



The impact of food loss and food waste on global hunger and nutrition

In a world where abundance should quell hunger's roar, the sight of empty plates amidst bountiful harvests strikes a deep and unsettling chord.

A paradox haunts our collective conscience—a recurring reminder of the profound consequences of unsustainable growth, climate change, food loss and waste of global hunger and nutrition.

Our population has doubled from 3 billion to 7.5 billion in less than 50 years, and we are set to touch 10 billion by 2050. As many as 828 Million people, which is 8% of the worldwide population, were affected by hunger. Climate change has cut farming productivity by 21% in the last 50 years, leading to less food from the available resources. To top it off, food wastage's carbon footprint is estimated at 3.3 billion tonnes of CO2 equivalent of GHG released into the atmosphere per year. Not only is food loss leading to the food security problem, but it is also accelerating climate change.

The tragic scale of the problem

Imagine a mountain of food—over 1.3 billion tons—vanishing into thin air yearly. This immense quantity represents one-third of the world's food production, left to rot or discarded as waste. Each day, 25,000 people, including more than 10,000 children, die from hunger and related causes. Some 854 million people worldwide are estimated to be undernourished. Globally, families struggle to put meals on their tables while mountains of edible food meet a tragic end. Behind these staggering numbers lie countless stories of missed opportunities and unimaginable suffering.

Let's take a closer look at the reasons behind global hunger, identify why & how we end up losing 1/3rd of our yearly produce, and how we can solve the same.

Food wastage cycle

Typically, food loss happens across multiple stages from farm to fork, with



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more than 15% of the food being lost before it leaves the farms. The other stages where there is food loss & wastage include - post-harvest handling, storage, processing, logistics & distribution, and loss of food owing to food degradation or delay in consumption.

Food security

We have more mouths to feed; the ag-

productivity has taken a hit, per-acre outputs are lower, supply chains are broken, consumption patterns are erratic, and the time taken for the produce to reach the end consumers is high. We have no traceability of farm operations; climate change & unsustainable cultivation practices are leading to crop losses, and food distribution is a significant bottleneck. Furthermore, lack of awareness among the growers, access to capital, access to technology, and advisory also indirectly affect the overall production.

A ray of hope | sustainable cultivation & efficient supply chains

To achieve food security for all, we need to create greater awareness around sustainability, improve supply chains, consume responsibly, invest in cold storage & infrastructure, and develop solutions that can help increase the shelf life of our produce.

Sustainable cultivation

We need to make Farmers, Growers and Consumers aware of the benefits of Sustainable Cultivation, Precision Farming Practices, Biosolutions, Mechanization and Traceability. Furthermore, adopting Good Agricultural Practices helps improve acreage, yield & profitability for the growers while the consumers get quality produce.

Cold storage & supply chain networks

Government, Companies, and Local Agricultural Bodies need to invest in cold storage infrastructure, make markets accessible and invest in localized networks to prevent food losses.

Responsible consumption

We can develop, build & propagate a culture of responsible consumption by educating them about the value of each morsel, setting up systems & practices that mitigate food loss, creating an



ecosystem that can utilize leftovers to feed people in need, being mindful of how we consume & what we consume.

Post-harvest solutions

Leveraging mechanization tools to minimize crop losses during harvesting, integrating technology to manage the transport of goods & storage, using artificial intelligence & machine learning to get harvest date insights, helping mitigate crop loss, and ensuring that

the growers & cultivators get fair value for their produce by assisting them to connect with the right buyers on time can solve for post-harvest crop loss challenges.

Improving shelf life

Investing in technologies, solutions & products that help increase the shelf life of the produce while ensuring food safety & quality for all can deliver breakthroughs that drastically impact food loss & food wastage numbers.

A call to action

Investments & incentives need to be offered for innovations & technologies like using genetically modified seeds during cultivation to improve resistance and eliminate crop losses. The government & the industry should build an ecosystem to promote localized cultivation & localized consumption. Agronomists, Companies, and Governments should advise farmers & growers on crop selection to avoid surplus, weather advisory to help control the variables, and make necessary interventions via policy, grants, schemes & incentives to minimize loss of food & reward responsible consumption.

Let empathy guide our future

The battle against food loss and wastage is not merely a fight for food; it is a fight for compassion and justice. By bridging the gap between abundance and scarcity, we can nourish not only bodies but also the collective soul of humanity. Let empathy guide our choices as we strive towards a future where no one goes to bed hungry and where the actual value of food is cherished.

Conclusion:

The tragedy of food loss and wastage is a stark reminder of our shared responsibility. It is our power to rewrite this narrative and heal the wounds of hunger and malnutrition. Let us join hands, inspire change, and ensure that every meal becomes a symbol of hope and sustenance.