

Empowering India: Analysing the Evolution of Union Budget Allocations for Sustainable Growth

DATE	28-02-2026
TEAM ID	LTVIP2026TMIDS90655
PROJECT NAME	Empowering India: Analysing the Evolution of Union Budget Allocations for Sustainable Growth
MAXIMUM MARKS	4 MARKS

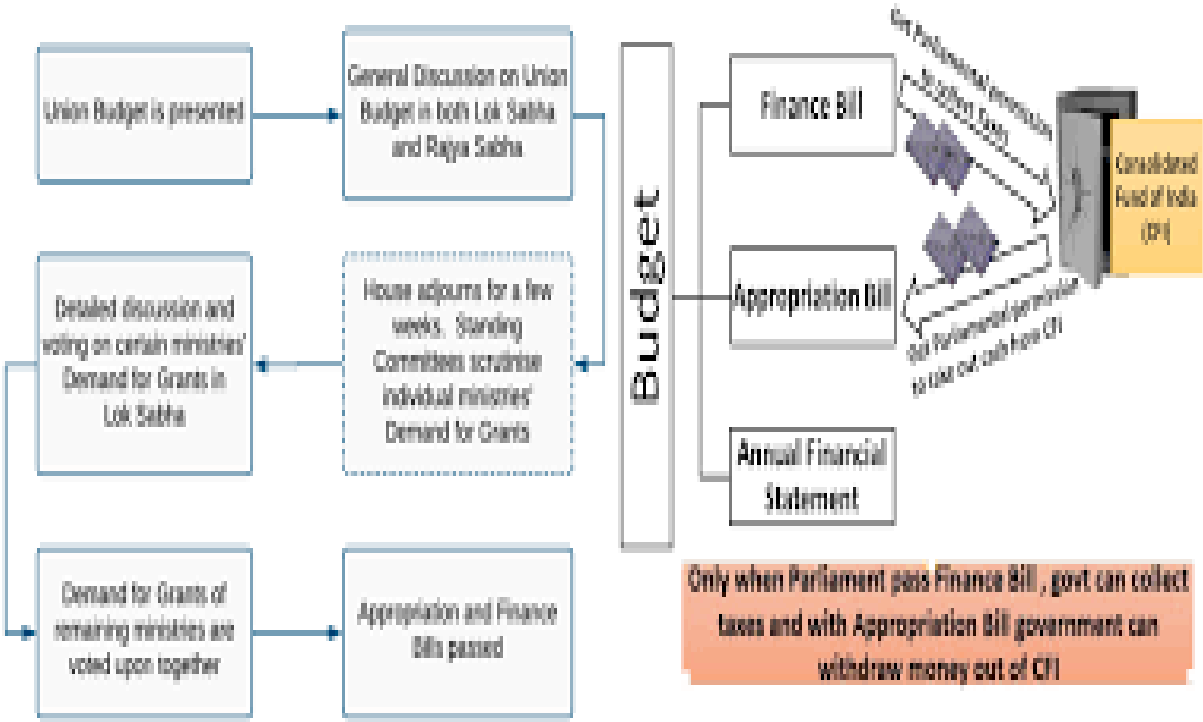
3.3 Data flow diagram:

1. Requirement Analysis:

- **Project Title:** Empowering India: Analysing the Evolution of Union Budget Allocations for Sustainable Growth
- **Objective:** To analyze trends in capital expenditure, sector-specific allocations (renewable energy, rural development, infrastructure), and their alignment with sustainable development goals (SDGs).
- **Data Sources:** Union Budget Documents (Speech, Key Features, Detailed Expenditure), Ministry of Finance, NITI Aayog SDG Index reports, RBI Publications.
- **Tools:** Python (Pandas, Matplotlib/Seaborn) or Excel for data visualization and analysis.
- **Expected Output:** Comparative analysis, trend charts showing "green" vs "traditional" spending, policy implications, and growth analysis.
- Availability of accurate data.
- Budget reports may change formats.
- Limited access to real-time data.
- Dependence on government sources.
- Time constraints for analysis.
- Users have basic computer knowledge.
- Internet connectivity is available

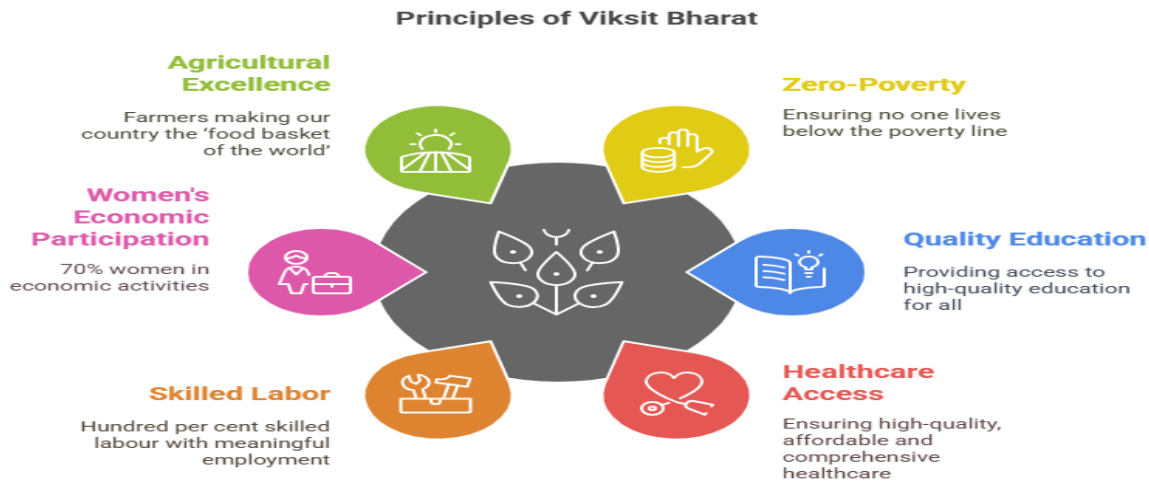
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2. Data Flow Diagram (DFD):



3. Project Flowchart:

This flowchart outlines the systematic approach to the analysis.



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4. Data Dictionary:

Data Store	Description	Key Attributes
Raw Budget DS	Raw data from budget documents	Year, Ministry, Sector, BE, RE, Actuals
CleanedBudget DS	Normalized budgetary data	Normalized Year, Sub-sector, Corrected Figures
Sustainability DS	Mapped sustainable	Green Category, R&D %, Social Spend,

5. DFD Diagram Representation:

A[Ministry of Finance/Budget Docs] -->|Raw Budget Data| B(1.0 Data Ingestion)
B -->|Structured Data| C(2.0 Data Pre-processing)
C -->|Clean Data| D[(Data Store: Budget History)]
D -->|Data| E(3.0 Sectoral Mapping/Sustainability)
E -->|Mapped Data| F(4.0 Evolution Calculation)
F -->|Analysis Results| G(5.0 Visualization & Reporting)
G -->|Trends/Charts| H[Analysts/Policy Makers]
end

6. Limitations to Address in Requirements:

- **RE vs BE:** Revised Estimates (RE) often differ from Budget Estimates (BE), requiring careful handling of actual expenditure.
- **Data Availability:** Older budgets may not be as detailed as recent ones.
- **Sustainability Definition:** Needs a standardized definition of "sustainable growth" (e.g., NITI Aayog SDG Index).