

FAO contribution to the Nature Based Solutions workstream for the Climate Action Summit

Food Loss and Waste Reduction for Climate Action

1. **Context and Rationale:** Food loss and waste (FLW) is a systemic problem with significant negative environmental impacts. It is estimated that FLW accounts for about 8 percent of global anthropogenic GHG emissions, while also representing needless use of land and water resources and driving biodiversity loss.

Good practices along the food supply chain, supported by appropriate climate-smart technologies and an adequate infrastructural support base, can significantly reduce FLW and provide an important pathway to mitigate and adapt to climate change, contributing directly to the attainment of the SDG 12.3.1 target to *“halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains”*. These actions also present an opportunity to promote food security, boost resilience, generate employment and reduce poverty, thereby contributing to SDGs 1, 2, 5, 8 and 13, amongst others. However, inadequate policies, lack of awareness and low levels of private sector investments along food supply chains currently hamper implementation of these practices.

It is against this background that the proposed contribution titled “Food Loss and Waste Reduction for a Better Climate,” is formulated.

2. **An overview of the contribution:** FAO, through its Technical Cooperation Programme, has laid a good foundation in countries across the globe to apply systemic approaches to address the reduction of FLW. This included supporting the public sector to develop strategies; promoting good handling practices and better coordination along the value chain; adding value through processing and packaging; improvements in business models; introduction of locally adaptable innovative, sustainable and climate-smart technologies; promoting private sector investments in areas that serve collective requirements such as packhouses and cool and dry storage facilities; and maximizing by-product utilization through circular economy approaches (composting, feed utilization, etc.) aimed at reducing GHG emissions from landfills.

This contribution will involve upscaling these experiences in beneficiary countries. In order to facilitate uptake and application of improvements along the supply chains, the contribution will support the public sector efforts to put in place policies and provide public goods that create an enabling environment to foster sustainable investments by private sector actors, including smallholders and small and medium agro-enterprises along the concerned value chains. It will also promote adequate and well-tailored financial services and risk mitigation mechanisms in order to foster these investments. In addition, it will support documentation of evidence as well as the development of advocacy and awareness raising materials on the impact of FLW on incomes, food quality nutrition and GHG emissions.

FAO will work in collaboration with the Rome Based Agencies (WFP and IFAD), the Rabobank Foundation, Governments, and regional bodies such as the African Union Commission, ASEAN, SAARC and CELAC, as well as private sector entities in participating countries.

3. **How the contribution leverages living natural systems as a solution to avert climate change?** Natural systems make efficient use of resources, which the reduction of FLW is based on.

4. How the contribution might support both climate, mitigation and adaptation as well as other important co-benefits and social, economic and environmental outcomes in coming years including Reduction in carbon emission and carbon capture (GTonnes)

When accounting for the aggregated GHG emissions embedded throughout its life cycle, uneaten food is estimated to emit 3.6 GT of CO₂ eq per year with an additional 0.8 GT of CO₂ eq resulting from associated land use, land-use change and forestry activities. Reducing FLW will contribute to significantly reducing these emissions.

Increasing climate resilience

Implementing actions to reduce FLW will contribute to climate adaptation, mitigation, and resilience of vulnerable populations groups around the world.

Social impact

Resilience of livelihoods and incomes will be enhanced and food security improved. FLW reduction activities in the post-production chain are attractive to and can provide opportunities for involving **youth** in agriculture. **Women** are highly involved in post-harvest activities and constitute a major beneficiary group for any FLW reduction actions.

Impact on realization of the 2030 Agenda for Sustainable Development

Apart from SDG 12.3, reducing FLW will directly impact SDG1 by providing a step out of poverty for family farmers; in the context of SDG2, it will positively impact the food security and nutrition of the families of subsistence farmers. It will contribute to the sustainable use of water and land resources, (SDGs 6, 14 and 15) and reducing the greenhouse gas emissions resulting from FLW will contribute to combating climate change (SDG 13). Multi-stakeholder actions are critical for reducing FLW (SDG 17)

Just transition

Natural resource consumption and degradation reduced. This should also be seen in the context of the natural resources and energy consumed by FLW, which would represent the third largest emitter of GHG in the world and affecting and impacting all countries and all segments of society.

Net economic impact (total in US\$; how was it achieved?)

The net-economic impact depends on the boundaries set for this calculation – global economic losses due to FLW have been calculated to represent close to \$1 trillion per year, indicative also of the potential net economic impact to be attained through actions focusing on reducing FLW.

Food security

Scaling up of actions and innovations to reduce FLW will alleviate food insecurity for poorer segments of society. FLW reduction has an impact on all four dimensions of food security (access, availability, utilization and stability)

Minimizing species extinction and ecological losses, and fostering an increasing of biodiversity

More productive, sustainable agricultural practices to reduce FLW as well as reduce pressure to expand agricultural land, will also help conserve biodiversity.

5. Which countries and organisations are involved in the contribution? Countries are still to be determined. FAO is currently working on FLW with numerous countries across all regions, including in the industrialised world. The contribution will work through an international collaboration with the Rome Based Agencies, the Rabobank Foundation, Governments, regional bodies, the World Bank – Member countries of regional blocks: African Union, ASEAN, SAARC, CELAC, NGOs, CBOs, **youth** organizations, the private sector and other stakeholders.

6. How have indigenous people, local communities, youth and other stakeholders been consulted in developing the contribution?

Reducing FLW, increasing efficiency of the use of natural resources and food, is an inherent goal of many indigenous communities and stakeholders. Focusing on FLW reduction contributes to economic, environmental and social goals. The concept and its benefits are easily transmitted to and understood by different stakeholders and can therefore serve as a basis to mobilize them to support enhanced and upscaled action internationally. Specific KAP (knowledge, attitude and practice surveys) have been carried out to anchor the approaches, incorporate traditional knowledge, and reflect the priorities of stakeholders, including youth.

7. Where the contribution can be put into action?

The proposed contribution is relevant globally in all countries, both developed and developing.

8. How the contribution will be delivered? How will different stakeholders be engaged in implementation? What are the potential transformational impacts?

The Contribution will be supported through a secretariat with a small team of international experts in areas of FLW reduction, food systems, and climate change. The secretariat will work with a team in each country, comprised of local professionals selected from experienced institutions in the different fields (public, private and civil society). The secretariat will also be responsible for establishing a communications; information and training service on FLW reduction practices, and case studies, which can make use of ICTs as a means to rapidly and widely disseminate information and promote best practices.

9. Is this initiative contributing to other UN SG work stream areas (industry; climate finance and carbon pricing; infrastructure, cities and local government; nature-based solutions; resilience and adaptation; youth and mobilization; social and political drivers; mitigation strategy)?

Reducing FLW is important to and affects all sectors of society and the economy. It makes sense economically, environmentally and socially. Considering this, reducing emissions from the food systems through action on FLW will align with all other workstream areas. Including with, resilience and adaptation, climate finance energy transition, youth and mobilization.

10. Examples of experiences to date: how does this contribution build upon this experience? How does the contribution link with different ongoing initiatives?

This builds on the successful experiences of Global Save Food Initiative as well as with on-going FAO and partner projects implemented in developing regions of the globe. It is aligned with the strategic approaches of regional bodies AU, ASEAN, SAARC, and CELAC, to address FLW and climate change toward attaining the SDGs.

11. Mechanisms for funding (with specific emphasis on potential for partnerships)-

During international upscaling, FAO will promote the consolidated contribution of partners to develop an international coalition of organizations committed to build this program over 10 years to cover countries in all regions, based on the experience of the initial groups of countries. The consortium will grow as success is achieved and as awareness of the very clear economic rationale grows, thereby ensuring support and resources to allow interaction between new countries joining the program and those with experience to share.

12. Means of stewardship, metrics for monitoring.

Cost/benefit analysis; Measurement of food losses to align with the national food loss index in countries; food and nutrition security metrics (adaptation); GHG emissions reductions directly and indirectly, including displaced or avoided production requirements in the long term (mitigation).

13. Communication strategy

14. The FAO-hosted Community of Practice on Food Losses (CoP) as well as the One Planet Sustainable Food systems platform will serve as the platform for information sharing and learning on FLW reduction and its impact on GHG emissions.

15. Contact details of proponents

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