Inflation Trend Analysis in India using Power BI

Objective:

To analyze and visualize inflation dynamics across India covering Rural vs. Urban Inflation, CPI vs. WPI, Consumer basket structure, and State/UT wise variation. The project identifies overall trends, regional disparities, and drivers of inflation.

Data & Methodology:

- Data on CPI, WPI, and state/UT inflation collected from official sources (MoSPI, RBI reports, etc.).
- Cleaned, filtered, and structured in **Excel** for consistency and manipulation.
- Imported into **Power BI** for creating interactive dashboards and advanced visuals.
- **DAX functions** were used for calculated measures and KPIs:
    - `SUMX` – to calculate weighted contributions of categories.
    - `CALCULATE` – to apply dynamic filters on inflation values.
    - `AVERAGE` – to compute average inflation across states/UTs.
    - `IF` – to highlight highest and lowest inflation values.
- Visual tools used: **Map visuals** (state/UT inflation), **Area charts** (trend analysis), **Cards** (highest/lowest inflation), **Donut charts** (basket analysis), **Line Chart** (CPI & WPI)

Key Findings & Insights:

- **Telangana's lowest inflation (deflation):** Recorded negative inflation in June 2025 due to falling food, fuel, and vegetable prices, supported by welfare schemes and weak consumer demand.
- **Lakshadweep's highest inflation:** Driven by high transport and logistics costs, small market size, and supply chain constraints.
- **WPI turned negative in June 2025:** Due to deflation in food articles, mineral oils, and softening manufacturing costs.
- **Food & Beverages dominate CPI basket:** With nearly half the total weight, reflecting India's high household spending share on food.
- **Rural vs. Urban inflation trend:** Rural inflation is more sensitive to agricultural commodity swings, while urban inflation includes housing/services; recent food disinflation narrowed the gap.

Conclusion:

The project shows how inflation in India is shaped by food prices, supply chain challenges, and state-level disparities. Using Power BI with Excel and DAX, the analysis transforms raw data into clear dashboards that capture both macro trends and local variations in inflation.

Excel Data File POWER BI PROJECT.xlsx