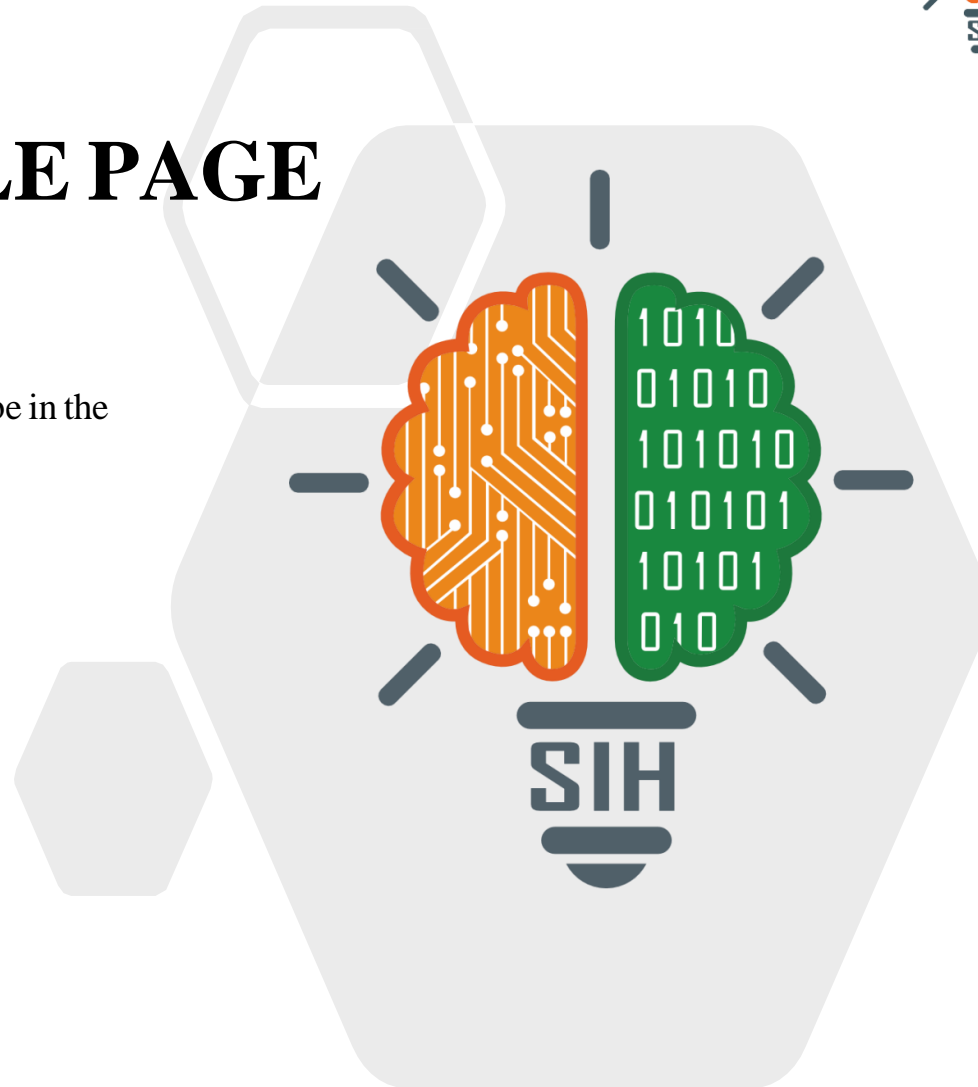




TITLE PAGE

- **Problem Statement ID** – SIH1592
- **Problem Statement Title-** Solutions could be in the form of waste segregation, disposal, and improve sanitization system.
- **Theme-** Clean & Green Technology
- **PS Category-** Software
- **Team ID-**
- **Team Name (Registered on portal) :** Bravo 03



IDEA TITLE



Proposed Solution (Describe your Idea/Solution/Prototype)

Proposed Solution: waste segregation, disposal, and improve sanitization system

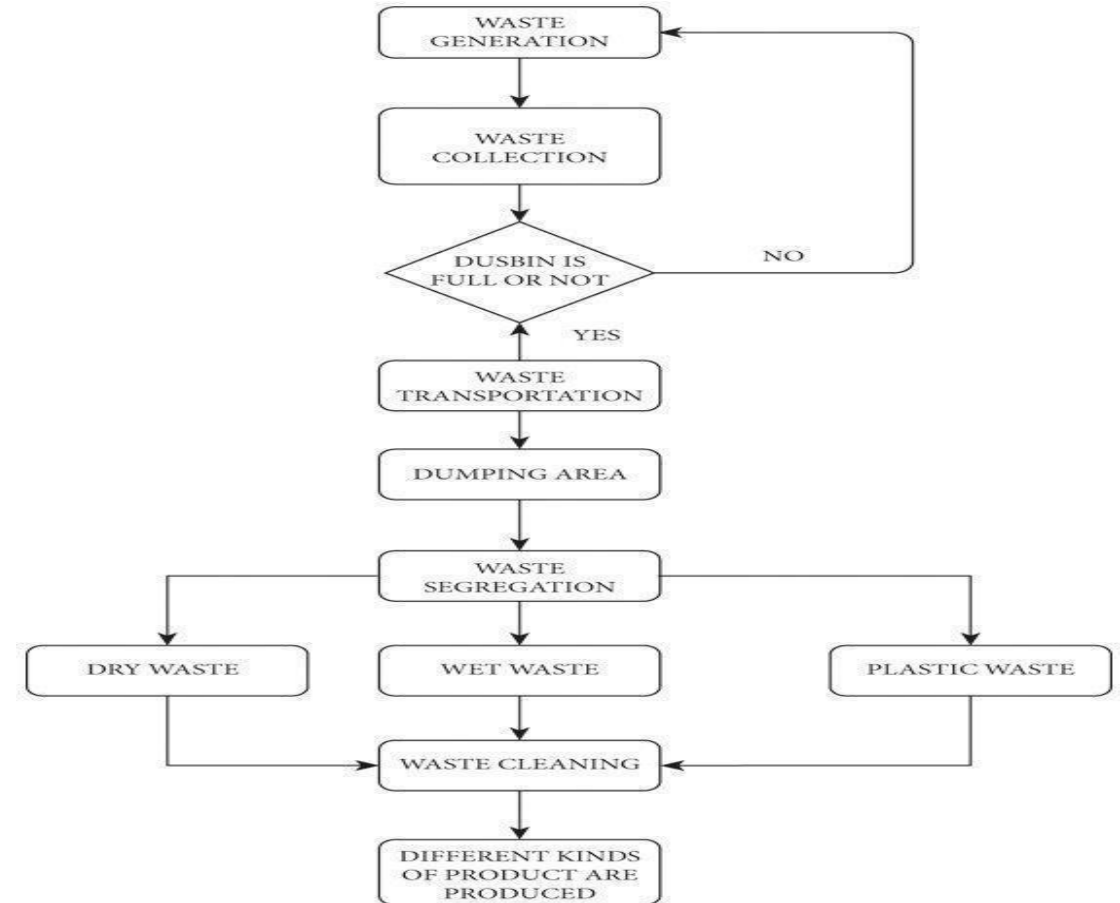
1. Enhance Waste Segregation Practices
2. Improve Waste Collection and Transportation
3. Implement Advanced Waste Disposal Methods
4. Promote Recycling and Reuse
5. Strengthen Policy and Regulation Enforcement

How It Addresses the Problem:

1. Reduces Environmental Pollution
2. Improves Public Health
3. Enhances Resource Recovery
4. Encourages Community Participation
5. Optimizes Waste Management Operations

Innovation and Uniqueness of the Solution:

1. Use of Smart Technology for Waste Management
2. Incentive-Based Waste Segregation Programs
3. Community-Driven Waste Collection Initiatives
4. Advanced Recycling and Upcycling Techniques
5. Integration of IoT for Real-Time Monitoring

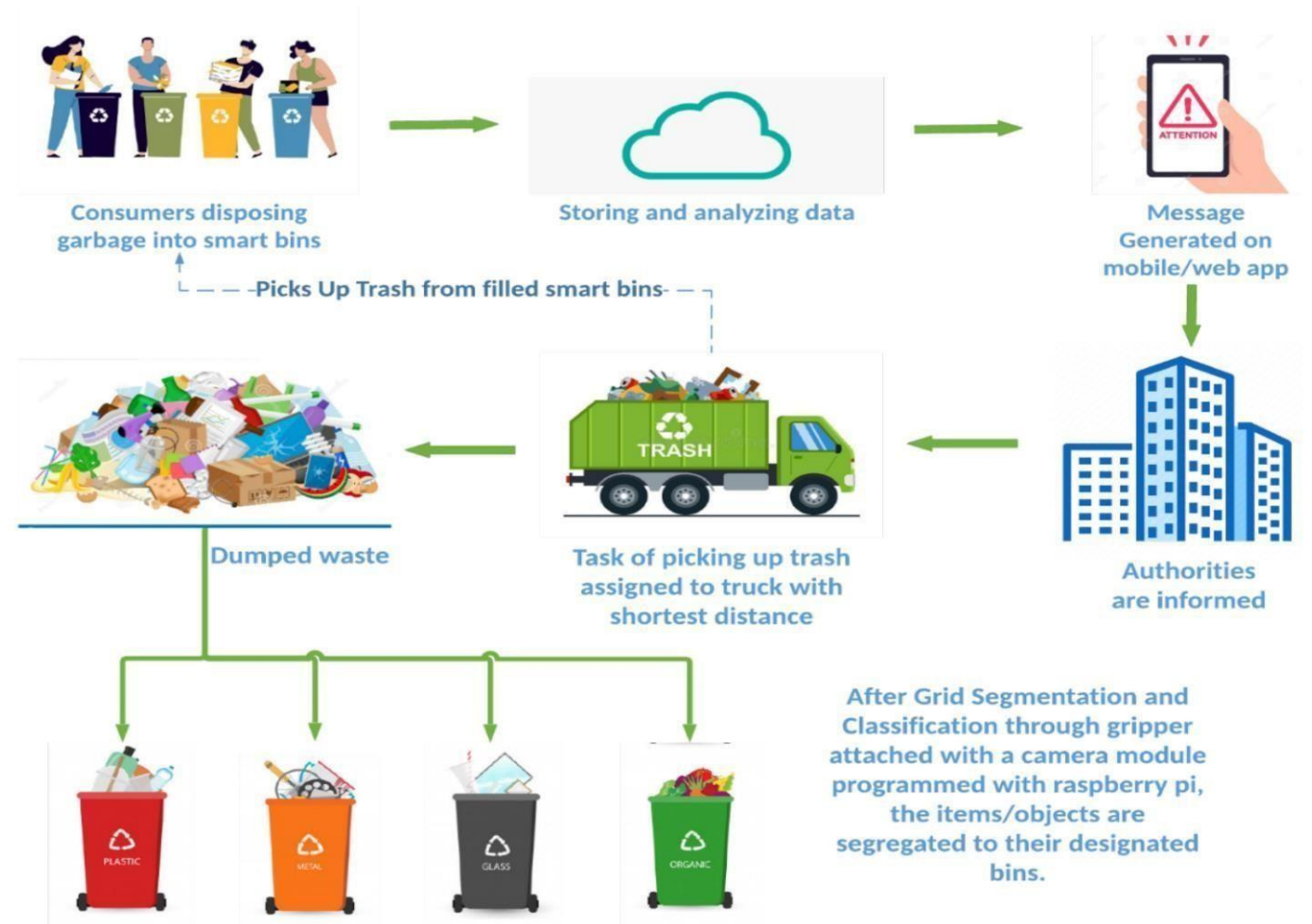


Technologies to be Used

1. Smart Bins
2. Internet of Things (IoT)
3. Waste Collection Apps
4. GPS and RFID Tracking
5. Artificial Intelligence (AI) for Waste Sorting
6. Waste-to-Energy Technologies
7. Advanced Recycling Machines
8. Blockchain for Waste Management Transparency
9. Drones for Monitoring and Inspection
10. Automated Waste Collection Vehicles

Methodology and Process for Implementation

1. Assessment and Planning
2. Technology Selection and Procurement
3. Community Education and Training
4. Infrastructure Setup
5. Pilot Testing
6. Full-Scale Deployment
7. Monitoring and Evaluation
8. Feedback Collection and Adjustment
9. Ongoing Maintenance and Support
10. Reporting and Documentation



Analysis of the Feasibility of the Idea:

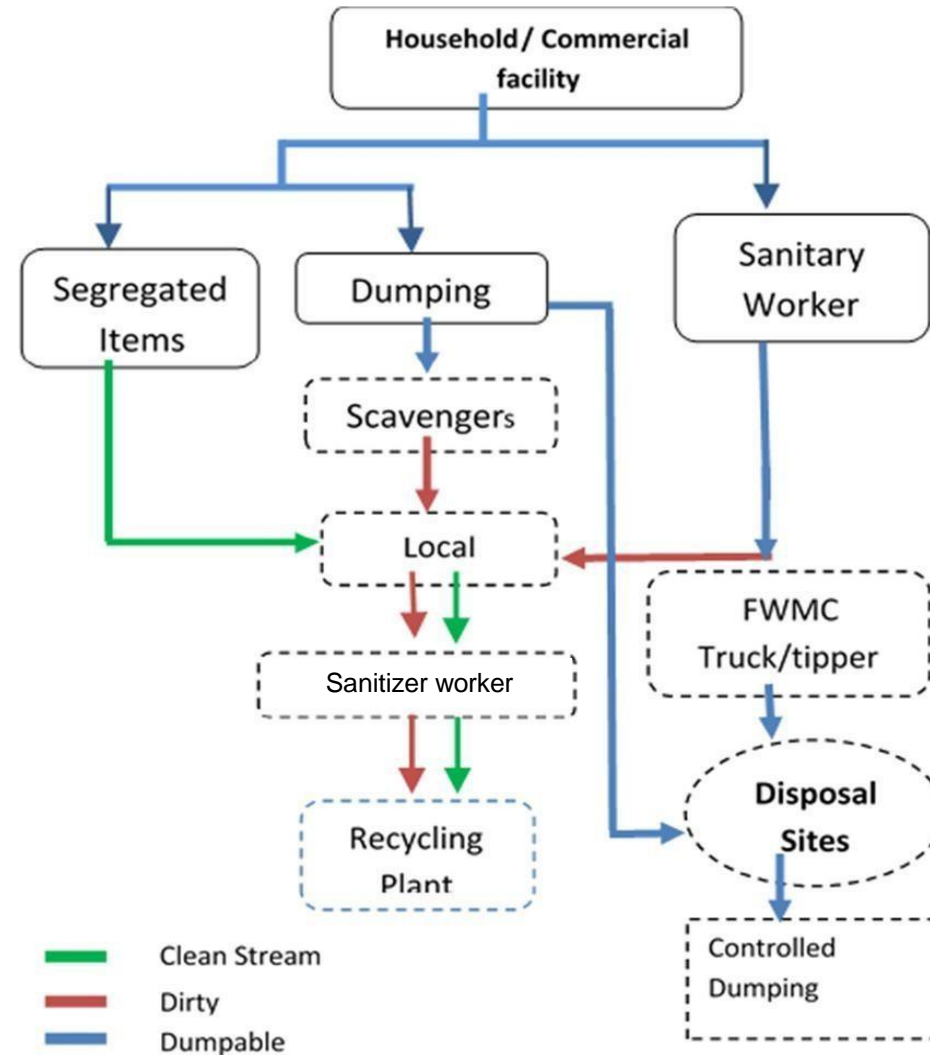
1. Cost Evaluation
2. Technical Requirements
3. Regulatory Alignment
4. Infrastructure Needs
5. Infrastructure Needs

Potential challenges and risks :

1. High Initial Costs
2. Technical Limitations
3. Regulatory Compliance Issues
4. Infrastructure Constraints
5. Community Resistance

Strategies for overcoming these challenges

1. Cost Management and Funding
2. Technical Innovation and Support
3. Regulatory Engagement and Compliance
4. Infrastructure Investment and Development
5. Community Outreach and Education

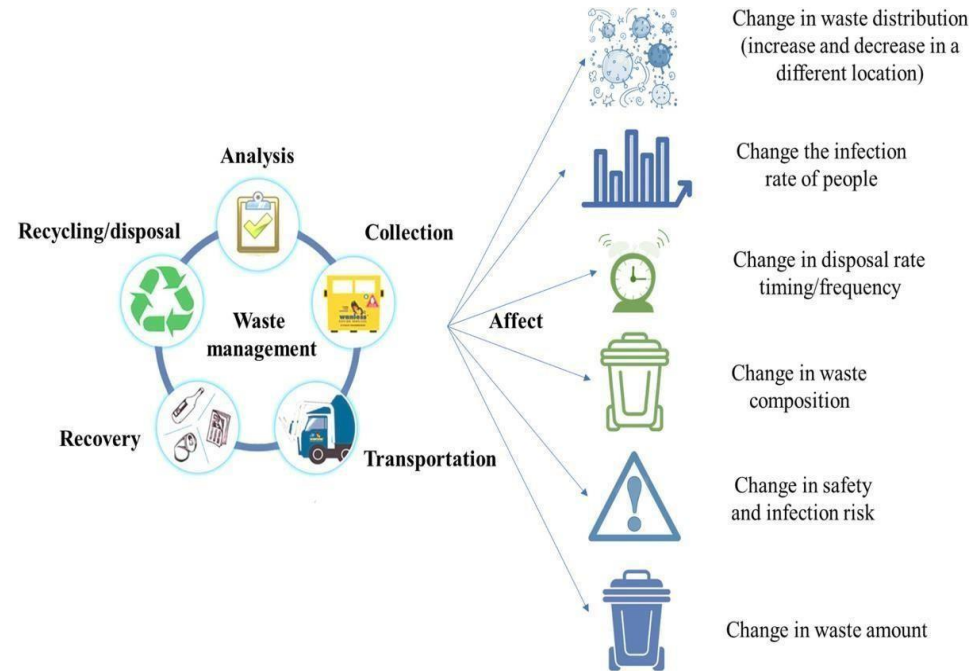


Potential Impact on the Target Audience

1. Improved Health and Hygiene
2. Enhanced Environmental Quality
3. Increased Awareness and Education
4. Economic Benefits and Job Creation
5. Better Waste Management Services

Benefits of the Solution

1. Social Benefits : Improved public health, enhanced community engagement, and better living conditions.
2. Economic Benefits : Cost savings, job creation, and potential revenue from recycled materials.
3. Environmental Benefits : Reduced pollution, increased resource conservation, and lower landfill use.
4. Operational Benefits : More efficient waste management processes and improved sanitation services.
5. Educational Benefits : Increased awareness and knowledge about waste management and sustainability practices.



Academic Journals and Papers :

1. Waste Management and Recycling:

[Link to Paper](#)

2. Sustainable Waste Management: An Overview of Waste Minimization and Disposal Methods

3. Technologies for Waste Management and Sanitation

Books :

1. Handbook of Solid Waste Management" by George Tchobanoglous and Frank Kreith

[Link to Book](#)

2. Sustainable Waste Management: A Systems Approach by Oliver D. Williams

[Link to Book](#)

Websites and Reports :

1. United Nations Environment Programme (UNEP) – Waste Management

2. World Bank – Solid Waste Management

[Link to World Bank Report](#)

3. Environmental Protection Agency (EPA) – Waste Management and Resource Recovery

[Link to EPA](#)

4. International Solid Waste Association (ISWA) – Waste Management Research

References and Research Links :

1. Environmental Protection Agency (EPA) – Waste Management and Resource Recovery

[Link to EPA](#)

2. Waste Management and Recycling: An Overview

[Link to Paper](#)

