



## Food Banks in GHG Reduction

**For Prelims:** Food Recovery to Avoid Methane Emissions (FRAME), [United Nations Environment Programme \(UNEP\)](#), [Public-Private Partnerships \(PPP\)](#), [Sustainable Development Goal \(SDG\)](#), Greenhouse gases.

**For Mains:** Food Loss & Waste, Current Scenario of Food Waste in India and World, Reasons for Food Wastage, Initiatives Taken to Reduce it.

[Source: DTE](#)

### Why in News?

According to recent estimates based on a new methodology termed **Food Recovery to Avoid Methane Emissions (FRAME)**, **food banks** play a crucial role in mitigating [climate change](#) by significantly reducing [greenhouse gas \(GHG\) emissions](#).

- Each food bank can prevent emissions equivalent to taking 900 gasoline-powered cars off the road for a year.

### Note:

- **FRAME** is a tool designed to **quantify and mitigate the environmental impact of food loss and waste (FLW)** through **food recovery and redistribution**.
  - The FRAME pilot project in Mexico and Ecuador analysed six community-led food banks, finding that they **collectively prevented 816 metric tonnes of methane emissions** in a year, averaging 136 MT per food bank.
  - This methodology helps food banks **track emissions from food recovery** reducing [greenhouse gases](#) while **improving food security** addressing both **environmental and social challenges**.

### How Effective are Food Banks in Addressing Food Waste?

- **Food Banks:**
  - A food bank is a **non-profit organisation** that **provides food to people** who struggle to afford enough food to avoid hunger.
  - It usually **works through other organisations** like **food pantries and soup kitchens**, though some food banks directly distribute food themselves.
  - They also **recover surplus food** from across the food supply chain and distribute it to people facing hunger through community organisations.
- **Global Impact of Food Banks:**
  - **Emissions Reduction:** Each food bank is estimated to avoid **emissions equivalent to**

**906 gasoline-powered cars** annually, or the **carbon storage** equivalent of nearly **63,000 tree seedlings** grown for a decade.

- In 2019, food banks collectively **avoided over 12 million tonnes of CO2 equivalent emissions** and saved 75 million tonnes of nutritious food from landfills.
- **Food Security:** The food banks **served over 66 million people** facing hunger within their networks.
  - By recovering and redistributing food, these organisations not only reduce environmental impacts but also enhance food security for vulnerable populations.
- **Alignment with UN Goals:** FRAME supports the [UN's Target 12.3](#), which aims to halve global food waste at retail and consumer levels by 2030.

## What is the Current State of Food Waste?

- The **Food and Agriculture Organization (FAO)** estimates that **31% of food is lost globally**, with **14% lost post-harvest** and an additional **17% wasted at retail and consumer levels**.
- According to UN report estimates, **Indian households waste 40% of their food**, amounting to **78.2 million tonnes annually**, with a financial loss of nearly **Rs 92,000 crore per year**.
  - India's **per capita food waste is 55 kg/year**, with **rural areas wasting less** than urban areas.
  - In South Asia, **Bhutan has the lowest per capita food waste at 19 kg/year**, while Pakistan has the highest at 130 kg/year.
- **Implications of Food Wastage:**
  - This leads to **exacerbated hunger** and [greenhouse gas emissions](#).
    - **Food waste in landfills generates methane**, a potent **greenhouse gas** that traps over **80 times more heat than CO2** in the first 20 years.
  - In 2017, emissions from food loss and waste reached up to **9.3 gigatonnes of CO2 equivalent (GtCO2e)**.
    - Food systems are responsible for about **one-third of global GHG emissions**, with food loss and waste accounting for half of this figure.

## Note

- The **Food Waste Index Report** is tracking country-level progress to **halve food waste by 2030** ([SDG 12.3](#)). **SDG 12** aims to ensure sustainable consumption and production patterns.

## Way Forward

- **Setting Reduction Targets:** The government should **prioritise reducing food wastage** by setting measurable and **time-bound reduction targets** at both national and global levels, in line with the [Sustainable Development Goals \(SDGs\)](#).
- **Promoting Sustainable Practices:** Encourage **sustainable food production** and consumption by incorporating **food waste education** in school curriculums, launching awareness campaigns, and incentivising businesses to adopt sustainable practices.
- **Strengthening Food Recovery Networks:** Support the **development of food recovery programs** that redistribute surplus food to vulnerable populations, leveraging technology and local initiatives.
- **Improving Waste Management Systems:** Implement **effective food waste management systems**, including large-scale composting, biogas plants, and waste-to-energy projects to repurpose organic waste and reduce landfill pressure.

## Conclusion

To maximise the impact of **food banks in combating climate change and food insecurity**, it is

essential to support policies that promote food recovery initiatives. Increased awareness, funding, and collaboration among stakeholders in the food system can enhance the effectiveness of food banks. By addressing food waste, we can make significant strides toward achieving both climate goals and food security targets globally.

### **Drishti Mains Question**

How can India turn the problem of food wastage into an opportunity by addressing it effectively?

## **UPSC Civil Services Examination Previous Year's Question (PYQs)**

### **Prelims**

**Q. With reference to the provisions made under the National Food Security Act, 2013, consider the following statements: (2018)**

1. The families coming under the category of 'below poverty line (BPL)' only are eligible to receive subsidised food grains.
2. The eldest woman in a household, of age 18 years or above, shall be the head of the household for the purpose of issuance of a ration card.
3. Pregnant women and lactating mothers are entitled to a 'take-home ration' of 1600 calories per day during pregnancy and for six months thereafter.

**Which of the statements given above is/are correct?**

- (a)** 1 and 2 only
- (b)** 2 only
- (c)** 1 and 3 only
- (d)** 3 only

**Ans: (b)**

### **Mains**

**Q. What are the salient features of the National Food Security Act, 2013? How has the Food Security Bill helped in eliminating hunger and malnutrition in India? (2021)**

PDF Reference URL: <https://www.drishtias.com/printpdf/food-banks-in-ghg-reduction>