

## **Problem Statement: AI/ML**

India faces significant challenges in solid waste management, necessitating an AI-based solution. This solution will optimize waste collection routes, identify high waste generation areas, forecast accumulation patterns, utilize image recognition for efficient waste sorting, and enable real-time monitoring for timely interventions.

### **Key Points of the Problem:**

1. **Inefficient Waste Management:** India struggles with ineffective waste management practices, leading to environmental pollution and health hazards.
2. **AI Optimization:** Utilizing AI algorithms can enhance waste collection efficiency by optimizing routes and identifying high waste generation areas.
3. **Image Recognition for Sorting:** Incorporating image recognition technology aids in efficient waste sorting, promoting better recycling and disposal practices.
4. **Real-time Monitoring:** The platform's real-time monitoring capabilities facilitate timely interventions and resource

allocation, improving overall waste management sustainability.