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**United Nations  
Environment Assembly of the  
United Nations Environment  
Programme**

United Nations Environment Assembly of the  
United Nations Environment Programme  
Fourth session  
Nairobi, 11–15 March 2019

**Resolution adopted by the United Nations Environment  
Assembly on 15 March 2019**

**4/2. Promoting sustainable practices and innovative solutions for curbing food  
loss and waste**

*The United Nations Environment Assembly,*

*Appreciating* the focus of its fourth session on innovative solutions for environmental challenges and sustainable consumption and production,

*Deeply concerned* that approximately one third of the food produced annually in the world for human consumption, equivalent to some 1.3 billion tonnes and representing an approximate value of 990 billion United States dollars, is lost or wasted, while 821 million people suffer from undernourishment,<sup>1</sup>

*Recognizing* the international community's priorities of sustainably achieving food security and nutrition and ending hunger,

*Recognizing also* that producing food that is subsequently lost or wasted requires significant resources, including water, land, energy, labour and capital, frequently employs inputs such as fertilizers and pesticides, and results in greenhouse gas emissions,

*Recalling* its resolution 2/9 on prevention, reduction and reuse of food waste, which promoted a reduction in food loss and waste across the whole supply chain,

*Recalling also* that on 25 September 2015 world leaders adopted General Assembly resolution 70/1, the outcome document of the United Nations summit for the adoption of the post-2015 development agenda, entitled "Transforming our world: the 2030 Agenda for Sustainable Development",

*Recognizing* that in developing countries food losses occur mainly, but not exclusively, at early stages of the food value chain,

*Recognizing also* that food losses during harvest and in storage translate into lost income for many small farmers and into higher prices for many poor consumers,

<sup>1</sup> Food and Agriculture Organization of the United Nations, International Fund for Agriculture and Development, United Nations Children's Fund, World Food Programme and World Health Organization, *The State of Food Security and Nutrition in the World 2018: Building Climate Resilience for Food Security and Nutrition* (Rome, 2018).

*Noting* the scarcity of specific research and/or data related to food loss and waste, including the impact of poor or limited infrastructure and diverse climatic conditions, including high ambient temperatures and high relative humidity,

*Recognizing* the Sustainable Food Systems Programme of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, an inclusive initiative to accelerate the shift towards more sustainable food systems,

*Recalling* the 2030 Agenda for Sustainable Development and the efforts of Member States to halve per capita food waste at the retail and consumer levels globally by 2030 and to reduce food losses along the production and supply chains, including post-harvest losses, by the same date,

*Recognizing* the negative impact of food loss and waste on a number of goals of the 2030 Agenda for Sustainable Development,

*Recognizing also* that there are challenges associated with the selection of sustainable cooling technologies, including by small and medium-sized farmers and producers,

*Noting* the roles and opportunities of relevant government institutions, including ministries of the environment, and of international organizations, technology providers and end-users, in contributing to the introduction of innovation and concepts fostering sustainable practices and technologies that can curb food loss and waste,

*Acknowledging* the progress made by certain Member States in implementing innovative solutions and technologies and engaging local constituents to reduce food loss and waste,

*Recalling* that the ministerial declaration<sup>2</sup> of the 2018 high-level political forum on sustainable development called upon all stakeholders to adopt a sustainable food systems approach and to develop effective strategies and innovations to reduce food losses and waste,

1. *Invites* Member States, taking into account different national circumstances, within the scope of available resources, and working with relevant stakeholders, to provide the necessary enabling environment to:

(a) Support measures to address issues related to food loss and waste at all stages of the supply chain from producer to end user, including handling, storage, packaging and transport; and work towards sustainable consumption and production, including through collaboration with relevant stakeholders;

(b) Develop and share best practice regarding integrated, energy-efficient and safe cold chain solutions that bring value to farmers and producers, and introduce innovative post-harvest technologies that are consistent with international commitments regarding sustainable cooling technologies and logistics and transport of food products that can extend the shelf life of sensitive products;

(c) Develop and share best practice regarding food preservation innovations to enhance the cooling and preservation of food products during the manufacturing, packaging, transportation and handling processes in such a way as to minimize the effect of diverse environmental conditions, such as high ambient temperatures, on the life of food products, taking into account energy-efficiency and safety considerations;

(d) Encourage and share best practice regarding, as feasible, sustainable cooling technologies suitable for deployment in a wide variety of environmental conditions, including in high-ambient-temperature countries, and in all elements of the supply chain, including farmers, producers, and small and medium-sized enterprises;

(e) Promote applied research on the impact of climate conditions on production, storage and transport, which leads to food loss and waste in a wide variety of environmental conditions, including in high-ambient-temperature countries; on innovative solutions to avoid losses and minimize the impact identified in the production chain; and on industry engagement to introduce appropriate energy-efficient refrigeration and other cold-chain solutions for farmers, producers and small and medium-sized enterprises, including in post-harvest and processing facilities and transport;

(f) Establish national strategies for reducing food loss and waste in line with Sustainable Development Goal 12, target 12.3;

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<sup>2</sup> E/HLS/2018/1.

2. *Urges* Member States to establish mechanisms for measuring food loss and waste, including data management, monitoring and verification;
3. *Invites* Member States to use or repurpose excess food production, using sustainable practices and innovative technologies;
4. *Also invites* Member States to take appropriate measures to reduce food loss and waste, including through adequate policy measures, education and awareness-raising;
5. *Recommends* that Member States promote a broad-based dialogue between the public and private spheres, across the whole value chain and including all stakeholders, to collaborate on reasonable means of further reducing food loss and waste, bearing in mind that such loss and waste should not be moved from one part of the food chain to another, and the importance of including consumers in the process;
6. *Encourages* Member States, in collaboration with relevant stakeholders, to prioritize actions that prevent and reduce food loss and waste along the food supply chain that have the greatest environmental benefits, in line with the guidance issued by the United Nations Environment Programme and the Food and Agriculture Organization of the United Nations on prevention of loss and waste, food recovery, and redistribution of safe and nutritious food to people;<sup>3</sup>
7. *Requests* the Executive Director of the United Nations Environment Programme, within the scope of the Programme's programme of work and budget and the Sustainable Food Systems Programme of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, and in cooperation with the Food and Agriculture Organization of the United Nations and other relevant partners, to:
  - (a) Provide technical support to assist Member States in implementing the present resolution;
  - (b) Foster regional and global cooperation and facilitate the exchange of experience and knowledge, research and best practice between Member States and other food-system stakeholders;
  - (c) Continue to participate in ongoing international initiatives to support the transfer of innovative solutions and practices that can curb food loss and waste;
8. *Also requests* the Executive Director to report to the United Nations Environment Assembly at its fifth session on progress made in implementing relevant provisions of the present resolution;
9. *Further requests* the Executive Director, within the mandate, programme of work and budget and available resources of the United Nations Environment Programme, to promote food loss and waste reduction and support countries, especially developing countries, upon their request, in exploring opportunities to collaborate with United Nations organizations and international financial institutions in line with their existing mandates and budgets.

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<sup>3</sup> United Nations Environment Programme and Food and Agriculture Organization of the United Nations, *Prevention and Reduction of Food and Drink Waste in Businesses and Households* (2014). Available at <https://www.unenvironment.org/thinkeatsave/resources/toolkits-guidance/prevention-and-reduction-food-and-drink-waste-businesses-and-households>.