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Contribution on the Topic of Sustainable Consumption

Presentation by Jean Pierre Couchot

The Republic of Chile











Sustainable Consumption – UNECE and the Food Loss Challenge

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Food loss/waste and sustainable consumption

The FOOD LOSS/WASTE AND SUSTAINABLE CONSUMPTION CHALLENGE unfolded:

1. Sustainable consumption = sustainable consumer (behavior)? State of play? Where are we right now? where can we go? How? And what can speed up things?

2. Who are the actual consumers in this particular context:

☐ End –consumer?

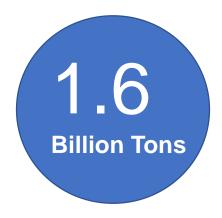
☐ Buyers, trader, sellers in general?





THE FOOD LOSS/WASTE CHALLENGE IN NUMBERS





Food lost and wasted

Source: FAO, BCG Flow model

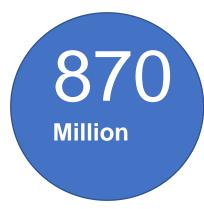
2.1
Billion tons



Revenue loss

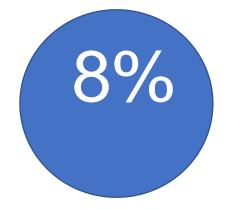
Source: FAO, BCG Flow model





Hunger

Source: UN FAO, BCG Flow model



Greenhouse gas emission (wasted food)

Source: UN FAO, World resources institute



THE FOOD LOSS/WASTE CHALLENGE IN NUMBERS – THE END CONSUMER



Rich countries:
222
million tons wasted
per year

Europe and North
America,:
95-115 kg per year per
capita waste

sub-Saharan Africa:
230
million tons net
food production

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

Sub-Saharan
Africa:
6-11 kg
per year per
cap waste

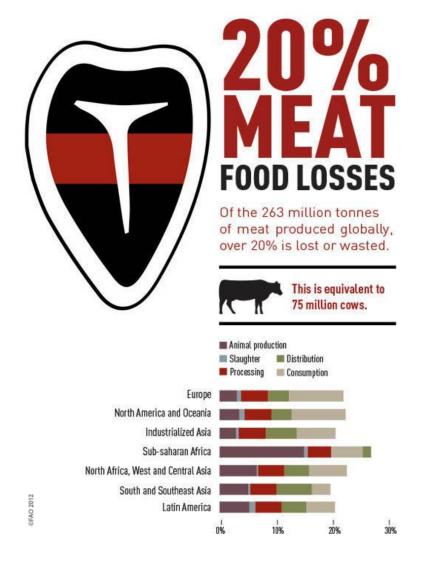
Per capita waste per year by consumer: 95-115 kg Europe/ North America, 6-11 kg Sub-Saharan Africa, South and South-East Asia.

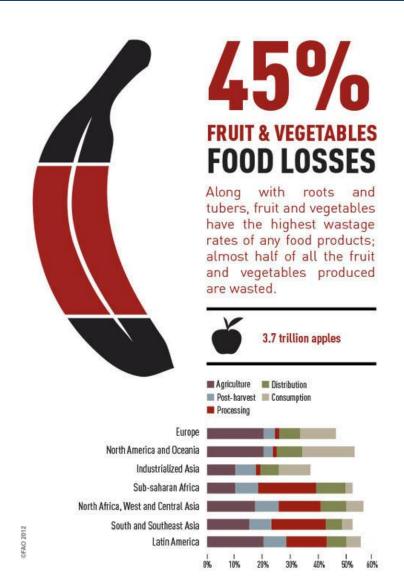
Source: FAO

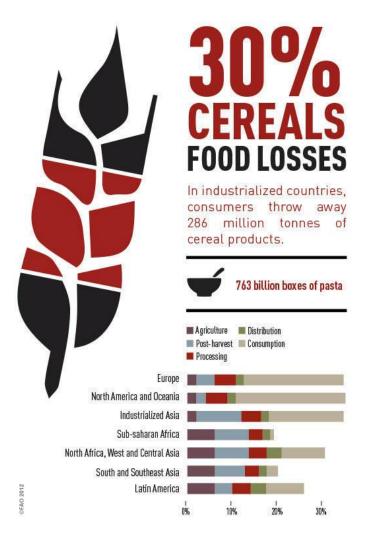


THE FOOD LOSS/WASTE CHALLENGE IN NUMBERS











Example - FOOD LOSS/WASTE IN ASIA





INDONESIA FOOD LOSS AND WASTE FACTS



FOOD WASTE IN CHINA

The amount of food waste in China alone could feed 100 million people

Source: Food Navigator Asia, The Economist Business Intelligence Unit

The food loss challenge and its many faces











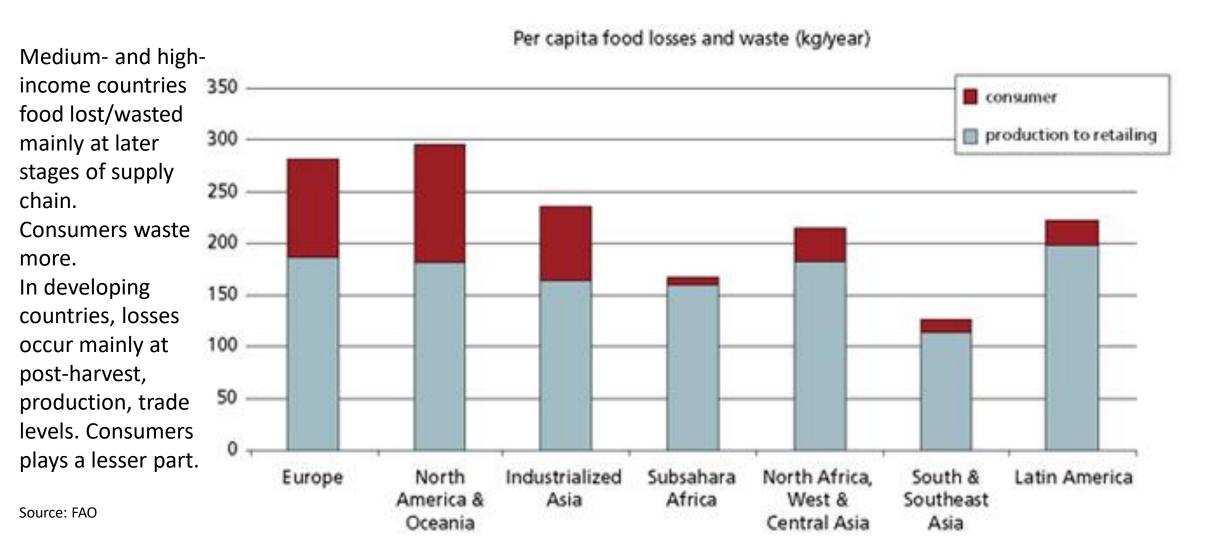






FOOD LOST AND WASTED – THE FULL PICTURE – THE BUYERS, SELLERS OF THE CHAIN





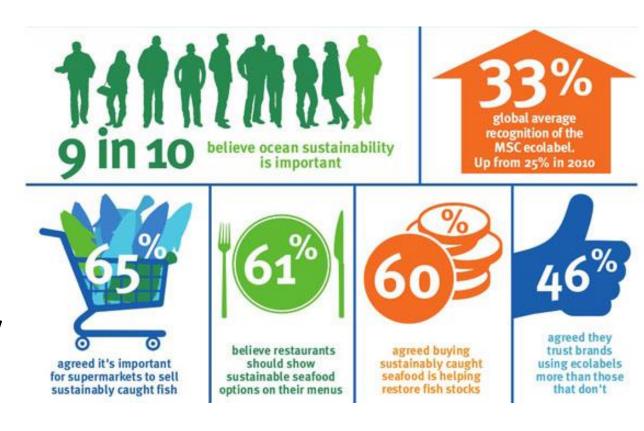


What is sustainable food consumption?

Result of deliberate or unconscious actions of consumers focused on purchasing sustainable products to balance consumption and reduce waste. Thereby:

they affect the environment as little as possible by their actions they contribute to the local economy and social responsibility by their choices.

BUT HOW DO WE GET THERE?





ACTION AT GOVERNMENT LEVEL – INCENTIVES AND DISINCENTIVES

Mostly a mixture of strategies, action plans, tax incentives, sometimes legislation, encouraging donations, control at various levels, sanctions, collaborations (NGOs), awareness raising etc.

The example of South Korea – focus consumers:

130 kg of food wasted per person each year

Government has taken radical action:

- In 2013, prohibition to discard food residues into landfills and waterways
- Households pay for recycling according to how much they throw away
- Use of country's technology: automated bins equipped with scales and Radio Frequency Identification (RFID)



How does UNECE cover sustainable food consumption issues



In general: through the development of international agricultural quality standards and recommendations for fresh fruit and vegetables, dry and dried produce, meat and seed potatoes for domestic and international trade,

- To reduce transaction costs and risks by providing a standardized description of the product to be traded.
- To keep quality thought the trade chain to the end-consumer
- To protect consumer interests.

Keeping quality from farm to fork is an efficient tool to ensure sustainable consumption, prevent food loss and reduce the economic, climate and resource impact of food wasted. and improves the food redistribution and security.

WHY?

Fruit and vegetable loose their quality attributes shortly after harvest until consumption. The loss in nutritional values happens long before external appearance is affected (discoloration, decrease of firmness etc.) or decay appears.



How does UNECE cover sustainable food **consumption issues**

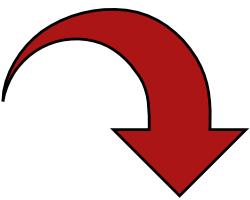




Production level: Excellent quality







In the shop: Quality and nutritious value degraded Consumers don't buy the fruit

Result = Food waste





How does UNECE cover sustainable food consumption issues - UNECE's Food Loss work

Specific focus: UNECE and the food loss challenge

- Quality matters but constant **review of quality standards** for agricultural produce
- Focus on losses in the trade process before it reaches the consumer and even retail
- Designed an online blockchain-supported marketplace
- Developed a simple food recording methodology
- Development of a **Code of Good Practice** on handling fruit and vegetables along the supply chain
- Comprehensive resource page on the food loss and waste challenge



Web page: UNECE and the Food Loss Challenge

http://www.unece.org/trade/agr/unecefoodlosschallenge.html



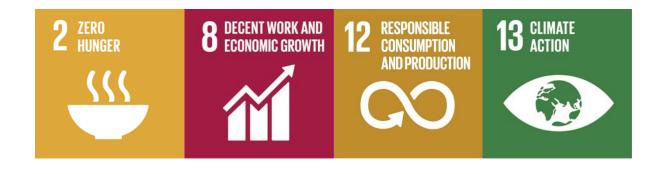
How does UNECE cover sustainable food consumption issues - UNECE's Food Loss work



Aim:

- Preventing, reducing and keeping as much food as possible in the human consumption chain
- Repurposing and redistributing food to feed all Recovery and Redistribution (R and R)
- Help reach SDG 12.3





UNECE - Managing the food loss challenge





UNECE's Smart Solution to Food Loss

Food loss management system to help trace and quantify the food lost and to distribute the currently "invisible" and unavailable food in alternative food chains.

• In this context, "invisible food" is food removed from the main supply chains for various reasons at different stages.

The primary objective: Quantify, account for systematuically, makes available and repurposes to alternative buyers, currently "invisible" produce and generates data to prevent losses and increase sustainable food consumption





THE UNECE FOOD LOSS MANAGEMENT SYSTEM: B2B and B2G

Creating alternative supply chains for food currently lost or wasted along the entire supply chain

SELLERS: Producers, Farmers, Traders, Packers, Importers BUYERS: traders, packers, hospitality sector, wholesalers, institutional buyers, charity, government

OUR UNECE SOLUTION





An Online Marketplace for Food Lost or otherwise Wasted for the food supplies that currently go to waste and are removed from the human food production and consumption chain to that brings all interested parties together. Interested parties are producers, traders, packers and logistic companies, hospitality sector, wholesalers, institutional buyers, charity and government agencies.



A traceability solution through **Blockchain** technology that enables tracking product journey and ensures quality certification validity

Component 1: The marketplace B2B or B2G -blockchain supported



Farmers

The production level of fruits and vegetables



Distributors

Farmer's direct point of contact for prospective buyers for the fresh produce.



▶ Food Processors ⇒

Companies that further process the fresh produce

Invisible/Surplus

Food



Packing Stations

Fresh produce packed for various business needs



Wholesalers, Importer

Fresh produce packed for various business needs



Buyers



Supermarkets

Restaurants, caterers, hotels





Processors, Byproduct Manufacturer

Government procurement





Other businesses including textile industry, vegan market segments

Why invisible/surplus?

- Not matching visual standards.
- Order cancellation Time limitations.
- Excess production



Online

Marketplace

Online marketplace that provides opportunity to participants (businesses and governments) of supply chain to sell their Invisible products directly to end consumers.

Component 2: Food loss data generation - the benefits for governments



Farmers, production level



Distributors, buyers



Packing stations or Processors

Food lost =

Invisible/Surplus

Food



Logistics hot points (domestic and export)



Wholesalers at destination, importers, domestic



GOVERNMENTS
To plan interventions,
policies to prevent and
reduce losses and
waste, limit
environmental impact,
ensure food security
and improved
extension services.
SDG implementations



Systematic measurements and Data generation in Component 2





ONLINE MARKETPLACE

The Steps and phases



- Scalable and adaptable model for all countries.
- Local use first cross –border use later
- Plug-ins for existing systems and methodologies (e.g. quantification methodologies, traceability or certification).
- At a later stage: possibly, Plug-ins for consumer interface
- Pilots in selected countries (rural areas and cities)
- Strong partners at domestic level (governments, NGOs. Private sector) to ensure long-term ownership and maintenance

Joining the sustainable consumption challenge





 Government (regulators) to support, incentivize and subsidize key food loss and waste reduction possibilities



 International bodies for collaboration on international food loss and waste opportunities – also cross-border - (SDG 17) partnerships between stakeholders (governments, international/regional organizations, business, academia, civil society as the driving force



 Companies to take responsibilities and use the (also business) opportunities to reduce food loss and waste



Consumers need to adapt practices to avoid food waste







REDEFINING THE FOOD LOSS CHALLENGE FOR SUSTAINABLE IMPACT:

PREVENT | REUSE | REPURPOSE | REDISTRIBUTE



Thank you!

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