Environmental Impact of Food Loss & Waste

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In a world where people are
dying from hunger,
an estimated one-third of
all food produced is thrown
away as waste every year!!!

Equal to about 1.3 billion tons of fruits, vegetables, meat, dairy, seafood, and grains that are either never leave the farm, get lost or spoiled during distribution, or are thrown away in hotels, grocery stores, restaurants, schools, or home kitchens.

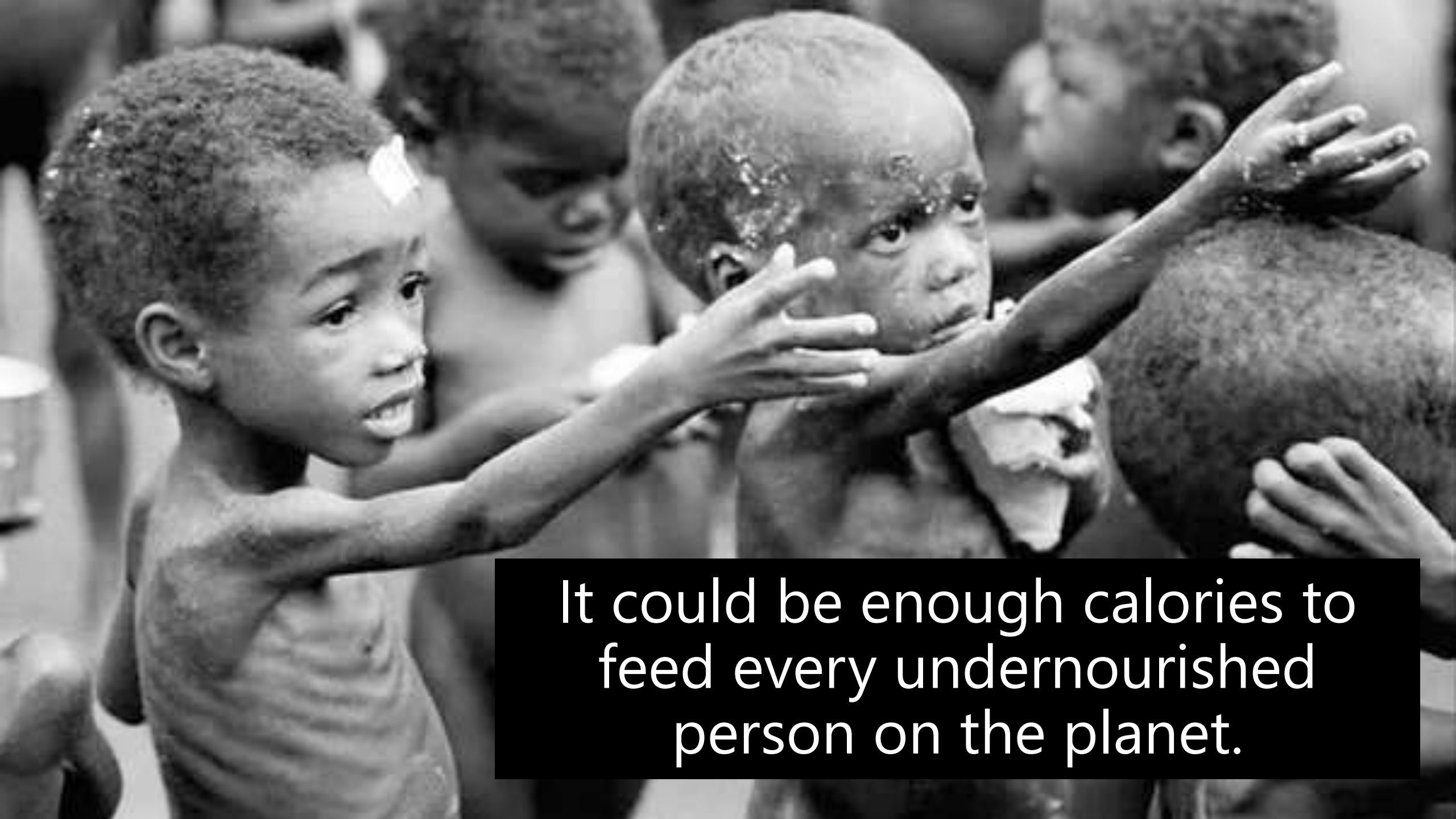
In Germany, since 2019, we have a national strategy to reduce the wastage of food along the whole food chain, the aim is to reduce 50% until 2030.

“National Food Waste Reduction Strategy”

National Food Waste Reduction Strategy in Germany has identified main field of actions as:

1. Law & Politics
2. Processing in companies
3. Education of teachers, kids and staff in companies
4. Research & Digitalization

The biggest part of food loss in Germany happens at home by consumers. Around 6.5 million tonnes of food loss means 59% of food loss in the country


It could be enough calories to feed every undernourished person on the planet.


Wasted food isn’t just a social or humanitarian concern.
It’s on environmental one too!!!!!

When we waste food, we also waste all the energy and water it takes to grow, harvest, transport, and package it.

When we throw away food, we also throw away the precious resources that went into producing this food.

This includes the use of land and natural resources, the social cost to the environment, and our biodiversity


And if food goes to the landfill, it produces methane – a greenhouse gas even more potent than carbon dioxide!!!
About 6-8% of all human caused greenhouse gas emissions could be reduced if we stop wasting food.
In 2020 in Germany, we produced 11 millions tonnes of food waste, resulting into 6 millions tonnes of greenhouse gases

How does food waste & loss affect the environment?

Waste of Natural Resources

Contribution to Climate Change

Degradation of Land

Harm to Biodiversity

Water is needed for all stages of the food production process, as well as in all types of food produced.

Agriculture accounts for 70% of the water used throughout the world.

This includes the irrigation and spraying required for crops, and the water needed for rearing cattle, poultry and fish.

By wasting food, we are wasting fresh water. Given that countries have a severe water shortage, with countries being predicted to be uninhabitable in a few decades, conserving freshwater should be a global mission.

Growing plants and rearing animals drains a huge volume of fresh water.

Food such as fruit and vegetables are water-laden, and require a huge amount of water to grow.

Additionally, different types of plants need different amounts of water to grow.

Animals also require a large amount of water for both their growth and their feed. Producing meat requires more water supply, yet meat is the food that is thrown out the most.

Growing food that goes to waste ends up using up to 21% of freshwater, 19% of fertilizers & pesticides, 18% of our cropland, and 21% of our landfill volume.

If the food waste go along with the packaging materials like plastics, that causes additional pollution to the environment.

Throwing away a kilogram of beef is equivalent to throwing away 50,000 litres of water.


Pouring a glass of milk down the sink is nearly 1,000 liters of water wasted.

GHG

PFCS CO_2 N_2O HFCS CH_4 SF_6

SCOPE 3
INDIRECT
Upstream activities

- LEASED ASSETS
- WASTE GENERATED IN OPERATIONS
- BUSINESS TRAVEL
- FUEL AND ENERGY RELATED
- TRANSPORTATION AND DISTRIBUTION
- PURCHASED GOODS AND SERVICES
- CAPITAL GOODS

SCOPE 1
DIRECT

- COMPANY FACILITIES & VEHICLES

SCOPE 2
INDIRECT

- PURCHASED ELECTRICITY, STEAM, HEATING AND COOLING FOR OWN USE

SCOPE 3
INDIRECT
Downstream activities

- FRANCHISES
- INVESTMENTS
- END-OF-LIFE TREATMENT OF SOLD PRODUCTS
- LEASED ASSETS
- PROCESSING OF SOLD PRODUCTS
- USE OF SOLD PRODUCTS
- TRANSPORTATION AND DISTRIBUTION

Reference for used for study: ISO 14064, Green House Gas Protocol, Google flight checker

When food is left to rot in our landfills, it subsequently releases methane, a powerful greenhouse gas twenty-five times stronger than carbon dioxide.

When methane is released, it lingers for 12 years and traps heat from the sun.

It contributes towards 20% of the global greenhouse gas emissions released.

When we factor in the greenhouse gas emissions released from the use of natural resources, the contribution to climate change is astonishing.

If a decent food waste treatment system were implemented, it would stop 11% of global greenhouse gas emissions.

Agricultural Research found that a third of all human-contributed greenhouse gas emissions are from food waste.

If food waste were a country, its greenhouse gas emissions would be the third largest in the world, following the US and China.


If we stopped throwing food away, we can save the equivalent of 17 metric tonnes of CO2, which can be the environmental equivalent of five cars off the roads in the UK.

Our irresponsible use of food products has an adverse impact on the physical land itself.


There are two ways in which we waste land.


The land we use for producing the food, and the land we used for dumping the food.

Agriculture uses 11.5million hectares of the global land surface.


There are two types of land; “arable” land (that can grow crops), and “non-arable” land (that cannot grow crops).


900 million hectares of non-arable land is used for livestock to produce meat and dairy products.


As meat is in higher demand, more arable landscapes are being converted into pastures for animals to graze.


By doing so, we are gradually degrading our natural land in a way that prohibits anything natural from growing on it.

These statistics show that we are over-stressing land for food production and if we are not mindful in the future, the ability to yield will diminish overtime as we gradually degrade the land.

Not only are we disrupting our beautiful, natural landscapes, but we are also harming the biodiversity present in nature, as converting arable land into pastures will cause a loss of habitat for animals and could also severely disrupt food chains in the ecosystem.

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