Fuel Price Trend Analysis & Forecast

1. Objective

To analyze trends in petrol and diesel prices across major Indian cities using Excel, and forecast future values using Excel's forecasting tools.

2. Tools Used

Microsoft Excel — PivotTables, Charts, Slicers, Forecast Sheet

3. Data Source

Dataset collected from various government websites such as data.gov.in, ppac.gov.in for fuel prices of Delhi, Mumbai, Kolkata, and Chennai.

4. Time Period

January 1, 2021 – May 31, 2025

5. Key Insights

- Petrol prices in Mumbai were consistently the highest.

- Diesel prices were more stable than petrol in Delhi.

- Price fluctuation was higher in Mumbai.

- A moderate downward trend in fuel prices was observed after 2022.

6. Forecast Summary

Using Excel's Forecast Sheet, prices are expected to decrease slightly over the next 7 months. Projected average petrol price in delhi by December 31: ₹94.59

7. Business Use Case

This fuel price trend analysis project is highly relevant for multiple real-world applications:

- **Logistics & Transportation Companies**
  Can use trend insights to plan fuel-efficient routes, adjust delivery charges, and manage fuel procurement costs.

- **Ride-Sharing & Delivery Platforms**
  Enables dynamic pricing strategies and cost estimation for operations tied directly to fuel expenses.

- **Travel Agencies & Tour Operators**
  Can forecast fuel cost variations to budget better and set profitable rates for road trips and packages.

- **Small Businesses Operating Vehicle Fleets**
  Helps in monthly fuel expense forecasting and improving financial planning for daily business operations.

- **Government & Policy Analysts**
  Useful for identifying city-level fuel inflation patterns to support data-driven subsidy policies or fuel regulation strategies.