaced economic growth.
- iii. **Interest Payment Ratios:** The ratio of interest payments to revenue expenditure and revenue receipts remained high, with no clear decline over time, indicating an increasing reliance on borrowing.
- iv. **Total Debt to GSDP Ratio:** The Total Debt to GSDP ratio showed a rising trend, reflecting growing fiscal stress and increasing debt accumulation.
- v. **Solvency is generally maintained,** as Arunachal Pradesh's GSDP growth often outpaces interest payment growth, though sustainability frequently fails due to debt expanding faster than the cost of borrowing.
- vi. **Only 2013–14 meets the ideal condition ($k \leq r \leq g$),** reflecting both prudent debt management and strong fiscal capacity, unlike most other years showing mixed or conflicting trends.
- vii. **Future projections (2023–30) indicate solvency but not sustainability,** highlighting the need to curb debt growth despite controlled interest payments to ensure long-term fiscal stability.

While there are some positive developments, particularly in reducing interest payment burdens, Arunachal Pradesh struggles to meet many key fiscal sustainability criteria, including maintaining primary surpluses and aligning debt growth with GSDP growth.

Suggestions

Speed Up Dam and Hydropower Projects: Delays in dam construction are leading to rising debt and interest burdens for the state. Timely completion is essential to start generating returns and reduce the financial strain caused by prolonged loan servicing without revenue.

Resolve Public Protests and Local Opposition: Many delays are caused by public resistance over displacement and environmental impact. The government should engage with local communities through fair compensation, rehabilitation, and transparent communication to ensure smoother execution.

Fast-Track Roads, Bridges, and Connectivity Projects: Supporting infrastructure like roads and bridges must also be completed quickly to enhance access, reduce costs, and boost regional development. Faster execution will improve the overall efficiency and economic return of major capital projects.

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Chapter 6

Implementation of Fiscal Responsibility and Budget Management Act

Chapter VI

Implementation of Fiscal Responsibility and Budget Management Act

6.1 Introduction

One of the fundamental objectives of economic reform was to reduce government's unproductive expenditure. In other words, it aims to reduce revenue and fiscal deficit. To create an institutional framework for the rule-based conduct of fiscal policy, the Fiscal Responsibility and Budget Management (FRBM) Act, 2003 was enacted. It contributed to public accountability by promoting inter-generational equity in fiscal management and ensuring long run macroeconomic stability. The rules framed to implement FRBM Act in 2004 made it necessary to have explicit annual reduction targets in revenue deficit and fiscal deficit, government debt management and the medium term fiscal policy and strategy statement. Further, the rules made it mandatory for the central government to disclose any changes in policies and practices those influences fiscal indicators. The initial target of FRBM policies was to eliminate revenue deficit of the country (building revenue surplus thereafter) and bring down the fiscal deficit to a manageable 3% of the GDP by March 2008. However, due to global slowdown during 2007-08, these targets could not be achieved. The central government also places Medium Term Fiscal Policy Statement (MTFPS) along with the union budget as a part of FRBM policies. The MTFPS gives various fiscal targets for an additional year; which is a rolling statement reviewed every year. For example, based on the fiscal performance in the course of year 't', at the time of finalizing the revised estimates for the year and while presenting budget for the year 't + 1', the fiscal targets for the year 't+1' and 't + 2' should be reviewed, rather than retaining targets for 't+1' and 't + 2', and adding targets only for the year 't+3' (Malhotra, 2012).

The FRBM Act was amended through the Finance Act, 2012 (FRBM II) in May 2012. The rules made there under notified in May 2013, contained revised targets for revenue deficit and effective revenue deficit, to be achieved by 31 March 2015. Further, in the Medium-Term Fiscal Policy Statement (MTFPS) placed along with union budget 2014-15, the Government shifted target for achievement of revenue deficit to March 2017. Through Finance Act 2015, amendment was made in the FRBM Act by which the target dates for achievement of all the deficit indicators were again extended to March 2018. In May 2016, the government set up a committee under NK Singh to review the FRBM Act; as the government believed the targets were too rigid. The committee recommended that the

government should target a fiscal deficit of 3 per cent of the GDP in years up to March 31, 2020 cut it to 2.8 per cent in 2020-21 and to 2.5 per cent by 2023. The Act was further amended in 2018. In this amendment government debt was identified as the primary indicator of fiscal consolidation strategy. The amendment set ambitious debt-to-GDP ratio targets: 40% for the Centre, 20% for the States, 60% consolidated by 2024-25.

6.2 Arunachal Pradesh FRBM Act.:

In Arunachal Pradesh Fiscal Responsibility and Budget Management Act, 2006 (APFRBM) came into force with effect from 12th February, 2006. Again the Fiscal Responsibility and Budget Management Rules, 2007 came into force with effect from 12th February, 2007. The objectives of these legislature were:

- (a) To maintain the revenue surplus (deficit) at least at the level of the base year (average of 2001-02 to 2003-04) in the subsequent years, beginning with financial year 2005-06 and ending with 2008-09 and adhere to it thereafter.
- (b) The fiscal deficit is to be reduced every year by a minimum of 0.3% of GSDP by the end of each financial year, beginning with financial year 2005-06 so as to reduce the same to 3% or below by 2008-09 and adhere to it thereafter.

The Arunachal Pradesh FRBM Act, 2006 was amended in 2010-11. The new amendment set the following targets:

- (i) To maintain revenue surplus in all the years from 2010-11 to 2014-15.
- (ii) To reduce fiscal deficit to 3% of gross state domestic product (GSDP) by 2011-12 and maintain the same during 2011-15.
- (iii) The amended FRBM set the year wise target of total debt in relation to the state's GSDP. It aimed to reduce Debt-GSDP ratio from 61.3% in 2010-11 to 50.1% in 2014-15.

As a part of the implementation FRBM Act, now a days, the state governments are required to submit a statement regarding the implementation of the FRBM act along with their annual budgets. In that statement, the state government mentions about their achievements and targets in this regard.

6.3 Achievements of FRBM Act in the State

The targets and achievement of the FRBM Act in Arunachal Pradesh is given in Table 6.1. In case of revenue, the FRBM Act., 2006 of Arunachal Pradesh targeted to maintain revenue surplus throughout the years. And the government was able to achieve its target.

The FRBM Act I targeted to reduce fiscal deficit to 3% by 2008-09 and the amendment made in 2010-11 attempted to continue this 3% target up to 2015. Arunachal Pradesh state government has achieved this target; although sometimes it is found to be higher.

In the FRBM I, there was no target for debt GDP ratio. The amendment made in the FRBM act in 2010-11 set the target to reduce Debt GDP ratio from 63.1% in 2010-11 to 50.1% during 2014-15. However, the actual Debt-GDP ratio were below this targeted level. Although no such targets were set beyond 2014-15, the Debt-GSDP ratio is continued to decline and was below this targets till 2018-19. However, there is an increasing trend in the post pandemic years. The revised estimate for the year 2022-23 was 53.7 percent of GSDP; which was expected to be 57.2% during 2023-24.

Table 6.1
Different Targets and Achievements under FRBM Acts

	Revenue deficit (in crores)		Gross fiscal Deficit (in crores)	Fiscal deficit as a % of GSDP		Change in Fiscal deficit as a % of GSDP over Previous Year	Outstanding debt as a % of GSDP		
	Actual	Target	Actual	Actual	Target	Actual ¹	Actual	Target set by State Govt.	Finance Commission's Target ²
2011-12 (A)	-1081.2	Surplus	987	8.9	3.0	9	35.7	58.2	26.1
2012-13 (A)	-975.3	Surplus	232	1.8	3.0	-7.1	34	55.2	25.5
2013-14 (A)	-89	Surplus	1606	11	3.0	9.2	32.3	52.5	24.8
2014-15 (A)	-1979.5	Surplus	-519	-2.9	3.0	-13.9	34.3	50.1	24.3
2015-16 (A)	-2190.4	Surplus	-190	-0.9	3.0	2	30.9	NA	21.9
2016-17 (A)	-2385	Surplus	-845	-3.8	3.0	-2.9	28.5	NA	22.06
2017-18 (A)	-2,874.1	Surplus	313	1.4	3.0	5.2	31.0	NA	22.21
2018-19 (A)	-3,766.5	Surplus	1976	7.8	3.0	6.4	33.3	NA	22.30
2019-20 (A)	-2,669.8	Surplus	1032	3.4	3.0	-4.4	40.4	NA	22.38
2020-21 (A)	-4036	Surplus	1086	3.6	3.0	0.2	46.1	NA	33.1
2021-22(A)	-5,385	Surplus	1103	3.4	4.0	-0.2	48.7	NA	32.6
2022-23 (RE)	-5,713.2	Surplus	2938	8.4	3.5	5.0	53.7	NA	33.3
2023-24 (BE)	-3,062.9	Surplus	2515	6.6	3.0	-1.8	57.2	NA	33.1

N.B.: '+' indicates deficit and '-' indicates surplus

1 '-' indicates reduction

2 target set by 13th (2011-16), 14th (2016-21) and 15th (2021-26) finance Commission of India

Source: *State Finances: A Study of Budget, Reserve Bank of India.*

Gross State Domestic Product Data are collected from *Hand Book on Indian States*

One of the objectives of FRBM act is to regulate the government borrowing. Governments should borrow only to finance productive investments. But due to the existing rigidities and specially the narrow tax base the state governments are made to borrow to meet their recurring expenses. Maintaining revenue surpluses would be a great help in this regard. In order to achieve this target, the fifteen finance commission has recommended the normal net borrowing limit of the state government for the period 2021-26. Net borrowing means the difference between borrowings made by the government and the repayments of the government in a particular year. In other words, net borrowing is the new debt added after accounting for debt repaid. The net borrowing fixed by the 15th commission is given in Table 6.2. Here GSDP is accounted as the average of three years GSDP. Later, the finance commission gave some flexibility in this regard. Accordingly, if some government does not utilise its net borrowing limit fully in a particular year, it can use 0.5% of it in the next financial year.

Table 6.2
Targets related to Net Borrowings of the State Government

Year	Net Borrowing
2021-22	4.0% of GSDP
2022-23	3.5% of GSDP
2023-26	3.0% of GSDP

Source: 15th Finance Commission's Report

In a statement presented by the Deputy Chief Minister in the state Assembly in March 2022 stated that the state government of Arunachal Pradesh is planning to achieve the fiscal targets through expenditure management strategy such as computerization of treasury offices, rationalization of contingent expenditure on various offices, use of PFMS platform and direct benefit transfers to the beneficiaries (Government of Arunachal Pradesh 2022).

6.4 Conclusion

The above discussion shows that the state of Arunachal Pradesh was able to achieve the targets of revenue surplus over the years. However, the target of fiscal deficit could not be achieved for the years after 2017-18, except for the year 2021-22. The state government has not set any target about public borrowing since 2014-15. However, the borrowings made by the government of Arunachal Pradesh was higher than the target set by the Finance Commission of India. Arunachal Pradesh is highly dependent on the central transfer and its own sources of revenue is limited. To improve the fiscal health of the state, a holistic approach is necessary. First, the state government should focus on revenue diversification. In

other words, the government of Arunachal Pradesh should target to explore new sources of revenue. Further, efficient expenditure management, and proper debt management is of importance. It could be achieved through optimizing tax collection, regulating public expenditure, and ensuring sustainable debt management through a robust framework. Additionally, investments in critical sectors like infrastructure, health, and education will boost long-term economic growth and improve the overall quality of life, contributing to a stronger fiscal position.

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Chapter 7

Resource Transfer to Rural and Urban Local Bodies (ULBs)

Chapter VII

Resource Transfer to Rural and Urban Local Bodies (ULBs)

7.1 Introduction

Local governments, whether urban and rural, are essential to maintaining participatory democracy. Urban Local Bodies (RLBs and ULBs from now on) are relatively new in comparison to rural local bodies. Rural development in Arunachal Pradesh has been accelerated by RLB since its initial election in 1969. Following the recommendations of the Ering Committee in 1964, the NEFA (North East Frontier Agency) Panchayati Regulation 1967 was created to regulate RLBs. However, the Arunachal Pradesh Panchayati Raj Ordinance 1994 later entirely revised the NEFA Panchayati Raj Regulation 1967 to conform to the fundamental requirements of the Constitution (73rd Amendment) Act, 1992, which the then-Governor had set aside for presidential approval. After the ordinance was returned in 1996 with just minor recommendations, the State ultimately passed the Arunachal Pradesh Panchayati Raj Bill, 1997. Other recommendations were included in the bill, with the exception of the reserve of seats to SCs because the state is a 100% ST state. Thus, in 2000, the Indian government passed the Constitution (83rd Amendment) Act, which exempted SCs from reservation. This was subsequently announced on April 30, 2001. Similar to this, the 74th Amendment Act of 1992 guarantees a seamless transfer of urban management to local governments, enabling effective efforts for participatory development.

The Arunachal Pradesh Municipal Act, 2007 was notified as early as 2008, however the state does not have ULB till after 2013. Itanagar and Pasighat, two of the most populous towns, were intended to be the sites of the ULB experiment. Although the goal has been to gradually implement ULBs for the next most populated municipalities, this goal has not yet been achieved after five years.

States' own growth initiatives are absent because of their own financial limitations. The Centrally Sponsored Schemes (CSS) and other major programs supported by the central government are extensively covered. This applies to both RLBs and ULBs, without any exception. It makes sense that this is because there are little opportunities for generating income on one's own, and the economy is poor and rural, which causes severe revenue scarcity.

7.1.1 General Statistics and Observations about Rural Local Bodies (RLBs) and Urban Local Bodies (ULBs)

The Panchayati Raj system in Arunachal Pradesh currently operates as a two-tier structure of Rural Local Bodies (RLBs), comprising Gram Panchayats at the village level and Zilla Parishads at the district level. Originally established under the Arunachal Pradesh Panchayati Raj Act, 1997 in alignment with the 73rd Constitutional Amendment, the system previously included Anchal Samitis at the block level. However, in March 2018, the state government amended the Act to abolish the intermediate tier, thereby streamlining the structure to two levels — a decision permitted for states with a population of less than 20 lakh. As per the latest statistics, Arunachal Pradesh has 27 Zilla Parishads and over 2,100 Gram Panchayats, signifying a widespread and deep-rooted network of RLBs across its largely hilly and rural landscape.

In contrast, Urban Local Bodies (ULBs) are a more recent development in Arunachal Pradesh. At the moment, the state only has two working municipalities: Itanagar and Pasighat. These were set up on a trial basis under the Arunachal Pradesh Municipal Act, 2007. There have been plans to add 10 more municipalities to ULB control, but these haven't happened yet, mostly because of delays on the part of government. The demographic distribution likewise shows this uneven separation between urban and rural areas: RLBs cover over 78% of the state's population, while ULBs cover the other 22%. The main functions of both RLBs and ULBs are to provide basic civic and developmental services. Some of these are providing water, fixing roads, keeping the area clean, building houses in rural areas, providing primary education, and creating jobs. But their ability to work on their own is often limited by financial constraints and lack of resources. It is observed that RLBs have taken a more aggressive role in executing Centrally Sponsored Schemes (CSS) such as MGNREGA, PMAY-G, and PMGSY. On the other hand, ULBs are still evolving, owing partly to the recent nature of urbanization in the state and the insufficient administrative infrastructure to enable urban government. This has resulted in a relatively underdeveloped urban management framework, which needs strengthening to address the growing demands of urban settlements in Arunachal Pradesh

7.1.2 Own-Source Revenue (OSR) of Local Bodies

Local governments in Arunachal Pradesh don't have much financial freedom. Rural Local Bodies (RLBs) and Urban Local Bodies (ULBs) still get most of their financial support from

the Union and State governments. Own-Source Revenue (OSR) is supposed to give local governments some financial freedom through taxes, fees, and user charges. However, the departments have not provided systematic OSR information.

In principle, Panchayats can levy small charges such as water cess, house tax, and trade license fees, while ULBs are able to collect property tax, building fees, market rents, and parking charges. But in actuality, collections are still rather small. Property tax coverage is very limited, enforcement is inadequate, and most Panchayat taxes are collected informally. Because of this, OSR adds very little to the finances of local bodies—probably less than 10%. The absence of strong OSR weakens fiscal decentralization. It hinders the ability of local governments to plan autonomously and makes them dependent on higher-level grants. Going forward, measures such as GIS-based property tax mapping, rationalized user pricing, and better collection systems are required to strengthen OSR. Without these adjustments, local administrations in Arunachal Pradesh will remain fiscally dependent and administratively constrained.

7.1.3 Finance Commission Grants to Local Bodies in Arunachal Pradesh

The Fifteenth Finance Commission (15th FC) suggested funding for both Rural Local Bodies (RLBs) and Urban Local Bodies (ULBs) in Arunachal Pradesh for 2021–22 to 2025–26. The goal was to boost local self-governance, improve financial independence, and ensure better public services at the grassroots level. However, a deeper look at the proposed amounts, state allocations, and actual releases shows a noticeable gap between the policy's vision and the fiscal reality.

In 2021–22, the 15th FC recommended a total grant of ₹323.88 crore, of which ₹129.63 crore was allotted for RLBs and ₹194.25 crore for ULBs. The state, however, budgeted only ₹25.96 crore for RLBs and ₹33.01 crore for ULBs in its budget, revealing a considerable shortage compared to the suggested levels. Despite this gap, a release of ₹231 crore was made to RLBs, which indicates that rural bodies were prioritized in actual disbursements, while the urban segment did not benefit from corresponding releases in this year.

The following year, 2022–23, had a dramatic surge in the suggested grants, reaching ₹971.39 crore, with ₹238.42 crore proposed for RLBs and a much higher ₹732.97 crore for ULBs. Once again, the state's allocation was disproportionately lower, at only ₹19.95 crore for RLBs and ₹276.09 crore for ULBs. The releases were also minimal, with RLBs receiving

₹170 crore and no releases for ULBs being recorded, which confirmed the developing practice of underfunding urban local governments despite huge suggested allocations.

Table 7.1
Trends in Fifteenth Finance Commission Recommendations, State Budgetary Allocations, and Actual Releases to Local Bodies in Arunachal Pradesh

Year	15th FC Recommendation to RLBs (₹ Cr)	15th FC Recommendation to ULBs (₹ Cr)	Total 15th FC Recommendation (₹ Cr)	State Allocation RLBs (₹ Cr)	State Allocation ULBs (₹ Cr)	Allocation from 15th FC to RLBs (₹ Cr)	Release from 15th FC to RLBs (₹ Cr)
2021–22	129.63	194.25	323.88	25.97	33.02	231	231
2022–23	238.42	732.97	971.39	19.95	276.09	170	170
2023–24	179	92	271	45.03	7.58	177	0
2024–25	189	97	286	195.48	8.56	179	0
2025–26	297.46	99	396.46	184.72	9.65	189	0

Source: 1. Government of India. (2025, March 27). Status of allocation and release of Fifteenth Finance Commission Grants to Rural Local Bodies (Lok Sabha Unstarred Question No. 429, Ministry of Panchayati Raj). Retrieved from https://sansad.in/getFile/loksabhaquestions/annex/184/AS429_kfEdGH.pdf

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The suggested allocation fell sharply to ₹271 crore in 2023–2024, with ₹179 crore designated for RLBs and ₹92 crore for ULBs. The state budgeted ₹45.03 crore for RLBs and ₹7.57 crore for ULBs. In terms of real releases, RLBs received ₹177 crore, whereas ULBs did not receive any release at all. This pattern reveals a clear bias towards subsidizing rural local bodies while urban local governance continues to endure neglect.

For the year 2024–25, the 15th FC suggested ₹286 crore, of which ₹189 crore was allocated for RLBs and ₹97 crore for ULBs. The state budgeted allocation showed some coherence in the rural component, with ₹195.48 crore planned for RLBs, significantly greater than the suggested amount, while only ₹8.56 crore was provided for ULBs. Actual releases were once again skewed, with ₹179 crore transferred to RLBs, while ULBs received nothing.

In the final year of the award period, 2025–26, the total suggested amount climbed to ₹396.46 crore, comprising ₹297.46 crore for RLBs and ₹99 crore for ULBs. The state budgeted ₹184.72 crore for RLBs and only ₹9.65 crore for ULBs. The flow of funds once again followed the same trajectory, with ₹189 crore reaching RLBs and no release for ULBs.

Taken together, the data indicates a consistent pattern over the award years where suggested grants, especially for ULBs, were not realized either through state appropriations or actual releases. While RLBs, albeit underfunded relative to recommendations, received partial releases in most years, ULBs were routinely disregarded beyond the first year. This exposes a rural-centric orientation in actual budgetary transfers, which may have major repercussions for urban administration, planning, and service delivery. The chronic underfunding of ULBs undermines the objective of the 15th FC to enhance both tiers of local governments equally, and raises issues about the viability of urban growth in Arunachal Pradesh.

7.1.4 Finance Commission Allocations and Tied Grants

The 15th Finance Commission has made substantial recommendations for transfers to Rural and Urban Local Bodies in Arunachal Pradesh during the award period 2021–26. A significant portion of these grants are tied to water supply and sanitation, reflecting the national priority of strengthening basic services at the local level. Table 7.1 presents the recommended amounts, state allocations, and releases to RLBs under the 15th Finance Commission.

The data indicate that while allocations and releases were reported in the initial years (₹231 crore in 2021–22 and ₹170 crore in 2022–23), no releases are documented for 2023–24 and 2024–25, despite allocations being represented in the budget documents. This shows increasing difficulties in cash flow and absorption of 15th Finance Commission funds in the state.

At the same time, no project-level utilization details—for example, completed works or physical outcomes in water supply and sanitation—have been supplied by the appropriate departments. As a result, it is not possible to provide a full assessment of how these connected grants are being implemented on the ground. The absence of utilization data reflects a greater issue of institutional capability and openness in Arunachal Pradesh’s local public finance system.

Given that tied grants are expressly intended to promote water supply, sanitation, and solid waste management, their efficient utilization will depend on the ability of Rural and Urban Local Bodies to prepare projects, strengthen technical manpower, and improve reporting systems. Until such methods are institutionalized, Arunachal Pradesh risks underutilizing a crucial avenue of budgetary support that is central to enhancing service delivery in both rural and urban areas.

Detailed information on utilization of 15th Finance Commission tied grants for water supply and sanitation in Arunachal Pradesh was not available in public domain. The analysis offered here is, therefore, confined to budgeted allocations and reported releases.

7.2 Resource Transfer to Rural Local Bodies (RLBs)

The state is hilly, landlocked, less developed in addition to being a late starter of development initiatives and mostly the state executes the centrally sponsored flagship programmes. These programmes are carried out by various nodal agencies, except the Directorate of Panchayati Raj. In the case of RLBs, it acts in tandem with the nodal agency – the Department of Rural Development - for development initiatives. Four major flagship programmes of Ministry of Rural Development, Government of India are executed by the nodal department. They are:

- 1. MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act)**
- 2. PMAY–G (Pradhan Mantri Awas Yojana – Gramin)**
- 3. WDC PMKSY 2.0 (Watershed Development Component-Pradhan Mantri Krishi Sinchayee Yojana)**
- 4. PMGSY (Pradhan Mantri Gram Sadak Yojana)**

7.2.1 MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act)

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is a landmark social welfare program in India that guarantees 100 days of wage employment per year to rural households whose adult members are willing to do unskilled manual work. It was enacted in 2005 and is one of the world’s largest public works programs, aimed at reducing rural poverty and unemployment.

As on March 2025 about 3.4 Lakhs job card was issued out of which 3.25 lakhs job cards were active. The scheme covered 4.66 lakhs workers out of which 2.38 lakhs workers are female. The figures for active worker stand at 3.52 lakhs and for female active workers, the figures are 1.7 lakhs. Majority of the workers belongs to the State indigenous ST (Schedule Tribe) of about 94.9 percent followed by others category of 5.08 percent and very marginal figure of 0.02 percent for SC (Schedule caste).

Table 7.2
Fund Breakup (Rs. Lakh)

Years	Total Central Release	Total Availability	Utilisation (in %)	Total Exp.	Wages	Material and skilled Wages	Material s (in %)	Total Admin Expenses	Admin Exp. (%)
2018-19	8862.79	11321.85	56.76	6426.12	4142.02	2034.38	32.94	249.71.	3.89
2019-20	10756.62	12539.62	95.54	11980.36	8487.3	6623.63	43.83	766.89	4.83
2020-21	34895.00	37728.21	189.39	71453.46	35487.43	11583.64	24.61	1466.35	3.02
2021-22	45833.54	50707.22	278.63	141285.51	31455.52	15439.78	32.92	936.87	1.96
2022-23	53480.79	59401.45	258.88	153778.46	34097.59	21687.44	38.88	2528.22	4.34

Source: MoRD, GoI, MGNREA web portal

The total availability of Central fund during 2018-19 is Rs. 11321.85 which increased to Rs. 12539.62 in the subsequent year (2019-20). However, in the FY 2020-21 the figure of total availability of fund is Rs. 37728.21 indicate the carry-forward balance due to Pandemic. During FY 2021-22 and 2022-23 the total availability of funds further increases to Rs 50707.22 and Rs 59401.45. The percentage utilization of the funds was 56.67 during 2018-19 which increases to 95.54 in 2019-20. Thereafter, there is sharp jump in percentage utilization by 2022-23 suggesting a direct response to the pandemic, as employment demand under MGNREGA surged. The steady rise in both central release and availability in the following years reflects the government's continued focus on rural development.

Table 7.3
MGNREGA- Financial and Physical Status

FY	Physical			Financial (released in lakhs)		
	Numbers of Person days (PDs) Approved by the Govt of India	No. of person days (PDs) generated	Target Fulfilled (%)	Wages Central Share	Material	
					Central Share	State Share
2018-19	10000000	6864638	68.65	9794.88	6529.91	2171.89
2019-20	10000000	8592802	85.93	13181.78	6886.84	1581.38
2020-21	10000000	12791538	127.92	26755.78	7267.32	2422.44
2021-22	10000000	15871001	158.71	31967.50	12175.36	4058.45
2022-23	15000000	15129428	100.86	34168.34	20523.6	5414.74
2023-24	15000000	16051116	107.01	28752.73	12124.04	5467.81

Source: Compiled from data provided by GoAP

The table shows an overview of employment generation and financial expenditures for FY 2018 to 2023-24. Over the years, the government initially sanctioned one crore person-days yearly from 2018-19 to 2021-22, before boosting the objective to 1.5 crore from 2022-23 onwards. The actual number of person-days generated fluctuated each year, sometimes falling short of the target, such as in 2018-19 (68.65%) and 2019-20 (85.93%), while

exceeding expectations in 2020-21 (127.92%) and 2021-22 (158.71%). This implies changes in labor demand and participation. Financial allocations also rose over time, indicating greater salary expenses and material costs. The Central government share played a substantial role in paying wages, while both the central and state governments contributed to material expenditures. The largest expenditure was recorded in 2022-23, with ₹34,168.34 lakh allocated for labour, ₹20,523.60 lakh for supplies, and ₹5,414.74 lakh as the state share. However, in 2023-24, although meeting the target (107.01%), the salary allocation was somewhat lower at ₹28,752.73 lakh. Overall, the data demonstrates the program's dynamic nature, showing efforts to produce employment and spend financial resources wisely. The differences in target fulfillment show fluctuating workforce participation, while the increased financial investments indicate the government's commitment to sustaining rural employment. (Table 7.3)

7.2.2. MGNREGA Resource Gap Analysis and Policy Implications (2018–2024)

The implementation of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in the state throughout the period 2018–2024 indicates significant trends in both physical performance and financial allocations, pointing to increasing employment demands and emerging resource gaps. Initially, from FY 2018–19 to 2019–20, the number of person-days (PDs) created remained below the permitted targets, with achievement levels of just 68.65% and 85.93%, respectively. This gap may have been due to low demand for work, inadequate awareness, or capacity limits at the local implementation level. However, starting from FY 2020–21, the situation significantly reversed. The actual person-days created exceeded the sanctioned targets, with utilization jumping to 127.92% in 2020–21 and further climbing to 158.71% in 2021–22. This strong jump coincided with the COVID-19 pandemic, leading to a steep rise in rural employment demand. The pattern of surpassing expectations continued throughout FY 2022–23 and 2023–24, even after the government boosted the annual target to 150 lakh person-days. Notably, 151.29 lakh and 160.51 lakh person-days were generated in these years, registering achievement levels of 100.86% and 107.01%, respectively. This indicates not only a persistent demand for rural employment but also an increased dependence on the system.

From a financial perspective, the program showed significant diversity in fund allocation and utilization. In the initial years, the central salary allocation remained modest (₹9,794.88 lakh in 2018–19 and ₹13,181.78 lakh in 2019–20). However, in FY 2020–21, the central wage

release jumped dramatically to ₹26,755.78 lakh, reflecting the increased workload under the scheme. The same year saw a rising gap between budgetary allocation and actual expenditure, with utilization reaching an unprecedented ₹71,453.46 lakh—almost double the total availability of ₹37,728.21 lakh. This tendency continued in successive years, with expenditures surpassing available money. For instance, in FY 2021–22, the fund availability amounted at ₹50,707.22 lakh, however total expenditure increased to ₹1,41,285.51 crore. A similar situation occurred in 2022–23, where budget availability was ₹59,401.45 lakh while expenditure touched ₹1,53,778.46 crore. This suggests a continuous and widening resource discrepancy that puts pressure on both central and state governments. .

Administrative expenses during this period remained below legal bounds, mostly between 2% and 5% of total expenditure, demonstrating efficiency in overhead cost control. Yet, the minor increase in these expenses, even during years of higher implementation volume, may suggest to potential capacity constraints in local-level monitoring, grievance redressal, and reporting procedures, especially during high-demand years.

Overall, the data reveals a mixed picture of MGNREGA success in the state. While the scheme has successfully scaled up to address rural employment needs—especially during and after the pandemic—there is considerable evidence of a growing mismatch between approved allocations and actual expenditures

7.2.3 PMAY–G (Pradhan Mantri Awas Yojana – Gramin)

The Indira Awas Yojana (IAY) was a rural housing scheme launched in 1985 by the Government of India to provide pucca (permanent) houses to below-poverty-line (BPL) families in rural areas. In 2016, IAY was revamped and restructured into the Pradhan Mantri Awas Yojana – Gramin (PMAY-G) to ensure housing for all by 2022. Rural housing, previously known as Indira Awas Yojana (IAY), has been implemented in the state since 1996. In the 2016-17 financial year, the program was restructured and renamed as Pradhan Mantri Awas Yojana – Gramin (PMAY-G).

The table 7.4 provides a detailed financial and physical status report of the Pradhan Mantri Awas Yojana - Gramin (PMAY-G) program over six fiscal years, from 2018-19 to 2023-24. The data is divided into two main sections: Physical (units) and Financial (released in lakhs). The Physical section records the number of housing units targeted and completed, along with the percentage of target fulfillment. The Financial section tracks the central and state government’s share of funds released for the program. (Table 7.4)

Table 7.4
PMAY – G-Financial and Physical Status

FY	Physical in units			Financial (released in lakhs)	
	Target	Completed	Target Fulfilled (%)	Central Share	State Share
2018-19	0	0	-	0	0
2019-20	7360	7360	100	0	0
2020-21	11588	11588	100	10485.82	1165.10
2021-22	5497	5497	100	6924.50	769.38
2022-23	0	0	-	19673.00	2185.90
2023-24	0	0	-	0	0

Source: Compiled from data provided by GoAP

7.2.3.1 Analysis of Physical Performance:

In the first and last two years (2018-19, 2022-23, and 2023-24), there were no housing units targeted or completed under PMAY-G, indicating either no new allocation or delays in project implementation. However, in 2019-20, 2020-21, and 2021-22, a significant number of houses were targeted and fully completed. Specifically, 7,360 units were completed in 2019-20, 11,588 units in 2020-21, and 5,497 units in 2021-22, all achieving a 100% completion rate. The year 2020-21 saw the highest number of housing units completed, possibly due to increased focus on rural housing support during the pandemic.

7.2.3.2 Analysis of Financial Performance:

The financial allocations varied significantly across the years. In 2018-19 and 2019-20, no funds were released, indicating that either the program was not implemented in those years or funds were carried forward from previous budgets. In 2020-21, the financial disbursement started, with the central government allocating ₹10,485.82 lakh, while the state contributed ₹1,165.10 lakh. The funding slightly decreased in 2021-22, with ₹6,924.50 lakh from the central government and ₹769.38 lakh from the state. However, in 2022-23, the financial allocation saw a sharp increase, despite no new housing targets being set, with ₹19,673 lakh from the central share and ₹2,185.90 lakh from the state share. This suggests that funds may have been allocated for pending projects or preparatory activities. Interestingly, in 2023-24, no financial releases were recorded, similar to the initial years.

7.2.3.3 Key Observations and Implications:

- **Fluctuating Targets:** While PMAY-G showed successful implementation in the middle years (2019-20 to 2021-22), the absence of targets in other years raises concerns about policy continuity and funding cycles.

- **Financial Disbursement Trends:** The sudden increase in funding in 2022-23, despite no physical targets, suggests fund allocation for previous commitments or administrative expenses.
- **Decline in Recent Years:** The lack of housing targets and funding in 2023-24 may indicate policy shifts, fund exhaustion, or administrative delays.

Overall, the data highlights the inconsistent execution of PMAY-G in the region. While some years saw full target achievements with sufficient financial backing, other years had no progress, pointing to potential administrative, financial, or policy-related challenges.

7.2.4. PMAY-G: Resource Gap and Performance Analysis (2018–2024)

The Pradhan Mantri Awas Yojana – Gramin (PMAY-G), which replaced the earlier Indira Awas Yojana (IAY) in 2016, was launched to provide “housing for all” in rural India by 2022. In the state, rural housing programs have been in place since 1996, with the PMAY-G phase starting in 2016–17. The scheme’s implementation across six financial years from 2018–19 to 2023–24 reveals an uneven pattern in both physical achievements and money releases, showing different degrees of policy focus, administrative execution, and resource availability.

The physical performance of the scheme suggests that only three years over the term (2019–20, 2020–21, and 2021–22) saw active construction under PMAY-G. In each of these years, the targets set were entirely achieved—7,360 dwellings in 2019–20, 11,588 in 2020–21, and 5,497 in 2021–22—each having a 100% completion rate. This suggests good execution and probably significant demand throughout these years, especially in 2020–21. However, no dwellings were targeted or constructed in 2018–19, 2022–23, and 2023–24. This raises concerns regarding the continuity of the program, implying that no new allocations were made or that implementation suffered policy or procedural impediments over those years.

Financial performance data reveals similarly erratic trends. No central or state funds were released in 2018–19 or 2019–20, despite the successful completion of 7,360 units in the latter year—implying that funds may have been carried forward or managed from prior allocations. Substantial funding was disbursed in 2020–21 (₹10,485.82 lakh central and ₹1,165.10 lakh state), coinciding with the year that had the highest number of houses built. In 2021–22, funding declined to ₹6,924.50 lakh from the Centre and ₹769.38 lakh from the state, matching with the reduced target of 5,497 units. However, the year 2022–23 provides a unique situation: despite no physical target or completed units, financial disbursement peaked

at ₹19,673 lakh (central share) and ₹2,185.90 lakh (state share). No financial activity was reported in 2023–24, once again raising questions about the program’s continuity and future.

Several major observations emerge from this study. **First**, there is a marked inconsistency in physical targeting across years, suggesting gaps in policy continuity, planning, or fund allocation cycles. **Second**, the large spike in funds issued in a non-target year (2022–23) indicates potential delays in fund utilization, or alternatively, a lag between fund distribution and actual construction activity. **Finally**, the absence of targets and funds in 2023–24 may indicate at shifting governmental priorities, administrative delays, or a pause in program implementation owing to transition or reorganization.

In summary, while PMAY–G in the state has shown the ability to meet targets effectively during the years it was actively implemented, the overall trend highlights inconsistencies in planning, fund flow, and administrative execution. These resource and performance gaps could undermine the broader objective of “Housing for All” unless addressed through consistent policy focus, timely fund disbursements, and a predictable project pipeline. Addressing these problems is vital to ensure the sustainability and long-term viability of the rural housing initiative.

7.3 WDC PMKSY 2.0 (Watershed Development Component-Pradhan Mantri Krishi Sinchayee Yojana)

The Watershed Development Component of PMKSY 2.0 (WDC PMKSY 2.0) is a flagship program under the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), focusing on sustainable watershed management to improve water availability, soil conservation, and agricultural productivity in rain-fed and drought-prone areas. The scheme was relaunched in 2021 for the period 2021-26, aiming to strengthen water resources and land use efficiency. (Table 7.5)

Table 7.5
Physical and Financial Status WDC PMKSY 2.0 (2021-26)

	Financial (released in lakhs)		Physical (Area in Ha)		Target Fulfilled (%)
	Central Share	State Share	Target	Achievement	
2021-22	2298.16	255.35	150915	90488	59.95
2022-23	7008	778.66			
2023-24	11900	1322.23			

Source: Compiled from data provided by GoAP

The Watershed Development Component of the Pradhan Mantri Krishi Sinchayee Yojana 2.0 (WDC PMKSY 2.0) aims to enhance water conservation and land productivity through watershed-based interventions. The financial and physical progress of the scheme is outlined for the years 2021-22 to 2023-24.

In the financial aspect, the scheme received funding from both the central and state governments. In 2021-22, the central government contributed ₹2298.16 lakh, while the state government provided ₹255.35 lakh. The financial allocation significantly increased in 2022-23, with the central share rising to ₹7008 lakh and the state share to ₹778.66 lakh. This trend continued in 2023-24, where the central share further increased to ₹11,900 lakh and the state share to ₹1322.23 lakh. In terms of physical achievements, the scheme set a target to cover 1,50,915 hectares in 2021-22, but the actual achievement was 90,488 hectares, which is approximately 59.96% of the target. However, data for the subsequent years, 2022-23 and 2023-24, is not available in the table. Overall, while the financial support for the scheme has grown over the years, the physical achievements in later years remain unreported in the provided data. This suggests either ongoing implementation or a delay in reporting.

7.4. WDC PMKSY 2.0: Performance and Resource Gap Analysis (2021–2024)

The Watershed Development Component under Pradhan Mantri Krishi Sinchayee Yojana 2.0 (WDC PMKSY 2.0) is a vital intervention intended at promoting water conservation, enhancing land productivity, and assuring sustainable agricultural practices, especially in rain-fed and drought-prone regions. Relunched in 2021 for the period 2021–26, the program is designed to increase the efficiency of land and water resources through integrated watershed development.

The financial status of the program reveals a large year-on-year rise in funding, indicating the government's commitment to watershed-based development. In the debut year 2021–22, the plan got ₹2,298.16 lakh from the central government and ₹255.35 lakh from the state government. This represented the initiation phase of the revised plan. By 2022–23, the funding expanded substantially, with the central share rising to ₹7,008 lakh and the state contribution increasing to ₹778.66 lakh. The trend of growing budgetary support continued in 2023–24, with the central government allocating ₹11,900 lakh and the state releasing ₹1,322.23 lakh. This constant rise in funding allocations underlines a significant policy push towards strengthening irrigation infrastructure and land management techniques in rural and ecologically sensitive areas.

In contrast, the physical performance data is provided only for 2021–22, where the aim was to treat 1,50,915 hectares of land through watershed development methods. Of this, 90,488 hectares were achieved, translating to a target fulfillment rate of 59.96%. While this reflects a relatively successful implementation during the initial year, the fact that only around 60% of the targeted area was covered. The absence of physical achievement statistics for 2022–23 and 2023–24 hinders the capacity to judge development in the succeeding years. This gap may reflect delays in execution, reporting backlogs, or that the implementation is ongoing and yet to be integrated at the state level.

Overall, WDC PMKSY 2.0 shows promising financial support, with substantial increases in both central and state contributions over the years. However, the mismatch between financial allocations and physical outcome data suggests a potential resource utilization gap. This could be due to delays in on-ground implementation, inadequate institutional mechanisms for timely execution, or the time lag between fund release and project completion. The absence of recent physical progress reports also points to a need for better monitoring and timely reporting mechanisms.

7.4.1 PMGSY (Pradhan Mantri Gram Sadak Yojana)

The Pradhan Mantri Gram Sadak Yojana (PMGSY) is a flagship rural road development program launched by the Government of India in 2000 to provide all-weather road connectivity to unconnected villages. In Arunachal Pradesh, PMGSY has played a critical role in improving rural connectivity, especially in remote and hilly areas, where difficult terrain and harsh weather conditions have historically hindered infrastructure development.

Table 7.6
Physical Status of Pradhan Mantri Gram Sadak Yojana

Sl. No.	Scheme	Sanctioned year	Number of Projects	Sanctioned Length (Kms)	Completed length (Kms)	Target Fulfilled (%)
1	PMGSY-I	2017-2018	43	684.462	669.36	97.79
		2018-2019	265	4987.152	4360.083	87.43
2	PMGSY-II	2019-2020	80	550.91	518.566	94.13
3	PMGSY-III	2023-24	170	1366.27	226.02	16.54

Source: Compiled from data provided by GoAP

The table presents data on different phases of the Pradhan Mantri Gram Sadak Yojana (PMGSY), showcasing the number of projects, the total length of roads sanctioned, the completed road length, and the percentage of target achievement. (Table 7.6)

- **PMGSY-I (2017-2019)**

PMGSY-I was sanctioned in 2017-18 and had 43 projects with a total sanctioned road length of 684.462 km. Of this, 669.36 km was successfully completed, achieving an impressive 97.79% completion rate. In 2018-19, the program saw significant expansion with 265 projects, covering 4987.152 km of sanctioned roads. The completed length stood at 4360.083 km, leading to an achievement rate of 87.43%.

- **PMGSY-II (2019-2020)**

Under the second phase of the scheme in 2019-20, 80 projects were approved with a sanctioned length of 550.91 km. The actual completed road length was 518.566 km, achieving a success rate of 94.13%. This phase primarily focused on upgrading existing rural roads to enhance connectivity and durability.

- **PMGSY-III (2023-24)**

The third phase of the scheme, initiated in 2023-24, includes 170 projects with a total sanctioned length of 1366.27 km. However, as of now, only 226.02 km has been completed, reflecting an achievement rate of 16.54%. This suggests that many projects are still under implementation, and completion is expected in the coming years.

- **Overall Observation**

The data highlights the steady progress of rural road development under PMGSY. The first two phases demonstrated high completion rates, with PMGSY-I exceeding 87% and PMGSY-II reaching over 94%. However, PMGSY-III is still in the early stages, with a relatively low completion percentage. The numbers indicate a strong commitment to improving rural connectivity, but ongoing projects under PMGSY-III will require close monitoring to ensure timely completion.

7.5. PMGSY: Resource Gap Analysis (2017–2024)

An evaluation of the Pradhan Mantri Gram Sadak Yojana (PMGSY) implementation in Arunachal Pradesh demonstrates a mixed pattern in terms of physical achievements throughout several phases, demonstrating both good execution and developing resource constraints, notably in the newest phase. During PMGSY-I (2017–18 and 2018–19), the program displayed strong performance, with 97.79% and 87.43% target fulfilment correspondingly. Similarly, under PMGSY-II (2019–20), the target fulfilment stood at

94.13%, again suggesting a well-calibrated resource deployment and effective project execution.

However, the scenario under PMGSY-III (2023–24) hints to a considerable resource and implementation deficit. Despite the sanctioning of 170 projects totalling 1,366.27 km of rural roads, just 226.02 km had been finished by the reporting period, representing a low accomplishment rate of 16.54%. This large discrepancy between sanctioned and completed road length indicates the presence of substantial resource and capacity gaps—both financial and operational. The relatively recent start of PMGSY-III may also imply that many projects are still in the initial stages of construction or awaiting clearances, but the current pace of implementation raises concerns about timely project delivery and fund utilization efficiency.

This increasing resource gap under PMGSY-III underscores the necessity of coordinating financial provisioning, institutional preparation, and technical execution. While prior phases imply the availability of well-matched planning and execution capacity, the performance under the newest phase calls for urgent assistance to speed work progress and reduce the gap between sanctioned aims and actual outcomes. Bridging this gap will be essential to maintain the program’s credibility, ensure continuity in rural connectivity benefits, and prevent cost escalations or project overruns in the coming years.

7.6 Resource Transfer to ULBs (Urban Local Bodies)

The 74th Constitutional Amendment Act, 1992 mandates the implementation of a Uniform Urban Governance system. However, before 2014, Urban Local Bodies (ULBs) were not practically established in the state, despite the enactment of the Municipal Act in 2008, which was officially notified in the Gazette in 2009. ULBs were introduced on an experimental basis in the two most populated towns, Itanagar and Pasighat, comprising 30 and 12 wards, respectively. Plans were made to extend ULBs to 10 more towns in a phased manner.

7.6.1. AMRUT (Atal Mission for Rejuvenation and Urban Transformation)

In order to improve the quality of life for everyone, particularly the underprivileged and impoverished, the Indian government launched the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) with the goal of supplying basic civic amenities like parks, urban transportation, sewerage, and water supply. The table 7.5 provides a detailed breakdown of the physical and financial status of projects under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) in Itanagar, Arunachal Pradesh. The projects are divided

into three phases (SAAP I, II, and III) and cover different sectors, including water supply, sewage management, stormwater drainage, and green spaces.

Phase I Projects (SAAP I)

The first phase includes four projects, all of which have been successfully completed with 100% physical and financial progress. These projects include:

- Septage Management at Chimpu, Itanagar (100 KLD) – This project, costing ₹15.42 lakh, was fully funded by the Central Government (₹13.88 lakh) and the State Government (₹1.54 lakh).
- Stormwater Drainage Construction from Circuit House to various sectors in Itanagar, with a total cost of ₹13.12 lakh.
- Water Supply to Urban Complex at Lekhi – A critical project for providing clean drinking water, with a cost of ₹5.70 lakh.
- Development of Green Space and Parks – Costing ₹1.31 lakh, this initiative aimed at improving urban green cover.

Phase II Projects (SAAP II)

The second phase includes three projects, but unlike Phase I, one project has yet to be completed.

- Sewerage Network Scheme, Naharlagun (3 MLD) – With the highest cost among all projects (₹38.08 lakh), this project has achieved only 35% completion, indicating possible delays in execution.
- Augmentation of Water Supply at Dam Site, Naharlagun (1 MLD) – This project was completed successfully with 100% progress, costing ₹6.42 lakh.
- Another Green Space and Park Development project costing ₹1.51 lakh, also completed with 100% success.

Phase III Projects (SAAP III)

Phase III covers four major projects, all of which have achieved 100% completion, ensuring better drainage, water supply, and infrastructure improvements. These projects include:

- Stormwater Drainage Construction at multiple locations in Itanagar, covering 12 project sites, with a total cost of ₹17.66 lakh.

- Stormwater Drainage at E-Sector, F-Sector, and G-Sector in Naharlagun, costing ₹9.59 lakh.
- Augmentation of Water Supply at Banderdewa, with four deep bore wells, costing ₹3 lakh.
- Providing Lift Water Supply to Itanagar Township (7 MLD) – The largest water supply project in the phase, costing ₹18 lakh.

7.6.2. Overall Financial and Physical Status

The total expenditure for all projects amounts to ₹129.81 crore, with complete physical and financial progress in most cases. However, the Sewerage Network Scheme in Naharlagun is lagging, with only 35% completion, which raises concerns about implementation efficiency.

7.6.3. Observations and Challenges

1. Strong Execution in Water Supply and Drainage Projects

- The water supply augmentation and stormwater drainage projects have achieved full completion, demonstrating effective execution.
- Green space projects were completed successfully, reflecting efforts in urban beautification.

2. Delay in Sewerage Infrastructure

- The Sewerage Network Scheme (Naharlagun), despite its importance, is only 35% complete.
- This could be due to technical issues, land acquisition delays, or funding constraints.

3. Effective Financial Utilization

- The funds have been efficiently used, with most projects achieving 100% financial progress.
- The state and central shares were well-distributed, ensuring smooth funding flow.

While most projects under AMRUT in Itanagar have been successfully executed, the incomplete sewerage network project needs immediate attention. Authorities should identify bottlenecks, ensure timely contractor payments, and expedite work.

7.6.4. Resource Gap under AMRUT (Atal Mission for Rejuvenation and Urban Transformation)

The implementation of AMRUT projects in Itanagar has largely been successful, particularly in areas such as water supply augmentation, stormwater drainage, and green space development. However, a substantial resource imbalance continues, especially visible in the instance of the Sewerage Network Scheme in Naharlagun, which has achieved just 35% physical progress while being one of the most financially intensive projects under SAAP-II. This incomplete development points to several underlying inadequacies in resources that have inhibited its timely execution.

Financially, although the overall expenditure under AMRUT has been well-utilized across most projects, the low completion rate of this specific project suggests possible irregularities in fund flow, late disbursement, or insufficient allocation during critical execution stages.

Overall, while AMRUT has greatly expanded urban infrastructure in Itanagar, the sewerage project reveals a severe resource deficit in terms of physical, financial, technical, and institutional readiness. Bridging this gap will require improved project planning, greater inter-departmental coordination, timely fund management, and enhanced technical capacity to ensure that all components of urban development move uniformly and successfully.

7.7. Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM)

Launched in September 2013, the DAY-NULM initiative intends to promote sustainable livelihood prospects for the urban poor through a multi-pronged strategy, including skill training, subsidized bank loans, and wage and self-employment channels. The mission covers all 33 statutory towns in Arunachal Pradesh and stresses community engagement by developing grassroots institutions of the disadvantaged. It also provides financial support for constructing, operating, and maintaining shelters for the urban homeless and addresses the needs of urban street vendors by facilitating access to credit, social security, skills, and suitable spaces to improve their livelihood and integration into emerging market opportunities. The Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) has five main operational components:

- 1. Employment through Skill Training & Placement (EST&P)**
- 2. Social Mobilization and Institution Development (SM&ID)**
- 3. Self-Employment Programme (SEP)**

4. **Capacity Building and Training (CB&T)**
5. **Support to Urban Street Vendors (SUSV)**

Table 7.7
Status and Outcome of DAY-NULM in Arunachal Pradesh (2014 Onwards)

Sl. No.	Component	Progress So far from 2014 onwards
1	Employment through Skill Training & Placement (EST&P)	6,256 beneficiaries trained, 4,475 certified, and 1,665 placed in employment.
2	Social Mobilization and Institution Development (SM&ID)	758 SHGs formed; 18 Area Level Federations established; 4,050 women mobilized; Revolving Fund given to all SHGs (₹10,000 each) and federations (₹50,000 each).
3	Self-Employment Programme (SEP)	30 SHGs received ₹10 lakh each; 120 individuals received ₹2 lakh each via bank linkage for setting up micro-enterprises.
4	Capacity Building and Training (CB&T)	Various training programs and salary support provided for CSS staff from grassroots to top levels.
5	Support to Urban Street Vendors (SUSV)	6,325 vendors identified and issued ID cards. Vendor markets constructed in Khonsa, Deomali, Miao, Ziro, and Tezu.

Source: Compiled from data provided by GoAP

The table 7.7 highlights the status and outcome of DAY-NULM in Arunachal Pradesh since 2014 onwards. By providing demand-driven skill training, the mission has significantly improved the employability of the urban poor under the Employment through Skill Training and Placement (EST&P) component. A total of 6256 beneficiaries has received training in a variety of skills that are relevant to the market. Around 4475 of these were certified. Significantly, 1,665 people have been successfully put in jobs, which is a significant result in terms of creating livelihoods and integrating the urban poor into the economy.

Organizing the impoverished into community-based institutions has been a major focus of the Social Mobilization and Institutional Development (SM&ID) component. This has led to the formation of 758 Self-Help Groups (SHGs), which are grassroots organizations of the impoverished that promote cooperation and solidarity. Additionally, 18 Area Level Federations (ALFs) have been set up to offer advocacy, access to more resources, and higher-level institutional assistance. 4,050 women have been mobilized through these institutions, strengthening community ownership of development processes and advancing gender empowerment. The distribution of Revolving Funds, of which all SHGs received ₹10,000 and the ALFs received ₹50,000, has enabled financial empowerment.

The goal of the Self-Employment Programme (SEP) has been to facilitate the growth of microbusinesses by providing financial connections and credit access. 30 SHGs have each received ₹10 lakh as part of this project, enabling them to make investments in profitable group-based businesses. Through bank connection mechanisms, 120 individual entrepreneurs have also received ₹2 lakh apiece, which has helped to create sustainable avenues for self-employment in urban areas. For the urban poor, this intervention is essential for fostering entrepreneurship, decreasing underemployment, and fostering economic self-reliance. The mission has made the development of institutional and human resource capacities at different administrative levels a top priority in the area of capacity building and training (CB&T). Numerous training sessions were held, covering a wide range of subjects necessary for efficient program implementation, oversight, and service provision. These capacity-building efforts extended to salary support for City/State-level Support Structures (CSS staff)—from grassroots officials to top-level managers—ensuring the availability of trained professionals to facilitate mission activities and support beneficiaries over the programme cycle.

In order to include street sellers into the official urban economy, the Support to Urban Street sellers (SUSV) component has taken proactive measures. In order to formalize their position and grant them access to government programs and protections, 6,325 street sellers were identified and given identity cards. Additionally, by building vendor markets in important urban areas like Khonsa, Deomali, Miao, Ziro, and Tezu, the program has aided in the development of infrastructure. In the end, these designated vendor zones support a respectable livelihood for one of the most vulnerable segments of the urban informal workforce by giving street vendors organized and safe areas to conduct their business operations, lowering harassment, improving hygiene, and facilitating customer access.

The table 7.8 gives an overview of the annual outlay under the Urban Livelihood Mission (ULM) in Arunachal Pradesh for the period 2014–15 to 2024–25. The financing arrangement follows the 90:10 cost-sharing ratio between the Central and State Governments, which is the norm for North-Eastern and Himalayan states under centrally funded initiatives. In the financial year 2014–15, the central government released ₹193.87 lakh, but the state did not pay any matching share. This indicates the early stage of the programme when state-level institutional frameworks may not have been fully operational. Thus, the total outlay that year consisted solely of the central contribution, with the central share making up 100% of the cost. From 2015–16 onwards, the state government began contributing its mandatory share, aligning the funding pattern with the prescribed 90:10 ratio. In 2015–16, the central

share stood at ₹146.26 lakh and the state share at ₹37.79 lakh, making the total outlay ₹184.05 lakh. This trend continued in 2016–17 and 2017–18, with central contributions of ₹143.29 lakh and ₹245.23 lakh respectively, and corresponding state contributions of ₹15.92 lakh and ₹27.25 lakh, demonstrating increasing financial participation from the state

Table 7.8
Resource Share and Outlay Under DAY-NULM in Arunachal Pradesh

Year	Central Share	State Share	Total Outlay
2014–15	193.87 (100)	0(0.00)	193.87 (100)
2015–16	146.26(90)	37.79(10)	184.05(100)
2016–17	143.29(90)	15.92(10)	159.21(100)
2017–18	245.23(90)	27.25(10)	272.48(100)
2018–19	743.21(90)	82.58(10)	825.79(100)
2019–20	258.19(90)	28.68(10)	286.87(100)
2020–21	401.3(90)	44.59(10)	445.89(100)
2021–22	338.6(90)	37.62(10)	376.22(100)
2022–23	597.27(90)	66.36(10)	663.63(100)
2023–24	200(90)	22.22(10)	222.22(100)
2024–25	547(90)	60.77(10)	607.77(100)
Total	3814.22(90)	423.78(10)	4238(100)

Source: Compiled from GoAP data

*Figures in the parenthesis represents are percent of Total Outlay

The most noticeable growth in outlay is noted in the years 2018–19 to 2020–21, demonstrating the scale-up of urban poverty alleviation activities across cities and towns in the state. In 2018–19, the overall spending soared to ₹825.79 lakh—the highest reported for the whole time. This comprised ₹743.21 lakh from the Centre and ₹82.58 lakh from the State Government. This represented a significant escalation in both financial assistance and potential programme execution intensity, either due to expanded coverage, additional project approvals, or higher fund use capability. Similarly, in 2019–20, the total outlay was ₹286.87 lakh, with the central and state portions totaling to ₹258.19 lakh and ₹28.68 lakh respectively. The following year, 2020–21, had a continuous high allocation of ₹445.89 lakh, maintaining the same 90:10 split. These years indicate the period of substantial financial backing for ArSULM, with adequate state contributions exhibiting institutional maturity and alignment with centrally mandated modalities.

In the later years, from 2021–22 to 2024–25, the pattern of fund releases remained similar. In 2021–22, the central share stood at ₹338.6 lakh and the state share at ₹37.62 lakh, resulting in a total outlay of ₹376.22 lakh. The trend continued into 2022–23, which recorded a total outlay of ₹663.63 lakh—among the highest for the entire period—comprising ₹597.27 lakh

as the government contribution and ₹66.36 lakh from the state. In 2023–24, the total outlay was comparatively lower at ₹222.22 lakh, still maintaining the prescribed sharing ratio, with ₹200 lakh from the Centre and ₹22.22 lakh from the State. The most recent year, 2024–25, saw a return to high levels of financial commitment, with a total outlay of ₹607.77 lakh, out of which ₹547 lakh was paid by the central government and ₹60.77 lakh by the state.

Cumulatively, over the eleven-year period, the overall central portion (including releases to both the State Government and directly to ArSULM) amounts to ₹3814.22 crore, and the total state share comes to ₹423.78 lakh, so making the total outlay ₹4238 lakh. This consolidated outlay not only reflects the consistent financial commitment of the Government of India to improving urban livelihoods in Arunachal Pradesh but also highlights the growing and reliable participation of the State Government in co-financing and co-owning the mission's implementation. The persistence of the 90:10 ratio over this era is suggestive of excellent intergovernmental fiscal coordination, and it reflects a robust administrative system that supports effective planning, disbursement, and utilization of funds. Such a stable and predictable funding structure is crucial for sustaining long-term interventions aimed at poverty alleviation, skill development, and livelihood generation in urban areas of a geographically challenging and socio-economically diverse state like Arunachal Pradesh.

7.7.1 Observation

The implementation of DAY-NULM in Arunachal Pradesh shows commendable progress, particularly in skill development, with over 6,000 beneficiaries trained and 4,475 certified. However, the placement rate remains relatively low, indicating a gap between training and employment. The formation of 758 SHGs and mobilization of 4,050 women under SM&ID reflects strong community engagement, though long-term sustainability of these groups requires further support. While the SEP component has provided significant financial assistance to a few SHGs and individuals, its overall reach is limited. Capacity building has been prioritized, but lacks measurable data on outcomes. The identification of 6,325 street vendors is a major achievement under SUSV, though infrastructure support is still limited to a few towns. Financially, the state has adhered to the 90:10 central-state cost-sharing norm, with a sharp rise in outlay post-2018 indicating expanded operations. Still, some fluctuation in funding suggests a need for better planning and fund utilization. Finally, the programme would benefit from enhanced convergence, private sector engagement, and outcome-based impact evaluation to ensure deeper and more sustainable livelihood outcomes.

7.7.2 Analysis of Resource Gap

An analysis of the resource gap in the implementation of DAY-NULM in Arunachal Pradesh reveals several critical dimensions. While the overall outlay from 2014–15 to 2024–25 stands at ₹4,238 lakh, comprising ₹3,814.22 lakh as the central share and ₹423.78 lakh as the state share (maintaining the 90:10 ratio), certain years reflect underutilization or delayed release of state contributions—most notably in 2014–15 when the entire burden was borne by the central government. Despite increased allocations during peak years like 2018–19 and 2020–21, the fluctuating outlays in subsequent years (e.g., a dip in 2023–24) suggest inconsistent fund absorption and potential planning or administrative delays. Moreover, while financial resources appear adequate on paper, the relatively low placement outcomes, limited vendor infrastructure, and narrow reach of self-employment support point to a resource-utilization gap—indicating that physical, human, and institutional capacities may not have fully matched financial investments. This suggests the need for strengthening fund management systems, enhancing implementation capacities, and prioritizing convergence with other schemes to address underlying resource and delivery gaps.

7.7.3 Consolidated Utilization of Funds by Rural and Urban Local Bodies

The consolidated table 7.9 provides a comparative picture of the utilization of key scheme monies by Rural Local Bodies (RLBs) and Urban Local Bodies (ULBs) in Arunachal Pradesh. A noticeable element is the vast variance in both scale and effectiveness of usage among schemes and layers of local governance.

MGNREGA stands as the single greatest initiative in terms of funding flows to rural areas. Over the period 2018–19 to 2023–24, funds available amounted to roughly ₹594 crore, while actual expenditure was at nearly ₹1,538 crore. This extraordinarily high usage rate of more than 250 percent suggests that demand for wage employment greatly outstripped allocations, notably during the COVID-19 years, when the plan provided as a key safety net for rural households. It also indicates the tendency of local entities to carry forward liabilities and consume funds beyond the annual amounts granted.

In comparison, PMAY-G offers a more balanced image. With grants of almost ₹197 crore and utilization of about ₹193 crore (98 percent), the initiative exhibits excellent absorption of resources for rural housing. However, the data also reveals unequal distribution of goals between years, with some years reporting “zero” physical targets. This shows a stop-and-go

pattern in housing provision, which may have disturbed the continuity of rural infrastructure development despite significant fund absorption during years of active implementation.

Table 7.9
Consolidated Utilization of Funds by Rural and Urban Local Bodies in Arunachal Pradesh

Scheme	Period Covered	Allocation / Availability (₹ Cr)	Utilization / Expenditure (₹ Cr)	Utilization %	Rural / Urban
MGNREGA	2018–19 to 2023–24	594.01	1,537.78	258.90%	Rural (RLBs)
PMAY-G	2018–19 to 2023–24	196.73	193.44	98.30%	Rural (RLBs)
AMRUT	SAAP I–III (till 2023)	129.81	129.81	100.00%	Urban (ULBs)
DAY-NULM	2014–15 to 2024–25	423.8	423.8	100.00%	Urban (ULBs)

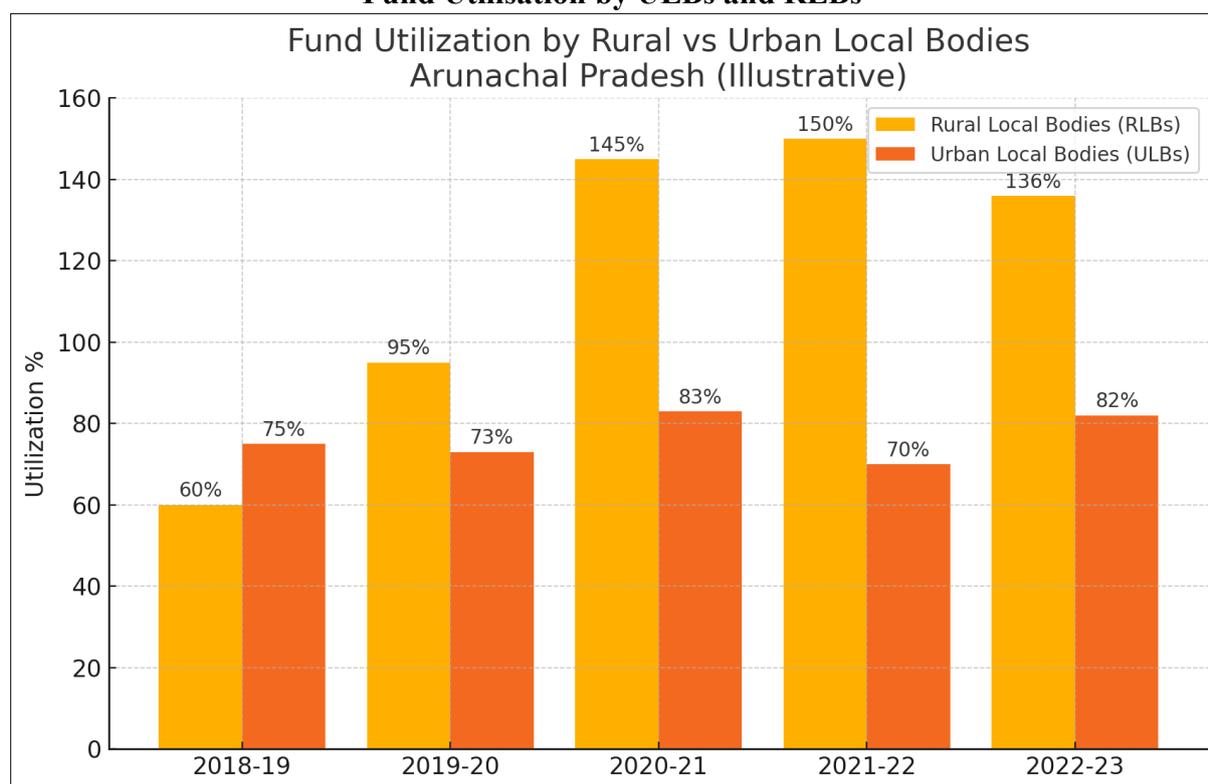
Source: Compiled from data provided by GoAP

On the urban side, AMRUT indicates a very targeted investment in infrastructure. With a total outlay of ₹129.81 crore, the initiative achieved 100% utilization of funds, principally for water supply, stormwater drainage, and green space projects. The only major lag was seen in the sewerage component in Naharlagun, where construction has been slow despite the project’s substantial weight. This refers to the capacity of ULBs to absorb cash efficiently when projects are well-defined and related to specified service delivery goals.

Similarly, DAY-NULM, though lower in financial scale, achieved 100% use of the ₹423.8 crore provided during the decade. This demonstrates effective use of resources in livelihood promotion, skill training, and assistance for Self-Help Groups and street sellers. The challenge here rests less in financial absorption and more in assuring long-term sustainability of livelihoods and revenue production for urban disadvantaged people.

Taken together, the data indicates a substantial rural–urban disparity. Rural programs, particularly MGNREGA, manage substantially bigger volumes of cash and reflect relatively high utilization rates, but with structural mismatches between allocation and demand. Urban programs, on the other hand, function with relatively small financial outlays yet show almost flawless utilization within the specified allocations. This discrepancy illustrates the twofold difficulty for Arunachal Pradesh: whereas rural authorities face the problem of resource adequacy and demand pressures, urban entities suffer from underfunding despite displaying efficient absorption. Strengthening fiscal transfers to ULBs and institutionalizing OSR reforms for both RLBs and ULBs will therefore be crucial to maintain balanced and sustainable local government.

Figure 7.1
Fund Utilisation by ULBs and RLBs



Source: Compiled from data provided by GoAP

The figure 7.1 shows utilization percentages for RLBs and ULBs over the last five years. Rural Local Bodies consistently demonstrate higher utilization rates, with a sharp spike in 2020–21 and 2021–22 under MGNREGA due to increased demand during the COVID-19 period. Urban Local Bodies, by contrast, show more stable utilization, generally ranging between 70–83 percent. This reflects both the scale of demand-driven rural programs and the limited financial capacity of urban schemes.

7.8 Conclusion

The analysis of major centrally sponsored schemes—**MGNREGA**, **PMAY-G**, **WDC PMKSY 2.0**, **PMGSY**, and **AMRUT**—in Arunachal Pradesh reveals a mixed picture of developmental progress. While considerable strides have been made in improving basic infrastructure and livelihood support, both **Rural Local Bodies (RLBs)** and **Urban Local Bodies (ULBs)** continue to face critical resource and capacity gaps that limit their ability to deliver services effectively and sustainably.

For **Rural Local Bodies**, schemes like **MGNREGA**, **PMAY-G**, **PMKSY**, and **PMGSY** have been instrumental in generating employment, constructing rural housing, enhancing

irrigation potential, and improving connectivity. MGNREGA showed high female participation and strong demand for wage work, especially during and after the pandemic years. However, fund utilization fluctuated, and delayed reporting or release cycles have sometimes limited RLBs' operational flexibility. Similarly, while PMAY-G saw 100% completion in selected years, inconsistent yearly targets and financial disbursement trends highlight gaps in long-term planning and execution continuity. The WDC PMKSY 2.0, although financially well-supported, demonstrated underachievement in physical outcomes, revealing issues related to technical capacity and delayed implementation. PMGSY phases I and II were relatively successful in execution, but the ongoing PMGSY-III shows a large resource gap, indicating that RLBs may be facing growing implementation challenges as project complexity increases.

In contrast, **Urban Local Bodies (ULBs)**, particularly in Itanagar under the **AMRUT mission**, have performed well in areas such as stormwater drainage, water supply augmentation, and green space creation—with most projects achieving 100% completion and financial progress. However, the glaring exception is the **Sewerage Network Project in Naharlagun**, which remains only 35% complete despite being one of the costliest interventions. This underperformance points to significant gaps in technical expertise, project coordination, and timely fund management within ULBs. Moreover, the absence of a State Finance Commission (SFC) in Arunachal Pradesh further limits the predictable flow of untied funds to both RLBs and ULBs, restricting their capacity for independent planning and prioritization.

Overall, the functioning of RLBs and ULBs in Arunachal Pradesh is constrained by limited institutional capacity, irregular fund transfers, and over-reliance on centrally sponsored schemes. While financial outlays have increased over the years, the gaps between fund allocation and physical delivery—especially in newer phases or technically complex projects—reveal systemic weaknesses in planning, execution, and monitoring frameworks. Addressing these challenges requires not only timely release of central and state funds but also the empowerment of local bodies through the constitution of a State Finance Commission, regular devolution of functions and functionaries, and capacity-building efforts to enhance administrative and technical readiness. Only then can rural and urban local governance become truly participatory, accountable, and development-oriented.

Table 7.10
Component wise Physical and Financial status under AMRUT (in Lakh)

Sl. No.	Project ID	SAAP	Name of Project	Tender Cost	Central Share	State Share	Physical Progress (in percent)	Financial Progress (in percent)
1	ARU-ITA-041	I	Septage Management, Chimpu, Itanagar-100 KLD	15.42	13.88	1.54	100	100
2	ARU-ITA-042	I	Construction of Storm Water Drainage from Circuit House to Government higher Secondary School, ESS Sector, C Sector, D Sector, Itanagar-3 Project	13.12	11.81	1.31	100	100
3	ARU-ITA-046	I	Providing Water Supply to Urban Complex at Lekhi	5.70	5.13	0.57	100	100
4	ARU-ITA-048	I	Green Space and Park	1.31	1.18	0.13	100	100
5	ARU-ITA-036	II	Sewerage Network Scheme, Naharlagun 3MLD	38.08	34.27	3.81	35	35
6	ARU-ITA-047	II	Augmentation of Water Supply at Dam Site, Naharlagun, 1MLD	6.42	5.78	0.64	100	100
7	ARU-ITA-045	II	Green Space and Park	1.51	1.36	0.15	100	100
8	ARU-ITA-035	III	Construction of Storm Water Drainage at Itanagar with Cover Slab Thickness of 20 cm, along the CC road at 12 Project Sites	17.66	15.89	1.77	100	100
9	ARU-ITA-043	III	Construction of Storm Water Drainage at E-Sector, F-Sector & G-Sector, Naharlagun-3 Project	9.59	8.63	0.96	100	100
10	ARU-ITA-038	III	Augmentation of Water Supply at Banderdewa by 4 no.s Deep Bore Well	3.0	2.06	0.94	100	100
11	ARU-ITA-040	III	Providing Lift Water Supply to Itanagar Township for 7MLD	18.00	16.20	1.80	100	100
Grant Total (in Cr.)				129.81				

Source: Compiled from data provided by GoAP

Chapter 8

An Analysis of State Public Sector Undertakings in Arunachal Pradesh

Chapter VIII

An Analysis of State Public Sector Undertakings in Arunachal Pradesh

The state in total has 8 (eight) PSUs of its own i.e. the Authorised Share Capital is being paid up by the State. Of these Corporations, the last two corporations as given in the Table 8.1, namely; Parasuram Cement Limited and Arunachal Horticulture Processing Industries Limited are in the process of liquidation since the year 2013 (While liquidation is reported as complete but no formal closure report could be found in this regard/data unavailable). The remaining five are still functional¹ (**While there are two more PSUs functioning within the State, namely, NEEPCO (North Eastern Electric Power Corporation, NHPC (National Hydroelectric Power Corporation) but is beyond the purview of the state's domain and this study).**

Table 8.1
List of State Public Undertakings

Sl. No.	Corporations	Abbreviation
1	APIDFC Ltd.	Arunachal Pradesh Industrial Development Finance Corporation
2	APHWC Ltd.	Arunachal Police Housing and Welfare Corporation Limited
3	APFC Ltd.	Arunachal Pradesh Forest Corporation Limited
4	APMD&TC Ltd.	Arunachal Pradesh Mineral Development and Trading Corporation Limited
5	HPDCAP Ltd.	Hydro Power Development Corporation of Arunachal Pradesh Limited
6	APDPHCL	Arunachal Pradesh Donyi Polo Hotel Corporation Limited
7	PC Ltd.	Parasuram Cement Limited
8	AHPI Ltd.	Arunachal Horticulture Processing Industries Limited

Source: Directorate of Industries, Govt. Of Arunachal Pradesh

It is worth mentioning that not only the Authorised Share Capitals but all kind of financial assistance, mostly grants are all borne by the state government. Hence, instead of absolute figures, the information of which was not available, we used the ratio analysis from the balance sheet. The method gives us a better picture of analysing not only the asset and liability burden but also solvency and feasibility of the companies.

¹ Of the Five SPSUs, data and information could be collected only for the three companies, namely, APIDFC, APH&WC and APFC. The data and information of the other SPUSs were not available despite repeated request. Hence, analysis here pertains to only the three respective SPSUs.

APIDFC Ltd. (Arunachal Pradesh Industrial Development Finance Corporation Limited)

The company was established in the year 1977 on the 9th day of August to cater to the needs of the industrial finance in the hilly state of Arunachal Pradesh. The Authorised Share Capital of the company is 6,00,000,00/- (Six Crore) divided into 6 lakhs equity of 100/- (hundred) rupees and is fully paid up by the government of Arunachal Pradesh.

Since its inception, loans were advanced by the company under various refinance schemes of SIDBI and IDBI. Usually the amount advanced was to the tune of 90% (ninety per cent) of the respective individual projects for a period ranging from eight to ten years. The Primary Term Index as provided by SIDBI and IDBI ranged from six to nine percent, providing a margin of three to four percent interest to be earned by the company.

The company entered a difficult financial phase during the year 2000 when the Govt. Of Arunachal Pradesh took the decision to bifurcate some areas of operations of APIDFC to create the APTC (Arunachal Pradesh Trading Corporation).

The low rate of credit recovery led the company to highest level of inability of doing business. Even after the provision of onetime settlement of recovering loans advanced to various individual industrial units' the recovery was less than 10%. The unfeasible operational cost led to introduction of the VRS (Voluntary Retirement Scheme) by the company during the year 2007 but it was not followed by the liquidation of the company. The VRS exercise was a kind of rationalisation of overstaffing which could not cut down the operational costs and has rendered the company as a huge loss making institution.

The company is only undertaking the refinance scheme of National Schedule Tribe Finance and Development Corporations to finance rural micro industries for the rural based Arunachal Pradesh Schedule Tribe beneficiary having income of double the Poverty Line. Even in this case, the company have not received any fund since 2013-14. **(No updated and Authenticated Balance Sheet signed by Statutory Auditor could be retrieved or provided by the corporation till the drafting of this report).** (Table 8.2)

Table 8.2
Analysis of Balance Sheet

Sl. No	Particulars	Years		
		2010 -11	2011 - 12	2012 -13
1	ROI	-24.63%	-25.40%	-31.76%
2	Debt Equity Ratio	1.66	1.82	1.98
4	Fixed Asset Ratio	(0.303)	(0.250)	(0.183)
5	Current Ratio	5.134	3.975	2.780

Source: own computation from Balance Sheet

The RoI (Return on Investment) of the company has been increasing but negatively over time (-31.76% as on 2012-13) implying that the assets owned by the corporation is not yielding adequate cash flows

from its operations. The fixed assets ratio of 0.18 alongside the current ratio of 2.78 implies that working capital is *managed* out of the long term funds concomitant to the high incurred liabilities; more than twice of the current, leaving aside past. The Debt-equity ratio for the same year was 1.98 thereby implies an increasing indebtedness.

Table 8.3
Financial Status

(figures are in Crores)

Outstanding Loan	Accumulated Profit/Loss (+/-)	Net Profit/Loss (+/-)	Capital employed	Return on capital Employed	percentage of Return on capital Employed
25.75	-25.39	-2.05	4.56	-1.83	-40.13

Source: Compiled from the Report of C&AG, India, 2022, GoAP, Report No.2 of 2023

At the backdrop of the non-compliance of statutory audits so long (since 2013), the negative returns on investment, the increasing value of debt-equity ratio, it can only be interpreted that the corporation has willingly defaulted the statutory norms and have lost its solvency beyond repair. The corporation has accumulated an outstanding loan of twenty five crore and seventy five lakhs (25,750, 000/-) by the end of 30th September 2022 with a net loss of about two crore fifty lakhs (20, 500,000/-) as reflected in the Table 2 above. The return on capital employed was negative (- 1.83) with the percentage of return on capital employed culminating by about 21.93 times (-40.13%).

In other words, the company has ended up as a sink of perpetual grants and defying corporate codes have resulted into high indebtedness proving it as sustained non-profitable corporate entity soaking the incentives of future prospects in the state. (Table 8.3)

APFC Ltd. (Arunachal Pradesh Forest Corporation Limited)

The APFC Ltd. (Arunachal Pradesh Forest Corporation Limited) came into existence on the 15th day of December 1977. The authorized Capital of the Corporation is Rs.6.20 Crore of which Rs.4.49 Crore stands paid up by the State Government.

The basic operation of the company was timber that generated the 90% of revenue earnings of the company, even fetching the state government a dividend of Rs.1.04 crore and Rs.61.00 crore as rent on lease. The company being futuristic diversified its business operation by investing in the Tea, Coffee and Rubber plantation in the Tirap and Changlang district and have sustained itself despite the ban on timber operation by the Hon'ble Supreme Court in 1997.

In spite of plantations worthy of generating revenues for the company, the company ran into losses after the Hon'ble Supreme Court ban on timber. Consequently by year 2003, the company started the VRS (Voluntary Retirement Scheme) and in the year 2005 it initiated VRS/CRS (Voluntary Retirement Scheme/Compulsory Retirement Scheme). The financial implication was to the tune of 17 (seventeen) crore; 12 (twelve) crore for VRS during 2003 and 5 (five) crore for VRS/CRS during 2005. This amount of 17 crore was borrowed as loans from the commercial bank (Axis Bank) which was secured and guaranteed by the Govt. of Arunachal Pradesh.

As per the decision of the Board of Directors of the Forest Corporation as well as decision of the State Government all regular posts have been abolished with effect from 31.12.2005 (AN) and all regular employees were given retirement either on VRS or CRS on 31st December 2005 (AN). Aftermath 2005, the corporation is almost defunct and is performing only the residuary functions.

The corporation also gets Tax exemption which enhances the profitability of the corporation. In fact, the corporation lodged litigation during 2004 based on the argument that Arunachal Pradesh is 100% ST state and the individuals herein are exempted from paying income tax. Since the corporation works for the interest of the ST population in the state, hence tax on corporation's income be exempted from taxation. The Guahati High Court upheld the corporations claim and tax previously deducted was refunded during 2009-2010. The amount realised was to the tune of Rs. 15,56,00,000 (fifteen crore and fifty six lakhs). This amount could not, however, revamp the corporation due to the high operational cost and losses.

As can be seen from the Table 3 below that the corporation ran on negative returns on investment. The return on investment was about -3.57 during 2012-2013. The revenue generation or for that matter sales operations are not bringing value to the firm. Profitability has to be improved by way of bringing in operational efficiency in the system. The company is dependent on non-operational income which is giving less return to the investment. **(The company's latest authenticated statutory balance sheet conforms to year 2013. It is informed through U.O. note that the company has been waiting the appointment of statutory CA since 2013).** (Table 8.4)

Table 8.4
Ratio Analysis of Balance Sheet

Sl. No	Particulars	Years		
		2010 -11	2011 - 12	2012 -13
1	ROI	-3.146%	-3.784%	-3.573%
2	Debt Equity Ratio	0.469	0.402	0.418
3	Fixed Asset Ratio	0.460	0.674	0.724
4	Current Ratio	331.645	21.530	4.230

Source: own computation from Balance Sheet of Various Years

From the same table, the debt-equity ratio is 0.42 in 2012-13 which is relatively low. Credit infusion can be provisioned to improve the debt-equity ratio but such infusion should be used for quality asset creation leveraging the sales rather than mere provisioning of working capital.

The ratio of fixed assets to net worth which ideally reflects the short-term position was 0.72 during 2012-2013. It can be seen that the fixed ratio asset is gradually increasing and converging towards unity. The high fixed assets ratio at the backdrop of negative return on investment is indicative of the fact that long term funds are used to manage the corporation's short term positions. In other words, the working capital fund is managed out from the long term fund which is not ideally viable for any business concerns. Similarly, current ratio was about 4.230 during 2012-13 which is at the higher end, thus, substantiating the fact that a more than proportional or larger current asset are being held by the company which is not sustainable at the backdrop of diminishing sale proceeds.

The company, in spite of having assets and avenues of cash flows, is working akin to any other government department or institutions of gross inefficiency generating enormous resource drainage. It seeks grants from the state government and to receive to the tune of 1,66,00,000/- (One Crore sixty six lakhs) for its office renovation during the year 2023-24 along with the subsequent grant for quarter renovations of rupees 50,00,000/- (fifty lakhs) during the subsequent year of 2024-25. In fact, this highlights that the company is not sustainable to the extent of not being able to manage even its existing assets (buildings).

Table 8.5
Financial Status

(figures are in Crores)

Outstanding Loan	Accumulated Profit/Loss (+/-)	Net Profit/Loss (+/-)	Capital employed	Return on capital Employed	percentage of Return on capital Employed
4.80	- 4.58	3.54	4.72	4.30	91.10

Source: Compiled from the Report of C&AG, India, 2022, GoAP, Report No.2 of 2023

It can be seen from the table 4 that the outstanding loan by 2023 was to the tune of 4.80 crores while the accumulated profit was negative and to the tune of (- 4.58) crores. While the company was able to generate a positive profit of 3.54 crore, the cumulative effect of outstanding loan and negative accumulated profit far outweighs the positive profit. The company can, therefore, seek room to make itself more efficient in terms of its sales operation. (Table 8.5)

APHWC Ltd. (Arunachal Police Housing Welfare Corporation Limited)

The APHWC Ltd. (Arunachal Police Housing Welfare Corporation Limited) came into existence on the 9th day of November 2005. However, the company could start its operational business only after April 2006. The authorised share capital of the company is Rs. 5,00,00,000/- (five crore) divided into 5,00,000/- equity shares of Rs. 100/- and till 2013, issued share was 2,100 with the paid up share capital of R. 2,10,000/-

The government of Arunachal Pradesh is the sole or 100% shareholder of the company through Director General of Police, Commissioner Home, Inspector General of Police, Deputy Inspector General (West), Deputy Inspector General (East), Deputy Inspector General (Head Quarter) and Finance and Account Officer of the Police Head Quarter.

Table 8.6
Ratio Analysis of Balance Sheet

Sl. No	Particulars	Years					
		2008 -09	2009 -10	2010 -11	2011 -12	2020-21	2021-22
1	ROI	30.15%	41.83%	27.05%	37.37%	5.78	1.79
2	Debt Equity Ratio	-	-	-	-	-	-
4	Fixed Asset Ratio	-0.051	-0.30	-0.037	-0.14	0.075	0.06
5	Current Ratio	2.701	1.371	1.103	1.2	2.09	1.23

Source: own computation from Balance Sheet of Various Years

As can be seen from Table 8.6 above that the return on investment in its initial years were highly promising; till 2011-2012 at 31.38% which may have occurred due to scale effect. In other words, with the low capital base return on investment appeared well and high till 2011-2012 aftermath which a drastic shift or fall of return on investment can be seen with effect from 2020-2021 (5.78%) and even to a lower rate of 1.79% by 2021-22. However, with further analysis of the four years balance sheet and profit & loss account, it is revealed that operating and non-operating incomes are equalled proportionately. The company has, therefore, to improve its operation and expansion to add value to the firm in the long run. With regard to the debt-equity ratio since the debt element are too low, it worked out too some insignificant ratio.

From the same Table 8.6, we can see the fixed asset ratio, it was negative although out the span ranging from 2008-09 to 2011-12. It is still low but has accentuated to positive figures of 0.075 and 0.60 in the successive years of 2020-21 and 2021-22 respectively. As the ideal figure of fixed asset ratio is taken to be unity (1.00) and not beyond it; there exists ample scope of the corporation to increase the ratio which is usually the net fixed asset (fixed asset less depreciation) denominated by the long term funds which can gear the operations and yield higher cash flows.

The current ratio fluctuated ranging from 2.70 to 1.2 in between 2008-09 to 2011-12 which again soared to 2.09 during 2020-21 and has then fell back to 1.23 during 2021-22. The fluctuation reflects the company's operational engagements in various projects which appears cyclical in nature. A better way to cope up would be to switchover to reserve and surpluses which may generate passive incomes rather than cost on current liabilities, thereby, also provisioning for greater firm valuation in the long run.

Table 8.7
Financial Status

(figures are in Crores)

Outstanding Loan	Accumulated Profit/Loss (+/-)	Net Profit/Loss (+/-)	Capital employed	Return on capital Employed	Percentage of Return on capital Employed
0	31.39	2.27	31.41	2.27	7.23

Source: Compiled from the Report of C&AG, India, 2022, GoAP, Report No.2 of 2023

In case of financial status of the company, it has no outstanding loans with a accumulated positive profit of rupees thirty one crore and thirty nine crores (31, 3900,000/-). In fact, the company is also adhering to the corporate codes of statutory audits annually along with corporate orientations; as is reflected by the net profit of around rupees two crore and twenty seven lakhs (20,270,000/-) till 2023. The productive and profitable nature on management, although limited, can be also seen from the return of capital employed which stands at 2.27 and thereby accounting for the percentage of return on capital employed at 7.23%. (Table 8.7). **(No data on best management practices and strategies could be found and provided by the respective office).**

Consolidated Financial Status of SPUs

The consolidated impact of financial strains can be seen from Table 8.8. The APIDFC (Arunachal Pradesh Industrial Development and Financial Corporation) has an outstanding loan amounting to 25.75 crores without any commensuration thereby rendering itself as a net

loss accumulating entity with a loss of 2.05 crores as on 2022. At the backdrop of only 4.56 crores of employed capital the outstanding debt of 25.75 crores without sales commensurations highlights the inherent insolvent character of the entity. On the other hand, for the same time frame, the APPH&WC (Arunachal Pradesh Police Housing and Welfare Corporation) without any outstanding loan have accumulated a profit to the tune of 31.39 crores thereby realising a net profit of 2.27 crore. The APFC (Arunachal Pradesh Forest Corporation Limited) with outstanding loan of 4.8 crores which is marginally above its capital employed (4.72 crores) accumulated a loss to the tune of 4.58 crores. However, it did generate a profit of 3.54 crores during 2022.

Thus, in a consolidated manner, the total debt outstanding were to the tune of 30.55 crores with an accumulated profit of 1.42 crores; largely contributed by the APPH&WC (Arunachal Pradesh Police Housing and Welfare Corporation) and a net profit of 3.75 crores on 2022. The total capital employed was 40.69 crores which is just 10.08 crores more than the amount of outstanding debt. (Table 8.8)

Table 8.8
Consolidated Financial Status

(figures are in Crores)

Company	Loan Outstanding	Accumulated Profit(+)/ Loss(-)	Net Profit(+)/ Loss(-)	Capital employed
APIDFC Ltd.	25.75	-25.39	-2.05	4.56
APFC Ltd.	4.8	-4.58	3.54	4.72
APPH&WC Ltd.	NA	31.39	2.27	31.41
Total	30.55	1.42	3.76	40.69

Source: Compiled from the Report of C&AG, India, 2022, GoAP, Report No.2 of 2023

In addition to the above analysis the overall impact upon state's exchequer through grants, subsidies and equity infusions, inclusive of the other undertakings are reflected below in Table 8.9. The value of total investment beginning from the year 1999-2000 to the end of 2021-22 in the various PSUs amounts to 1266.09 crores which are usually in the form of either authorised or paid up capital. For the same time period, the annual equity infusion amounts to a total of 11.07 crores. It may be noted that annual capital or equity infusion has been more or less a regular feature of PSUs financing since 1999-2000 up till 2011-12; except for financial years 2003-04 and 2010-11. Aftermath 2011-12, particularly since the financial year 2012-13 there is no further equity infusion by the State.

Table 8.9
Financial Impact on Exchequer

(figures are in Crores)

Financial Year	Value of total Investment at the beginning of the year	Equity infused by the State Govt, during the year	Grants/Subsidies given the State Govt, for operational and administrative expenses	Investment during the Year	Total investment at the end of the year
A	B	C	D	E = (C+D)	I = (B+E)
Upto 1999-2000	8.42	0.18	0.35	0.53	8.95
2000-01	10.50	0.37	-	0.37	10.87
2001-02	12.20	0.17	-	0.17	12.37
2002-03	13.80	0.05	-	0.05	13.85
2003-04	15.36	-	-	0.00	15.36
2004-05	16.82	0.05	-	0.05	16.87
2005-06	18.61	0.12	1.45	1.57	20.18
2006-07	22.02	0.10	1.53	1.63	23.65
2007-08	25.77	0.03	0.73	0.76	26.53
2008-09	28.87	5.00	-	5.00	33.87
2009-10	36.81	2.50	-	2.50	39.31
2010-11	42.65	-	-	0.00	42.65
2011-12	46.19	2.50	-	2.50	48.69
2012-13	52.63	-	7.46	7.46	60.09
2013-14	64.79	-	0.70	0.70	65.49
2014-15	70.79	-	-	0.00	70.79
2015-16	76.47	-	-	0.00	76.47
2016-17	82.85	-	1.24	1.24	84.09
2017-18	91.26	-	5.55	5.55	96.81
2018-19	104.84	-	9.88	9.88	114.72
2019-20	124.52	-	4.79	4.79	129.31
2020-21	140.35	-	7.33	7.33	147.68
2021-22	159.57	-	11.32	11.32	170.89
Total	1266.09	11.07	52.33	63.40	1329.49

Source: Compiled from the Report of C&AG, India, 2022, GoAP, Report No.2 of 2023

While equity infusion was at the lower side and has been discontinued since 2012-13, there has been increasing trend of bearing the operational and administrative expenditures by the State in the nature of grant and subsidies which is to the tune of 52.33 crores cumulatively for the time frame 1999-2000 to 2021-22. The trend is particularly visible with effect from the financial year 2016-17 regularly. Prior to 2016-17, grant and subsidies were paid out but discreetly and not annually. It was 0.35 crores during 1999-2000 which after a gap of five financial years increased to 1.45 crores in 2005-06 and remained more or less stable for three consecutive financial years. After a gap of 4 financial years, grant and subsidies increased drastically to 7.46 crores in the year 2012-13 which dipped to 0.73 crores in the subsequent year i.e. 2013-14.

The grant and subsidies re-emerged since 2016-17 and has been increasing annually thereafter with a CAGR (Compounded Annual Growth Rate) of 0.56 for the period 2016-17 to 2021-22. So far, the total grant and subsidies provisioned by the State cumulatively amounts to 52.33 crores, thus rendering the total investment during the years to a total of 63.40 crores. The extent of financial implication can be easily gauged from the cumulative value of investment for the period beginning 1999-2000 to 2021-22 which is as high as 1329.49 crores.

Based on the three major corporation or the SPSUs for which data were available the foregone analysis reflects that except for the APHWC Ltd. (Arunachal Police Housing Welfare Corporation Limited), none of the SPSUs follow the codes despite having the corporate nomenclature. Analysis of the table 7 suggests that the two major corporations, namely; APIDFC Ltd. (Arunachal Pradesh Industrial Development Finance Corporation Limited) and APFC Ltd. (Arunachal Pradesh Forest Corporation Limited) alone has the cumulative outstanding loans of rupees thirty crore and fifty five lakhs (Rs. 30,55,00,000/-) which is larger than the combined authorised share value of the considered three corporations in concern at rupees seventeen crore and twenty lakhs (17,20,00,000/-). In fact, the motivated business orientation and incentives of positive profit and non-outstanding loans generated by the APHWC Ltd. (Arunachal Police Housing Welfare Corporation Limited) is subsumed up by the unprofessional, disoriented and inefficient corporations; namely APIDFC Ltd. (Arunachal Pradesh Industrial Development Finance Corporation Limited) and APFC Ltd. (Arunachal Pradesh Forest Corporation Limited), which otherwise has greater and larger extent of revenue generating assets. The APFC Ltd. (Arunachal Pradesh Forest Corporation Limited) while generating net positive profit of rupees three crore and fifty four lakhs (Rs. 3,54,00,000/-) has but the audacity of accumulating the losses to the extent of rupees four crore fifty eight lakhs (Rs. 4,58,00,000/-). This is at the background of already being a sink hole of grants.

Chapter 9

Impact of Power Sector Reforms on the State's Fiscal Health

Chapter IX

Impact of Power Sector Reforms on the State's Fiscal Health

9.1 Introduction

Power is a very important infrastructure for economic development and well-being of the people. It is required for commercial as well as for non-commercial purposes. An access to reliable and efficient supply of power is vital for socio-economic development of any region.

India has always faced chronic shortage of power due to rising of demand at a faster rate than the generation and distribution of power. This chronic shortage of power was mainly due to inadequate investment because of poor financial performance of State Electricity Boards. Till 1991 power generation and distribution was undertaken by the SEBs. Distribution of power was solely under the control of the SEBs. Over the years SEBs have become financially weak and incurring huge losses. The poor financial health of the SEBs were attributable to subsidies, transmission and distribution losses, over staffing, arrears, poor pricing policy etc. The SEBs were expected to earn 3 per cent rate of return on capital employed. But instead SEBs were earning negative returns (India Development Report 2002).

Power sector reforms were initiated in India in 1991 with a view to improve the performance of power sector. The main aims of the reforms were to introduce competition in power sector and improve financial health of the SEBs. The reforms were accompanied by a reduced emphasis on the public sector and opening up of the sector to private (both domestic and foreign) developers through the concept of Independent Power Producers. To attract foreign private investment a 100 per cent ownership was permitted and the requirement to balance dividends by export earnings was waived. The State governments were also directed to introduce reforms in power sector. In order to set economic tariff, Central Electricity Regulatory Commission (CERC) was set up in 1998. States were also urged to set up State Electricity regulatory Commissions (SERCs). SERCs are to be independent statutory bodies and are to prescribe power tariffs. If the State government wants to subsidise any particular set of consumers, it has to give direct budgetary support to SEBs. Reforms were also intended for restructuring and corporatisation of SEBs and privatisation of distribution.

Many States have initiated reforms in their power sector. The government of Orissa was the first to initiate reforms of the State power sector with substantially restructuring of

SEBs to make the operation of power sector more efficient and financially viable. Under Orissa Electricity reform Act 1995, SEB has been unbundled into three separate corporations – Grid Corporation of Orissa, Orissa Hydro Power Corporation and Orissa Power Generation Corporation. It placed special emphasis on the reform of electricity distribution and privatisation of distribution on the basis of competitive bidding. Many States have initiated power sector reforms to address various problems plaguing the sector. These include independent regulators, corporatisation, unbundling and privatisation. Arunachal Pradesh has initiated some reforms in power sector and reforms are still under progress.

In this background, this chapter discusses the sources of power, various reforms introduced in power sector in Arunachal Pradesh and analyses the performance of power sector in the State. It also analyses the impact of power sector reforms on the fiscal health of the State and suggests remedial measures.

9.2 Sources of Power/Energy in Arunachal Pradesh

The generation of power in the State sector is highly inadequate to meet the power requirement of the State. Therefore, the large proportion of the State's power requirement is met through purchase of power from central power generating corporation like NEEPCO. Arunachal Pradesh has a huge potential to generate hydropower. According the estimate of estimate of Central Electricity Authority, the State has hydropower potential of 57,000 MW. It accounts for 45 per cent of the country's hydropower capacity (The Arunachal Times, December 11, 2024). The potentials are being tapped step by step and the State is expected to be a power house of the country in the few years. However, due to financial constraints, the generation capacity under the State sector has been growing at a slow pace. The power generation in the State sector is far less than the power requirement. Therefore, the large proportion of the State's power requirement is met through purchase of power from central power corporations and independent power producers (IPP).

In Arunachal Pradesh, power sector is still under the control of Arunachal Pradesh Department of Power (APDOP) which is a part of the State government and is funded from the State budgetary sources (Arunachal Pradesh Development Report 2009, p. 264). Arunachal Pradesh Department of Power (APDOP) is a deemed licensee in terms of section 14 of the Electricity Act, 2003 and it is responsible for transmission and distribution of electricity in the State of Arunachal Pradesh and trading of electricity. However, the APDOP does not have its own power plants, except small diesel generation (DG) sets. The APDOP

procures power from various sources and carry out power business in the State. The APDOP purchases power from the central sector power corporation like NEEPCO, NHPC and NTPC and also from Independent Power Producer (IPP). It also receives power from the Department of Power, a separate department namely, Department of Hydro Power Development (DHPD) which has been set up in order to oversee, coordinate and monitor the activities relating to hydro power development in the State. Further, the APDOP gets power from the Hydro Power Development Corporation of Arunachal Pradesh Limited (HPDCAPL). HPDCAPL was incorporated in 2007 as a State Public Sector Undertaking for harnessing huge hydro power potential of the State. It aims to generate at least 3000 MW through small and mini hydro power projects at various locations by 2030 (www.hpdcapl.in). Besides, there is Arunachal Pradesh Energy Development Agency (APEDA) which was established in 1996 as a nodal agency to deal with all the programmes and schemes relating to development of renewable and non-conventional energy sources.

The APDOP also receives free power (12 per cent State quota) from the Central sector Power generations (like Ranganadi HEP, Pare HEP, Panyor HEP and Kameng HEP under NEEPCO). The sources of power and power supply position are as follows:

- (i) **Power from Central Sector:** APDOP purchases power from the central sector corporations. In 2012-23, APDOP procured 709.52 MU of power from the central sector power corporations. It also received 576.80 MU of free power (a State quota/royalty) from the central sector power corporations like NEEPCO which has set up hydropower plants in the State (Pare, Kameng, Panyor lower, Ranganadi HEP).
- (ii) **Power from DHPD:** The Department of Hydropower Development (DHPD) has an installed capacity of 81.54 MW from different small plants located in various parts of the State. The APDOP has received 41.97 MU of power from DHPD in 2022-23. Since DHPD is also under the Government of Arunachal Pradesh, APDOP does not pay the cost of power to DHPD. Hence, the power from DHPD can be treated as free power.
- (iii) **Power from HPDCAPL:** Hydropower Development Corporation of Arunachal Pradesh Limited (HPDCAPL), a State Public Sector Undertaking, has commissioned a 3 mega watt (MW) small hydropower project at Zemithang in Tawang district over Sumbachu river and also started commercial operation in the

year 2020-21. The APDOP has received 0.83 MU of power in 2020-21, 4.69 MU in 2021-22 and 5.24 MU in 2022-23 at a tariff of Rs. 3.61/kWh.

- (iv) **Power from Dikshi SHP), IPP:** Dikshi is a small hydropower project of 24 MW in Rupa of West Kameng district. It was developed by Devi Energy Pvt. Ltd., an Independent Power Producer (IPP). The project was commissioned in the years 2019 and has started commercial operation. APDOP has purchased 16.30 MU of power in 2020-21, 47.99 MU in 2021-22 and 65.17 MU in 2022-23 at Rs. 5.25/kWh.
- (v) **Power from APEDA:** Arunachal Pradesh Energy Development Agency is responsible for the development of non-conventional energy in the State. APEDA is under the Ministry of Power, Government of Arunachal Pradesh. Over the years, APEDA has developed a few Solar power plants in different parts of the State with total capacity of 4.188 MW. The APDOP has received 0.52 MU of power in 2020-21, 0.47 MU in 2021-22 and 0.96 MU in 2022-23.
- (vi) **Power from Open Market:** APDOP also purchases power from Real-Time market (RTM) or Day Head Market (DHM) during exigencies from IEX to meet the energy requirement of the State. The APDOP purchased 0.65 MU in 2020-21, 3.94 MU in 2021-22 and 6.15 MU in 2022-23 to meet power shortages from this source.
- (vii) **Banking of Power:** The APDOP is also engaged in banking of energy during the high hydro season and takes back during the lean hydro season. The energy imported through banking was 39.37 MU in 2022-23.
- (viii) **Diesel Generation (DG) Set:** The APDOP has its own DG sets located at different places with total installed capacity of 20.45 MW. DG sets are used as a standby and a temporary arrangement to meet energy requirement in case of non-availability of power from other sources. The expenditure on DG sets are included in Operation and Maintenance cost. The energy generated through DG set was 0.36 MU in 2020-21, 0.39 MU in 2021-22 and 0.28 MU in 2022-23.

9.3 Installed Capacity, Electricity Generated and Energy Availability

The analysis of total installed capacity and electricity generated in the power sector shows that there has been gradual increase in the capacity as well as generation of electricity. The details are given in table 9.1.

Table 9.1
Installed Capacity and Electricity Generated in State Sector in Arunachal Pradesh

Year	Installed Capacity (MW)			Electricity Generated (MU)		
	Hydel	Diesel	Total	Hydel	Diesel	Total
2016-17	69.71	19.57	89.28	64.38	0	64.38
2017-18	70.24	19.57	89.81	61.02	0	61.02
2018-19	74.21	19.57	93.78	62.92	0	62.92
2019-20	74.59	19.57	94.16	67.56	0	67.56
2020-21	79.74	20.45	100.19	77.65	0.36	78.01

Source: Statistical Abstract of Arunachal Pradesh 2021 & APSERC, 2024

It was found that the total installed capacity in the State sector has increased from 89.28 MW in 2016-17 to 100.19 MW in 2020-21. This was mainly on account of increase in installed capacity of hydel power in the State by 14.39 per cent from 69.71 MW in 2016-17 to 79.74 MW in 2020-21. This can be attributed to the concerted effort made by the State government to develop hydropower. In fact, the State government has identified hydropower sector as one of the priority sectors in view of its huge hydro power potentials. On the other hand, the installed capacity under diesel set (DG) has remained more or less stagnant during the period under review. This is because the APDOP use DG set only as an standby arrangement due to high operation cost (APSERC, 2024). So, the generation of electricity from DG set is nil or negligible (Table 9.1).

The electricity generation in the State sector has increased by 21.17 per cent from 64.38 MU in 2016-17 to 78.01 MU in 2020-21. It was mainly on account of increase in generation of hydel power from 64.38 MU in 2016-17 to 77.65 MW in 2020-21 (Table 9.1). The total State's generation including all sources was 94.25 MU in 2020-21 (Table 9.2).

Table 9.2
State's Generation of power from different sources (in MU)

Sources of Power	2020-21	2021-22	2022-23	2023-24*
DHPD, GoAP	76.6	48.06	41.97	41.97
HPDCAPL, SPSU	0.83	4.69	5.24	5.24
DIKSHI, IPP	16.3	47.99	65.17	65.17
<i>Free energy Dikshi, IPP</i>	0	2.13	11.64	11.64
APEDA (Solar)	0.52	0.47	0.96	0.96
TOTAL	94.25	103.34	124.98	124.98

*denote estimated value.

Source: Tariff Order, APSERC, 2024.

In the recent years, the State has commissioned a few new projects. As a result, the generation of electricity has improved to 103.34 MU in 2021-22 and further improved to 124.98 MU in 2022-23. The increase in generation was mainly due to increase in power generation from HDCAPL with commissioning of Sumbachu small hydropower project of 3 MW at Zemithang in Tawang district in 2020-21 and Dikshi hydropower of 24 MW at Dikshi in Rupa, West Kameng district. The decrease in power from DHPD is mainly due to under operation of small hydro power stations owing to technical issues.

The generation of electricity in the State sector is highly insufficient to meet the energy requirement. Hence, the APDOP procures energy from various sources like central generating stations (CGS), free power (royalty) from central generating stations, purchase from IPP and other sources. The total energy availability in the State is presented in table 9.3.

Table 9.3
Total Energy Availability in Arunachal Pradesh (in MU)

Source of power	2020-21	2021-22	2022-23	2023-24*
Purchased from central sector	575.33	611.47	709.52	709.5
<i>Free power from central sector</i>	400.19	496.3	576.8	576.81
State's generation	94.25	103.33	124.98	124.98
Other Sources	77.04	117.95	111.86	110.52
TOTAL	1146.8	1329.06	1523.15	1521.81

Source: Tariff Order, APERC, 2024.

The total energy availability in the State has increased from 1146.8 MU in 2020-21 to 1329.06 in 2021-22 and further improved to 1523.15 MU in 2022-23 and is estimated to be 1521.81 MU in 2023-24. The increase in energy availability was mainly on account of increase in free power from CGS and procurement of power from CGS as well as due to increase in State's generation with commissioning of new projects. The energy from other sources also improved during the period 2020-21 to 2023-24 (Table 9.4).

Table 9.4
Power Received from Other Sources in Arunachal Pradesh (in MU)

Source of Power	2020-21	2021-22	2022-23	2023-24*
Deviation	39.92	48.82	66.05	62.75
IEX Purchase	0.65	3.94	6.15	6.15
Banking (import)	36.12	64.8	39.37	41.34
Diesel generation (DG)	0.36	0.39	0.28	0.28
TOTAL	77.04	117.95	111.86	110.52

Source: Tariff Order, APERC, 2024.

The energy from other sources include deviation, IEX purchase, banking of power and diesel generation. Deviation is the difference between actual drawl and the scheduled drawl from the Grid. IEX purchase is the purchase of power by APDOP from Real-Time Market (RTM) or Day Ahead Market (DAM) from IEX to avoid or minimise deviation. Banking of power is that during the high hydro season the APDOP engage in banking of energy and takes back during lean hydro season @ 5 per cent. Diesel generation (DG) is the generation of power from APDOP's own DG sets in case of emergency or power shortage.

Power Sector Reforms in Arunachal Pradesh

The State is a late starter of power sector reforms. In order to improve the performance of power sector, the State government initiated some reforms. The status of power sector reforms in Arunachal Pradesh is presented in the table 9.5. It clearly shows that power sector reform in the State is still modest even after more than 25 years of initiation of reforms in the country. In this State, reforms in power sector have not been undertaken in a major way. However, some steps in this direction have been initiated by the State government in the recent past. These include; constitution of the Arunachal Pradesh State Electricity Regulatory Commission (APSERC) in 2010 which started functioning from March 2011. The commission prescribed power tariff from the financial year 2013-14. This is significant step taken by the State government for improving the health of power sector. Another significant step taken is the formation of reform committee and provision of new connection with meter. The State introduced prepaid meter connection on optional basis in 2016. These steps are important but are not likely to produce significant unless accompanied by reforms in other complementary areas.

Hence, there is need to expedite the reform process in the State to achieve improvement in financial health of power sector. There is need to restructure and corporatize the Arunachal Pradesh Department of Power in line with other States like Orissa. Privatisation of distribution have not been done yet. APDOP is the sole electricity distribution utility in the entire State of Arunachal Pradesh. The privatisation is important to ensure competition, improve efficiency in revenue collection, avoid default in bill payment, eliminate arrears and reduce T & D losses. Recently, Arunachal Pradesh Department of power has started online bill payment system. This is expected to improve revenue collection and encourage timely payment of bill.

Table 9.5
Power Sector Reform Status in Arunachal Pradesh

Provision	Status
Constitution of State Electricity Regulatory Commission (SERC)	Constituted through a notification No. PWRS/W-1075/2004 dated 7th May 2010. The Commission has started functioning w.e.f. 2 nd March 2011.
Fixation of tariff by SERC	Started from financial year 2013-14.
Restructuring/Corporatisation	Not yet
Privatisation of distribution	Not yet started
Formation of Reform Committee	Yes
New connection with meter	Yes
Pre-paid meter	Yes (only in towns)
Franchising of billing/collection, Consumer Indexing, Computerised billing	Yes

Source: Arunachal Pradesh Department of Power and APSERC, 2024-2025

Hence, there is need to expedite the reform process in the State to achieve improvement in financial health of power sector. There is need to restructure and corporatize the Arunachal Pradesh Department of Power in line with other States like Orissa. Privatisation of distribution have not been done yet. APDOP is the sole electricity distribution utility in the entire State of Arunachal Pradesh. The privatisation is important to ensure competition, improve efficiency in revenue collection, avoid default in bill payment, eliminate arrears and reduce T & D losses. Recently, Arunachal Pradesh Department of power has started online bill payment system. This is expected to improve revenue collection and encourage timely payment of bill.

Thus, it is observed that power sector reforms in yet to begin in a big way in the State. The constitution of APSERC is an important step taken by the State government in this direction. However, the State is yet to undertake major reforms in its power sector like, restructuring and corporatisation of SEBs, privatisation of distribution etc. Further, is to be noted that APSERC remained defunct for a period of more than three years from 1st January, 2020 to 17th July, 2023 due to retirement of its Chairman. During this period APSERC did not perform any regulatory activities and tariff order approved for the year 2018-19 was continued till 2023-24 (APSERC, 2023).

Consumption and Sale of Power

The data on consumption/sale of power show that the domestic consumers account for the largest share followed by industrial and commercial consumers. For instance, in 2023-24 domestic consumers accounted for 40 per cent of the total sale/consumption followed by industrial consumers (38 per cent) and commercial consumers (16 per cent). The consumption/sale of power has increased over the years from 322.04 MU in 2014-15 to 641.29 MU in 2023-24. The details are presented in table 9.6.

Table 9.6
Consumption / Sales of Power in Arunachal Pradesh (in MU/MKWH)

Sl. No.	Category	2014-15	2015-16	2016-17	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	Domestic consumers	134.29	138.59	147.95	171.87	178.44	187.38	207.83	236.61	256.95
2	Commercial consumers	33.64	39	44.47	55.18	58.21	57.44	66.78	91.56	100.91
3	Industrial Consumers	79.2	97.03	106.34	143.68	166.92	127.52	211.7	219.11	244.44
4	Public Lighting and water supply consumers	11.18	11.89	10.93	8.71	8.34	8.7	8	8.97	9.3
5	Agricultural consumers	0.00	0.02	0.03	0.01	0.01	0.712	0.01	0.02	0.03
6	Bulk mixed consumers	63.62	60.14	60.86	61.56	47.31	26.05	25.84	27.52	28.17
7	Temporary	0.11	0.23	0.22	0.14	0.24	0.372	0.48	1.49	1.49
	Total	322.04	346.89	370.83	441.15	459.47	408.174	520.64	585.28	641.29

Source: Arunachal Pradesh Department of Power and APSERC, 2024

During the period 2014-15 to 2023-24, the consumption of power in the State grew at 11 per cent per annum on an average which is very appreciable. The growth in power consumption was mainly contributed by high growth in domestic consumption which is mainly due to extension of electricity coverage. It was also contributed by growth in industrial and commercial consumptions. This shows that there is a growing demand for power in the State. Hence, there is a need to undertake investment in power generation to reduce dependence on power import.

Transmission and Distribution (T&D) Losses and Aggregate Technical and Commercial (AT & C) Losses

The transmission and distribution losses were quite high in most of the Indian States in the pre-reform period. Such losses were attributable to lack of proper distribution, planning and inadequate investments in T&D networks, particularly in sub-transmission and distribution networks, defective metering, unmetered supply and substantial power pilferage. With reforms in power sector, such losses were reduced to a varying extent in majority of the States. In 2013 technical losses in India was 23.65 per cent compared to the world average of 15 per cent. At the national level, AT & C losses is slated to decline to 13.5 per cent in 2023-24 (The Hindu Business line, June 22, 2023). However, in Arunachal Pradesh, AT & C losses as well as T & D losses are found to be abnormally high. At the same time, AT & C losses in the State are not declining over the years as per the road map given by APSERC. The details of AT & C losses are presented in table 9.7.

Table 9.7
T & D losses and Aggregate Technical and Commercial (AT&C) Losses in Arunachal Pradesh

Year	AT & C Losses (%)
2012-13	66.27
2013-14	59.30
2014-15	62.43
2015-16	57.74
2016-17	39.98
2017-18	58.36
2018-19	55.50
2019-20	45.71
2020-21	51.82
2021-22	47.83
2022-23	51.63
2023-24	44.56

Source: Arunachal Pradesh Department of Power and APSERC, 2024

The AT & C losses in the State has declining trend. It declined over the years from 66.27 per cent in 2012-13 to 45.71 per cent in 2019-20. But again rose to 51.82 per cent in 2020-21 and recently decline to 44.56 per cent in 2023-24. The AT & C losses in the State is still very high compared to national average of around 15 per cent. The high AT & losses can be attributed to lack of proper distribution network owing to hilly terrains, disruption in network due to landslides during monsoon season, power pilferage, tempering of meters, low level of metering both at feeder as well as at the consumer level and inadequate billing, poor

energy accounting and auditing etc. There is a need to make investment in distribution network, correct assessment of energy losses and promote efficient usages of electricity.

The high AT & C losses indicate that the Department of Power has been losing major chunk of its revenue which has affected its finances severely. This has resulted in huge revenue gap. For instance, in 2016-17 the revenue gap of APDOP was 291.68 crore (Tariff Orders, 2016-17, APSERC). It indicates poor performance of the Arunachal Pradesh Department of Power (APDOP) and is imposing burden on State Exchequer.

The poor performance and inefficiency of APDOP is also indicated by low ratio of revenue to aggregate expenditure (45.87 per cent in 2016-17). The APDOP is able to finance only 45.87 per cent of its total expenditure from its own revenue and rely budgetary support for the rest 54.13 per cent of its expenditure. Thus, APDOP is imposing fiscal burden on the State instead of contributing to its revenue from power business. Hence, there is a need to take serious measures to reduce T&D losses as well as AT & C losses by APDOP to make power business viable in the State and reduce fiscal burden on the State Exchequer. APDOP needs to follow the losses reduction roadmap suggested by the APSERC.

Cost of Power Supply and Tariff Rates

The cost of power supply is found to be much higher than the tariff rates. The data on cost of power supply is found inadequate. The APSERC also pointed out lots of data gap in the data maintained by the department. There is a lack of data regarding cost of supply at various voltage levels. The average cost of power supply for few years is presented in table 9.8.

Table 9.8
Average Cost of Power Supply (ACS) in Arunachal Pradesh

Year	ACS (Rs./kWh)
2013-14	13.03
2016-17	10.08
2017-18	13.65
2018-19	15.51
2019-20	15.15
2020-21	18.14
2021-22	13.63
2022-23	13.23
2023-24*	6.95
2024-25*	7.32

Source: Arunachal Pradesh Department of Power and Tariff Order, APSERC, 2024

*denotes estimated values.

The average cost of supply (ACS) of power has been worked out at Rs. 13.03 per kWh in 2013-14 and Rs. 10.08 per kWh in 2016-17 by the APSERC. The average cost of power supply increased to Rs.15.51 in 2018-19 and further rose to Rs. 18.14/kWh in 2020-21. Thereafter, it showed a declining tendency which could be attributed fall in AT & C losses. was estimated at Rs. 6.95 per kWh for the year 2023-24 and Rs. 7.32 per kWh for the year 2024-25 (APSERC, 2024). The average cost of power supply is very high in the State as compared to other States like Assam where it is about Rs. 5 per kWh. The Tariff Policy mandates that tariff rate should be within plus/minus 20 per cent of the average cost of supply. But in the State tariff rates are observed to be much lower than the average cost of supply. This is mainly due to high average cost of power supply. The tariff rates in the State are observed to be similar to that in Assam. Hence, there is need to improve efficiency to reduce cost of supply as high cost due to inefficiency cannot be passed on to consumers in the form of high tariff. Further, the tariff rates may be increased but should be done in a phased manner. Sudden increase in tariff rates may be unacceptable to consumers resulting in protest and non payment of bills. The tariff rates for different categories of consumers in various years and percentage increase in tariff rates are given (annexure I).

Power tariff rates in the State are found to vary for different category of consumers. The tariff rates vary from Rs. 2.65 per kWh for BPL consumers to Rs. 6.50 per kWh for temporary consumers. The analysis showed that tariff rates have not changed much during the period 2012-13 to 2023-24. In case of non-commercial (domestic consumers) and KJP & BPL consumers, the tariff rates have remained unchanged at Rs. 4 per kWh and Rs. 2.65 per kWh. The tariff rate for agricultural consumers has also remained unchanged at Rs. 3.10 per kWh. But the tariff rates for commercial consumers and public lighting have increased by 5 per cent and that for industrial consumer has increased by 7.5 per cent to 13.56 per cent respectively. The tariff rate for bulk mixed consumers has increased by around 10 per cent and that for temporary consumers has increased by 7 per cent during the period 2012-23 to 2023-24. The details of tariff rates are presented in Annexure 9.1.

Impact of Power Sector Reforms on Fiscal Health of the State

The impact of power reforms on the fiscal health of the State has evaluated by analysing the gap between cost (expenditure) and revenue of the power sector. The gap indicates the extent of fiscal burden on the State. High gap indicates poor financial performance of the power sector which imposes more burdens on State finances. With the introduction of reforms the

gap between expenditure and revenue of the power sector is expected to decline and over the years power sector is expected to contribute positive net revenue to the State exchequer.

To assess the impact of power sector reforms on the fiscal health of the State two measures were used: (i) the gap between revenue and expenditure of the APDOP and (ii) the ratio of revenue to expenditure of the APDOP. The revenue and expenditure of the APDOP are given in the tables 9.9 and 9.10. The total revenue of sale of power improved from 84.81 crore in 2012-13 to 129.88 crore in 2014-15. The details are presented in table 9.9.

Table 9.9
Revenue from Sale of Power (Rs. in Crore)

Year	Revenue from sale of Power within State	Revenue from sale of Power Outside State	Total Revenue
2012-13	73.52	11.29	84.81
2013-14	85.77	7.31	93.08
2014-15	119.15	10.73	129.88
2015-16	99.12	18.23	117.35
2016-17	230.95	16.19	247.14
2017-18	-	-	129.98
2018-19	-	-	282.80
2019-20	-	-	259.53
2020-21	-	-	231.75
2021-22	-	-	327.75
2022-23	-	-	422.50
2023-24	-	-	387.91

Source: Arunachal Pradesh Department of Power, GoAP

The total revenue decline to 117.35 crore in 2015-16 and improved sharply to Rs. 247.14 crore in 2016-17. The revenue from sale of power fell sharply to 129.98 crore in 2017-18 which was on account of high AT and C losses of 58 per cent. Thereafter, the revenue from power has improved. In 2022-23, the revenue from sale of power has increased to 422.50 crore. The increase in revenue was mainly on account of increase in sale of power, fall in AT & C losses, improvement in collection efficiency and hike in tariff rates. The sale of power has increased from 322.04 MU in 2014-15 to 641.29 MU in 2022-23. The AT & C losses fell from 66.27 per cent in 2012-13 to 44.56 per cent in 2023-24

Table 9.10
Expenditure of the Department of Power (Rs. in Crore)

Year	Generation Cost	Purchase of Power	Repair & maintenance	Employee cost	Adm. & general exp.	Total Expenditure
2012-13	NA	191.38	31.76	138.54	6.46	368.14
2013-14	NA	180.23	26.50	156.42	6.83	369.98
2014-15	NA	182.44	28.50	175.41	7.52	393.87
2015-16	NA	217	20.19	211.37	7.25	455.81
2016-17	NA	277.42	20.00	232.49	8.91	538.82
2017-18	NA	NA	NA	NA	NA	565.71
2018-19	NA	NA	NA	NA	NA	684.18
2019-20	NA	NA	NA	NA	NA	723.62
2020-21	NA	NA	NA	NA	NA	781.11
2021-22	NA	NA	NA	NA	NA	835.28
2022-23	NA	NA	NA	NA	NA	1028.08
2023-24	NA	NA	NA	NA	NA	1041.09

Source: Arunachal Pradesh Department of Power, GoAP

The expenditure of the Power Department of the State consists of power purchase cost, repair and maintenance cost, employee cost, administrative and general expenses. The total expenditure of the department has continuously increased from Rs. 368.14 crore in 2012-13 to Rs. 538.82 crore in 2016-17. The expenditure of power department increased further and reached a level of Rs. 1041.09 crore in 2023-24. The average annual growth of expenditure during the review period was 16.62 per cent which is quite high. The high growth in expenditure was mainly due to high growth in power purchase cost and employee cost. The composition of expenditure of the department is given in the table 9.11.

Table 9.11
Composition of Expenditure Department of Power (in Percentage)

Year	Generation Cost	Purchase of Power	Repair & maintenance	Employee costs	Admi. & General Exp.	Total
2012-13	NA	51.99	8.63	37.63	1.75	100.00
2013-14	NA	48.71	7.16	42.28	1.85	100.00
2014-15	NA	46.32	7.24	44.53	1.91	100.00
2015-16	NA	47.61	4.43	46.37	1.59	100.00
2016-17	NA	51.49	3.71	43.15	1.65	100.00

Source: Arunachal Pradesh Department of Power, GoAP

The table 9.11 shows that power purchase continued to account for the largest share in total expenditure followed by employee cost. However, the share of power purchase cost has decreased over the years from 51.99 per cent in 2012-13 to 47.61 per cent 2015-16. But it

again rose to 51.49 per cent in 2016-17. The high share of power purchase cost can be attributed to increase in purchase of power from 446.76 MU in 2012-13 to 676.93 MU in 2016-17, which is mainly due to slow growth of State's generation. The share of employee cost increased from 37.63 per cent in 2012-23 to 43.15 per cent 2016-17. This shows that the power department is over staffed which is consuming a large chunk of its revenue. As a result it has not been able to undertake capital investment in power generation.

The financial position of the department is reflected by the gap between revenue and expenditure as well as the ratio of revenue to expenditure. The table 9.12 present the revenue, expenditure, surplus/deficit and ratio of revenue to expenditure of the department.

Table 9.12
Profit/Loss of the Department of Power, Government of Arunachal Pradesh (Rs. in Crore)

Year	Total Revenue	Total Expenditure	Surplus (+)/ Deficit (-)	Revenue as % of Expenditure
2012-13	84.81	368.14	-283.33	23.04
2013-14	93.08	369.98	-276.9	25.16
2014-15	129.88	393.87	-263.99	32.98
2015-16	117.35	455.81	-338.46	25.75
2016-17	247.14	538.82	-291.68	45.87
2017-18	129.98	565.71	-435.73	22.98
2018-19	282.80	684.18	-401.38	41.33
2019-20	259.53	723.62	-464.09	35.87
2020-21	231.75	781.11	-549.36	29.67
2021-22	327.75	835.28	-507.53	39.24
2022-23	422.50	1028.08	-605.58	41.10
2023-24	387.91	1041.09	-653.18	37.26

Source: Arunachal Pradesh Department of Power, GoAP

It is found that in all the years under the review, expenditure has exceeded the revenue. Therefore, the gap between revenue and expenditure of the department has always been negative. The department has suffered from deficit in all the years during the period under consideration which indicates its poor financial performance. The efficiency of expenditure has also been very inferior as reflected by the negligible capital expenditure and growing share of revenue expenditure. The volume of deficit in absolute amount has increased from Rs. 283.33 crore in 2012-13 to 291.68 crore in 2016-17. The deficit further increased over the years and reached a high level of Rs. 653.18 crore in 2023-24. This was due to substantial increase in power purchase expenditure, employees cost and low revenue owing high AT & C losses.

The ratio of revenue to expenditure shows the percentage of total expenditure financed by its own revenue. The increase in ratio is an indicator of improvement in the fiscal health of the department. The ratio of revenue to expenditure has improved sharply from 23 per cent in 2012-13 to 45.87 per cent in 2016-17. Thereafter, it deteriorated and in 2023-24, the revenue of power department could finance only 37.26 per cent of its total expenditure. Thus, power department is putting stress on the fiscal health of the State. Hence, it calls of reducing AT & C losses and cost as well as focus on improving revenue to reduce the burden on State exchequer.

Key Findings

In Arunachal Pradesh power business is still the monopoly of Arunachal Pradesh Department of Power (APDOP). The distribution of power is still under the control of the department. The department sales power and collect tariff and non-tariff revenue from consumers.

1. The performance of the APDOP is found to be inefficient as indicated by high level of AT & C losses. Though the losses have declined during the period under review, such losses are still very high (44.56 per cent in 2023-24). This has adversely affected the financial health of the department. As a result of which it has been unable to make capital investment to augment generation capacity.
2. Installed generation capacity in the State sector is low and is found to increase slowly over the years. The generation of power in State sector has from 64 MU in 2026-17 to 78 MU in 2020-21. The State's generation is highly insufficient to meet energy requirement. Therefore, the State has been importing huge amount of power from outside. The State's power generation improved to 124.98 MU in 2023-24, with inclusion of Dikshi hydel, IPP.
3. However, the consumption and sales of power has increased from 370.83 MU in 2016-17 to 641.29. The domestic consumers accounts for the largest share (40 per cent) in consumption followed by industrial consumers (38.12 per cent) in 2023.24.
4. The average cost of power supply has declined over the years from Rs. 13 per kWh in 2013-14 to Rs. 6.95 per kWh in 2023-24 which is healthy trend.
5. Power tariff rates are found to be similar to other States like Assam. The rates are prescribed by the APSERC. The rates have been increased by 5 per cent for commercial and 13.5 per cent for industrial consumers during the period 2012-13 to 2023-24.

6. The status of power sector reforms in the State shows that reforms are yet to begin in a significant way. One important step in this direction in the establishment of APSERC which started functioning from March, 2011 and prescribed power tariff for financial year 2013-14. But there many reforms are yet to be undertaken like corporatisation and unbundling of APDOP and privatisation of distribution.
7. The revenue and expenditure of the department of power shows that the gap between revenue and expenditure (deficit) of the power department has increased from Rs. 283.33 crore in 2012-13 to Rs. 291.68 crore in 2016-17. The deficit further increased over the years and reached a level of 653.18 crore in 2023-24.

However, the ratio of revenue to expenditure of the power department has improved from 23 per cent in 2012-13 to 45.87 per cent in 2016-17. Thereafter, it deteriorated and fell to 37.26 per cent in 2023-24 indicating that the revenue of power department could finance only 37.26 per cent of its total expenditure. Thus, power department is putting stress on the fiscal health of the State.

Suggestions

The following suggestions may be incorporated to improve the health of power sector in the State.

1. The power sector reforms in the State is yet to take place in a big way. As per the provision of the Electricity Act 2003, the functions are transmission and distribution functions are to be separated and entrusted to reorganised independent bodies. Hence, the State government must take steps to complete restructuring of the power sector in Arunachal Pradesh.
2. Arunachal Pradesh Department of Power (APDOP) which enjoys the monopoly of power business has shown poor financial performance as indicated by deficit in its budget. The poor financial performance has been putting burden on the State finances. Hence, it should be restructured to introduce professionalism and improve managerial efficiency.
3. Distribution of power in the State may be privatised in some areas and sector. This will introduce competition in distribution of power between public and private sectors and it will improve efficiency in power distribution. This will benefit both consumers and suppliers.

4. The main problem of the State power sector is high level of AT & C losses(51.63 per cent in 2022-23 against the national average of 15 per cent. The losses are responsible for huge loss of revenue. Hence, APDOP should take measures to reduce AT & C losses a phased manner to enhance revenue collection.
5. The APDOP should conduct energy audit regularly and assess losses accurately in the distribution system (APSERC, 2014). Energy audit helps to identify high loss areas and accordingly remedial measures can be taken to check it.
6. The Department of Power should focus on ways to increase revenue generation and reduce unproductive expenditure. To enhance revenue collection the department should improve technical efficiency, introduce proper billing, all metered supply, correct meter reading, and checking power pilferage and improve collection efficiency. At the same time, it should adopt measures to reduce expenditure. This can be done by cutting the unproductive expenditures. For example, the employee cost accounts for more than 40 per cent of total expenditure which indicates that the department is overstaffed. There is a scope to reduce the employment cost and repair and maintenance cost. To reduce power purchase cost, the department should invest in its own power plants.
7. Tariff rate for domestic consumers has remained stagnant since 2012-13. It may be revised to generate revenue.
8. The tariff rates in Arunachal Pradesh are found to be similar to that of Assam. But the average cost of power supply (ACS) is higher in Arunachal Pradesh (Rs. 6.95 per kWh in 2023-24 as compared to about Rs. 5 per kWh in Assam). Hence, steps shall be taken to reduce ACS further.

The above suggestions may be incorporated to improve the financial health of the State power sector. The improvement in financial performance of power sector is essential to reduce the burden on the State Exchequer and improve the State's fiscal health.

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Annexure I: Tariff Rates for Different Categories of Consumer in various Financial Year (in Rs. Per kWh)

Sl. No.	Category	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	% change during 2012-13 to 2023-24
1	Non Commercial Consumer (Domestic)													
	LT	AC 50 Hz, 1-Phase, 230 Volt nominal Voltage	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0
		AC 50 Hz, 3-Phase, 400 Volt nominal Voltage	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0
	HT	AC 50 Hz, 3-Phase, 11 KV nominal Voltage	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	0
		AC 50 Hz, 3-Phase, 33 KV nominal Voltage	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	0
	KJP & BPL Connection													
		AC 50 Hz, 1-Phase, 230 Volt KJP & BPL connection	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	0
2	Commercial Consumers (Non-industrial)													
	LT	AC 50 Hz, 1-Phase, 230 Volt nominal Voltage	4.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.26
		AC 50 Hz, 1-Phase, 400 Volt nominal Voltage	4.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.26
	HT	AC 50 Hz, 3-Phase, 11 KV nominal Voltage	4.00	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	5.00
		AC 50 Hz, 3-Phase, 33 KV nominal Voltage	3.80	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.26

3		Public Lighting and Water Supply Consumers													
	LT	AC 50 Hz, 1-Phase, 230 Volt nominal Voltage	4.85	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.15
		AC 50 Hz, 1-Phase, 400 Volt nominal Voltage	4.85	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.15
	HT	AC 50 Hz, 3-Phase, 11 KV nominal Voltage	4.00	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	5.00
		AC 50 Hz, 3-Phase, 33 KV nominal Voltage	3.80	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.26
4	Agricultural Consumers														
	LT	AC 50 Hz, 1-Phase, 230 Volt nominal Voltage	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	0.00
		AC 50 Hz, 1-Phase, 400 Volt nominal Voltage	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	0.00
	HT	AC 50 Hz, 3-Phase, 11 KV nominal Voltage	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	0.00
		AC 50 Hz, 3-Phase, 33 KV nominal Voltage	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	
5	Industrial Consumers														
	LT	AC 50 Hz, 1-Phase, 230 Volt nominal Voltage	4.00	4.20	4.20	4.20	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	
		AC 50 Hz, 1-Phase, 400 Volt nominal Voltage	4.00	4.20	4.20	4.20	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	7.50
	HT	AC 50 Hz, 3-Phase, 11 KV nominal Voltage	3.40	3.75	3.75	3.75	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	13.24
		AC 50 Hz, 3-Phase, 33 KV nominal Voltage	3.10	3.40	3.40	3.40	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	12.90
		AC 50 Hz, 3-Phase, 132	2.95	3.25	3.25	3.25	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	13.56

		KV nominal Voltage and above													
6	Bulk Mixed Consumers														
		AC 50 Hz, 3-Phase, 11 KV nominal Voltage	3.40	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	10.29
		AC 50 Hz, 3-Phase, 33 KV nominal Voltage	3.10	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	9.68
		AC 50 Hz, 3-Phase, 132 KV nominal Voltage and above	2.95	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	10.17
7	Temporary Consumers														
		Metered Supply Rs./kWh	6.05	6.35	6.35	6.35	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	7.44
		Unmetered supply Rs./kWh	6.40	NA	NA	NA	NA	6.50	6.50	6.50	6.50	6.50	6.50	6.50	1.56

Source: Tariff Orders (2012-2024) APERC, Itanagar.

Note: LT-Low Tension connections usually used for domestic consumers; HT- High Tension connections used for industries and bulk consumers.

Chapter 10

Analysis of Contingent Liability

Chapter X

Analysis of Contingent Liability

10.1 Introduction

With constrained borrowing capacity and persistent revenue deficits, State Governments have often relied on generating capital savings to balance their budgets. This approach frequently shifts the burden of fiscal adjustments onto public investments, which bear the impact of these stringent budgetary constraints. To address this challenge, State Governments have increasingly issued guarantees on behalf of public sector enterprises or cooperative societies. These guarantees facilitate essential infrastructure and social sector projects within the State. However, such guarantees, categorized as contingent liabilities, carry inherent risks. If triggered due to defaults by the enterprises or societies, they can significantly disrupt the fiscal stability of the State's budget.

10.2 Debt and Liabilities

Article 293 of the Indian Constitution grants State Governments the authority to borrow against the security of their Consolidated Fund, subject to limits set periodically by the State Legislature. The details of the State Government's Public Debt and other liabilities are provided below:

Table 10.1
Trend of Debt and Liability of Arunachal Pradesh

Year	GSDP	Public Debt		Public Account		Total Debt	
	Rs Lakh	Rs Lakh	% of GSDP	Rs Lakh	% of GSDP	Rs Lakh	% of GSDP
2010-11	926250	216000	23.32	134000	14.47	350000	37.79
2011-12	1106269	217000	19.62	177000	16.00	394000	35.62
2012-13	1254662	228000	18.17	198000	15.78	426000	33.95
2013-14	1458106	246000	16.87	224000	15.36	470000	32.23
2014-15	1795941	304000	16.93	313000	17.43	617000	34.36
2015-16	1850916	237000	12.80	334000	18.05	571000	30.85
2016-17	1990213	279000	14.02	287000	14.42	566000	28.44
2017-18	2247475	413200	18.39	283660	12.62	696860	31.01
2018-19	2533486	498466	19.68	344577	13.60	843040	33.28
2019-20	3002365	642080	21.39	570420	19.00	1212500	40.38
2020-21	3052536	796210	26.08	611540	20.03	1407750	46.12
2021-22	3270523	880320	26.92	712150	21.77	1592470	48.69
2022-23	3510720	1073160	30.57	732600	20.87	1805760	51.44
2023-24*	3904070	1425850	36.52	760220	19.47	2186080	55.99

Source: Various Budget Documents of the Govt. of Arunachal Pradesh and MoSPI.

Note: * indicate Revised Estimate.

The debt and liabilities of Arunachal Pradesh have exhibited a rising trend from 2010-11 to 2022-23, both in absolute terms and as a percentage of GSDP. Public Debt increased significantly, from ₹216,000 lakh (23.32% of GSDP) in 2010-11 to ₹1425850 lakh (36.52% of GSDP) in 2023-24 (RE). Public Account liabilities also rose, but their share of GSDP fluctuated, peaking at 21.77% in 2021-22 before slightly declining to 20.87% in 2022-23.

Total Debt surged from ₹350,000 lakh (37.79% of GSDP) in 2010-11 to ₹2186080 lakh (55.99% of GSDP) in 2023-24 (RE), reflecting growing fiscal stress. The period from 2019-20 onwards saw accelerated debt accumulation, driven by increased borrowings to address fiscal challenges. The dynamics highlight an increasing reliance on debt financing, posing sustainability concerns as debt burdens grow faster than the GSDP of the state.

10.3 Outstanding Guarantee & Contingent Liability

The Table 10.2 provides an overview of Arunachal Pradesh's outstanding guarantees, which are commitments made by the state government to repay loans on behalf of entities like public sector enterprises if they default. From 2010-11 to 2013-14, the guarantees remained constant at Rs. 1.6 crore, indicating minimal changes in the state's contingent liabilities during this period. A notable decline occurred in 2014-15, with the amount reduced to Rs. 1.0 crore, a level maintained consistently from 2015-16 to 2018-19. However, the data on sector-wise breakup of guarantees is not available on the public domain.

Table 10.2
Outstanding Guarantees of Arunachal Pradesh

Year	Outstanding Guarantees (in Rs. Crore)
2010-11	—
2011-12	1.6
2012-13	1.6
2013-14	1.6
2014-15	1.0
2015-16	1.0
2016-17	1.0
2017-18	1.0
2018-19	1.0
2019-20	1.1
2020-21	1.0
2021-22 (RE)	5.0
2022-23 (BE)	15.0

Source: State Finances: A Study of Budgets, Reserve Bank of India, various issues.

Note: Last data updated by RBI is 2022-23.

This stability suggests a cautious approach by the state in issuing new guarantees or fulfilling previous commitments. A slight increase to Rs. 1.1 crore was observed in 2019-20, followed by a sharp rise to Rs. 5.0 crore in 2021-22 (Revised Estimates) and a significant jump to Rs. 15.0 crore in 2022-23 (Budget Estimates). The recent surge indicates a shift in policy, possibly to support public sector projects or financial institutions, raising the state's fiscal risks if these guarantees are invoked.

Table 10.3
Contingency Fund and Revenue Receipt (in Rs. Crore)

Year	Contingency Fund	Revenue Receipt	Contingency Fund as a percentage of Revenue Receipt
2018-19	0.05	16195.96	0.00000309
2019-20	0	14888.55	0.00000000
2020-21	0	17123.51	0.00000000
2021-22	0	21231.64	0.00000000
2022-23 (RE)	0	26305.17	0.00000000
2023-24 (BE)	0	26157.65	0.00000000

Source: State Finances: A Study of Budgets, Reserve Bank of India, various issues.

Note: Data on Contingent fund is not available for Arunachal Pradesh.

The Table 10.3 shows the relationship between the Contingency Fund and Revenue Receipts of Arunachal Pradesh from 2018-19 to 2023-24. The Contingency Fund is a reserve used to meet unforeseen expenditures, while Revenue Receipts represent the income of the state from taxes, grants, and other sources. In 2018-19, the Contingency Fund was recorded at Rs. 0.05 crore, which was negligible compared to the Revenue Receipts of Rs. 16,195.96 crore, resulting in a Contingency Fund as a percentage of Revenue Receipts of only 0.00000309%. From 2019-20 onwards, the Contingency Fund was entirely depleted, with a balance of Rs. 0 crore recorded each year up to 2023-24 (Budget Estimates), despite consistent growth in Revenue Receipts over the period. Revenue Receipts increased from Rs. 14,888.55 crore in 2019-20 to Rs. 26,305.17 crore in 2022-23 (Revised Estimates), reflecting a growing income base for the state. However, the absence of a Contingency Fund since 2019-20 indicates the state's lack of financial reserves for emergencies, potentially exposing it to risks during unforeseen fiscal shocks.

10.4 Reasons for Increased Outstanding Guarantees

Failure/Weak Performance of State PSUs: Many state-owned enterprises in Arunachal Pradesh operate at a loss or have weak balance sheets. To keep them functional and to help them raise loans, the state government provides loan guarantees. When these PSUs fail to

generate enough revenue to service debts, the burden shifts to the state, increasing the stock of outstanding guarantees.

Hydropower Project Financing: Arunachal Pradesh is a hydropower-rich state with dozens of large and small projects planned. Hydropower projects require high upfront capital investment and long gestation periods. Since project developers or SPVs face creditworthiness issues, the government extends guarantees to secure financing. This has directly contributed to the steep rise in outstanding contingent liabilities.

Off-Budget Borrowings for Infrastructure: Instead of borrowing directly (restricted under FRBM norms), the state uses guarantees for corporations and special-purpose vehicles engaged in roads, power, and connectivity. This shifts the liability off the state's books initially but builds up contingent liabilities over time.

10.5 Summary

The chapter provides an insight into growing debt and guarantees in Arunachal Pradesh's fiscal instruments with significant challenges towards the financial sustainability of the state. From 2010-11 to 2022-23, the public debt and liabilities of the state grew much higher than its GSDP growth and indicated intensified fiscal stress. Outstanding guarantees remained stable for much of the period. Moreover, the depletion of the Contingency Fund since 2019-20, despite rising revenue receipts, indicates a lack of reserves to handle fiscal emergencies.

Suggestions

Strengthen Monitoring of PSUs & Projects: Establish an independent monitoring unit to regularly review the financial performance of PSUs and hydropower projects. Introduce early-warning systems for identifying stressed projects.

Limit Issuance of Guarantees: Cap the total guarantees as a percentage of GSDP to maintain fiscal prudence. Prioritise guarantees only for commercially viable and strategically important projects.

Strengthen PSU Governance: Mandate professional management and independent directors in PSUs. Periodic audits and transparent disclosure of liabilities.

Debt Restructuring & Risk Sharing: Re-negotiate terms of stressed loans/projects to reduce guarantee invocation risks. Adopt risk-sharing mechanisms where private players bear part of the risk.s

Chapter 11

Subsidies Given by the Government of Arunachal Pradesh

Chapter XI

Subsidies Given by the Government of Arunachal Pradesh

11.1 Introduction

Subsidies are financial support provided by the government to individuals, groups, or industries to make goods and services affordable or to promote specific economic activities. Subsidies are opposite to the indirect taxes. Indirect taxes are imposed on goods and services, and it increases the market price of such products beyond the cost of production. In case of subsidies, government pays certain percentage of the production cost, so products are available to the customers at a price lower than the production cost. Generally, subsidies are given to encourage those economic activities, which have larger positive externalities. For example, merit goods such as elementary education and public health activities are subsidised across the countries. In the developing countries like India, subsidy plays a larger role than that in developed countries. Subsidies paid by the government may be categorised into two categories: explicit subsidies and implicit subsidies. Explicit subsidies are direct payments mentioned in the government budget. Subsidies on food, fertilizer, and fuel are the example of explicit subsidies. Explicit subsidies cover the indirect benefits given to the citizen such as tax exemptions or underpricing of resources like electricity and water. The basic objectives of subsidies are:

- (a) To alleviate poverty and inequality by providing necessities like food, health care and education.
- (b) To promote economic development through the growth of agricultural sector, industrialisation, and environmental preservation.
- (c) To correct the market failure, and provide public and merit goods.
- (d) In democratic countries like India, subsidies are provided to attract voters during elections.

11.2 Subsidies given by Government of India

Since the 1970s, subsidies have served as a cornerstone of India's poverty eradication strategy. It has been playing a critical role in facilitating the marginalised section's access to essential public

services. The government offers various subsidies, including those for food, fertilizers, electricity, water, minimum support prices (MSP), and railway passenger fares. In 2020–21, the Government of India allocated approximately ₹6.5 lakh crore to subsidies, significantly exceeding the ₹4.8 lakh crore spent on defense. Social safety net expenditures, primarily comprising food subsidies, income support, and the Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) relief employment scheme, witnessed a marked increase to 22% of expenditure in 2020–21, before declining to less than 8% in the vote-on-account budget estimate for 2024–25. This trend indicates a policy shift of the government, emphasizing capital expenditure over social spending.

Subsidies can be understood through three distinct conceptual frameworks. First, in the consumer context, subsidies refer to explicit budgetary allocations. Second, within the framework of national accounts, subsidies are conceptualized as the inverse of indirect taxes. Third, and most comprehensively, subsidies encompass the unrecovered costs associated with providing non-public goods (Mundle and Rao, 1991). This third perspective includes subsidies benefiting both consumers and producers, offering a holistic view of their economic impact.

In India subsidies are provided by both the centre and the state. Central subsidies cover mostly economic services whereas a state's subsidy covers social services. The aggregate flow of budget subsidies of the state and union government over the years are presented in Table No.11.1. Around 50% of the subsidies are spent on non-merit subsidies. The table illustrates that the percentage share of subsidies relative to GDP across three categories—Social Sector, Economic Sector, and their combined total over the periods: 1987–88, 2011–12, and 2015–16. The combined total for all the states and the centre shows a decline over time, from 12.93% during 1987–88 to 10.28% during 2015–16. It indicates a reduction in the overall subsidy burden relative to GDP. Though the incidence of subsidies has declined during last three decades, it still amounts to over 10 per cent of GDP. The major portion of central subsidies are allocated to economic services, with minimal support directed toward social services. In contrast, the states contribute almost entirely to subsidies in social services. For example, during 2015-16, the social sector subsidy of the all states together was 4.1% of India's GDP; while the economic services' subsidy of the all states together was 3.3% of GDP.

Table 11.1
Percentage share of Subsidy to GDP

	Social sector Subsidies as % of GDP			Economic services Subsidies as % of GDP			Economic + Social sector as % of GDP		
	1987-88	2011-12	2015-16	1987-88	2011-12	2015-16	1987-88	2011-12	2015-16
All States	4.40	3.83	4.09	3.66	3.08	3.26	8.06	6.91	7.35
Centre	0.65	0.94	0.39	4.22	2.82	2.54	4.87	3.76	2.93
All States + Centre	5.05	4.77	4.48	7.88	5.90	5.80	12.93	10.67	10.28

Source: Mundle and Sikdar, 2019, NIPFP, Working Paper No. 282

The central government's share of merit subsidies (food, primary and secondary education, health, water supply and sanitation) is higher than that of non-merit subsidies, despite its primary focus on providing economic services (refer to table 11.2). This apparent paradox arises because economic services encompass agricultural sector services, which include food subsidies—the largest component of merit subsidies.

Table 11.2
Share of Merit and Non Merit Subsidies as Percentage of Total Subsidies

	Total Merit Subsidies			Total Non-Merit Subsidies		
	1987-88	2011-12	2015-16	1987-88	2011-12	2015-16
All States	44.19	45.42	43.93	55.81	54.58	56.07
Centre	21.90	62.50	45.13	78.10	37.50	54.87
All States + Centre	35.79	51.44	44.27	64.21	48.56	55.73

Source: Mundle and Sikdar, 2019, NIPFP, Working Paper No. 282

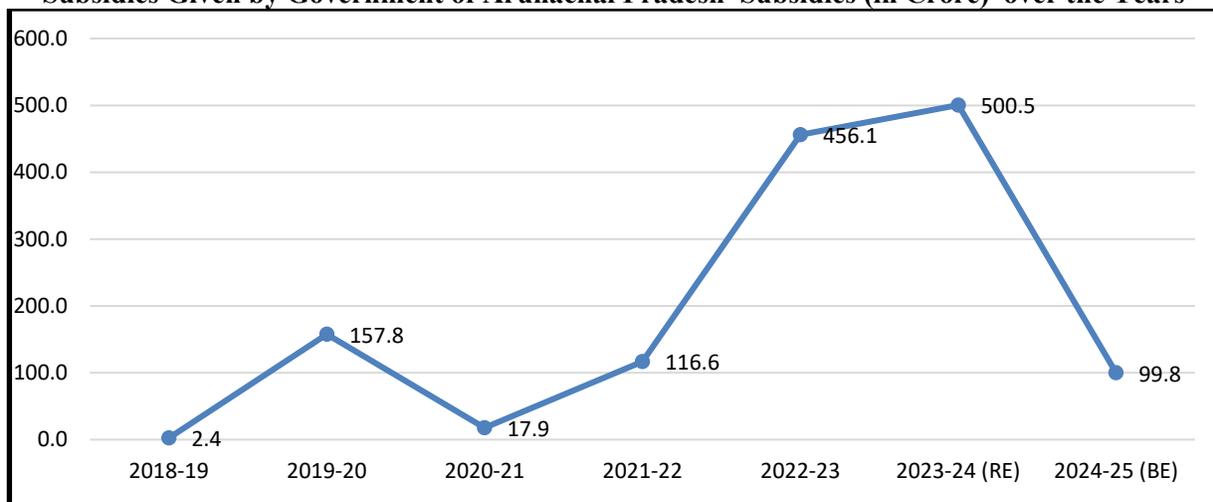
11.3 Subsidies Given by the Government of Arunachal Pradesh:

Here, queries arise regarding the subsidies given by the government of Arunachal Pradesh. From figure 11.1 it can be seen that in Arunachal Pradesh subsidies began at a modest ₹2.4 crores in 2018–19 and exhibit a dramatic increase to ₹157.8 crores in 2019–20. This sharp rise is followed by a steep decline to ₹17.9 crores in 2020–21. From 2021–22 onwards, the subsidies given by the Government of Arunachal Pradesh shows a consistent upward trend. During 2021-22, subsidies of the state government was ₹116.6 crores. The revised estimated subsidy of the state

government during 2022-23 was ₹241 crores, but the actual expenditure on subsidy increased to ₹456.1 crores. Similarly, during 2023-24, the budgetary allocation on government subsidy was ₹287.3 crores; latter it was revised to be ₹500.5 crores. Thus, there is a tendency of the government to spend more on subsidy than the budgeted amount. The budgeted amount on subsidy of the state government for the year 2024-25 is ₹99.8 crores. Noted that the subsidy mentioned in the Figure 11.1 is the explicit subsidy, which is mentioned in the state budget. If the subsidies on other sector, like that on water supply, or electricity are accounted, the volume of subsidies will increase further.

The data indicates variability in subsidy allocation, potentially reflecting shifting priorities or policy interventions over time. The notable spike in 2019–20 might correspond to specific state or central government initiatives, while the sharp decline in 2020–21 could relate to fiscal constraints or reallocation of funds during the COVID-19 pandemic. The steady increase in subsequent years suggests a renewed focus on supporting Arunachal Pradesh, possibly through developmental or welfare programs.

Figure 11.1
Subsidies Given by Government of Arunachal Pradesh Subsidies (in Crore) over the Years¹



Source: *State Finances: A Study of Budget*, Reserve Bank of India.

R.E=Revised Estimate, B.E:Budget Estimate

¹ Data on Subsidies for the other years is not available

Table 11.3
Subsidies of the State Government as a Percentage of GSDP, Revenue Receipt and Revenue Expenditure in Arunachal Pradesh

Year	Subsidies as percentage of GSDP	Subsidies as Percentage of Revenue Receipt	Subsidies as Percentage of Revenue Expenditure
2018-19	0.009	0.015	0.019
2019-20	0.526	1.060	1.291
2020-21	0.059	0.085	0.113
2021-22	0.357	0.549	0.736
2022-23	1.299	1.917	2.619
2023-24 (RE)	NA	1.707	2.121
2024-25 (BE)	NA	0.319	0.385

Source: *State Finances: A Study of Budget*, Reserve Bank of India.

R.E=Revised Estimate, B.E: Budget Estimate

Simply, information regarding expenditure of the state government on subsidy is not sufficient to draw some conclusion. Table 11.3 presents subsidy of the state government as a percentage of GSDP of the state, government's revenue receipt and government's revenue expenditure. All these three indicators have similar trends. During 2018-19, subsidy has 0.019 per cent share in the overall revenue expenditure of the state government. Thereafter, it increased to 2.62 per cent during 2022-23.

11.4 Conclusion

The impact of subsidies is neither inherently positive nor negative; their value lies in the socio-economic outcomes they generate, their influence on economic agents, and their fiscal implications for government finances. This issue becomes particularly contentious in the context of worsening fiscal conditions of the state. Since most of the social expenses are covered by state subsidies and these cost are usually unrecovered. The increase in the volume the subsidies over the years means an increase in public expenditure. Such additional expenditure may lead to already existing fiscal stress. A significant portion of subsidies is directed toward essential goods and services, such as food, fuel, and basic education, with the primary objective of enhancing the quality of life for vulnerable populations. This raises a critical question whether subsidies are the most effective tool for combating poverty or not. The probable answer is that it will be effective if it is targeting the needy one. In this regard, the JAM Number Trinity – Jan Dhan Yojana,

Aadhaar and Mobile numbers would be able offer this support in a targeted and less distortive way.

References

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Chapter 12

Outcome Evaluation of the State Finances

Chapter XII

Outcome Evaluation of the State Finances

12.1 Introduction

The Finance Commission is a constitutional body formed by the President of India to provide recommendations on centre-state financial relations. One of its key interventions is to convert its recommendations into an effective output framework at the state level. For example, the 14th Finance Commission recommended that vertical devolution should be 42% of the divisible pool, with grants for local bodies being a key output indicator of this recommendation. The extent to which funds actually reach local bodies and enhance their resources becomes the outcome of this intervention, serving as a mechanism to assess whether the state is effectively facilitating the transfer. The 15th Finance Commission, chaired by Mr. N. K. Singh, was tasked with submitting two reports. The first report, covering the financial year 2020-21, was presented to Parliament in February 2020, while the final report, with recommendations for the 2021-26 period, was tabled in Parliament on February 1, 2021. The share of states in the central taxes for the 2021-26 period is recommended to be 41%, the same as that for 2020-21, which is slightly lower than the 42% share recommended by the 14th Finance Commission for the 2015-20 period. The adjustment of 1% is to account for the newly formed union territories of Jammu and Kashmir, and Ladakh from the resources of the centre.

The Finance Commission uses various criteria to determine each state's share in central taxes, with specific weight assigned to each factor. The criteria for devolution of central taxes for the 2021-26 period remain consistent with those for 2020-21, though the reference period for calculating income distance and tax efforts differs (2015-18 for 2020-21 and 2016-19 for 2021-26), meaning the individual shares of states may change. The key criteria for devolution are outlined in the Table 12.1. The Finance Commission uses various criteria to determine each state's share in central taxes, with specific weight assigned to each factor. The criteria for devolution of central taxes for the 2021-26 period remain consistent with those for 2020-21, though the reference period for calculating income distance and tax efforts differs (2015-18 for 2020-21 and 2016-19 for 2021-26), meaning the individual shares of states may change. Table 1 outlines the key criteria used in the devolution process, including income distance, area, population, demographic performance, forest cover, and tax and fiscal efforts.

Income distance is calculated based on the disparity between a state's income and the highest-income state, ensuring equity in distribution. The demographic performance criterion rewards states for controlling population growth. Forest and ecology focus on the share of dense forests, while tax and fiscal efforts assess the tax collection efficiency of the state.

Table 12.1
Criteria for devaluation (in percentage)

Criteria	14th FC (2015-20)	15th FC (2020-21)	15th FC (2021-26)
Income Distance	50	45	45
Area	15	15	15
Population (1971)	17.5	-	-
Population (2011)	10	15	15
Demographic Performance	-	12.5	12.5
Forest Cover	7.5	-	-
Forest and Ecology	-	10	10
Tax and Fiscal Efforts	-	2.5	2.5
Total	100	100	100

Note: The 14th FC used the term “demographic change,” defined as the population in 2011. *Tax effort* in the 2020-21 report has the same definition as in the 15th FC's criteria

Grants and Fiscal Roadmap

Over the 2021-26 period, the central government will allocate significant grants to states, including ₹2.9 lakh crore for revenue deficit grants, ₹1.3 lakh crore for sector-specific grants (e.g., health, education, agriculture), and ₹49,599 crore for state-specific grants. Grants to local bodies will total ₹4.36 lakh crore, with a portion performance-linked. States must meet conditions such as publishing accounts and improving property tax collection to access these grants. Additionally, the Commission recommended maintaining cost-sharing arrangements for disaster risk management, with a focus on the north-eastern and Himalayan states.

The fiscal roadmap includes measures to reduce fiscal deficits and liabilities. The Commission suggested bringing the fiscal deficit of the centre down to 4% of GDP by 2025-26 and recommended borrowing limits for states, with extra borrowing allowed for power sector reforms. It also proposed a comprehensive public financial management framework, including the establishment of an independent Fiscal Council and enhanced financial reporting standards.

Other Recommendations

The Commission recommends increased health spending by states, a focus on outcomes in Centrally Sponsored Schemes (CSS), and the establishment of a Modernisation Fund for Defence and Internal Security (MFDIS) with an estimated corpus of ₹2.4 lakh crore. It also

suggests the phase-out of out-dated CSS with low utility, and third-party evaluations to ensure efficiency and transparency.

12.2 State Expenditure Response to Higher Fiscal Transfers

The recommendations of the Fourteenth Finance Commission (FFC) marked a turning point in the fiscal framework of Indian states. By raising the states' share in central taxes from 32 percent to 42 percent, the FFC granted states like Arunachal Pradesh greater fiscal autonomy and access to significantly higher untied resources. This infusion of funds had a clear impact on the state's expenditure profile during the post-2015 period.

12.2.1 Steady expansion of overall expenditure

The state's total expenditure rose substantially during the period following the FFC award. Between 2012–13 and 2024–25 (BE), Arunachal Pradesh's aggregate expenditure increased from ₹59,959 million to ₹342,704 million, recording a compound annual growth rate (CAGR) of about 15 percent. This steep upward trajectory demonstrates that enhanced central transfers directly expanded the fiscal space available to the state. Revenue expenditure, which constitutes the bulk of spending, grew at a CAGR of around 14 percent, while capital expenditure—more closely associated with infrastructure and asset creation—grew even faster, at about 20 percent.

12.2.2 Shifts in expenditure composition

Although revenue expenditure continues to dominate total spending, there was a clear and consistent rise in capital expenditure following 2016–17. The share and absolute size of capital outlays increased particularly in economic services such as transport, energy, and rural infrastructure. This reflects a conscious policy effort to translate additional fiscal resources into productive investments rather than confining them solely to consumption or administrative spending.

12.2.3 Growth of development and non-development expenditure

Development expenditure—which combines revenue and capital spending on social and economic services—expanded from ₹44,856 million in 2012–13 to ₹185,241 million in 2023–24 (BE). This indicates a sustained commitment to improve physical and social infrastructure. However, non-development expenditure also rose at a faster rate, with a CAGR of about 17 percent compared to 14 percent for development expenditure. This higher growth in non-development heads, which include administrative costs, salaries, pensions, and interest

payments, highlights a structural fiscal challenge: while central transfers provide space for higher spending, a significant portion is absorbed by rising committed liabilities.

12.2.4 Functional trends in spending

Within the social services sector, allocations to education, health, water supply, sanitation, and housing witnessed notable increases. Expenditure on economic services, particularly on transport and communication infrastructure, also grew sharply. These spending patterns are consistent with the state's developmental priorities—given Arunachal Pradesh's difficult terrain and connectivity bottlenecks, large transport outlays are critical to integrate markets, facilitate mobility, and enhance economic opportunities.

12.2.5 Fiscal discipline and sustainability concerns

Despite the higher resource availability, the state's expenditure profile shows persistent pressure on fiscal discipline. The ratio of total expenditure to Gross State Domestic Product (GSDP) and to total revenue receipts remains high, indicating that the pace of spending has kept ahead of revenue growth. Moreover, while the proportion of committed expenditure (salaries, pensions, and interest) has gradually declined as a share of revenue expenditure, the absolute burden remains significant. This limits flexibility in reallocating resources toward high-priority sectors.

In summary, Arunachal Pradesh responded to higher fiscal devolution under the Fourteenth Finance Commission by significantly expanding total expenditure, increasing capital outlays, and directing larger shares of resources toward developmental purposes. However, the simultaneous rise in non-development expenditure points to the need for better expenditure management and sustained efforts to mobilize the state's own revenues to maintain fiscal sustainability in the long run.

12.3 Impact of Increased Allocations on Spending Quality

While higher central allocations created greater fiscal space, their impact on the quality and efficiency of spending in Arunachal Pradesh has been more nuanced. Quality of expenditure refers not merely to the quantum of outlay, but also to its composition, efficiency, and developmental effectiveness.

12.3.1 Enhanced capital formation and developmental focus

A major positive outcome of the increased allocations has been the state's greater ability to undertake capital expenditure. The share of capital outlay in total expenditure rose significantly after 2016–17, supported by investment in infrastructure, particularly road connectivity and energy projects. This reflects a shift toward spending that creates durable assets, promotes economic linkages, and generates long-term growth benefits. Revenue and capital expenditures on social services—including education, health, water supply, sanitation, and housing—have also risen substantially in both absolute terms and as a proportion of GSDP. These trends indicate a structural improvement in the developmental orientation of spending.

12.3.2 Improvement in social sector investments

The increase in fiscal resources has allowed the government to fund programs in education and health at higher levels. Public spending on these sectors is crucial in a geographically remote and demographically dispersed state where private provision is limited. Rising allocations for education infrastructure, teacher recruitment, and school facilities have supported improvements in literacy and enrolment. Similarly, greater health spending has helped expand access to primary healthcare services, vaccination, and maternal health programs, though gaps in quality and coverage remain.

12.3.3 Persistent structural weaknesses

Despite these positive shifts, several challenges continue to affect spending quality. The rapid increase in total expenditure has not been matched by commensurate improvements in the efficiency and outcomes of government programs. Development expenditure, though higher, has not grown as fast as non-development expenditure, reducing its share in overall spending over time. Rising administrative costs, pension liabilities, and interest payments have absorbed a portion of the additional resources, constraining the state's ability to focus exclusively on productive capital expenditure.

12.3.4 Fiscal productivity and outcome orientation

Although capital outlays have increased, the productivity of expenditure—as reflected by growth in state output and improvements in social indicators—has not fully kept pace. High total expenditure-to-GSDP and total expenditure-to-revenue receipt ratios suggest that resource use has not become significantly more efficient. In other words, while the quantum of

developmental spending has risen, translating this into measurable developmental outcomes remains a work in progress.

12.3.5 Need for institutional and revenue reforms

For sustained improvements in spending quality, enhanced central transfers need to be complemented by state-level revenue mobilization, better planning, and stronger institutional mechanisms for monitoring and evaluation. Higher internally generated revenue would allow the state to maintain developmental spending levels even if future central transfers moderate. Similarly, outcome-based budgeting, robust project appraisal systems, and regular performance audits would help ensure that capital investments are cost-effective and aligned with developmental priorities.

12.3.6 Long-term implications

The increased central allocations under the Fourteenth Finance Commission have clearly allowed Arunachal Pradesh to invest more heavily in infrastructure, social services, and human development. This is a major step forward for a geographically challenging state that faces significant development deficits. However, the mixed trends in spending quality highlight the importance of using additional fiscal resources not only to raise spending levels but also to improve efficiency, reduce leakages, and prioritize sectors that have the highest impact on growth and welfare.

In essence, while the higher allocations have contributed to a more development-oriented expenditure pattern, ensuring sustainable fiscal health and maximizing the developmental impact of each rupee spent will require continued reforms in expenditure management, revenue enhancement, and institutional capacity-building.

12.4 Finance Commission Transfers and Arunachal Pradesh

Finance Commission (FC) transfers have long been a critical fiscal lifeline for Arunachal Pradesh. As a Special Category State with limited own-tax revenue, high geographic isolation, and substantial infrastructural gaps, its fiscal system depends overwhelmingly on central devolution and grants. The 13th Finance Commission (2010–15) sought to enhance fiscal stability and promote decentralised development by allocating predictable, formula-based grants to states and local bodies. Assessing how these transfers translated into state growth and development is essential to understanding both the efficacy of intergovernmental transfers and the challenges of fiscal governance in Arunachal Pradesh.

12.4.1 Quantum and Flow of Finance Commission Transfers

During 2010–15, Arunachal Pradesh was allocated ₹277.26 crore under the 13th FC for strengthening rural local bodies and improving service delivery. However, the actual release was only ₹100.48 crore, about 36% of the sanctioned amount. The year-wise pattern showed marked inconsistencies: while 100% of funds were released in 2010–11, the subsequent years experienced significant under-release, including zero disbursement in 2012–13. This gap reflected both procedural bottlenecks at the central level and weak compliance with audit and reporting requirements at the state level.

The nature of these grants was primarily untied or moderately conditional, designed to augment the resources of rural local bodies (RLBs) and promote predictable fiscal flows. However, delayed disbursement, partial release, and unspent balances weakened the intended impact.

12.4.2 Outcomes in Terms of Fiscal Stability

The inflow of FC grants, even if partial, helped maintain the fiscal stability of the state government. With central devolution and grants forming over 80% of Arunachal Pradesh's total revenue receipts, FC transfers allowed the state to finance basic administrative functions and service delivery.

Yet, the limited and erratic flow of funds undermined predictable budgeting. Panchayati Raj Institutions (PRIs) and rural local bodies often received funds late in the financial year, leaving insufficient time for proper planning or project execution. This not only weakened expenditure efficiency but also resulted in large carry-forward balances and incomplete works. In short, while FC transfers provided a fiscal cushion, their developmental impact was constrained by absorption capacity.

12.4.3 Developmental Impact on Growth Indicators

12.4.3.1 Economic Growth

Arunachal Pradesh's GSDP grew at an annual average of around 9–11% during 2010–15, higher than the national average of 7–8%. This growth was driven largely by public investment in infrastructure, hydro-power, and construction, funded by central transfers and plan assistance. Finance Commission grants supplemented this resource flow, helping maintain a pro-investment fiscal stance.

However, high GSDP growth did not translate into proportionate improvements in human development. Indicators such as rural connectivity, primary healthcare access, and literacy

outcomes improved more slowly than expected. This divergence suggests that while funds contributed to aggregate growth, the distributive and qualitative aspects of development remained weak.

12.4.3.2 Rural Infrastructure and Social Services

Where FC grants were actually disbursed, they supported small-scale infrastructure projects such as rural roads, drinking water facilities, and local sanitation works. These investments improved village-level amenities in better-administered districts.

Yet, the impact was uneven across regions:

Districts with relatively stronger administrative machinery—closer to Itanagar and major highways—utilised funds more effectively.

Remote and border districts struggled with poor planning capacity, limited technical staff, and difficult terrain, causing delays or non-completion of projects.

The low utilisation rate (36%) meant that much of the intended developmental push did not materialise, particularly in improving social sector outcomes like primary healthcare and education quality.

12.4.4 Governance and Institutional Outcomes

The 13th FC tied its grants to improved audit compliance, planning, and transparency at the PRI and local government level. In practice, Arunachal Pradesh faced major institutional challenges:

Weak audit compliance: Utilisation certificates were often delayed or incomplete, prompting the Centre to withhold subsequent instalments.

Limited technical and planning staff: Many rural local bodies lacked professionals to prepare projects, monitor works, or maintain financial records.

Underdeveloped decentralisation: Panchayati Raj institutions remained heavily dependent on state direction, reducing the autonomy envisioned by the FC.

These factors reduced both the quantum of funds received and the effectiveness of funds utilised, weakening the developmental impact of Finance Commission transfers.

12.4.5 Linking Transfers to Growth and Development: Key Observations

High dependence, low absorption: Arunachal Pradesh's revenue system is almost entirely dependent on central devolution and FC grants. While these transfers ensured fiscal solvency, low utilisation rates diluted their growth impact.

Growth without structural transformation: The state experienced robust GSDP growth during the 13th FC period, yet structural improvements in rural services, employment generation, and social indicators lagged behind.

Institutional bottlenecks as the binding constraint: Rather than quantum of funds, the main issue was weak delivery mechanisms. Administrative delays, poor audit systems, and limited technical capacity in PRIs led to partial or delayed fund release and inefficient spending.

Potential unrealised: If the entire ₹277 crore allocation had been released and efficiently absorbed, Arunachal Pradesh could have accelerated rural development, reduced intra-state disparities, and improved service delivery outcomes.

12.4.6 Policy Recommendations and the Way Forward

Strengthening PRI capacity: Recruitment of qualified staff, training in project preparation, and digitalisation of financial records would improve the ability of local bodies to use grants effectively.

Ensuring timely release of funds: Central ministries should disburse grants in predictable instalments, while Arunachal Pradesh must streamline compliance procedures to avoid delays.

Performance-linked transfers: Introducing incentives for states that meet audit and reporting benchmarks could ensure both accountability and full fund utilisation.

Targeted investment priorities: FC grants should focus on healthcare, primary education, and rural connectivity, sectors where small but well-directed investments have high social returns.

Stronger monitoring: Independent evaluation of FC-funded projects and social audits at the village level can improve transparency and ensure projects are completed on schedule.

12.5 Conclusion

Viewed from the perspective of Finance Commission transfers, Arunachal Pradesh's experience during the 13th FC period was mixed. The state benefited from predictable resource allocations that underpinned fiscal stability and contributed to high GSDP growth. However,

only about one-third of the allocated funds were actually released, and weak institutional capacity limited their translation into tangible developmental outcomes.

In essence, Finance Commission transfers provided financial oxygen, but not necessarily developmental acceleration. Without improvements in planning, implementation, and accountability at the local government level, large central grants cannot automatically produce transformative growth or human development. Going forward, a dual strategy is needed: enhance the quantum and predictability of transfers while simultaneously building institutional capacity to ensure that every rupee translates into better infrastructure, services, and livelihoods for the people of Arunachal Pradesh.