



Food Wastage in Pakistan & Achieving Food Security

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FOOD WASTAGE

Food Loss

'the decrease in the quantity or quality of food resulting from decisions and actions by food suppliers in the chain, excluding retailers, food service providers and consumers'

Food Waste

the decrease in the quantity or quality of food resulting from decisions and actions by retailers, food service providers and consumers



Food waste or loss is measured only for products that are directed to human consumption, excluding feed and parts of products which are not edible.

Types of food losses/waste(1)

S.NO.	TYPES	Plant based commodities and products	Animal commodities and products
1	<i>Production</i>	losses due to mechanical damage and/or spillage during harvest operation (e.g. threshing or fruit picking), crops sorted out post-harvest, etc.	for bovine and poultry meat, losses refer to animal death during breeding. For fish, losses refer to discards during fishing. For milk, losses refer to decreased milk production due to dairy cow sickness (mastitis)
2	Post-harvest handling and storage	Losses due to spillage and degradation during handling, storage and transportation between farm and distribution	for bovine, and poultry meat, losses refer to death during transport to slaughter and condemnation at slaughterhouse. For fish, losses refer to spillage and degradation during icing, packaging, storage and transportation after landing. For milk, losses refer to spillage and degradation during transportation between farm and distribution.
3	Processing	Losses due to spillage and degradation during industrial or domestic processing, e.g. juice production, canning and bread baking. Losses may occur when crops are sorted out if not suitable to process or during washing, peeling, slicing and boiling or during process interruptions and accidental spillage.	for bovine, and poultry meat, losses refer to trimming spillage during slaughtering and additional industrial processing, e.g. sausage production. For fish, losses refer to industrial processing such as canning or smoking. For milk, losses refer to spillage during industrial milk treatment (e.g. pasteurization) and milk processing to, e.g., cheese and yoghurt.

Types of food losses/waste(2)

S.NO.	TYPES	Plant based commodities and products	Animal commodities and products
3	Distribution	Losses and waste in the market system, at e.g. wholesale markets, supermarkets, retailers and wet markets.	
4	Consumption:	Losses and waste during consumption at the household level.	

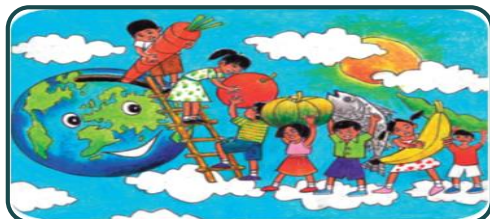
GLOBAL PERSPECTIVE OF FOOD WASTAGE(1)



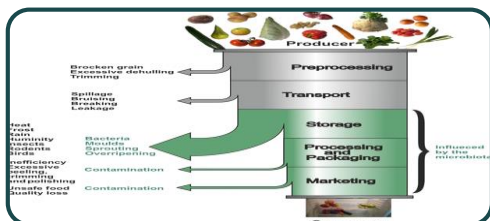
1/3rd of all food produced for human consumption, about 1.3 billion tonnes of food is wasted globally each year



The amount of food lost or wasted costs 2.6 trillion USD annually i.e more than enough to feed all the 815 million hungry people in the world & four times over



High-income countries discard and low-income countries discard similar amounts of food — 670 and 630 million tonnes, respectively — but there is a major difference in where and how that loss occurs.



Nearly 1/2 of all fruit & vegetables produced globally are wasted each year – UN

GLOBAL PERSPECTIVE OF FOOD WASTAGE (2)



Global quantitative food waste per year is roughly 30 per cent for cereals, 40-50 per cent for root crops, fruits, and vegetables, 20 per cent for oilseeds, meat and dairy plus 30 per cent for fish.



Every year, consumers in rich countries waste almost as much food (222 million tonnes) as the entire net food production of sub-Saharan Africa (230 million tonnes).



In developing countries, 40 per cent of losses occur at post-harvest and processing levels while in industrialized countries more than 40 per cent of losses happen at retail and consumer levels.

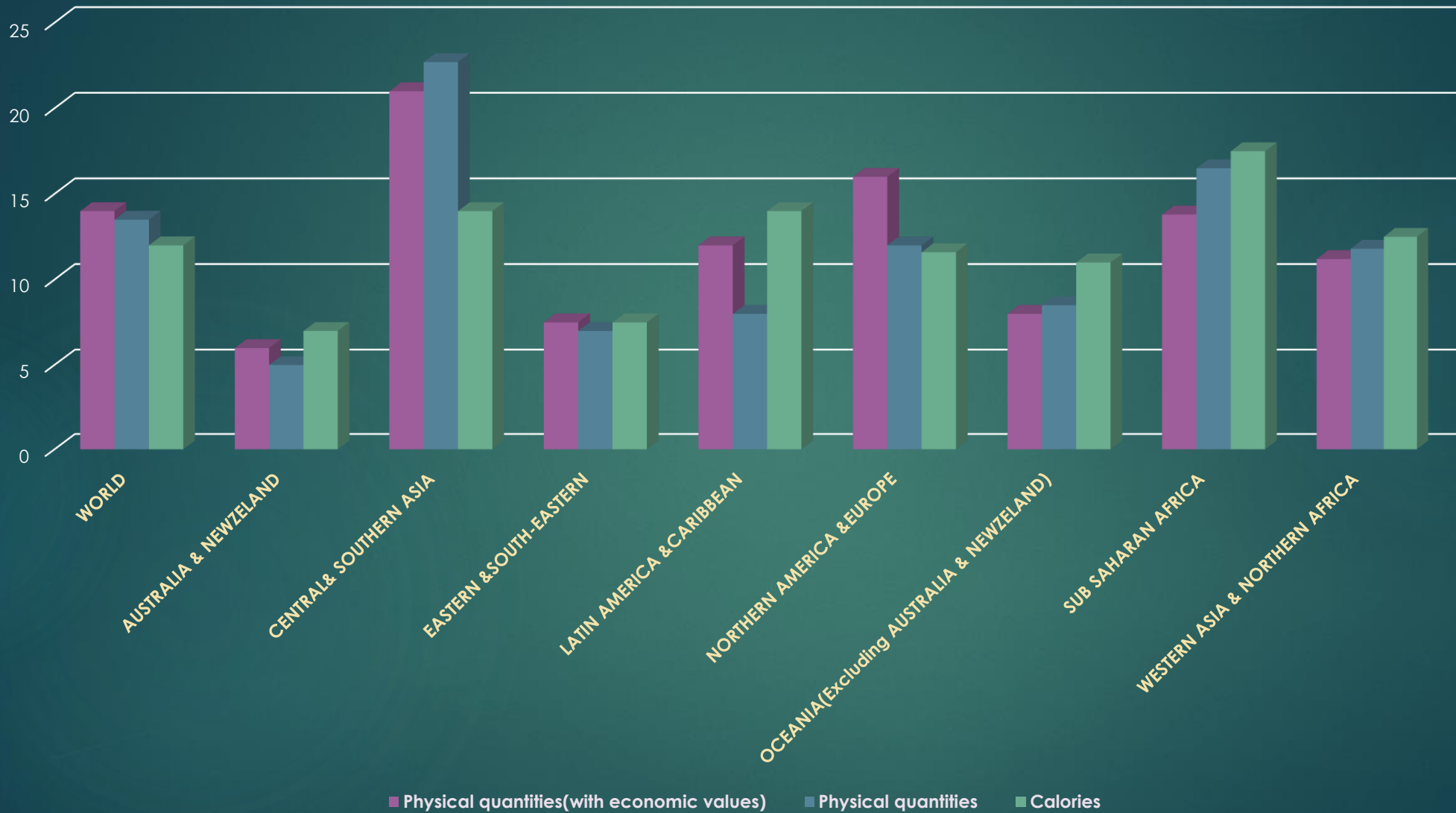


At the retail level, large quantities of food are wasted due to quality standards that over-emphasize appearance.



Food loss and waste also amount to a major squandering of resources, including water, land, energy, labor, and capital, and needlessly produce greenhouse gas emissions, contributing to global warming and climate change.

FOOD LOSS PERCENTAGES IN DIFFERENT REGIONS 2016





FOOD LOSS AND WASTE AND THE IMPLICATIONS FOR FOOD SECURITY AND NUTRITION

Food security

Definition:

A situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Based on this definition, it is possible to identify four food security dimensions:

Availability – This addresses whether or not food is actually or potentially physically present, including aspects of production, food reserves, markets and transportation and wild foods.

Access – If food is actually or potentially present physically, the next question is whether or not households and individuals have sufficient access to that food.

Utilization – If food is available and households have adequate access to it, the next issue is whether or not households are maximizing their intake of adequate nutrition and energy. Sufficient energy and nutrient intake by individuals is the result of good care and feeding practices, food preparation, dietary diversity and intra-household distribution of food. Combined with good biological utilization of food consumed, this determines the nutritional status of individuals.

Stability – If the dimensions of availability, access and utilization are sufficiently met, stability is the condition in which the whole system is stable, thus ensuring that households are food secure at all times. Stability issues can refer to short-term instability (which can lead to acute food insecurity) or medium- to long-term instability (which can lead to chronic food insecurity). Climatic, economic, social and political factors can all be sources of instability.

Food wastage in relation to food security

FOOD SECURITY PILLARS	FW REDUCTION	FW INCREASE
AVAILABILITY	More food available	Less Food Available
ACCESS	<ol style="list-style-type: none"> 1. Lower prices across the food supply chain 2. Targeted food redistribution 3. Increased Sales at or after point of reduction 	Increased prices across the food supply chain from less supply
UTILIZATION	Increased Food quality and nutrition	Loss of nutritious food
STABILITY	<ol style="list-style-type: none"> 1. Improved on farm storage 2. Natural resource preservation 	<ol style="list-style-type: none"> 1. Food stocks are compromised 2. Natural Resource pressure

Food Wastage in Pakistan & Achieving Food Security

PAKISTAN ranks as a country with 'serious' hunger level
- The Global Hunger Index, 2016

43% of the country's citizens remain food insecure

18% facing a severe shortage

According to a report:

40% of food in Pakistan is wasted

36 million

tonnes of food is wasted in Pakistan every year



پاکستان میں ہر سال 36 ملین ٹن کھانا ضائع ہوتا ہے!
ناشکری اور گناہ سے بچنے کیلئے آپ کیا کر سکتے ہیں؟ دیکھیے!

FOOD SECURITY STATUS-PAKISTAN



Global Hunger Index, Pakistan has been ranked 94, eight spots ahead of archrival India i.e. 102; whereas Bangladesh and Sri Lanka are at 88 and 66, respectively.(1)

Instead of self-sufficiency in major staples – ranked at 8th in producing wheat, 10th in rice, 5th in sugarcane, and 4th in milk production, only 63.1 percent of the country's households are "food secure",(2).

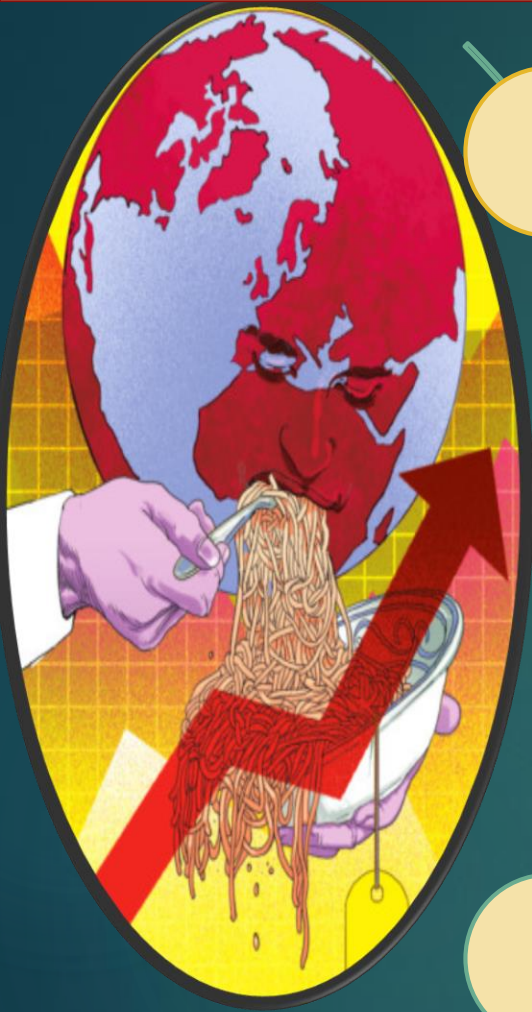
36.9 percent of the households labelled as "food insecure", --18.3 percent face "severe" food insecurity. ,(2)

Across the provinces, KP and Gilgit Baltistan are relatively more food secure than Sindh and Balochistan ,(2)

REFERENCES

1. National Food Security Policy, Government of Pakistan, June 2017
2. Ministry of Health and Unicef's National Nutritional Survey 2018
3. Food and Agriculture Organization of the United Nations
4. Report on "The Economic Consequences of Undernutrition in Pakistan: An Assessment of Losses" (2017), launched by the Pakistan Scaling Up Nutrition (SUN) Secretariat at the Ministry of Planning, Development and Reform, in collaboration with UN's World Food Program.
5. The Express Tribune, June 24th, 2020

FOOD SECURITY STATUS-PAKISTAN



The World Food Program (WFP) 2020 reports that over three million people in the country are experiencing severe food insecurity, mainly in the drought-affected districts of Balochistan and Sindh. Over half a million people in these provinces are described as in emergency conditions.(5)

The Food and Agriculture Organization (FAO) is warning that the magnitude of damage to the crops poses a severe threat to the food security and livelihood of affected communities. It forecasts economic losses of over \$5.1 billion, depending on the scale of damage to the crops.(5)

Higher food prices since 2018 have adversely affected the affordability of food for the poor. (5)

Pakistan is among those seven countries that cumulatively account for two-thirds of the world's under-nourished population (along with Bangladesh, China, Congo, Ethiopia, India and Indonesia. (3)

Malnutrition and its outcomes cost the economy 3 percent of GDP (US\$ 7.6 billion) every year. In particular, high child mortality rates, prevalence of zinc and iodine deficiencies, stunting, and anemia, lead to deficits in physical and mental development that weakens labor productivity and loss of future labor force in the country.

REFERENCES

1. National Food Security Policy, Government of Pakistan, June 2017
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FOOD WASTAGE IN PAKISTAN

- ▶ **Around 40 per cent / 36 million tonnes** of food produced in Pakistan **is wasted per year**. This could feed 3 billion people each year

(equivalent to every citizen of Karachi, Lahore and Hyderabad tossing out entire lunches and dinners every day)

- ▶ 40 per cent of food in Pakistan is wasted. This includes food loss during the supply chain (production, post-harvest handling, agro-processing, distribution and consumption) that occurs every year.



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MAJOR CAUSES OF FW IN PAKISTAN

- ▶ Pre-harvest losses
- ▶ Post harvest Losses
- ▶ Lack of technology processing, storage
- ▶ Poor infrastructure and transportation, lack of refrigeration
- ▶ Poor Packaging
- ▶ Behaviors towards foods
- ▶ Season ability
- ▶ Inadequate market facilities
- ▶ Lack of scientific interventions for shelf life of fresh produce



MAJOR IMPACTS OF PREVENTING FOOD WASTAGE



OBJECTIVES OF FW REDUCTION MEASURES AND THEIR ENTRY POINTS ALONG THE FOOD SUPPLY CHAIN TO ADDRESS FOOD SECURITY STATUS

CONSUMER

- Increased quality & nutritional food content
- Reduced prices for consumers
- Food redistribution

FARM

- Farmer Income Generation
- Post Harvest Loss reduction

The United Nations' Sustainable Development Goal (SDG) 12.3 demands per capita global food waste (FW) at the retail and consumer levels to be halved by 2030



WAY FORWARD

REQUIRED INTERVENTIONS TOWARDS FOOD WASTAGE REDUCTION IN RELATION TO FOOD SECURITY IN PAKISTAN

- Improving Post harvest practices and storage to reduce on-farm losses and boost farmers' incomes
- Employing Value Addition of the food commodities
- Extending shelf life without plastics or cold storage
- Wastage reductions in food industries.
- Innovative solutions for food redistribution
- National strategies for food loss and waste reduction and prevention
- Monitoring and statistics of the food wastage required to be carried out. Research based strategies and studies to cope the reduction of FW along the value chain are required
- Public awareness regarding the issue and possible interventions at consumer end needs to be devised.
- Different models are devised like ASRW (Availability-Surplus-Recoverability-Waste), EPPA Food recover hieracy, Boulder COUNTY MODEL etc..

It's time to end food waste

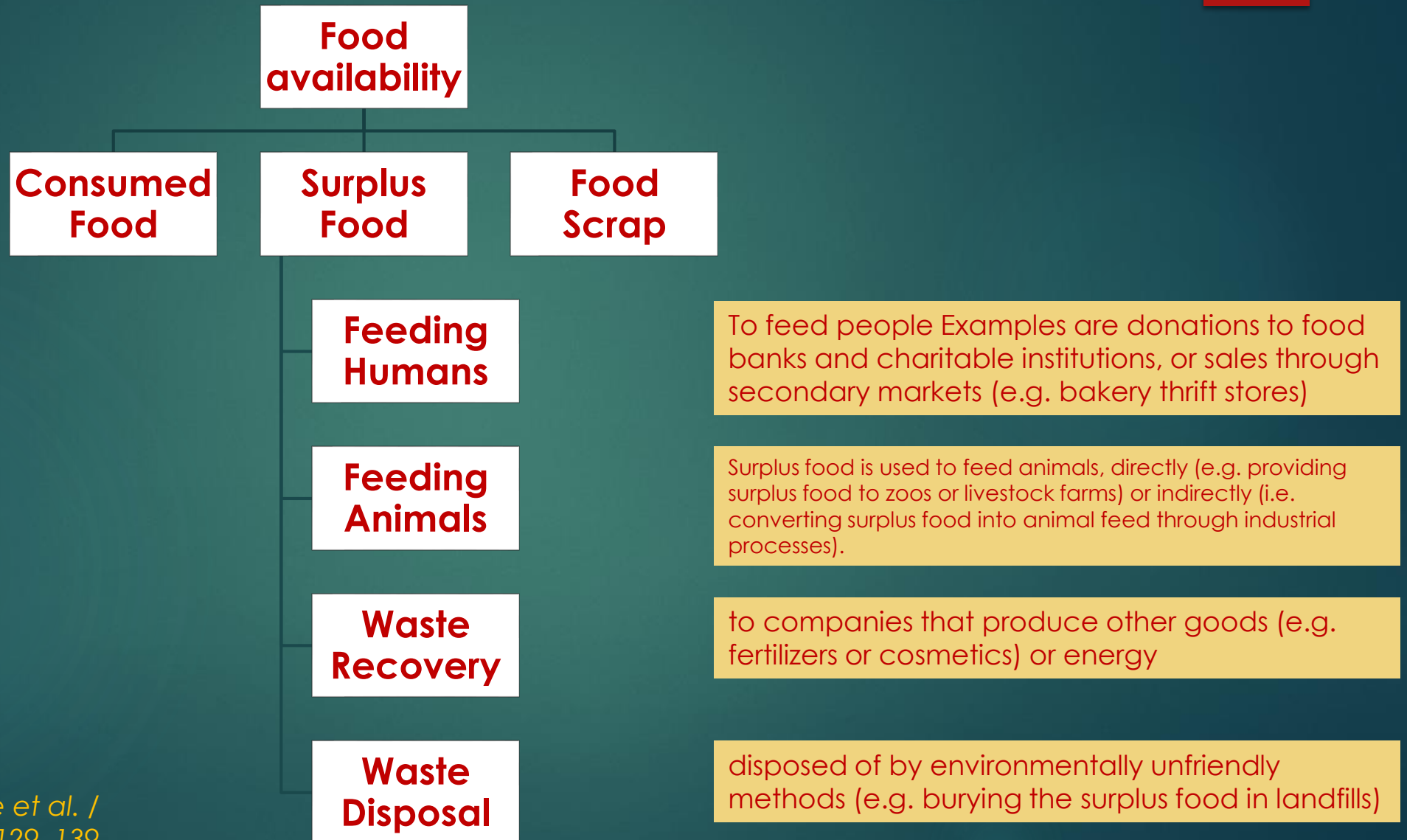
What needs to be done.

What could be done.

What is done.



ASRW Availability-Surplus-Recoverability-Waste Conceptual Model



BOULDER COUNTY MODEL

*Food Waste ends with YOU
They are partnered with other
organisations.*

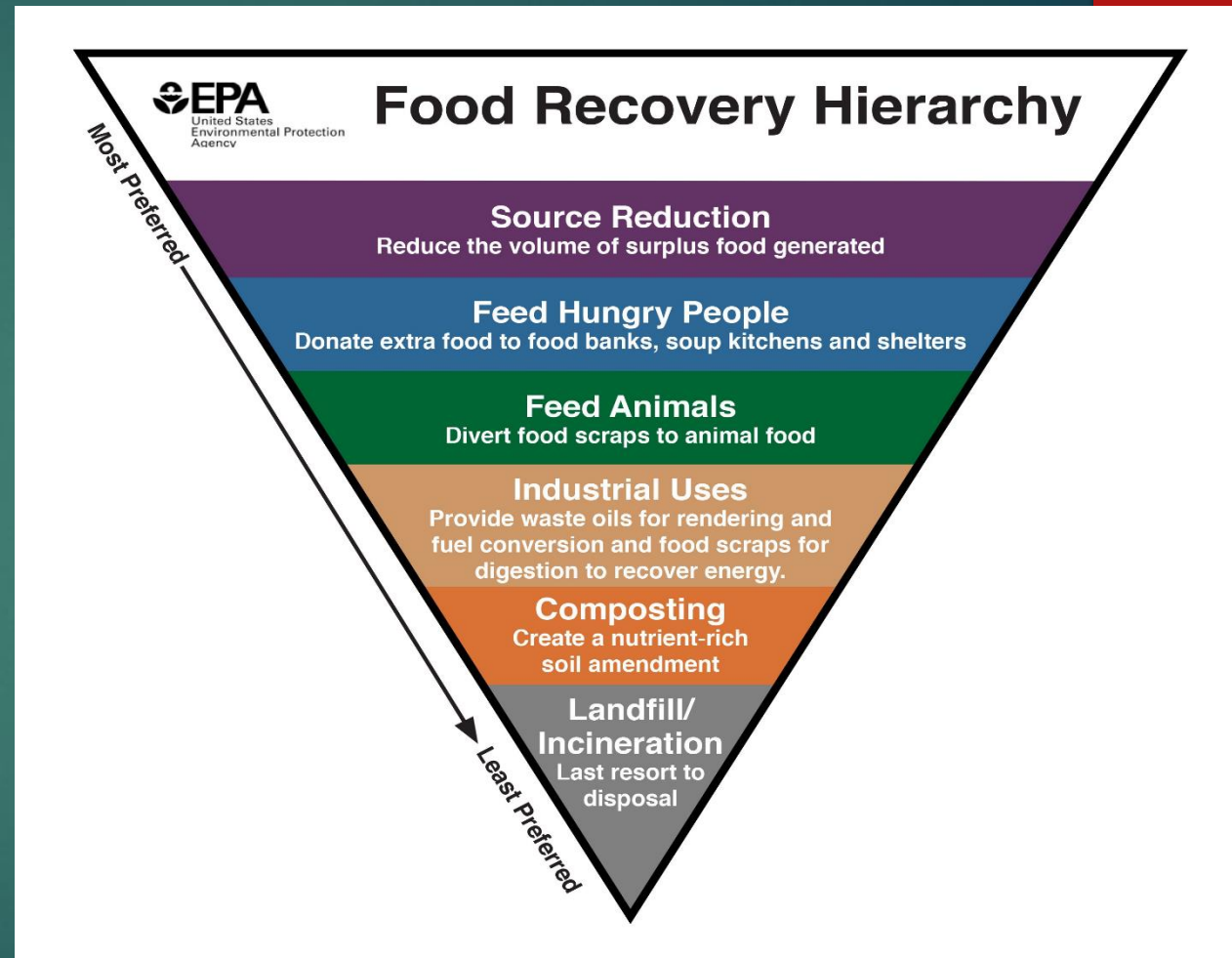
[Shop smart](#)

[Food Storage](#)

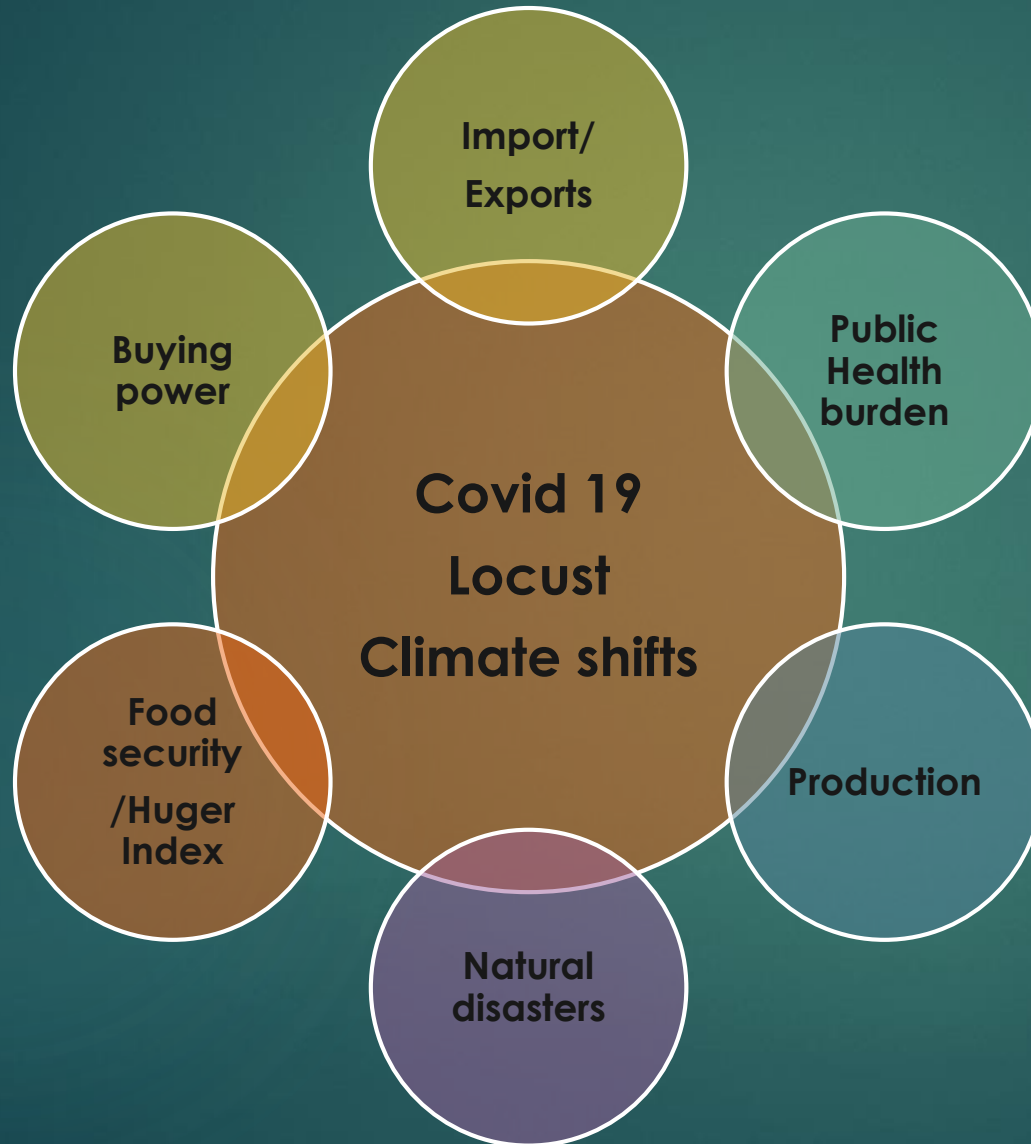
[Cook Smart](#)

[Get involved locally](#)

[Sell-by/Use-by](#)



Current Scenario In Pakistan



**URGENT NEED TO
ADDRESS THE ISSUE
OF FOOD
WASTAGE**





THANK YOU