

**Submission from the World Resources Institute, the Food and Land Use Coalition, UN Environment Programme, WWF, CGIAR, Food Systems for the Future, and Champions 12.3 to UNFCCC on the way forward for the four-year Sharm el-Sheikh joint work on implementation of climate action on agriculture and food security as per decision -/CP.27, paragraph 14.**

27<sup>th</sup> March 2023



**Key Messages:**

- Each year, 33 to 40% of all food grown is uneaten<sup>1</sup> with more than 1.3 billion tonnes being lost or wasted<sup>2</sup>, which results in direct economic losses estimated \$1.25 trillion, is responsible for an estimated 10-8 percent of greenhouse gas emissions, consumes a quarter of all water used by agriculture, and wastes an area of land the size of China<sup>3</sup>
- We are not going to achieve the Paris Agreement targets without tackling food waste, given the current and ongoing crises affecting the food system, it has never been a more important time to scale solutions and policies on this critical issue.
- Reducing food loss and waste is fundamental in achieving food and nutrition security and improving resilience, and can holistically deliver the objectives of this joint work. We must transition to a circular food economy that values food resources and returns nutrients and energy back to people, feed and soil

**Request for views on topics for workshops**

- A workshop on food loss and waste that will share the latest information and knowledge, support national implementation and the scaling of context-specific solutions. The signatories of this submission are prepared and willing to support with such a workshop.

<sup>1</sup> [Driven to Waste Global Food Loss on Farms | WWF \(panda.org\)](https://www.panda.org/resources/publications/driven-to-waste-global-food-loss-on-farms/)

<sup>2</sup> Untapped Opportunities for Climate Action: An Assessment of Food Systems in Nationally Determined Contributions (2022). Global Alliance for the Future of Food.

<sup>3</sup> [Critical-Transitions-6-Reducing-Food-Loss-and-Waste.pdf \(foodandlandusecoalition.org\)](https://www.foodandlandusecoalition.org/wp-content/uploads/2022/06/Critical-Transitions-6-Reducing-Food-Loss-and-Waste.pdf)

## Views on the elements of decision -/CP.27: Proposing workshops on food loss and waste

Regarding the request for views on topics for workshops (paragraph 15(b)) on agreed topics related to agriculture and food security we recommend a workshop on the topic of food loss and waste and to explore the potential of food loss and waste for adaptation, adaptation co-benefits and mitigation. Paragraph 2(t) notes “that many approaches with high potential for adaptation, adaptation co-benefits and mitigation relate to land and food systems, such as.....reducing food loss and waste from sustainable food systems, and have significant positive direct and indirect links with biodiversity and ecosystem services, food security and the Sustainable Development Goals”. The decision -/CP.27 already refers to reducing food loss and waste as an approach to tackle climate goals, the Sustainable Development Goals and food security; a workshop on this topic will greatly support the implementation of the decision’s objectives.

In 2011 it was estimated that a third of all food was lost or wasted<sup>4</sup> but in 2021 these estimates were updated to 40%<sup>5</sup>. The climate impacts of this is significant, with food loss and waste contributing 8 to 10% of greenhouse gas emissions<sup>6,7</sup>; if food loss and waste were a country it would be the world’s third-largest emitter, surpassed only by China and the United States<sup>8</sup>. These emissions can come from on-farm agriculture or fisheries emissions for producing food that is ultimately lost and wasted as well as the production of electricity and heat used to manufacture, process and transport the food that is ultimately lost or wasted. The disposal of food in landfill also results in methane emissions as well as contributing to additional carbon dioxide release. Food loss and waste is a significant part of the impact of food systems on climate change. Therefore addressing the challenge would have a notable impact on climate action.

Food loss and waste occurs across the entire agri-food value chain and has implications for the entire food system. Reducing food loss and waste and investing in a circular economy could deliver nutrition-sensitive food security as well as reduce household expenditure on food and pressure on the environment from farming and fishing<sup>9</sup>, whilst also generating greater economic gains for farmers and supply chain businesses. For example, reducing food loss and waste by 25% by 2050 would close the food gap by 12%, the land gap by 27%<sup>10</sup> as well as reduce the amount of wasted water associated with food that is ultimately lost or wasted.

Reducing food loss and waste can also make more food available in the marketplace if storage, distribution, and access issues are also addressed. Furthermore, there is a critical healthy and nutrition aspect of food loss and waste as perishable food such as fruit and vegetables are particularly prone to loss and waste. It is estimated that if loss and waste of horticulture crops could be reduced by even 10% globally, hunger rates could potentially fall by 11%, while child malnutrition rates could drop by 4%<sup>11</sup>. Improved processing methods can additionally preserve and concentrate nutrients and increase availability and also improve

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<sup>4</sup> [Global food losses and food waste \(fao.org\)](https://www.fao.org/global-food-losses-and-food-waste/)

<sup>5</sup> [Driven to Waste Global Food Loss on Farms | WWF \(panda.org\)](https://www.panda.org/resources/press-releases/driven-to-waste-global-food-loss-on-farms/)

<sup>6</sup> Ibid

<sup>7</sup> [UNEP Food Waste Index Report 2021 | UNEP - UN Environment Programme](https://www.unep.org/food-waste-index-report-2021)

<sup>8</sup> [Countries' Climate Plans \(NDCs\) Are Missing a Big Opportunity: Reducing Food Loss and Waste | World Resources Institute \(wri.org\)](https://www.wri.org/publication/countries-climate-plans-ndcs-are-missing-a-big-opportunity-reducing-food-loss-and-waste)

<sup>9</sup> [FOLU-GrowingBetter-GlobalReport.pdf \(foodandlandusecoalition.org\)](https://www.foodandlandusecoalition.org/FOLU-GrowingBetter-GlobalReport.pdf)

<sup>10</sup> [wrr-food-full-report.pdf \(wri.org\)](https://www.wri.org/publication/wrr-food-full-report)

<sup>11</sup> Untapped Opportunities for Climate Action: An Assessment of Food Systems in Nationally Determined Contributions (2022). Global Alliance for the Future of Food.

nutritional quality<sup>12</sup>. For example, reducing post-harvest loss at the processing stage at the Usipa fishery in Malawi enhanced nutritional contributions to distant consumers by concentrating their micro-nutrients for transport<sup>13</sup>. Para. 14(a) of the decision mentioned the need for “Promoting a holistic approach to addressing issues related to agriculture and food security” – tackling food loss and waste will achieve both of these goals.

A workshop on food loss and waste would make use of the latest evidence and expertise on how to tackle both loss and waste, and support an exchange of knowledge and best practices from a range of countries and geographies. Important topics could include integration of food loss and waste reduction into Nationally Determined Contributions and National Adaptation plans; measurement of food loss and waste by national governments to set a baseline; development of national strategies to reduce food loss and waste hotspots, and measure progress every 2 years; development of public-private partnerships dedicated to halving the rate of Food loss and waste by 2030; support of business innovation and financing vehicles to reduce food loss and waste, including building a circular food economy<sup>14</sup>; financing for low income countries to make the transition to a circular economies and government leadership to support regional and city-level transitions; and addressing policy incentives contributing to food loss and waste.

The workshop should focus on food loss and waste solutions and innovations in different geographies and sectors and how to enable their national implementation. This would also directly support para. 14(g) on *‘sharing information and knowledge on developing and implementing national policies, plans and strategies related to climate change, while recognizing country-specific needs and contexts’*. Furthermore, a workshop on food loss and waste would also bring together different actors in line with the joint works request for greater coordination and cooperation (para. 8 and 19).

Given the longstanding experience and leadership that the World Resources Institute, the Food and Land Use Coalition, UN Environment Programme, WWF, CGIAR, Food Systems for the Future, and Champions 12.3 have on food loss and waste, we offer to support the organization and facilitation of the workshop.

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<sup>12</sup> [The vital roles of blue foods in the global food system - ScienceDirect](#)

<sup>13</sup> [Dry Fish and Its Contribution Towards Food and Nutritional Security: Food Reviews International: Vol 38, No 4 \(tandfonline.com\)](#)

<sup>14</sup> [Circular Economy and Food | Ellen MacArthur Foundation](#)