



Food and Agriculture
Organization of the
United Nations



Milan Urban Food Policy Pact Monitoring Framework

March 2021 version

Indicator 42: Annual number of events and campaigns aimed at decreasing food loss and waste

MUFPP framework of actions' category: Food waste

The indicator collects information on the types of activities (events, campaigns, research studies), targeted sectors (households, business, foodservice, manufacturing, production etc.) and -if applicable-the actual impact on food waste reduction.

Overview table

MUFPP Work stream	Food waste
MUFPP action	Convene food system actors to assess and monitor food loss and waste reduction at all stages of the city region food supply chain, (including production, processing, packaging, safe food preparation, presentation and handling, re-use and recycling) and ensure holistic planning and design, transparency, accountability and policy integration. Raise awareness of food loss and waste through targeted events and campaigns; identify focal points such as educational institutions, community markets, company shops and other solidarity or circular economy initiatives.
What the indicator measures	Annual number of events and campaigns aimed at decreasing food loss and waste
Which variables need to be measured / what data are needed	<ul style="list-style-type: none"> ▪ Types of activities (events, campaigns, research studies) ▪ Targeted sectors (households, business, foodservice, manufacturing, production etc.) ▪ If applicable: the impact on food waste reduction in kg
Unit of measurement	Annual number of events and campaigns
Unit(s) of Analysis	Data disaggregation by type of activity and target audience
Possible sources of information of such data	<ul style="list-style-type: none"> - Civil society annual reports - Annual reports of organizations that implement recovery and redistribution of safe and nutrition food for direct human consumption - Lifelong learning / education institutions - Records from solid waste or environmental departments or external stakeholders supporting events and campaigns
Possible methods/tools for data-collection	<ul style="list-style-type: none"> - Analysis of records for the actions taken - Survey among relevant stakeholders

Expertise required	Data analysis, survey design and implementation
Resources required/ estimated costs	Desk study resource allocation
Specific observations	To the extent possible the actual impacts in terms of food waste or food loss reduction should be highlighted. This will ultimately support assessment of the use and effectiveness, and cost-benefits, of the events and campaigns.
Examples of application	Measuring the Impacts of a Campaign to Reduce Food Waste on Campus in Thailand. This study took place in two dining halls at a large university during the fall 2016 semester ¹ .

Rationale/evidence

A significant share of food produced for human consumption is never eaten. The Food and Agriculture Organization of the United Nations (FAO) estimates that a third, by weight, of all food produced in the world was lost or wasted in 2009. This level of inefficiency has significant economic, social, and environmental impacts. According to FAO estimates (FAO, 2014) the societal costs of a third of the food production getting lost or wasted each year amounts to about USD 2.6 trillion, of which USD 700 billion are societal costs of environmental impacts, USD 1 trillion are costs from economic losses of wasted and lost production, and USD 900 billion are costs due to individual well-being losses. This exacerbates the pressure on the global food system to ensure food security and nutrition for all. The amount of food lost or wasted translates into about a quarter of all water used by agriculture, and it requires cropland equivalent to an area the size of China, while being responsible for an estimated 8% of global greenhouse gas emissions. The wasted and discarded edible parts as well as the inedible parts associated with food (e.g., bones, rinds, pits/stones) take up space in landfills and contribute to increased management costs and greenhouse gas emissions during decomposition.

Many countries, cities, companies, and other entities can improve insight into how much, why, and where food and/or associated inedible parts are removed from the food supply chain. Achieving the Sustainable Development Goals is engaging all actors of the global food system. SDG 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.*

Improved access to information and data availability in the public domain can:

1. Support strategies and prioritise actions to prevent food loss and waste
2. Identify the most efficient ways to prevent safe and nutritious food to be lost or wasted
3. Identify the context-based alternative – for when the resource becomes waste,

And thus help improve the design and targeting of food loss and waste campaigns and events.

For example, the Ontario Food Collaborative (OFC) in Canada is a cross-municipal collaboration to establish a multi-stakeholder strategy for reducing food waste in the Region, which resulted in the approval of a strategic plan of action in 2016. The Ontario Food Collaborative brings together stakeholders to take a holistic food systems approach in supporting individuals and families to reduce food waste. The OFC actors include Government (all levels), Non-Government Organisations (NGOs), Food Producers (Farmers), Food Processors/Manufacturers, Distributors and Retailers, and Restaurants/Food Services. Studies done by the Value Chain Management Centre, Food Waste in Canada (November 2010) and the 'York Region Integrated Waste Management Master Plan 2013' show that 40% of food produced and sold in Canada is wasted (valued at CAD 31 billion), with 51% of food waste in Canada occurring at home. Data are also available on the main sources of food waste in different parts along the supply chain. Household food waste results in economic losses of about CAD 1,500 per year for each Canadian household (equalling one quarter of the average household food

¹ <http://www.fao.org/save-food/regional/asiapacific/en/>

budget). In York Region, approximately 20% of the food wastage at home could be avoided by improved practices (based on York Region audit data). As part of their Waste Management Master Plan, the York Region has targeted a 15% reduction in avoidable food waste by 2031. The Environmental Services Department has developed a communications strategy and public education campaign to help residents take action to reduce food waste. The campaign was based on market research conducted by York Region amongst leading grocery stores to understand consumers' motivations regarding food purchasing, preparation, and waste; and to gather feedback and opinions on food waste and education².

Glossary/concepts/definitions used

Food Loss and Waste (FLW): All edible and inedible parts that are discarded or wasted.

FAO (2014) defines **food loss** as 'the decrease in quantity or quality of food'. It refers to agricultural, livestock, fisheries or forestry products intended for human consumption that are ultimately not eaten by people or that have incurred a reduction in quality reflected in their nutritional value, economic value or food safety.

An important part of food loss is '**food waste**', which refers to the discarding or alternative (non-food) use of food that was fit for human consumption – by choice or after the food has been left to spoil or expire as a result of negligence (FAO, 2014).

Recovery of safe and nutritious food for human consumption is to receive, with or without payment, food (processed, semi-processed or raw) which would otherwise be discarded or wasted from the agricultural, livestock, forestry and fisheries supply chains of the food system.

Redistribution of safe and nutritious food for human consumption is to store or process and then distribute the received food pursuant to appropriate safety, quality and regulatory frameworks directly or through intermediaries, and with or without payment, to those having access to it for food intake. (FAO, 2015)

Preparations

The team responsible for monitoring this indicator should agree on the type of data disaggregation and categories that will be used and the data collection method.

Sampling

Given that food loss and waste events and campaigns are still a new area, it is unlikely that sampling will be needed.

Data Collection and Analysis

During a monitoring/review meeting the following table can be discussed and filled. Specific observations made during the meeting can be added in the final column. Also recommendations for improvement can be added here.

Scoring sheet

² Gianfelici et al, 2016. York, Canada: The Ontario Food Collaborative-A city region initiative for preventing and reducing food waste. In: Dubbeling M., C. Bucatariu, G. Santini, C. Vogt and K. Eisenbeiß, 2016. *City Region Food Systems and Food Waste Management Linking Urban and Rural Areas for Sustainable and Resilient Development*. Deutsche Gesellschaft für Internationale Zusammenarbeit / GIZ, RUAF Foundation, Food and Agriculture Organization of the United Nations / FAO. Available from <http://www.ruaf.org/publications/city-region-food-systems-and-food-waste-management-2016> and <http://www.fao.org/3/a-i6233e.pdf>.

Characteristics	Scoring			Total score	Disaggregation of information	Observations / Recommendations
Presence of annual events and campaigns aimed at decreasing food loss and waste	Yes= 1 point	No= 0 points			Number and type of events and campaigns	
Intended Audiences: -Consumer households -Schools/hospitals/public institutions -Private sector in the food chain (producers, processing, retail, catering) -Other private sector (offices) -Other	Yes, consumer households= 1 point	No consumer households= 0 points			Number and types of groups targeted for events and campaigns	
	Yes, schools/Hospitals/public institutions= 1 point	No schools/hospitals= 0 points				
	Yes, private sector food chain= 1 point	Yes, private sector food chain= 1 point				
	Yes, other private sector= 1 point	No, other private sector= 0 point				
	Other (sub)categories= 1 point	No other (sub)categories= 0 points				
Impact in terms of food waste reduction	Yes= 1 point	No= 0 points			Data on actual impact in Kg or % food loss and waste reduction	
Design of events and campaigns is based on actual information on food loss and waste and stakeholder surveys	Yes, Completely= 2 points	Partial ly, 1 point	No=o points		-Type of information and data used and how this was used -Type of questionnaires and the no. of replies received from participants (e.g. are participants able to identify the main causes and solutions to food loss and waste? Are they able to willing/able to implement actions to reduce loss and waste?	
Total score:						

Note: For the purposes of these guidelines certain qualifiers and scoring points are defined in the scoring sheet above as to determine an overall score or value of the indicator. Nevertheless, for certain cities some of the qualifiers or scoring levels will be more crucial than others to determine the score of the indicator. Cities could, based on the local context and priorities, identify other or additional key qualifiers or scoring levels to define the overall score of the indicator. For example, one city may decide that targeting a specific audience/target group is critical as earlier data have shown that large percentages of food loss and waste are generated at specific stages of the food chain. Addressing

campaigns to such target groups may be reflected in giving these additional scoring points. Cities may also define other specific subcategories of target groups/audiences to be scored separately.

References and links to reports/tools

Dubbeling M., C. Bucatariu, G. Santini, C. Vogt and K. Eisenbeiß (2016). City Region Food Systems and Food Waste Management Linking Urban and Rural Areas for Sustainable and Resilient Development. Deutsche Gesellschaft für Internationale Zusammenarbeit / GIZ, RUAF Foundation, Food and Agriculture Organization of the United Nations / FAO. Available from <http://www.ruaf.org/publications/city-region-food-systems-and-food-waste-management-2016> and <http://www.fao.org/3/a-i6233e.pdf>.

Guidance on FLW Quantification Methods: Supplement to the Food Loss and Waste (FLW) Accounting and Reporting Standard, Version 1.0.
http://flwprotocol.org/wp-content/uploads/2017/06/FLW-Protocol_Guidance-on-FLW-Quantification-Methods.pdf

Hanson, C., Lipinski, B., Robertson, K., Dias, D., Gavilan, I., Gréverath, P. & Timmermans, T. (2016). Food loss and waste accounting and reporting standard. World Resources Institute: Washington DC, USA, 160. Available from https://www.wri.org/sites/default/files/REP_FLW_Standard.pdf