

Post-Harvest Food Loss & Waste monitoring protocol



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New Methodology for Assessing and
Quantifying Post-Harvest Loss and Food
Waste Within a Value Chain

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Post-Harvest Loss and Food Waste

Reducing the huge volumes of Post-Harvest (PH) Food Losses and Waste (FLW) is one of the key strategies for SDG 12.3 (Zero Hunger).


Quantifying FLW is essential for identifying hotspots in FLW and assessing effectiveness of FLW reducing interventions and system changes. Measuring is one of the means to identify the hotspots to select the most appropriate FLW reducing interventions. However, measuring is time, data and resource intensive, which prevents broad implementation of FLW monitoring. Moreover, FLW measuring is often disturbed by lacking data and systemic faults. This hinders good comparison of chain configurations. For instance, an intervention may shift losses from one stage to another stage along the supply chain. Adequate monitoring of both stages is essential for evaluating effectiveness of the intervention.

Considering that the overall goal is FLW reduction, Wageningen Food & Biobased Research (WFBR) has developed a new approach allowing to move faster to the implementation of interventions than many traditional approaches which often require substantial means and time to collect FLW data via direct measurements at all stages of the supply chain, without differentiating whether all the stages are critical control point for losses/waste or not. The WFBR approach includes a pragmatic protocol for PH FLW monitoring and associated GHG emissions. Key asset of this protocol is the reduction of direct measurements and data collection to the most essential (for instance the stages with high FLW or uncertainty on FLW, or stages which have been identified as being of high risk in the supply chain) and use of secondary information or expert-estimates for missing data. It is intended to boost FLW monitoring (lowering drawbacks mentioned above) and to help pointing out causes and potential interventions for FLW.

PH-FLW protocol


WFBR has formulated a supporting protocol, that includes questionnaires and data registration tables for each stage. A questionnaire that supports identification of causes and potential interventions or system changes (phase 5 and 6) is more product-specific; this is in development.

Highlights of the FLW monitoring protocol (6 phase approach)

CONSORTIUM
INNOVATION IN POST-HARVEST LOSS & FOOD WASTE REDUCTION
Partnering to prevent, reduce and waste, and realize an efficient food system

The Foundation for Food and Agriculture Research (FFAR), The Rockefeller Foundation, Iowa State University, University of Maryland, Wageningen University and Research, Volcani Center, Zamorano University, Stellenbosch University, University of São Paulo, University of Nairobi, and Kwame Nkrumah University of Science and Technology have partnered to establish the Consortium for Innovation in Post-Harvest Loss and Food Waste Reduction. Through this consortium, food loss and waste thought leaders and experts from across the globe will work in tandem with industry and non-profit organizations to address social, economic and environmental impacts from food loss and waste. This Consortium will help farmers across the globe use technology to continue using resources effectively and efficiently.



Development of a methodology for assessing sustainability effects (like GHG emissions) of interventions is supported by the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)

