



FOOD LOSS AND WASTE REDUCTION SAVE FOOD INITIATIVE ON FOOD LOSS AND WASTE REDUCTION SAVE FOOD INITIATIVE ON FOOD LOSS AND WASTE REDUCTION

FOOD LOSS AND WASTE AND THE LINKAGE TO GLOBAL ECOSYSTEMS

The Food and Agriculture Organization of the United Nations (FAO) estimates that about one-third of food produced for human consumption is lost or wasted globally, amounting to approximately 1.3 billion tons per year (FAO, 2011). Reducing food loss and waste presents a key opportunity to improve environmental sustainability and is necessary for achieving inclusive and sustainable food systems (HLPE, 2014). This is emphasized in the 2030 Agenda for Sustainable Development, which sets a global target for food loss and waste reduction.¹ Ensuring that food is handled and consumed more sustainably now and in the future requires ambitious and collective global efforts, and transformational change is needed at both the international and individual level.

THE ENVIRONMENTAL IMPACTS OF FOOD LOSS AND WASTE

Food production relies on an ecological resource base that is coming under increased pressure and has to support multiple demands. Land area is needed for food production, animal feed, timber, and other purposes, often at the expense of natural forest lands. Likewise, aquatic ecosystems and fish stocks have to support a growing fisheries industry, which includes fish feed for aquaculture. Ecosystem degradation represents a lost opportunity to achieve the maximum sustainable output of food production and secure food and nutritional requirements for the world's poorest and most vulnerable people. The land use sector has to be more productive by making more efficient use of the resources available. At the same

time, current estimates indicate that approximately 28 percent of the world's agricultural land area is occupied to produce food that is never consumed by humans (FAO, 2013). Food loss and waste, through the inefficient and unsustainable handling of food, has impacts on deforestation, ecosystem degradation and natural resource depletion. In addition, each year, approximately 35 percent of global fish and seafood products are either lost or wasted, with a considerable proportion due to discard at catch level (FAO, 2011). This number is unacceptably high considering that fish stocks and their supporting ecosystems are overexploited and degraded worldwide due to poor governance, management and fishing practices.

The impacts of food loss and waste are not only connected to the agricultural or aquatic ecosystems where food is produced. Food commodities are transported and traded across continents and additional inputs are needed for each activity in the supply chain. Food systems consume about 30 percent of global available energy and out of this portion, 38 percent is utilized to produce food that is either lost or wasted (FAO, 2015a). Water resources are also required throughout the food system, the majority being used at the production stage for irrigation. Food loss and waste result in enormous wastage of water resources and represents a significant issue, particularly in the context of increasing water scarcity and the compounding impacts from climate change.

Finally, the natural resources and inputs needed in the process and the actions related to waste disposal all generate greenhouse gas (GHG) emissions that contribute to climate change. These aggregated impacts make food loss and waste a major contributor to climate change, accounting for about 8 percent of total global GHG emissions (FAO, 2015b), while undermining both human and ecological capacities to cope with climate change.

¹ SDG 12. Ensure Sustainable Consumption and Production Patterns - Target 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".

COLLECTIVE EFFORTS TO REDUCE FOOD LOSS AND WASTE

Preventing food loss and waste presents a transformative opportunity to address major drivers of global environmental degradation and loss of biodiversity, while simultaneously helping to achieve food security and nutrition.

Addressing the food loss and waste challenge is both a logical and compelling opportunity to integrate actions in the food system

with sustainable development objectives and climate targets. While the response to food loss and waste will vary according to regions, the issue is global and requires urgent action from all countries. It is unacceptable that natural resources are being depleted and vital ecosystems are degraded to produce food that is ultimately never

consumed, while nearly 795 million people are living in chronic hunger. This waste of resources is also aggravating climate change, which in turn will have severe impacts on productivity in the coming decades. We need to change our mindset on the way we value and consume resources, and make it a priority to prevent food loss and waste.

KEY CONSIDERATIONS AND RECOMMENDATIONS

Reducing food loss and waste presents a cost-effective opportunity to improve resource efficiency in the food system and help mitigate the risks of natural resource depletion.

In addition, reducing food loss and waste would ensure more sustainable use of resources thereby putting less pressure on ecosystems, including soils and water.

Addressing fish losses and waste, including discards, is necessary to reduce the impacts of fisheries on aquatic ecosystems. Together with a transformation in fisheries governance and management, such measures would contribute to a more sustainable exploitation by maximizing the utilization of resources and potentially reducing drivers of overfishing.

Food losses in low-income countries are often connected to the lack of access to energy, particularly in the post-harvest phase. In order to make the transition towards sustainable food value chains that reduce both food losses and fossil fuel dependence in food systems, it is necessary to upscale clean or low-carbon technologies. Increased deployment of technologies that use renewable energy would improve the sustainability of food systems while reducing losses in developing countries.

Efforts that reduce food loss and waste are essential to enhance global climate action because of their collective contributions to three overall objectives: mitigating climate change by reducing GHG emissions associated with food loss and waste, strengthening resilience to cope with climate change and increasing net production output. Food loss and waste reduction measures, in the context of resilient and low-emission food systems, should therefore be integrated into climate change strategies and action plans as additional opportunities towards achieving mitigation and adaptation objectives.

Reducing the amount of food that is lost or wasted calls for harmonized policies and integrated food system approaches that consider all risks, challenges, opportunities and potential trade-offs. Creating an enabling environment requires a re-examination of existing policies and regulatory frameworks, including incentive schemes. Identifying policy gaps and ensuring policy coherence across sectors is key to inclusive planning processes for addressing the drivers and underlying causes of food loss and waste.

Bringing together governments, food producers and investors can help identify challenges and opportunities for addressing inefficiencies in food systems and accelerate the deployment of sustainable technologies in food value chains. Combining such efforts with sustainable practices and consumption patterns can pave the way towards safeguarding environmental resources and ultimately meeting the goals and targets set out in the 2030 Agenda for Sustainable Development. Emphasis must be targeted at improving access to finance, while encouraging appropriate policy incentives and building management capacities.



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