

Zero Waste AI: Intelligent Leftover Food Management System

AI-driven solution to reduce food wastage and create social impact

🌱 SUSTAINABLE

🧠 SMART

💖 SOCIALLY RESPONSIBLE



Made with GAMMA

THE CHALLENGE

A Crisis of Abundance and Scarcity

The Wastage Problem

Large quantities of perfectly edible food discarded daily from homes, restaurants, hotels, and events

68 million tonnes wasted annually in India alone

Technology can transform this gap into an opportunity for positive change

The Hunger Reality

Millions face food insecurity and malnutrition

No efficient bridge between surplus and scarcity



The Core Problem

Inefficient Tracking

No centralised system to monitor surplus food across multiple sources

Manual Coordination Delays

Phone calls and paper-based processes cause time lags, leading to spoilage

Poor Redistribution Network

Lack of real-time communication between donors, NGOs, and beneficiaries

Limited Awareness

Many willing donors don't know how to connect with organisations that can help

OUR SOLUTION

Zero Waste AI System

An intelligent, AI-powered platform that seamlessly connects food donors with NGOs and people in need



Smart Matching

AI connects donors with nearby receivers instantly



Real-Time Action

Immediate notifications ensure timely food redistribution



Optimised Delivery

GPS-powered routing reduces transit time and preserves freshness



How It Works

01

Food Upload

Donors upload details: type, quantity, location, and photos of surplus food

02

AI Analysis

Machine learning algorithms assess food quality, freshness, and safety parameters

03

Smart Matching

System identifies nearest NGOs or receivers based on need and capacity

04

Route Optimisation

GPS suggests fastest, most efficient delivery routes to prevent spoilage

05

Live Tracking

Real-time notifications keep all parties informed throughout the process

Powered by Advanced Technology



AI & Machine Learning

Predictive models assess food quality, freshness scores, and optimal redistribution patterns



Computer Vision

Image analysis automatically identifies food types, portions, and condition from photographs



Cloud Computing

Scalable infrastructure ensures seamless data storage and access across regions



Mobile & Web Apps

User-friendly interfaces for donors, NGOs, and volunteers on any device



GPS & Mapping

Real-time location tracking and intelligent route optimisation for timely delivery



MARKET OPPORTUNITY

A Growing Need for Smart Solutions

68M

Tonnes Wasted

Food wasted annually in
India alone

195M

**People
Undernourished**

Indians facing food
insecurity

Market Dynamics

- Rapid adoption of AI and smart applications across sectors
- Government and NGO initiatives actively supporting food redistribution
- Growing awareness of sustainability and corporate social responsibility
- Critical gap: very few intelligent AI-driven platforms exist

Who Benefits?



Restaurants & Hotels

Reduce waste, gain tax benefits, enhance brand reputation



Event Organisers

Efficiently manage post-event surplus and demonstrate sustainability



Households

Contribute to social good while reducing personal food waste



NGOs & Food Banks

Access reliable supply channels and streamline operations



Municipal Bodies

Achieve waste reduction targets and support smart city goals



Vision for Tomorrow

Current Scope

- **Reduce Food Wastage**

Immediate impact on surplus food management

- **Efficient Redistribution**

Streamlined donor-to-receiver connections

- **Real-Time Matching**

Instant coordination and tracking capabilities

Future Enhancements

- **IoT Integration**

Smart bins with sensors for automated detection

- **Predictive Analytics**

Forecast surplus generation patterns in advance

- **Blockchain Traceability**

Transparent food journey from source to recipient

- **Multi-City Expansion**

Scale platform across major urban centres

Towards a Hunger-Free Future

Zero Waste AI transforms food surplus into social impact through intelligent technology

Sustainability

Reduce waste, protect environment

Efficiency

AI-powered smart decisions

Social Good

Feed the needy, save resources

Every meal saved is a step towards a smarter, more compassionate, and hunger-free society

