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Food and Agriculture
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Продовольственная и
сельскохозяйственная организация
Объединенных Наций

Organización de las
Naciones Unidas para la
Alimentación y la Agricultura

منظمة
الأغذية والزراعة
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FAO REGIONAL CONFERENCE FOR EUROPE

Thirty-fourth Session

Chişinău, the Republic of Moldova, 14–17 May 2024

How to fight against food loss and waste

Executive summary

Food loss and waste (FLW) is a persistent challenge in the countries of Europe and Central Asia, with interrelated negative impacts on income and livelihoods, food security and nutrition, climate change and scarce natural resources. FLW is attributed to a variety of factors in the region, including lack of accurate data; unfavourable overall investment, climate, trade and taxation policies; lack of awareness of the complexity of FLW; lack of collaboration and coordination among actors in the value chain; fragmentation of agrifood production; lack of investment in technological improvements; lack of appropriate mechanisms for responding adequately to the impacts of climate change; and consumer-related issues, such as promotions that encourage consumers to buy excessive amounts of food and a lack of understanding of date labels.

Reducing FLW is crucial for transforming agrifood systems in the region for increased efficiency, sustainability, resilience and inclusiveness, significantly contributing to food security and nutrition, economic development, the mitigation of the climate footprint of food production and consumption, and the achievement of the Sustainable Development Goals (SDGs).

An intervention framework is proposed for FLW reduction in the region, with the following interdependent dimensions: measurement and monitoring; training and education to bring about behaviour change among consumers and actors in the value chain; facilitating food value chain cooperation; private and public investment; technology and innovation; framing an adequate policy environment and putting into place incentives that eliminate barriers to the uptake and application of good practices; capacity building; and sharing experiences and best practices among countries.

A holistic systems approach should be adopted to fill knowledge and capacity gaps; strengthen policy, regulatory and institutional frameworks; and incentivize and stimulate action by food supply chain actors “from farm to fork”.

Decisions on the specific mix of interventions should be based on a clear understanding of the objectives to be achieved – for example, food security and/or reduction of environmental damage. In addition, decisions should be informed by evidence on the magnitude and causes of FLW and the critical points at which FLW occurs across the food supply chain.

Documents can be consulted at www.fao.org

FLW reduction is expected to play a critical role in the transformation of agrifood systems in the region to make them more efficient, inclusive, resilient and sustainable.

Suggested action by the Regional Conference

The Regional Conference is requested to:

- a. acknowledge the importance of FLW reduction for the transformation of agrifood systems to achieve the SDGs in the region;
- b. recommend that Members integrate FLW reduction into their national and regional programmes, policies and strategies dealing with agrifood systems, including those related to climate change, *inter alia*; and
- c. recommend that Members invest in creating an enabling environment to support private sector action and facilitate collaboration with all other actors to support FLW reduction at national and subnational levels.

The Regional Conference is invited to recommend that FAO take the following actions:

- a. provide demand-driven policy and technical support to countries in their FLW reduction efforts, drawing on FAO's technical competence and comparative advantage and contributing to its work in support of the four betters;
- b. support integrated solutions for FLW reduction, including policies and regulatory frameworks and other innovative solutions to bridge FLW action with multiple agendas, including improving nutrition and reducing the agrifood sector's impact on climate; and
- c. support resource mobilization and partnership-building strategies to foster the development of regional, national and subnational FLW reduction initiatives.

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I. Introduction

1. This document addresses the pressing issue of food loss and waste (FLW) in the Europe and Central Asia (ECA) region, which encompasses both European Union and non-European Union countries in the area.¹
2. Food loss and waste is defined as the decrease in food quantity or quality along the supply chain. Food loss is the decrease in the quantity or quality of food along the food supply chain up to – but not including – the point where there is interaction with the final consumer (thus excluding retail, food service providers and consumers). Food waste is the decrease in the quantity or quality of food resulting from decisions and actions by retailers, food service providers and consumers.²
3. We differentiate food loss and food waste primarily because they are caused by different drivers; the differentiation also helps in the facilitation of monitoring.
4. The 2011 FAO report *Global food losses and food waste*³ estimated that up to one-third of all food produced globally for human consumption is lost or wasted annually. This finding significantly heightened awareness and raised concerns that FLW could pose a threat to food security, in addition to exacerbating the environmental impact of our global food systems. Since then, FAO, partner institutions and Members have garnered a wealth of experience, lessons, analyses and information on FLW. An increasing number of studies and technical dialogues have investigated the causes and impacts of FLW, solutions to address the problems and the benefits of reducing FLW – thereby informing FLW reduction decisions and policy and strategy efforts.
5. The reasons for FLW range from direct causes that generate it at specific stages of the food supply chain, secondary causes across various steps of the chain, and systemic causes across the entire food system.⁴ Important causes of on-farm losses include inadequate harvesting time, climatic conditions, practices applied at harvest and handling, and challenges in marketing produce. Inadequate storage, handling, packaging and transportation conditions can cause significant losses through the supply chain, as can decisions made at earlier stages of the supply chain that lead to shorter shelf lives for products.⁵
6. Food waste at the retail level is linked to limited shelf life, the need for products to meet certain aesthetic standards (e.g. colour, shape and size) and demand variabilities. Consumer food waste is often caused by such behavioural aspects as poor planning of purchases and meals, excess buying influenced by over-large portioning and package sizes, confusion over “best before” and “use by” dates, and poor food storage at home.⁶
7. Significant FLW exacerbates climate change effects, contributing to such issues as water and land resource depletion. Inefficiencies in food supply chains and at household level lead to economic, social and environmental consequences in the region. The prevention and reduction of FLW are

¹ Many subregions and their corresponding countries are included in the Europe and Central Asia region. Commonwealth of Independent States: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan; Western Balkans and Türkiye: Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia and Türkiye; European Union: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands (Kingdom of the), Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden; European Free Trade Association countries: Iceland, Liechtenstein, Norway and Switzerland; and the United Kingdom of Great Britain and Northern Ireland.

² FAO. 2019. *The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction*. FAO, Rome. <https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1242090/>

³ FAO, 2011. *Global food Losses and food waste. Extent, causes and prevention*. <https://www.fao.org/3/mb060e/mb060e.pdf>

⁴ FAO. 2022. *Voluntary code of conduct for food loss and waste reduction*. FAO. <https://doi.org/10.4060/cb9433en>

⁵ FAO. 2019. *The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction*. FAO, Rome. <https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1242090/>

⁶ FAO. 2019. *The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction*. FAO, Rome. <https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1242090/>

connected in all regions, including the European Union, to the overall objectives of food security and nutrition, increased efficiencies for the extraction of natural resources, and adaptation to and mitigation of climate change impacts.

8. FLW reduction is connected to many of the sustainable development challenges that ECA countries are facing, and it can help accelerate progress towards achieving the Sustainable Development Goals (SDGs) in the region. Reducing FLW is integral to achieving SDG Target 12.3, which aims to halve per capita global food waste at the retail and consumer levels and reduce food losses along the production and supply chains by 2030. Losses and waste are interconnected, but for the sake of operational clarity and measurement, SDG Target 12.3 is monitored through two subindicators: Indicator 12.3.1(a), known as the Food Loss Index, for which FAO is the custodian, and Indicator 12.3.1(b), referred to as the Food Waste Index, for which the United Nations Environment Programme (UNEP) is the custodian. In addition to SDG 12, improvements to agrifood systems that reduce FLW can contribute to many SDGs – namely, SDG 2, SDG 6, SDG 8, SDG 11, SDG 13 and SDG 14. On the other hand, progress on many other SDGs can expedite FLW reduction (SDG 5, SDG 7, SDG 9 and SDG 17).

9. Since 2020, the United Nations General Assembly has designated 29 September as the International Day of Awareness of Food Loss and Waste. The United Nations Food Systems Summit in 2021 further raised the profile of FLW reduction as an effective means for agrifood systems transformation and progress on multiple SDGs, and many ECA countries have internalized FLW in their national pathways.⁷

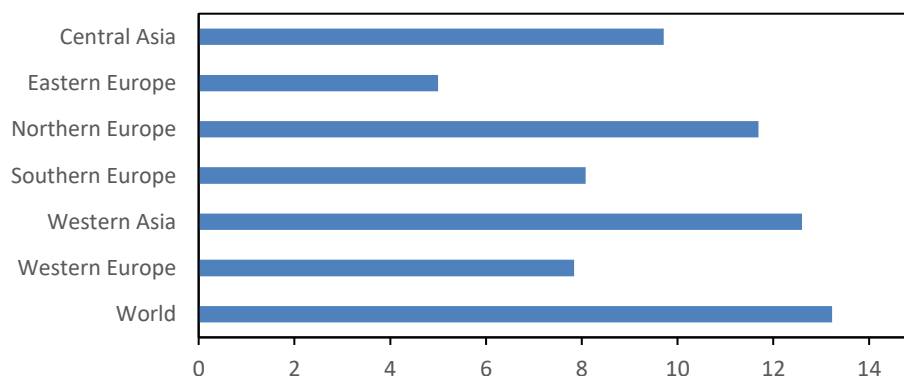
10. To effectively address the issue of FLW, it is essential to implement a combination of policy interventions, infrastructure development, education and community engagement. These measures are necessary to design solutions that will address barriers to the desired practices and behaviours related to FLW reduction.

11. At the same time, consumers are increasingly recognizing their role in reducing food waste and are demanding more sustainable practices from both producers and retailers. There is a heightened focus on conscious consumption, with consumers seeking out products with minimal packaging, supporting businesses with sustainable practices and actively participating in initiatives that promote responsible food management.

II. Status of food loss and waste in agrifood systems in Europe and Central Asia

12. Data on the current state of food loss are presented in Figure 1.

Figure 1. Percentage of food lost in the Europe and Central Asia region and the world, 2021



⁷ FAO. 2023. Pathways Analysis. In: *Food System Summit 2021*.

<https://datalab.review.fao.org/datalab/dashboard/food-systems-summit/>

Source: FAO. 2024. SDG Indicators Data Portal. In: Food and Agriculture Organization of the United Nations. <https://www.fao.org/sustainable-development-goals-data-portal/data/indicators/1231-global-food-losses/en>

13. Starting in 2013, the FAO Regional Office for Europe and Central Asia, under FAO’s “SAVE FOOD: Global Initiative on Food Loss and Waste Reduction”, has conducted several studies, including field surveys and literature reviews, to identify critical loss points and their causes in selected food supply chains. These points are where food losses are most significant and have the greatest impact on food system sustainability. This work encompasses various commodities in the countries of the ECA region. The results indicate that harvesting is the most frequently identified critical loss point, while inadequate storage facilities and poor handling practices have been identified as critical from farms to distribution. These findings are valuable for providing guidance when identifying potential interventions for reducing FLW.

14. With regard to food waste, the UNEP estimates that a total of around 1.05 billion tonnes of food waste was generated globally in 2022, with 60 percent of that total coming from households, 28 percent from food services and 12 percent from retail.⁸ This suggests that 19 percent of total global food production that reaches the consumption stage is subsequently disposed by retailers, food service and households. Indicative of the level of food waste in ECA countries, the UNEP report quotes the figures shown in Table 1.

Table 1. Household food waste estimates, annual kg per capita

Country	Annual household food waste estimate
Georgia	101
Greece	87
Hungary	66
Poland	60
Russian Federation	33
Slovenia	36

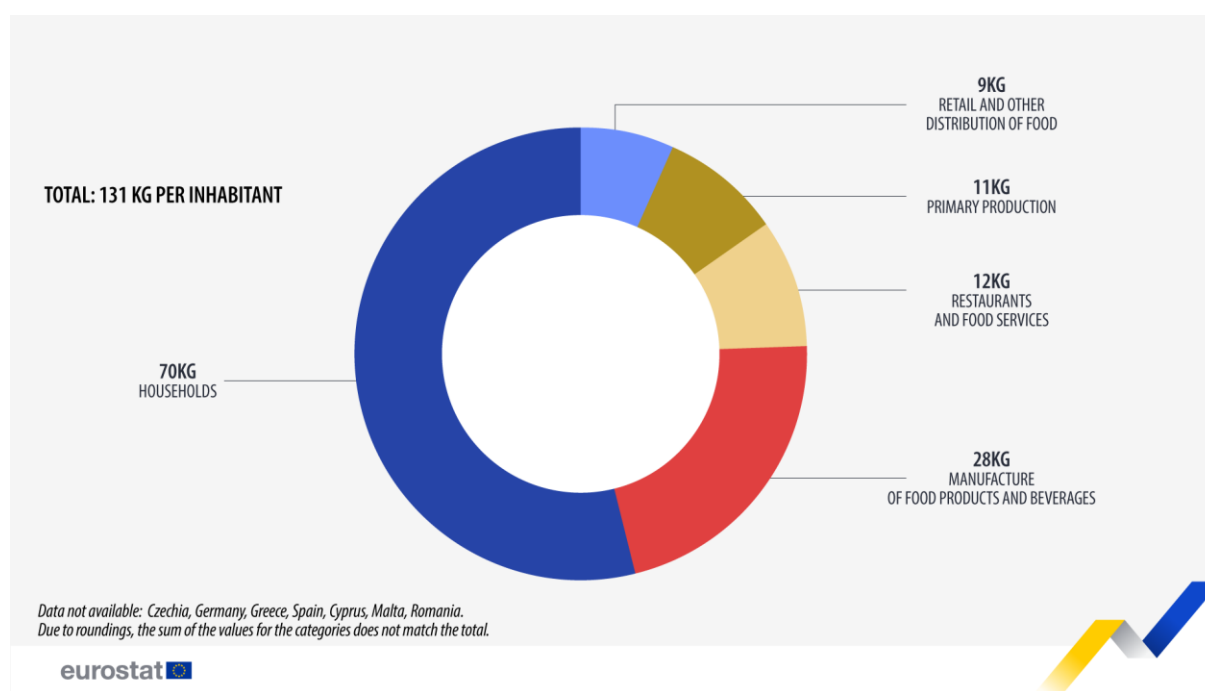
Source: United Nations Environment Programme (2024). *Food Waste Index Report 2024*. Nairobi. <https://wedocs.unep.org/handle/20.500.11822/45230>

15. A large amount of food is wasted in the European Union. The total food waste measured in 2021 was nearly 59 million tonnes of fresh mass (131 kg per capita). Household food waste represented 54 percent of the total, followed by the processing and manufacturing sector (21 percent), the primary production sector (11 percent), restaurants and food services (9 percent), and retail and other food distribution sectors (9 percent).⁹

⁸ United Nations Environment Programme (2024). *Food Waste Index Report 2024*. Nairobi. <https://wedocs.unep.org/handle/20.500.11822/45230>

⁹ Eurostat. 2023. Food waste and food waste prevention - estimates. In: *Statistics Explained*. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Food_waste_and_food_waste_prevention_-_estimates

Figure 2. Food waste in the European Union by main economic sectors, kg per inhabitant, 2021



Source: Eurostat. 2023. Food waste and food waste prevention - estimates. In: Statistics Explained.

https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Food_waste_and_food_waste_prevention_-_estimates

Identified drivers of food loss and waste in the region

16. In the region, several factors or drivers contribute to FLW, including inadequate infrastructure, insufficient storage facilities, transportation inefficiencies and inappropriate agricultural practices. Post-harvest losses, often a result of improper handling and storage, significantly impact the agricultural sector, which is a vital component of the economies in these areas. Additionally, a lack of awareness and education on proper food management exacerbates the problem, leading to substantial waste at the consumer level.

17. Some of the key problems that drive FLW in the non-European Union countries of the ECA region are:

- a. **Lack of accurate data** on FLW indicating in which value chains and where in the value chains the problem is most imminent, what is the impact and what are the causes. This hampers the search for targeted solutions and the implementation of FLW prevention and reduction strategies at national level.
- b. **Unfavourable overall investment climate** aggravated by the discouraging high interest rates charged by commercial lenders to players in the value chain.
- c. **Trade and taxation policies.** There are difficulties in trade and export in complying with European Union and private requirements (food safety and quality), protectionist policies of other countries in the region, heavy competition with imported products, and prices and market volatilities. Trade and taxation policies vary considerably across the region. The Western Balkan countries, Georgia, Republic of Moldova and Türkiye are engaged with the European Union in accession, pre-accession or Eastern Partnership agreements that approximate regulations and standards, support infrastructure development and reduce trade barriers with the European Union.
- d. **Knowledge management.** There is a lack of awareness of the complexity of FLW; the implications it may have for value chain actors, consumers, service providers and the environment, and possible solutions to reduce FLW.

- e. **Value chain coordination and supply logistics.** There is a lack of collaboration and coordination among actors in the value chain, inefficiencies in production planning (overproduction and difficulty in accessing sustainable markets), poorly qualified management and labour, and poor maintenance of roads and electrical grids.
- f. **Fragmentation of agrifood production** caused by the break-up of vertically integrated public production systems during the 1990s and the slow pace of consolidation into commercial farms.
- g. **Lack of investment in technological improvements.** Insufficient machines and equipment for modern harvesting, post-harvest and storage.
- h. **Lack of appropriate mechanisms for responding adequately to the impacts of climate change,** including through adaptation, resilience and disaster-risk reduction measures across the food system.
- i. **Consumer preference** has been identified as a major reason for food waste in high-income countries in the region. Oversupply and low prices (e.g. restaurant buffets and promotional offers such as “buy one, get one free”) encourage consumers to buy excessive amounts of food.

Impact of food loss and waste

18. The region is highly vulnerable to the impacts of climate change, and FLW represents significant losses of resources and contributes to environmental degradation, further exacerbating the problem. Reducing FLW can help build resilience and promote adaptation to these challenges.

19. Recent estimates affirm that hunger prevalence remains relatively low in the ECA region. Food insecurity at moderate or severe levels is notably lower than global estimates. However, food insecurity levels remain significantly higher than those recorded before the COVID-19 pandemic.

20. In 2020, in the European Union, the 58.5 million tonnes of FLW caused emissions of 252 million tonnes of carbon dioxide equivalents – 16 percent of the total greenhouse gas impacts of the European Union food system.¹⁰⁻¹¹ The amount of water consumed to produce food that is ultimately wasted is approximately 342 billion m³ water equivalent, corresponding to 12 percent of the total impact of European Union food production and consumption.¹² Food waste is responsible for 16 percent of soil impacts caused by land use activities and for 15 percent of the consequences on marine eutrophication.¹³

¹⁰ **European Commission.** 2023. *Commission staff working document impact assessment report accompanying the document Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste.* Brussels, Belgium, European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023SC042>

¹¹ **Eurostat.** 2023. Food waste and food waste prevention by NACE Rev. 2 activity - tonnes of fresh mass. In: *Data Browser.* https://ec.europa.eu/eurostat/databrowser/view/env_wasfw/default/table?lang=en

¹² **European Commission.** 2023. *Commission staff working document impact assessment report accompanying the document Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste.* Brussels, Belgium, European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023SC0421>

¹³ **European Commission.** 2023. *Commission staff working document impact assessment report accompanying the document Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste.* Brussels, Belgium, European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023SC0421>

21. In the European Union, the 58.5 million tonnes of food waste generated in 2020 have an estimated market value of EUR 132 billion,^{14,15} including resources lost by food business operators throughout the food supply chain and unnecessary household spending.¹⁶ The cost of collecting and treating food waste is estimated at an additional EUR 9.3 billion.¹⁷

III. Priority needs and core requirements to fight food loss and waste

22. FLW reduction should be regarded as an entry point for transforming agrifood systems to make them more efficient, inclusive, resilient and sustainable (socially, economically and environmentally). In fashioning interventions for FLW reduction, three dimensions need to be considered.¹⁸ First, it is important to have accurate information on how much food is lost and wasted, where in the food supply chain losses and waste are concentrated, and the reasons why they occur. Second, it is critical to be clear about the broad public objectives and underlying reasons for reducing FLW – for example, whether it is to promote food security and nutrition, foster economic efficiency or reduce damage to the environment. Third, it is important to understand how FLW – and the measures to reduce it – affect the objectives being pursued.¹⁹

The main levers of food loss and waste

23. Based on the factors and constraints driving FLW in the region (as briefly summarized in Section II), a wide range of interventions is required to address the problem.

24. **Measurement and monitoring.** All decisions to reduce FLW must be informed by reliable measurement and diagnoses and consistent monitoring over time. While these tasks are often challenging, they remain essential steps to prioritizing action and evaluating outcomes.

25. **Training and education.** Addressing FLW requires **changing the behaviours of consumers and actors in the value chain.** Consumers play a vital role in reducing food waste by making informed choices. In this regard, both the public and private sectors should raise awareness and empower citizens to change their resource-intensive consumption patterns.

26. While communication is important to building awareness and sensitizing people (creating motivation), the context is pivotal to driving behaviour change. That is, informed policies, sound food industry marketing strategies and access to sustainable choices, *inter alia*, must be in place to create a favourable environment (opportunity) and build capacity to enable the public to change the way they act, and then to sustain this changed behaviour, including through improvements in distribution, product and packaging design, date marking, technologies and more.

¹⁴ **European Commission.** 2023. *Commission staff working document impact assessment report accompanying the document Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste.* Brussels, Belgium, European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023SC0421>

¹⁵ **Eurostat.** 2023. Food waste and food waste prevention by NACE Rev. 2 activity - tonnes of fresh mass. In: *Data Browser.* https://ec.europa.eu/eurostat/databrowser/view/env_wasfw/default/table?lang=en

¹⁶ **European Commission.** 2023. *Commission staff working document impact assessment report accompanying the document Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste.* Brussels, Belgium, European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023SC0421>

¹⁷ **European Commission.** 2023. *Commission staff working document impact assessment report accompanying the document Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste.* Brussels, Belgium, European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023SC0421>

¹⁸ **FAO.** 2019. *The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction.* FAO, Rome. <https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1242090/>

¹⁹ **FAO.** 2019. *The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction.* FAO, Rome. <https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1242090/>

27. Promoting awareness at various levels is essential to motivating actors to take action and influence behaviour change. Training and education can develop the knowledge and skills actors require to be empowered to reduce FLW.
28. Strategies for effective communication and education campaigns highlight the role of the media, the private sector and civil society in fostering a culture of reducing food waste.
29. **Food value chain cooperation.** Cooperation is essential to address the inefficiencies and lack of coordination among food value chain players that lead to FLW. Examples include forecasting, combating unfair trading practices and sharing the costs and benefits of actions. It is crucial to constantly update flows of information, highlighting the centrality of cooperation along the food value chain in FLW reduction.
30. Building effective partnerships is important for comprehensive FLW reduction. Collaborative efforts among governments, non-governmental organizations, businesses and international organizations have been explored in the region, showcasing successful models and potential avenues for cooperation.
31. Collaboration among these actors is essential to streamlining operations, reducing losses and ensuring that food reaches consumers in a timely manner.
32. **Investment.** Private and public funds must be dedicated to empowering innovators and shepherding the capital needed to help scale solutions. Mechanisms must be found for financing FLW initiatives. Examples of potential investments include adopting smart technology and enhancing supply chain infrastructures.
33. Public–private partnerships, grants and investment opportunities can ensure sustainable funding for FLW reduction interventions.
34. **Technology and innovation.** Harnessing technological advancements and promoting innovation are essential for modernizing agrifood systems. The adoption of innovative technologies, such as improved packaging, smart logistics, blockchain and data analytics, along with innovative practices in farming, processing and distribution, contribute to the reduction of FLW.
35. **Framing a consistent policy environment.** The broad and complex range of policies influencing FLW reduction contributes to the difficulties of addressing the issue comprehensively and effectively. FLW reduction will result from actions by all players along the value chain to achieve common goals. Therefore, economic incentives and the legal environment must align through coherent national strategies and collaborative frameworks for action.
36. It is acknowledged that there is a need for an integrated approach to food policy in general to coordinate policymakers' actions towards ultimate objectives, whether related to economic efficiency, food security and nutrition or environmental sustainability.
37. **Capacity building.** Actors in the value chain, including farmers, processors, distributors and retailers need to adopt practices that minimize FLW. This can involve improving post-harvest handling techniques, implementing efficient storage and transportation systems, and enhancing packaging methods.
38. **Policy interventions.** Changing behaviours and promoting sustainable food systems also require policy support and incentives that eliminate barriers to uptake and facilitate the application of good practices. Governments play a crucial role by implementing regulations and providing financial support to encourage sustainable practices.
39. Governments and international organizations are increasingly recognizing the urgency of addressing FLW and implementing policies to incentivize sustainable practices.
40. **Experience sharing.** The 2023 regional consultation highlighted the interest of countries in sharing experiences and best practices, seeking outreach and technical assistance from FAO and other technical organizations, and developing educational programmes for children on the prevention and reduction of food loss and waste.

41. The final mix of required interventions is context-specific and must be adjusted accordingly.
42. The concept of a **circular economy** has gained traction as a key strategy in addressing FLW. A circular economy emphasizes minimizing waste by maximizing the use of resources through recycling, reusing and reducing. In the context of food systems, this involves creating closed-loop processes that aim to extract maximum value from food products throughout their life cycles. By shifting from linear to more circular agrifood systems, food waste is reduced through the recovery and redistribution of safe food, or transforming it into new food products, and through using food waste as raw material for other products, such as animal feed and compost. Innovative approaches – such as upcycling food by-products and transforming food waste into compost, energy or other valuable resources – contribute to a more circular and sustainable agrifood system.

IV. Food loss and waste reduction initiatives in Europe and Central Asia

43. The FLW team in the FAO Regional Office for Europe and Central Asia has analysed the policy and regulatory frameworks related to FLW management in eight non-European Union countries in the region. This analysis aims to identify the main gaps and provide necessary adjustments to create conducive environments for businesses to adopt circular economy principles and invest in solutions and technologies that contribute to FLW reduction. As a result of these in-depth analyses and with the support of the FAO Regional Office for Europe and Central Asia, two countries have introduced regulations mandating the reduction of FLW and encouraging businesses to donate surplus food to charitable organizations.
44. In the broader context of agrifood system sustainability, the FLW team at the FAO Regional Office for Europe and Central Asia has supported 12 non-European Union countries in the region in developing national strategies for FLW prevention and reduction. Three countries have begun implementing elements of these strategies.
45. The focus of FAO's work in the region is to strive towards developing **sustainable agrifood systems**. To achieve sustainable agrifood systems, it is crucial to address food loss and waste. This trend reflects a holistic approach that encompasses environmental, social and economic considerations throughout the entire food supply chain. This involves adopting practices that promote efficient resource use, minimize environmental impact and ensure food security for all.

Development of national strategies on food loss and waste prevention and reduction

46. FAO has supported the development of national strategies and action plans on FLW prevention and reduction in Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Kyrgyzstan, Republic of Moldova, North Macedonia, Tajikistan, Türkiye, Turkmenistan and Uzbekistan. To this end, FAO has assessed key national food value chains in these countries to identify critical loss points and their causes. The Organization has also analysed legislation and policy frameworks that impact actions related to food loss and waste management.

Policy advocacy

47. FAO supported in-depth analysis of Georgian legislation and policies to help the government draft a new law aimed at facilitating food donations. A set of recommendations was formulated, and the law on FLW was drafted in collaboration with the Agrarian Issues Committee of the Parliament of Georgia. FAO also carried out a regulatory impact assessment of the draft law on FLW and organized a field visit to Belgium and France to meet and discuss with policymakers and representatives of charities, food banks and private businesses involved in food donation operations.

Support of national food recovery and redistribution systems

48. **FAO has developed guidelines on establishing food recovery and redistribution systems in the region.** The document offers guiding principles and recommendations to policymakers regarding the implementation of enabling regulatory and legal frameworks that facilitate food recovery and redistribution activities – including food donations – in their countries. The guidelines compile examples of policy measures and legislative adjustments introduced in various countries, particularly

in the European Union. Based on these guidelines, FAO helps legislators create legal and policy environments conducive to food recovery and redistribution, and supports food sector operators implementing food recovery and redistribution systems and activities.²⁰

Capacity development

49. **FAO is developing a virtual learning course on FLW prevention and reduction along value chains.** FAO is collaborating with the International Food Waste Coalition on this online, tutored, certified food loss and waste training.

Application of value chain and consumer analysis

50. **EX-Ante Carbon-balance Tool:** The socioeconomic and environmental impacts of food loss reduction along various stages of the food supply chain, from production to retail, are assessed using the EX-Ante Carbon-balance Tool (EX-ACT). Surveys and studies have been conducted in Azerbaijan, Georgia, Republic of Moldova and Ukraine.

51. **Behavioural analysis of causes of FLW** has been conducted in the selected food value chains in Azerbaijan and Georgia, identifying the barriers to the desired behaviour change and developing recommendations.

Community of practice, collaboration with partners

52. **A regional community of practice on FLW reduction** was created to improve the sharing of information, resources, problems and solutions and to facilitate collaboration and partnerships in the region.²¹

Governments

53. The Parliament of the **Republic of Moldova** approved a law on food loss and food waste prevention at all stages of the food value chain. The FAO Regional Office for Europe and Central Asia supported the early stages of the law drafting process.

54. The Ministry of Agriculture and Forestry of **Türkiye** launched a national movement against food loss and waste that reached more than 21 million people via awareness-raising activities.

55. The Agrarian Issues Committee of the Parliament of **Georgia**, with the support of FAO, drafted a law on food loss and waste reduction and food donation that was approved in 2023.

Private-sector initiatives

56. **Turkish food retailer Migros Ticaret A.Ş.** prepared a guide to reducing food waste in retail. The document comprises an array of practical, industry-specific guidance on prevention, recovery and recycling solutions, including practices related to cooperating with suppliers, improving business operations and marketing strategies, and raising consumer awareness.

57. **Retailer Metro Türkiye** developed guidelines for reducing FLW in the hospitality and food service sector. The guidelines include recommendations for action on how to use unavoidable food surplus, such as donations to people in need, or the re-use of leftovers and/or non-edible food waste for other purposes (e.g. feed, recovery into energy through compost, etc.).

58. From 2016 to 2023, the **collaborative partnership between the European Union and FAO** in addressing FLW achieved noteworthy progress in sharing globally relevant information on the SDG Target 12.3 food loss indicator methodology, its progress, and challenges and opportunities for prevention, reduction and better management from other regions in the world through the European Union FLW platform.

²⁰ For more information, please see https://www.fao.org/uploads/media/Food_recovery_and_redistribution_guide.pdf.

²¹ For more information, please see <https://dgroups.org/fao/savefood>.

59. Within the framework of the Hungarian presidency of the Council of the European Union, in the second semester of 2024, a high-level ministerial meeting will be organized in Budapest to further advocate for action to reduce food waste in the region and share experiences among Members in the region.

V. Conclusions

60. A considerable amount of FLW occurs in the ECA region and represents a huge drag on the achievement of sustainable development. In addition to the loss of resources invested in the production of the food that is lost or wasted, FLW has significant negative impacts on environmental sustainability in the region through the unnecessary release of greenhouse gas emissions and the unsustainable exploitation of natural resources. This calls for urgent multisectoral action at both national and regional levels, involving all relevant stakeholders, including governments, farmers, businesses and consumers.

61. FLW reduction should be regarded as an entry point for transforming agrifood systems to make them more efficient, inclusive, resilient and sustainable. In designing interventions to address FLW, it is important to know, as accurately as possible, how much food is lost and wasted, where in the food supply chain losses and waste are concentrated, and the reasons why they occur. It is critical to be clear about the broad public objectives and underlying reasons for reducing FLW – for example, whether it is to promote food security and nutrition, foster economic efficiency or reduce damage to the environment.

62. Reducing food loss and waste will require awareness and adequate capacities for food supply chain actors to take the measures required, as well as strong policy support and an adequate institutional framework to create an enabling environment and incentivize action by food supply chain actors. A holistic, evidence-based and systematic approach should be adopted to address these issues.