SDG 12.3: Measuring progress

EU Platform on Food Loss and Waste

28th February 2018

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Governance & Institutional Architecture

SDG Target 12.3

"By 2030 halve per capita global food waste at the retail and consumer level, and reduce food losses along production and supply chains including post-harvest losses"

Overview (*Goals, Current Status)*

Goal: Develop Food Waste Index to be a Tier II Indicator

An indicator that is conceptually clear, has an internationally established methodology and standards are available, but data are not regularly produced by countries.

Current Status: Tier III Indicator

No internationally established methodology or standards are yet available for the indicator, but methodology or standards are being developed or tested.

Feedback from IAEG-SDG Meeting

- **Creation of two separate indicators – FLI and FWI**
  - No opposition

- **Global Food Loss Index methodology**
  - No comments on the indicator and data collection strategy
  - Question on the capacity of the countries to produce a FLI – request for more pilot countries

- **Re-classification in Tier II (methodology approved)**
  - Conditional to having the full methodological proposal for FWI
  - Conditional to having pilot countries for the Waste indicator "Waste is a known problematic area for global comparisons"
  - Conditional to knowing if and how the two indicators could be re-combined into one

UN
environment

Current progress on Food Waste Indicator

Timescales and Approach

- Approach presented to Inter-Agency Expert Group on SDG's (IAEG-SDG) November 2017.

- Project started in January 2018.

- Aim to build on existing methodologies as much as possible for both Food Loss (which exists) and Food Waste (e.g. FLWS, FUSIONs and EU methodologies)

- Aim to pilot this year in at least 5 countries around the world.

Principles for the SDG indicators

- <u>Globally applicable</u>: Follows a graduated methodology

- <u>Coherent</u>: Provides coherence between Food Loss and Food Waste & the Food Waste Index should be coherent with other related SDG indicators (e.g., 11.6.1 on MSW and 12.5.1 on recycling).

- <u>Policy relevant</u>: Supports national decision making on food systems

- <u>Comparable</u>: Enables international comparability and comparability over time.

- <u>Engaged with national statistical systems</u>: Draws on data that is nationally owned and comes from official sources to the extent possible.

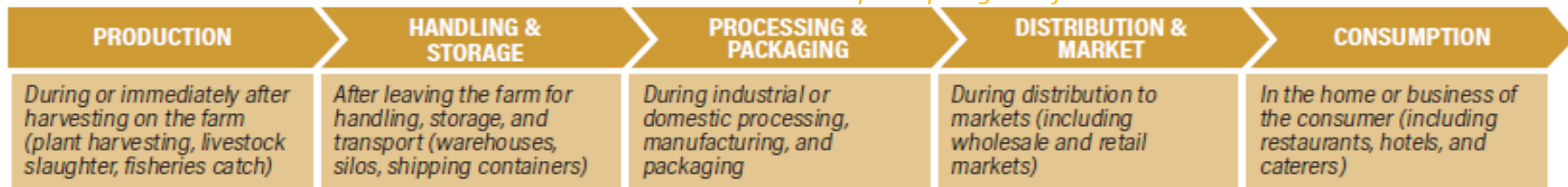# Scope and Boundaries of indices in comparison to FLWS
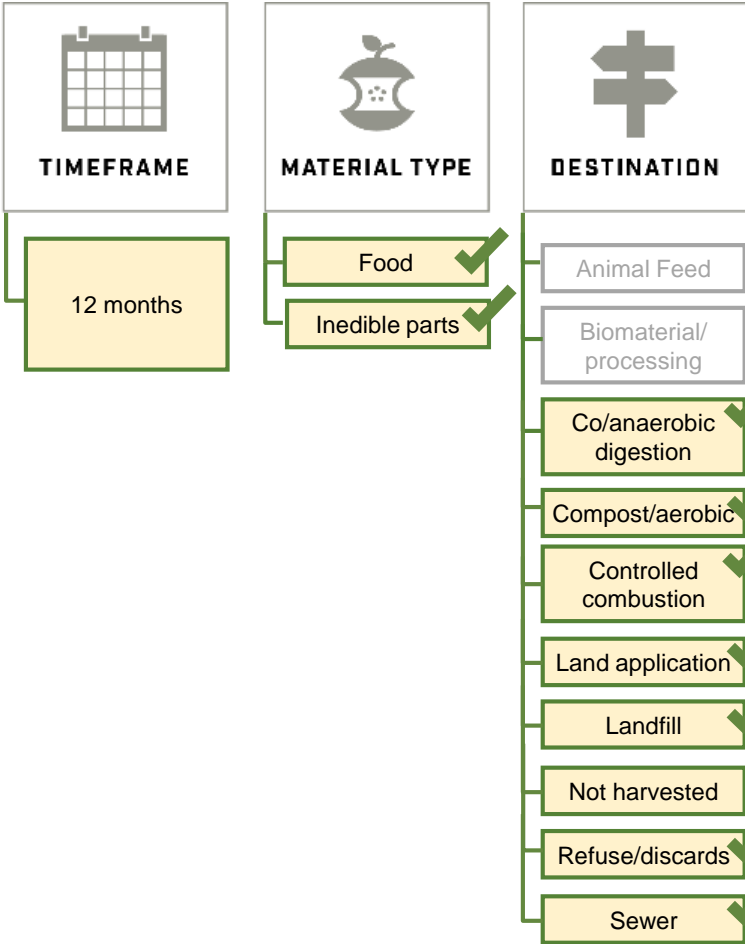
Indicators to Assess National Food Loss and Waste

Target 12.3: By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

"reduce food losses along production and supply chains, including post-harvest losses"

"halve per capita global food waste at the retail and consumer levels"

PRODUCTION	HANDLING & STORAGE	PROCESSING & PACKAGING	DISTRIBUTION & MARKET	CONSUMPTION
During or immediately after harvesting on the farm (plant harvesting, livestock slaughter, fisheries catch)	After leaving the farm for handling, storage, and transport (warehouses, silos, shipping containers)	During industrial or domestic processing, manufacturing, and packaging	During distribution to markets (including wholesale and retail markets)	In the home or business of the consumer (including restaurants, hotels, and caterers)

All possible food loss and waste in a nation

Food Loss Index: SUPPLY-SIDE | **overlap** | **Food Waste Index: DEMAND-SIDE**

FLI Covers:
- 10 top commodities/country
- From product maturity up to but excluding retail
- Provides an average

Limitations:
- Loss dynamics of less important commodities is not included
- Only primary processing losses are included

data may overlap here

FWI Covers:
- Mixed stream of products
- From processing /manfufacturing through to consumption
- Provides total weight

Limitations:
- Breakdown by commodity or product is not available

Indices Do Not Cover: Less important commodities from "production up to but excluding retail"

Options for Covering This Gap:
Use modelling or other methods to gather additional data to calculate losses for other commodities, starting at the point of product maturity

Food Waste Index – Suggested Equation

The FW Index tracks progress as kg / capita / year.

$$Food\ Waste\ Index = \frac{\left(\dfrac{Total\ food\ waste\ in\ year\ t}{Population\ in\ year\ t}\right)}{\left(\dfrac{Total\ food\ waste\ in\ baseline\ year}{Population\ in\ baseline\ year}\right)} \times 100$$

If data can be collected by sector, a more detailed equation would be :

$$Food\ Waste\ Index = \frac{\left(\dfrac{FW_{Household,t} + FW_{Food\ Service,t} + FW_{Retail,t} + FW_{Manufacture,t}}{Population\ in\ year\ t}\right)}{\left(\dfrac{FW_{Household,b} + FW_{Food\ Service,b} + FW_{Retail,b} + FW_{Manufacture,b}}{Population\ in\ baseline\ year}\right)} \times 100$$

t = year of measurement

b = baseline year

Example based on hypothetical country

		amount of FW (tonnes)	country population	FW/capita	calculation		INDEX
2018	baseline	60,000,000	600,000,000	0.10	1	X100	100
	year t						
2020	YEAR 2	40,000,000	600,000,000	0.07	0.67	X100	67
	YEAR 3	40,000,000	650,000,000	0.06	0.62	X100	62
	YEAR 4	38,000,000	650,000,000	0.06	0.58	X100	58
2025	YEAR 7	35,000,000	650,000,000	0.05	0.54	X100	54
2030	GOAL	33,000,000	660,000,000	0.5			50

Approach to Methodology

- Methodology for countries measuring food waste
  - Aimed at statistical professionals in government
- Contain a process to follow to obtain data for FW Index
  - Guidance to assist in the decision-making processes
- <u>Signpost</u> to existing methods where possible
- New guidance if none exists

First thoughts on Process for FW quantification

Review data 'landscape'
- **Purpose**: Understand what data already exists
- Obtain existing data on FW and other relevant (e.g. food purchasing)
- Review existing data Understand coverage / gaps

Prioritize sectors
- **Purpose**: determine which sectors to quantify (and frequency of quantification)
- Estimate missing data (via proxy, modelling)
- Rank sectors by amount of FW
- Decide on which to focus for FW Index (e.g. exclude minor contributions)

Develop quantification plan
- **Purpose:** create a quantification plan for FW Index (baseline and subsequent years)
- Assess existing data for suitability for use
- Assess measurement methods where no existing data exists

Quantify FW
- **Purpose**: to quantify food waste in relevant sectors
- To collate existing data and / or undertake new measurement
- To analyze above information to obtain information for FW Index

Report FW
- **Purpose**: to report FW data and metadata to allow the FW Index to be created

Learn lessons
- **Purpose**: Reflect on positives and negatives of past quantification to improve future quantification

Proposed high-level structure of methodology

- Introduction
- Purpose of methodology
- Scope and Boundaries

Methodology will cover:

- Reviewing data 'landscape'
- Prioritizing sectors
- Developing quantification plan
- Implementing the plan
- Reporting FW data
- Possible integration to provide a single measure

Preparation for next IAEG-SDG Meeting

- Methodological development for review and endorsement by the countries and the UNSD
  - Designing and defining the indicator
  - Measurement strategy
  - Data collection method and strategy at the country level
    - Tiered solutions to include countries with different statistical and institutional capacities
    - Use existing methods to give comparable estimates

- Pilot studies representing all regions of the world

Timescales

- Draft of methodology document complete by end of March

- Review by steering group

- Piloting April 2018 onwards – subject to securing funding

- Review guidance in light of piloting – ready for publication – Autumn 2018