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FAO REGIONAL CONFERENCE FOR EUROPE

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Building resilience through agrifood systems transformation

Executive Summary

The Europe and Central Asia (ECA) region struggles with challenges in revitalizing agrifood systems. This document delves into the strategies that support the transformation towards more resilient and sustainable agrifood systems in the ECA region. In particular, it explores the concept of resilience of agrifood systems and suggests policy pathways to ECA governments. The Food and Agriculture Organization of the United Nations (FAO) supports its Members in the development of food and agricultural policies that foster the resilience of agrifood systems in the region.

Resilience is defined as the ability of individuals, households, communities, cities, institutions, systems and societies to prevent, anticipate, absorb, adapt and transform positively, efficiently and effectively when faced with a wide range of risks and crises.¹

Resilience measures include prevention, anticipation and preparedness, response, and recovery and growth following adversity. This document delves into options for enhancing resilience, such as adjusting agricultural practices to be sensitive to risk and risk-proofing infrastructure, and promoting livelihood diversification.

Climate-smart advisory, early-warning systems and reliable data on the impact of disasters and climate change on agriculture can support decision-making on risk management, together with comprehensive risk financing and agricultural insurance programmes. Recovery is anchored in the understanding of resilience to encompass growth, adaptation and transformation (“build back better”).

Governments in the ECA region are encouraged to seek opportunities for regional cooperation to strengthen the resilience of agrifood systems and utilize a multistakeholder approach so that agrifood systems can become one of the primary solutions for inclusive, resilient and sustainable development for all.

¹ United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*. New York. United Nations. <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

Documents can be consulted at www.fao.org

Suggested action by the Regional Conference

The Regional Conference is invited to request Members to:

- a. draft national resilience policy frameworks contributing to the achievement of sustainable agrifood systems according to the guidelines of the 2030 Agenda for Sustainable Development, in line with FAO Strategic Framework 2022-31 and also considering the Sendai Framework; develop and implement policies for diversification in agrifood systems sector, including the use of diverse and resilient crops, livestock breeds and agronomy techniques; and improve awareness of local family farms to adopt them through extension and advisory services, appropriate incentives and considering synergies and trade-offs with other policies;
- b. conduct risk assessments that comprise the main hazards and identify the most vulnerable population groups; and address the root causes of risks with relevant resilience policies;
- c. strengthen access to information on climate-smart advisory and early-warning systems, including alerts and agroclimatic advisories tailored to small farms' needs, forecasting potential climatic risks and supporting decision-making on risk management;
- d. adopt unified national methodologies for disaster loss and damage assessments in agriculture, and enhance data collection, analysis, reporting and tools to produce harmonized information on the impact of disasters in agriculture to support evidence-based policy decisions;
- e. disseminate data and knowledge to smallholders by extension or advisory services and provide training and technical assistance on transboundary pests and diseases, food safety and plant protection;
- f. encourage local entrepreneurship as a means of diversification and resilience building, supporting the development of short, local value chains;
- g. support investments in infrastructure and technology for risk proofing to minimize the impact of disasters on agrifood systems, including upgrading local cold storage facilities, distribution centres and local transportation networks;
- h. develop and promote digital solutions for improved information and communication processes, particularly for the connectivity of smallholders, by improving their access to agrifood services, markets and knowledge;
- i. expand opportunities for rural women and other vulnerable groups to gain economic empowerment, both within and beyond agricultural settings, by promoting access to decent employment, fostering local female entrepreneurship, integrating women into inclusive value chains and addressing the disparities in earnings, and lightening the burden of women's unpaid labour;
- j. support the development of voluntary local farmers' cooperation and associations that provide opportunities for networking and enhance resilience, by implementing risk-share mechanisms, shock-responsive social protection systems, risk insurance and secure funding for local emergency assistance funds;
- k. adopt comprehensive risk financing and agricultural insurance programmes for small-scale farmers, involving innovative private and public partnerships and strengthening stakeholder collaboration, including at the local level;
- l. develop emergency response preparedness and crisis management plans specific to subsectors in agrifood systems, involving all relevant stakeholders, and use early-warning systems to mitigate the impact of disasters; and
- m. seek opportunities for regional cooperation to strengthen the resilience of agrifood systems, utilizing a multistakeholder approach.

The Regional Conference is invited to call upon FAO to:

- a. support Members, through the Regional Priority Programmes, in determining, developing, refining and implementing policies and tools to build resilient agrifood systems;
- b. work with regional and national coordinating mechanisms and bodies to analyse, at regional and country levels, the impacts of multifaceted challenges in combatting malnutrition and food insecurity, and revitalize agrifood systems, particularly in rural areas;
- c. support Members in building the needed capacities and knowledge in resilience, including through the necessary statistical and analytical tools, and sharing best practices from inside and outside the region; and
- d. support efforts in creating opportunities for regional cooperation to strengthen the resilience of agrifood systems, utilizing a multistakeholder approach.

Queries on the content of this document may be addressed to:

ERC Secretariat

ERC-ECA-Secretariat@fao.org

I. Introduction

1. The Europe and Central Asia (ECA) region grapples with multifaceted challenges in combating malnutrition, improving food security and revitalizing agrifood systems, particularly in rural areas. This background document for the Regional Conference for Europe delves into the strategies and actions that support the transformation towards more efficient, inclusive, resilient and sustainable agrifood systems in the ECA region. It explores the concept of agrifood system resilience, looks at options for enhancing resilience and suggests policy pathways to ECA governments.
2. The Food and Agriculture Organization of the United Nations (FAO) seeks to support its Members in the development of agricultural policies that enhance the resilience of local agrifood systems in the region, ensuring food security and nutrition for current and future generations.
3. Many rural individuals, the vast majority of whom live on small family farms, depend on income from agricultural and informal activities. Rural areas are directly affected and disrupted by natural and anthropogenic shocks and stressors. Smallholders often lack access to knowledge and farm advisory services and risk management mechanisms.² Groups at risk of being left behind include rural women and youth. Young women face incremental challenges with access to financial risk-reducing mechanisms, while, given these circumstances, younger men may view migration as a viable option to escape the cycle of poverty and vulnerability.³ However, once arrived at the new location, migrants are vulnerable, as they may lack social networks and language skills, be subject to marginalization and have difficulties integrating. Forced migration makes households even more vulnerable, as migrants usually must leave their home quickly, leaving their assets behind. Children are another vulnerable group; school feeding and local procurement for schools are highly important for the survival of many rural communities.
4. It is estimated that between 1990 and 2022, a total of 494 disasters occurred in the ECA region, affecting more than 31.9 million people.⁴ A general increase in the number of disasters – such as floods, extreme temperatures, earthquakes, landslides, storms and droughts – has been observed in the past two decades.⁵
5. Like other regions of the world, the ECA region is increasingly susceptible to climate change. Rising average temperatures increase hygiene and food safety risks associated with the mode of storage of food commodities, temperature and related conditions, and animal and plant pests and diseases.⁶ In the non-high-income countries of the ECA region, the lack of integration of climate change adaptation policies and measures (climate-tolerant crops, etc.) with agricultural policy is a common problem.⁷
6. Agriculture is highly exposed to and impacted by disaster events, which are growing in frequency and severity as an effect of climate change. Information on the impacts of disasters on agriculture and agrifood systems is scarcely available. Disaster loss and damage data are not being systematically collected at national and subnational levels, and the available data are partial and inconsistent.⁸ Estimates elaborated from FAO and the Emergency Events Database (EM-DAT) data show that cumulated agriculture losses in the 54 FAO member countries in Europe and Central Asia,

² FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

³ FAO. 2022. *Gender, agriculture and rural development in Europe and Central Asia – Brief overview of regional trends and challenges*. Budapest. FAO. <https://doi.org/10.4060/cc2763en>

⁴ Centre for Research on the Epidemiology of Disasters. 2023. EM-DAT. In: *The International Disaster Database*. [Cited 5 May 2023]. <https://www.emdat.be/>

⁵ Centre for Research on the Epidemiology of Disasters. 2023. EM-DAT. In: *The International Disaster Database*. [Cited 5 May 2023]. <https://www.emdat.be/>

⁶ FAO. 2022. *Thinking about the future of food safety – A foresight report*. Rome. FAO. <https://doi.org/10.4060/cb8667en>

⁷ FAO. 2022. *The future of food systems in Europe and Central Asia 2022–2025 and beyond*. Rome, FAO. <https://doi.org/10.4060/cc1546en>

⁸ FAO. 2023. *The Impact of Disasters on Agriculture and Food Security 2023 – Avoiding and reducing losses through investment in resilience*. Rome, FAO. <https://doi.org/10.4060/cc7900en>

between 1991 and 2021, amounted to USD 800 billion or 9 percent of agricultural gross domestic product (GDP). Estimates of agriculture cumulated losses for the 17 FAO programme support countries, in the same period, amounted to USD 199 billion – corresponding, on average, to 10 percent of the agri GDP, and as much as 24 percent of the agri GDP in CIS Europe and Ukraine.⁹ The ongoing war in Ukraine and the earthquake that occurred in 2023 in Türkiye will significantly increase these figures in terms of their economic impact on agriculture.

7. The most recent shocks to the global food systems (such as the COVID-19 pandemic and recent armed conflicts) have enhanced the process of governments’ and private-sector actors’ understanding of the importance of identifying the risks and vulnerabilities of agrifood systems and the gaps and priorities that need to be addressed in order to contribute to enhancing their resilience in the face of multiple – and often colliding – shocks and stresses.

8. Enhancing the resilience of agrifood systems is an essential prerequisite for achieving all of the Sustainable Development Goals (SDGs), and in particular SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 6 (Clean Water and Sanitation), SDG 13 (Climate Action) and SDG 15 (Life on Land). For example, SDG Target 2.4 states the following: “by 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production [...]”¹⁰

9. Over the past 20 years, FAO has initiated emergency response projects to various crises and disasters in ECA countries. FAO’s emergency projects addressed disasters from natural hazards, including earthquakes (in Albania and Türkiye) and floods (in Bosnia and Herzegovina, Serbia and Tajikistan) and human-induced crises, including the Syrian refugee crisis (in Türkiye) and armed conflicts.^{11,12,13} In addition, FAO has initiated cross-border campaigns to mitigate locust outbreaks (in Georgia, Kyrgyzstan and Tajikistan) and control the spread of transboundary animal diseases, such as avian influenza (H5N1), African swine fever and lumpy skin disease, in almost all countries of the region, and more specifically in Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia and Ukraine.^{14,15,16,17}

10. Most of the work on resilience centres on individual households rather than on systems; the Resilience Index Measurement and Analysis framework, for instance, is used by FAO to measure households’ resilience to food insecurity.¹⁸ Given the widespread nature of many contemporary

⁹ Rajagopalan, P., Laske, E., Zaidi, Z. & Boero, V. 2023. *A methodology for estimating disaster-induced crop and livestock losses at the global scale*. FAO Statistics Working Paper Series, No. 23-36. Rome. FAO. <https://doi.org/10.4060/cc8139en>

¹⁰ 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/Indicator2.4.1-proportion-of-agricultural-area-under-productive-and-sustainable-agriculture/en>

¹¹ FAO. 2023. *The Republic of Moldova: Rapid response plan, March–December 2023*. Rome. FAO. <https://doi.org/10.4060/cc6555en>

¹² FAO. 2023. *Building resilient agri-food systems – brief*

¹³ “Russian Regions and Business: Building back better from the coronavirus disease (COVID-19) while advancing the full implementation of the 2030 Agenda for Sustainable Development” <https://hlpf.un.org/2022/programme/russian-regions-and-business-building-back-better-from-the-coronavirus-disease-covid>

¹⁴ FAO. 2023. *The Republic of Moldova: Rapid response plan, March-December 2023*. Rome. FAO. <https://doi.org/10.4060/cc6555en>

¹⁵ “Russian Regions and Business: Building back better from the coronavirus disease (COVID-19) while advancing the full implementation of the 2030 Agenda for Sustainable Development” <https://hlpf.un.org/2022/programme/russian-regions-and-business-building-back-better-from-the-coronavirus-disease-covid>

¹⁶ FAO. 2023. *Ukraine: Response programme, January–December 2023. Restoring food systems and protecting food security in Ukraine*. Rome, FAO. <https://doi.org/10.4060/cc4655en>

¹⁷ FAO. 2023. *Türkiye: Earthquake response and recovery plan, 2023–2026*. Rome. FAO. <https://doi.org/10.4060/cc5910en>

¹⁸ FAO. 2024. Resilience Index Measurement and Analysis (RIMA). In: Agrifood Economics. <https://www.fao.org/agrifood-economics/areas-of-work/rima/en>

shocks, there is a need to increase the ability of entire agrifood systems to better prepare for, anticipate, absorb, adapt to and transform from disturbances.¹⁹

11. This document is structured in the following sections: Section II gives an overview of agrifood systems in Europe and Central Asia, focusing on smallholders and family farms; Section III explores the concept of resilience and identifies its components; Section IV discusses options for enhancing resilience in agrifood systems; and Section V suggests policy pathways and offers some conclusions.

II. Overview of agrifood systems in Europe and Central Asia

12. This background document focuses on the resilience of local agrifood systems. Agrifood systems comprise the entire range of actors and interlinked activities that add value in agricultural production and related off-farm activities, such as food storage, aggregation, post-harvest handling, transportation, processing, distribution, marketing, disposal and consumption.²⁰ Local agrifood systems are defined in this paper as those that predominantly comprise smallholder and family farms as the major food producers at the national level. These two categories are more vulnerable to shocks due to limited access to resources and are at a higher risk of poverty and food insecurity. Family farms are key contributors to ensuring food security throughout the region; for example, family farms produce 99 percent of the grains in Armenia; 95 percent in Kyrgyzstan and 92 percent in Georgia.²¹ Thus, building their resilience is crucial. One-third of the inhabitants of the ECA region reside in rural areas.²² The most common structural characteristic of the farming sector in the ECA region is the prevalence of small family farms.²³ In 2020, the average farm size in the European Union was 17 ha, while 62 percent of the farms were smaller than 5 ha.^{24,25} Small farms characterize the Western Balkans, the Caucasus and Central Asia (except Kazakhstan)²⁶ – for example, the average farm size is 1.5 ha in Armenia, 1.1 ha in the Republic of Moldova, 1.5 ha in North Macedonia, etc.²⁷

13. Agriculture, forestry and fisheries remain essential parts of many economies of the region. Rural poverty has been declining over the years, but this trend has recently slowed.²⁸ Countries in the ECA region are at different stages of structural (and agricultural) transformation, but they have some characteristics in common, such as land fragmentation, low investment in rural infrastructure and poor access to rural services. Land fragmentation is excessive in most countries of the ECA region in which

¹⁹ United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*. New York. United Nations. <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

²⁰ FAO. 2024. Glossary. <https://www.fao.org/3/cc5343en/online/status-women-agrifood-systems-2023/glossary.html> In: FAO. 2023. *The status of women in agrifood systems*. Rome

²¹ FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

²² FAO. 2022. *Territorial approaches and community development to drive local change and prevent all forms of malnutrition*. Forty-Second Session of the European Commission on Agriculture, Budapest. FAO. <https://www.fao.org/3/nh846en/nh846en.pdf>

²³ FAO. 2022. *Territorial approaches and community development to drive local change and prevent all forms of malnutrition*. Forty-Second Session of the European Commission on Agriculture, Budapest. FAO. <https://www.fao.org/3/nh846en/nh846en.pdf>

²⁴ Farm size may also be measured by total revenue, labour or livestock numbers.

²⁵ Eurostat. 2023. Farm indicators by legal status of the holding, utilised agricultural area, type and economic size of the farm and NUTS2 region. In: Data Browser. [Cited 29 January 2024]. https://ec.europa.eu/eurostat/databrowser/product/page/ef_m_farmleg

²⁶ FAO. 2020. *Solutions for Youth, Employment and Developing Rural Areas in relation to the United Nations Decade of Family Farming*. Thirty-second Session of the FAO Regional Conference for Europe, Tashkent. <https://www.fao.org/3/nc486en/nc486en.pdf>

²⁷ FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

²⁸ FAO. 2020. *Solutions for Youth, Employment and Developing Rural Areas in relation to the United Nations Decade of Family Farming*. Thirty-second Session of the FAO Regional Conference for Europe, Tashkent. FAO. <https://www.fao.org/3/nc486en/nc486en.pdf>

small family farms dominate, hampering farm productivity and competitiveness.²⁹ The regular agriculture labour force in the European Union declined by 31.7 percent in the period 2005–2016.³⁰ With the broad changes that are taking place in food and agricultural systems globally, rural populations across the ECA region, including farmers, will face major challenges in the coming decades.³¹

14. There has been increasing concentration in agrifood systems in the ECA region, with fewer large companies and retailers handling the processing and distribution of agricultural produce, and fewer large companies supplying agricultural inputs to farmers (such as seeds, chemicals and machinery). Small family farms face market power and information asymmetries *vis-à-vis* large agribusiness corporations and are in a weak bargaining position,³² which adds to their vulnerability to shocks.

15. Although digitalization is key to farmers' participation in value chains and for building the information base for resilient agrifood chains, in the European high-income countries, ageing rural populations find it difficult to incorporate digitalization. In the non-high-income countries of the region, the scope of digitalization is lagging behind in terms of internet accessibility, digital skills, affordability and return on investment for smallholders.³³

16. Although small family farms are at the core of rural communities, and governments are putting emphasis on developing short, local value chains, the agricultural policies and support measures (for example in the CIS countries) still do not target enough small-scale producers and businesses.^{34,35} Investment subsidies, if they exist, require high standards and/or are provided with complex compliance mechanisms, and the informal nature of many agricultural and food systems activities often prevents smallholders from applying for them. Some investment subsidies result in unintended consequences (such as overproduction and wasteful use of resources).

III. Exploring the concept of resilience

17. The *United Nations Common Guidance on Helping Build Resilient Societies*³⁶ defines the term “resilience” as “the ability of individuals, households, communities, cities, institutions, systems and societies to prevent, resist, absorb, adapt, respond and recover positively, efficiently and effectively when faced with a wide range of risks, while maintaining an acceptable level of functioning without compromising long-term prospects for sustainable development, peace and security, human rights and well-being for all.”

18. FAO defines “resilience” as “the ability to prevent disasters and crises as well as to anticipate, absorb, accommodate or recover from them in a timely, efficient and sustainable manner. This

²⁹ FAO. 2020. *Solutions for Youth, Employment and Developing Rural Areas in relation to the United Nations Decade of Family Farming*. Thirty-second Session of the FAO Regional Conference for Europe, Tashkent. FAO. <https://www.fao.org/3/nc486en/nc486en.pdf>

³⁰ FAO. 2020. *Solutions for Youth, Employment and Developing Rural Areas in relation to the United Nations Decade of Family Farming*. Thirty-second Session of the FAO Regional Conference for Europe, Tashkent. FAO. <https://www.fao.org/3/nc486en/nc486en.pdf>

³¹ FAO. 2020. *Solutions for Youth, Employment and Developing Rural Areas in relation to the United Nations Decade of Family Farming*. Thirty-second Session of the FAO Regional Conference for Europe, Tashkent. FAO. <https://www.fao.org/3/nc486en/nc486en.pdf>

³² FAO. 2022. *The future of food systems in Europe and Central Asia 2022–2025 and beyond*. Rome. FAO. <https://doi.org/10.4060/cc1546en>

³³ FAO. 2022. *The future of food systems in Europe and Central Asia 2022–2025 and beyond*. Rome. FAO. <https://doi.org/10.4060/cc1546en>

³⁴ FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

³⁵ IFAD. 2016. *Rural Development Report 2016: Fostering inclusive rural transformation*. Rome. IFAD. <https://www.ifad.org/en/web/knowledge/-/publication/rural-development-report-2016>

³⁶ United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*. New York. United Nations. . <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

includes protecting, restoring and improving livelihoods systems in the face of threats that impact agriculture, nutrition, food security and food safety.”³⁷

19. To understand resilience, one should be familiar with the concept of risk and its components: hazard,³⁸ exposure,³⁹ vulnerability⁴⁰ and capacity.⁴¹ The term “disaster risk,” according to the United Nations Office for Disaster Risk Reduction,⁴² is the potential for loss of life, injury or destroyed or damaged assets that could happen to a “system, society or community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity.” A community can improve resilience by enhancing the capacities to prevent, anticipate, absorb, adapt and transform in the face of context-relevant risks and risk drivers.⁴³

20. In the ECA region, as in many other areas, climate change is the underlying cause of many natural hazards. In Central Asia, climate stressors are expected to damage agricultural yields and cut overall food availability across the entire region by 2050.⁴⁴ Vulnerabilities centre in rural populations, who on average earn less than people in urban areas; disadvantaged groups such as women and youth, who have fewer decent employment opportunities;⁴⁵ and remote and marginalized territories.⁴⁶ The special capacities of the ECA region emerge from remarkable progress in reducing absolute poverty

³⁷ FAO. 2024. Why resilience? In: Global Forum on Food Security and Nutrition (FSN Forum).

https://www.fao.org/fsnforum/read_more_about_resilience

³⁸ “Hazard” is defined as “a process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption, or environmental degradation.” See: UNDRR. 2024. Sendai Framework Terminology on Disaster Risk Reduction. In: The disaster risk reduction (DRR) glossary. <https://www.undrr.org/terminology/hazard>

³⁹ “Exposure” is defined as “the situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas”. See: FAO. 2023. *The Impact of Disasters on Agriculture and Food Security 2023 – Avoiding and reducing losses through investment in resilience*. Rome, FAO. <https://doi.org/10.4060/cc7900en> and UNDRR. 2024. Sendai Framework Terminology on Disaster Risk Reduction. In: *The disaster risk reduction (DRR) glossary*. <https://www.undrr.org/terminology/exposure>

⁴⁰ “Vulnerability” is defined as encompassing “the conditions determined by physical, social, economic, and environmental factors or processes which increase the susceptibility of an individual, a community, assets, or systems to the impacts of hazards”. See: FAO. 2023. *The Impact of Disasters on Agriculture and Food Security 2023 – Avoiding and reducing losses through investment in resilience*. Rome, FAO and UNDRR. 2024. Sendai Framework Terminology on Disaster Risk Reduction. In: *The disaster risk reduction (DRR) glossary*. <https://www.undrr.org/terminology/vulnerability>

⁴¹ “Capacity” is defined as “the combination of all the strengths, attributes, and resources available within an organization, community or society to manage and reduce disaster risks and strengthen resilience”. See: FAO. 2023. *The Impact of Disasters on Agriculture and Food Security 2023 – Avoiding and reducing losses through investment in resilience*. Rome, FAO. <https://doi.org/10.4060/cc7900en> and UNDRR. 2024. Sendai Framework Terminology on Disaster Risk Reduction. In: *The disaster risk reduction (DRR) glossary*. <https://www.undrr.org/terminology/capacity>

⁴² UNDRR. 2024. Disaster risk. In: *Sendai Framework Terminology on Disaster Risk Reduction*. <http://www.undrr.org/terminology/disaster-risk>

⁴³ Disaster risk drivers, or stressors, are processes or conditions that influence the level of risk by contributing to exposure and vulnerability or reducing capacities. Frequent local stressors include poverty and inequality, limited access to affordable healthy diets or sufficient ranges of food for better nutrition, food prices, weak risk governance, marginalization and socioeconomic exclusion, and unplanned and rapid urbanization. See: United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*. New York. United Nations. <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

⁴⁴ FAO. 2020. *Solutions for Youth, Employment and Developing Rural Areas in relation to the United Nations Decade of Family Farming*. Thirty-second Session of the FAO Regional Conference for Europe, Tashkent. FAO. <https://www.fao.org/3/nc486en/nc486en.pdf>

⁴⁵ FAO. 2020. *Solutions for Youth, Employment and Developing Rural Areas in relation to the United Nations Decade of Family Farming*. Thirty-second Session of the FAO Regional Conference for Europe, Tashkent. FAO. <https://www.fao.org/3/nc486en/nc486en.pdf>

⁴⁶ FAO. 2022. *Territorial approaches and community development to drive local change and prevent all forms of malnutrition*. Forty-Second Session of the European Commission on Agriculture, Budapest. FAO. <https://www.fao.org/3/nh846en/nh846en.pdf>

and the relative low prevalence of undernourishment and hunger at chronic or severe levels.⁴⁷ However, these capacities are not fully inclusive and recently have been stagnating or declining in some parts of the region.⁴⁸

21. Smallholders are often the hardest hit by extreme climate events due to their inner vulnerabilities and limited resources, exposure and lower capacities.⁴⁹ Small average farm sizes, excessive land fragmentation and small sizes of agrifood businesses have led to low productivity and competitiveness.⁵⁰ Smallholders and small agrifood businesses have limited access to production factors, natural resources and finance. Outdated technology, low input quality and low labour skills are key constraints. Smallholders and small agrifood businesses face high transaction costs in production and marketing, which further contribute to high risks.⁵¹ Their limited access to credit and insurance limits their capacity to make necessary investments in vulnerability reduction measures, restore their farms and agrifood businesses or recuperate from adverse events.

22. Smallholders and family farms are mostly active in short value chains with local standards and operate in informal markets. The small scale of production limits the ability to utilize economies of scale, reduces diversification and hinders long-lasting cooperation among family farms and their clients, leading to high levels of vulnerability.^{52,53}

23. There also are distinct vulnerabilities and resilience levels to extreme events between rural men and women, with climate-related events intensifying existing gender inequalities.⁵⁴ In the ECA region, women typically manage smaller agricultural areas with limited inputs and face more significant financial challenges and limited access to rural advisory services and information. Consequently, the adverse effects of extreme events and climate change on their agricultural output are particularly hard to mitigate.

IV. Options for enhancing the resilience of agrifood systems in Europe and Central Asia

24. FAO aims to defeat hunger and achieve global food security and nutrition.⁵⁵ FAO acts to support countries in improving the resilience of agrifood systems to disasters and climate change⁵⁶ and

⁴⁷ FAO. 2022. *Territorial approaches and community development to drive local change and prevent all forms of malnutrition*. Forty-Second Session of the European Commission on Agriculture, Budapest. FAO. <https://www.fao.org/3/nh846en/nh846en.pdf>

⁴⁸ FAO. 2022. *Territorial approaches and community development to drive local change and prevent all forms of malnutrition*. Forty-Second Session of the European Commission on Agriculture, Budapest. FAO. <https://www.fao.org/3/nh846en/nh846en.pdf>

⁴⁹ FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

⁵⁰ FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

⁵¹ FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

⁵² FAO. 2022. *Territorial approaches and community development to drive local change and prevent all forms of malnutrition*. Forty-Second Session of the European Commission on Agriculture, Budapest. FAO. <https://www.fao.org/3/nh846en/nh846en.pdf>

⁵³ FAO. 2020. *Solutions for Youth, Employment and Developing Rural Areas in relation to the United Nations Decade of Family Farming*. Thirty-second Session of the FAO Regional Conference for Europe, Tashkent. FAO. <https://www.fao.org/3/nc486en/nc486en.pdf>

⁵⁴ FAO. 2022. *Gender, agriculture and rural development in Europe and Central Asia – Brief overview of regional trends and challenges*. Budapest. FAO. <https://doi.org/10.4060/cc2763en>

⁵⁵ FAO. 2021. *FAO's Strategic Framework 2022-31*. Rome. FAO. <https://www.fao.org/3/cb7099en/cb7099en.pdf>

⁵⁶ FAO. 2022. *FAO Strategy on Climate Change 2022-2031*. Rome. FAO. <https://www.fao.org/3/cc2274en/cc2274en.pdf>

pursues a vision in which agrifood systems contribute to the conservation, sustainable use, management and restoration of biodiversity.⁵⁷

25. Resilience building has multiple dividends and is beneficial even in the absence of a crisis. Investment in resilience has also high returns. Recent estimates found that every USD 1 invested in a resilience intervention averted an estimated USD 15 in disaster-related losses.⁵⁸

26. The *Sendai Framework for Disaster Risk Reduction 2015–2030* provides the global framework for preventing and reducing disaster risks. Not all countries in the ECA region have established a national platform for disaster risk reduction. Some disaster risk reduction platforms focus on responses to disasters rather than prevention, mitigation or preparedness, and agriculture is not always represented in disaster risk reduction platforms. National disaster risk reduction policies and legislation rarely address agriculture-specific requirements, and agricultural policies often focus on production rather than on building resilient agrifood systems.⁵⁹

27. Resilience measures can be divided into four general categories: prevent (reduce hazards and risks); anticipate and prepare; respond and absorb the adversity; and recover, adapt and transform afterwards.⁶⁰

28. One should strive to prevent, prepare for and anticipate hazardous events, appropriately respond to and recover from.⁶¹ This could be done by diversification, sustainable natural resource management and climate-smart agriculture; access to information and investment in human capital; strengthening livelihoods; investing in infrastructure and technology; social protection; and risk financing.

29. Diversification is an underlying factor for resilience, since it ensures that during disturbance, if one option or activity fails, others exist.^{62,63} A level of redundancy (duplication of components in agrifood systems, such as input suppliers and transportation infrastructure) is key to building resilience, so that in case of shocks, some elements of a system could fail without leading to total collapse.⁶⁴ This is a special challenge for local small-scale farmers and agribusinesses, as the small scale usually limits the capacity for building redundancies; therefore, the assistance of governments and authorities is needed.

30. Crop diversification is highly important for building resilience in agrifood systems. This, again, is a challenge for small farms – one that authorities should strive to mitigate. Other agricultural practices that reduce risk include conservation agriculture; integrated sustainable land and water management; crop species and varieties that are resilient to drought, salinity and flooding; protected

⁵⁷ FAO. 2020. *FAO Strategy on Mainstreaming Biodiversity across Agricultural Sectors*. Rome. FAO. <https://doi.org/10.4060/ca7722en>

⁵⁸ FAO. 2023. *The Impact of Disasters on Agriculture and Food Security 2023 – Avoiding and reducing losses through investment in resilience*. Rome. FAO. <https://doi.org/10.4060/cc7900en>

⁵⁹ FAO. 2022. *The future of food systems in Europe and Central Asia 2022–2025 and beyond*. Rome. FAO. <https://doi.org/10.4060/cc1546en>

⁶⁰ UNDRR. 2024. Disaster risk. In: *Sendai Framework Terminology on Disaster Risk Reduction*. <http://www.undrr.org/terminology/disaster-risk>

⁶¹ Maleksaeidi, Hamideh, and Ezatollah Karami. *Social-Ecological Resilience and Sustainable Agriculture Under Water Scarcity*. *Agroecology and Sustainable Food Systems*, 37 no. 3 (2013): 262–90. <https://doi.org/10.1080/10440046.2012.746767>

⁶² FAO. 2023. *Building resilient agri-food systems – brief*

⁶³ Maleksaeidi, Hamideh, and Ezatollah Karami. *Social-Ecological Resilience and Sustainable Agriculture Under Water Scarcity*. *Agroecology and Sustainable Food Systems*, 37 no. 3: 262–90. <https://doi.org/10.1080/10440046.2012.746767>

⁶⁴ UNDRR. 2024. Disaster risk. In: *Sendai Framework Terminology on Disaster Risk Reduction*. <http://www.undrr.org/terminology/disaster-risk>

cultivation; and the optimization of crop calendars.^{65,66} In the livestock sector, optimizing feed efficiency, adopting climate-resilient livestock breeds, implementing sustainable pasture management, and enhancing animal health and genetics contribute to both climate change mitigation and resilience to climate risks.⁶⁷ Many climate-smart agriculture practices are easily accessible, including grassland restoration and management, manure management and crop–livestock integration.⁶⁸ The main barriers for adoption are related to lack of information, limited access to information and insufficient capital. Overcoming these barriers requires policy interventions, and governments should help local family farms adopt these strategies through extension and advisory services and appropriate incentives, or through Farmer Field School programmes. A good example is the action plan for adaptation to climate change of Kyrgyzstan, which includes new varieties of crops, new breeds of livestock and agronomic techniques, such as zero tillage and drip irrigation.⁶⁹

31. Strengthening access to information can take the form of climate-smart advisory and early-warning systems, which are alerts and agroclimatic advisories tailored to the needs of small farms, forecasting potential climatic risks and supporting decision-making on risk management.⁷⁰ Climate-smart advisory can be supplemented by forecast-based financing⁷¹ to allow the implementation of anticipatory actions and the support of economic relief to smallholders and family farms in case of emergency.⁷² The dissemination of data and knowledge to smallholders by extension or advisory services and providing training and technical assistance are important components of risk-informed policies.^{73,74,75} Available weather data should be delivered to small-scale farmers along with information on transboundary pests and diseases. Alert mechanisms on unsafe food consignments should also be developed; the Rapid Alert System for Food and Feed and the FAO/World Health Organization International Food Safety Authorities Network are good examples.

32. Diversity can be achieved by increasing the variety of livelihood options for smallholders in rural areas (rather than relying only on agriculture) and by incrementing the number of local and regional food producers and suppliers.⁷⁶ Local farmers should interact with multiple suppliers and

⁶⁵ Alvar-Beltrán, J., Elbaroudi, I., Gialletti, A., Heureux, A., Neretin, L. Soldan, R. 2021. *Climate Resilient Practices: typology and guiding material for climate risk screening*. Rome. FAO. <https://www.fao.org/3/cb3991en/cb3991en.pdf>

⁶⁶ Richards, Meryl & Sapkota, Tek & Verhulst, Nele & Friedrich, Theodor & Kienzle, Josef. (2014). Conservation agriculture: implementation guidance for policymakers and investors. CCAFS-FAO Climate-Smart Agriculture Practice Brief. Rome, Italy. 10.13140/RG.2.1.4194.9848.. <https://doi.org/10.13140/RG.2.1.4194.9848>

⁶⁷ Ababou, Mariame, Sara Chelh, and Mariam Elhiri. 2023.. *A Bibliometric Analysis of the Literature on Food Industry Supply Chain Resilience: Investigating Key Contributors and Global Trends*. Sustainability, 15 no. 11: 8812. <https://doi.org/10.3390/su15118812>

⁶⁸ FAO. 2013. *Climate-smart Agriculture Sourcebook*. Rome, FAO. <https://www.fao.org/3/i3325e/i3325e.pdf>

⁶⁹ FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

⁷⁰ Alvar-Beltrán, J., Elbaroudi, I., Gialletti, A., Heureux, A., Neretin, L. Soldan, R. 2021. *Climate Resilient Practices: typology and guiding material for climate risk screening*. Rome. FAO. <https://www.fao.org/3/cb3991en/cb3991en.pdf>

⁷¹ Forecast-based financing is a financial mechanism that releases funding based on forecast information for pre-agreed activities that reduce risks, enhance preparedness and response and increase the effectiveness of disaster risk reduction. See: German Red Cross. 2017. *Forecast-based financing: an innovative approach*. Berlin, German Red Cross.

https://www.drk.de/fileadmin/user_upload/FBF/An_innovative_approach_Sept_2017.pdf

⁷² FAO. 2023. *Building resilient agri-food systems – brief*

⁷³ FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

⁷⁴ FAO. 2022. *The future of food systems in Europe and Central Asia 2022–2025 and beyond*. Rome. FAO. <https://doi.org/10.4060/cc1546en>

⁷⁵ FAO. 2023. *Background paper*. Third regional workshop on integrated community development, Budapest. FAO

⁷⁶ Ababou, Mariame, Sara Chelh, and Mariam Elhiri. 2023. *A Bibliometric Analysis of the Literature on Food Industry Supply Chain Resilience: Investigating Key Contributors and Global Trends*. Sustainability, 15 no. 11: 8812. <https://doi.org/10.3390/su15118812>

retailers, building a large network that they can draw on to survive shocks.⁷⁷ Governments should encourage local entrepreneurship as a means of diversification and resilience building.⁷⁸ Another means of strengthening livelihoods is developing short, local value chains; when running well, these food value chains provide an important market and income for farmers and small rural businesses.

33. Investing in the risk proofing of infrastructure and decentralizing it at local level greatly helps minimize the impacts of disasters on agrifood systems. This includes upgrading local cold storage facilities, distribution centres and transportation networks to reduce the risk of wasted food in case of disruptions.⁷⁹ Recovery after shock should include building new infrastructure that is more resilient to disasters.⁸⁰

34. Digitalization is a key enabler of agricultural and rural resilience through improved information and communication processes.⁸¹ It boosts the connectivity of smallholders by improving their access to services, markets and knowledge, and facilitates local public procurement which supports the development of short value chains, provides reliable incomes for producers, and increases the supply and consumption of fresh and varied products on local markets.⁸²

35. Social protection is practised, with various degrees of success, in many ECA countries. In Georgia, a flat-rate basic pension has been implemented since 2005, and public services halls have been opened in remote areas to make government services accessible. In the Republic of Moldova, smallholders have the option of making voluntary social insurance payments at a much lower rate of contribution than in other sectors. In North Macedonia, as part of the National Strategy for Alleviation of Poverty, the government subsidizes the cost for schooling and internet connection in rural areas.⁸³ Social protection is highly important for surviving and recovering from adversity. This is especially true for enhancing resilience among rural women and other vulnerable groups. To do so, it is crucial to expand their opportunities for economic empowerment, both within and beyond agricultural settings. This can be achieved through promoting access to decent employment, fostering local female entrepreneurship, integrating women into inclusive value chains, and addressing the disparities in earnings, alongside efforts to lighten the burden of women's unpaid labour.

36. Community development is an important recovery tool that includes promoting the establishment of public–private partnerships, regional and local initiative groups, coalitions and networks.^{84,85} Local self-organization also is an essential element of resilience building through the strengthening of community-based risk management.⁸⁶ The development of local farmers' cooperatives also enhances resilience by implementing risk-share mechanisms, shock-responsive

⁷⁷ Roosevelt, Megan, Eric D. Raile, and Jock R. Anderson. 2023. *Resilience in Food Systems: Concepts and Measurement Options in an Expanding Research Agenda*. *Agronomy*, 13 no. 2: 444. <https://doi.org/10.3390/agronomy13020444>

⁷⁸ FAO. 2023. *Background paper*. Third regional workshop on integrated community development, Budapest. FAO.

⁷⁹ Ababou, Mariame, Sara Chelh, and Mariam Elhiri. 2023. *A Bibliometric Analysis of the Literature on Food Industry Supply Chain Resilience: Investigating Key Contributors and Global Trends*. *Sustainability*, 15 no. 11: 8812. <https://doi.org/10.3390/su15118812>

⁸⁰ FAO. 2023. *Background paper*. Third regional workshop on integrated community development, Budapest. FAO.

⁸¹ FAO. 2022. *The future of food systems in Europe and Central Asia 2022–2025 and beyond*. Rome. FAO. <https://doi.org/10.4060/cc1546en>

⁸² FAO. 2023. *Background paper*. Third regional workshop on integrated community development, Budapest. FAO.

⁸³ FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

⁸⁴ FAO. 2023. *The Republic of Moldova: Rapid response plan, March–December 2023*. Rome. FAO. <https://doi.org/10.4060/cc6555en>

⁸⁵ FAO. 2023. *Background paper*. Third regional workshop on integrated community development, Budapest. FAO.

⁸⁶ Maleksaeidi, Hamideh, and Ezatollah Karami. *Social-Ecological Resilience and Sustainable Agriculture Under Water Scarcity*. *Agroecology and Sustainable Food Systems*, 37 no. 3: 262–90. <https://doi.org/10.1080/10440046.2012.746767>

social protection systems, risk insurance or local emergency assistance funds.^{87,88} A successful case is the recent development and capacity building of irrigation water users' associations in the Republic of Moldova, which will be able to significantly increase the productivity and yields of smallholders and contribute towards land consolidation.⁸⁹ It should be considered that close-knit communities may overestimate their ability to cope with disasters, shunning outside support or ignoring risk warnings.⁹⁰

37. Governments should adopt comprehensive risk financing and agricultural insurance programmes for small-scale farmers, involving innovative private and public partnerships and strengthening stakeholder collaboration, including at local level.⁹¹ It is advisable to think in an integrated manner, considering an affordable and appropriate toolkit of financial products for agricultural risk management, including credit, savings and remittances.

38. Agricultural risk insurance as a risk-transfer financial scheme^{92,93,94} provides financial protection against losses due to unforeseen events and can help stabilize incomes and encourage farmers to invest more confidently in their farming operations. The take-up of agricultural insurance might be a slow process. In Serbia, the Government began to subsidize insurance in 2007 at a rate of 30–40 percent of the premium; although the number of farmers with agricultural insurance is increasing, it remains relatively small.⁹⁵

39. Anticipatory actions, especially when used in conjunction with early-warning systems, can mitigate the impacts of disasters.^{96,97,98} Effective emergency response should take place as early as possible to prevent or mitigate crises.⁹⁹ In the context of agrifood systems, emergency response often takes the form of providing production inputs (seeds, feed and fertilizers) and cash assistance to farmers.¹⁰⁰ Recovery is anchored in the understanding of resilience to encompass growth, adaptation and transformation (“build back better”).

⁸⁷ FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

⁸⁸ FAO. 2022. *The future of food systems in Europe and Central Asia 2022–2025 and beyond*. Rome. FAO. <https://doi.org/10.4060/cc1546en>

⁸⁹ FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

⁹⁰ Roosevelt, Megan, Eric D. Raile, and Jock R. Anderson. 2023. *Resilience in Food Systems: Concepts and Measurement Options in an Expanding Research Agenda*. *Agronomy*, 13 no. 2: 444. <https://doi.org/10.3390/agronomy13020444>

⁹¹ UNDP. 2023. *UNDP Insurance and Risk Finance Facility - Advancing Small-Scale Farmers' Financial Resilience to Climate Risks Programme – Partnership between UNDP and Bill & Melinda Gates Foundation* <https://irff.undp.org/publications/advancing-small-scale-farmers-financial-resilience-climate-risks>

⁹² United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*. New York. United Nations. <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

⁹³ FAO. 2023. *Building resilient agri-food systems – brief*

⁹⁴ Maleksaeidi, Hamideh, and Ezatollah Karami. *Social-Ecological Resilience and Sustainable Agriculture Under Water Scarcity*. *Agroecology and Sustainable Food Systems*, 37 no. 3 (2013): 262–90. <https://doi.org/10.1080/10440046.2012.746767>

⁹⁵ FAO. 2020. *Smallholders and Family Farms in Europe and Central Asia. Regional Synthesis Report 2019*. Budapest. FAO. <https://doi.org/10.4060/ca9586en>

⁹⁶ FAO. 2023. *The Impact of Disasters on Agriculture and Food Security 2023 – Avoiding and reducing losses through investment in resilience*. Rome. FAO. <https://doi.org/10.4060/cc7900en>

⁹⁷ FAO. 2023. *Anticipatory Action*. Rome. FAO. <https://www.fao.org/documents/card/en/c/CC7564EN>

⁹⁸ FAO. 2024. *Anticipatory action*. In: *FAO emergencies and resilience*. <https://www.fao.org/emergencies/our-focus/anticipatory-action/en>

⁹⁹ United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*. New York. United Nations. <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

¹⁰⁰ FAO. 2023. *The Republic of Moldova: Rapid response plan, March–December 2023*. Rome. FAO. <https://doi.org/10.4060/cc6555en>

40. It is important to scrutinize all pertinent synergies and trade-offs among different policy objectives, including sustainable agricultural production, climate change, the sustainable use of ecosystems and addressing land degradation.

41. Trade-offs between resilience and other policy goals should be considered.¹⁰¹ For instance, large, global agricultural industries may increase efficiency and productivity, but their expansion may result in the closure of many smallholder enterprises and lower the level of diversity, which is essential for resilience.¹⁰² There could be trade-offs between economic development and ecosystem resilience or between levels of resilience, such as personal and community resilience. For example, migration could be seen as a personal resilience strategy, albeit over-migration could hurt both the home and the receiving communities. Receiving regions should consider collaborating with home regions to strengthen the resilience of the home regions and lower the impacts of migration.

V. Policy pathways and conclusions

42. An overall resilience policy framework is of paramount importance in terms of establishing general political directions for ensuring resilient and sustainable agricultural and rural development, parallel with subsectoral preparedness and emergency response plans.¹⁰³ Resilience policy frameworks should be drafted according to the food system approach and the guidelines of the 2030 Agenda for Sustainable Development,¹⁰⁴ in line with the FAO Strategic Framework 2022–31¹⁰⁵ and considering the recommendation of the European Green Deal.¹⁰⁶ Policy pathways need to address data collection, risk assessment, planning, implementing, monitoring, partnering, coordinating and financing for resilience.¹⁰⁷

43. The main building block for any resilience enhancement process is risk and resilience assessment. The purpose of a risk assessment is to establish a strong evidence base for interventions.¹⁰⁸ The assessment needs to comprise: a) the main hazards that may affect people and systems in the location that is being considered; b) the relevant contextual factors and drivers of risk; c) the key systems at risk and how the manifestation of risk in one system can have cascading impacts across others; and d) the population groups most at risk of being left behind.¹⁰⁹ Sector-specific approaches for assessing vulnerability, evaluating impacts and reducing risks are essential.¹¹⁰

¹⁰¹ Roosevelt, Megan, Eric D. Raile, and Jock R. Anderson. 2023. *Resilience in Food Systems: Concepts and Measurement Options in an Expanding Research Agenda*. *Agronomy*, 13 no. 2: 444. <https://doi.org/10.3390/agronomy13020444>

¹⁰² Roosevelt, Megan, Eric D. Raile, and Jock R. Anderson. 2023. *Resilience in Food Systems: Concepts and Measurement Options in an Expanding Research Agenda*. *Agronomy*, 13 no. 2: 444. <https://doi.org/10.3390/agronomy13020444>

¹⁰³ FAO. 2020. *Solutions for Youth, Employment and Developing Rural Areas in relation to the United Nations Decade of Family Farming*. Thirty-second Session of the FAO Regional Conference for Europe, Tashkent. FAO. <https://www.fao.org/3/nc486en/nc486en.pdf>

¹⁰⁴ United Nations. 2015. *Transforming our World: The 2030 Agenda for Sustainable Development*. <https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981>

¹⁰⁵ FAO. 2021. FAO's *Strategic Framework 2022-31*. Rome. FAO. <https://www.fao.org/3/cb7099en/cb7099en.pdf>

¹⁰⁶ European Commission. 2024. The European Green Deal. In: European Commission.. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

¹⁰⁷ United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*. New York. United Nations. <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

¹⁰⁸ FAO. 2023. *The Impact of Disasters on Agriculture and Food Security 2023 – Avoiding and reducing losses through investment in resilience*. Rome. FAO. <https://doi.org/10.4060/cc7900en>

¹⁰⁹ United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*. New York. United Nations. <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

¹¹⁰ FAO. 2023. *The Impact of Disasters on Agriculture and Food Security 2023 – Avoiding and reducing losses through investment in resilience*. Rome. FAO. <https://doi.org/10.4060/cc7900en>

44. Resilience policies should address the root causes of risks and reduce underlying vulnerabilities rather than employ short-term solutions that address symptoms in a fragmented way, separating humanitarian, development and human rights and peace and security actions.¹¹¹ In this context, policies should mainstream gender, address age-specific differences and consider other vulnerable groups.

45. Investment in enhanced data collection, analysis, reporting and tools to produce harmonized information on disaster losses at national and subnational levels, disaggregated by agriculture subsectors, is an essential first step in building national capacities to understand and reduce disaster risks and build resilience in agriculture and agrifood systems. Governments in the ECA region are encouraged to adopt unified national methodologies for disaster loss and damage assessments in agriculture to support evidence-based policy decisions.¹¹²

46. Resilience policies should focus on proactive risk reduction through the implementation of prevention and mitigation and the development of crisis management plans. Social protection policies must be developed. Plans should be tailor-made to the characteristics of different agrifood systems and regions.¹¹³ Involving all relevant stakeholders guarantees that a broad range of perspectives on risk informs the process and ensures that needs, including those of the most vulnerable, are addressed.¹¹⁴

47. Monitoring and measuring resilience are essential to knowing whether intervention is needed and whether investments in building resilience have worked.¹¹⁵ One way to measure resilience is as a function of the degradation of the system, as well as the time or cost until full operation is restored. Setting a baseline is crucial for assessing changes between the initial and final states.¹¹⁶ If risks are well understood, monitored, analysed, prevented and prepared for, the exposure and the vulnerability of populations, ecosystems and agrifood systems can be reduced.¹¹⁷

48. Partnering with multiple stakeholders is one of the key elements of resilience. Partnerships allow for the development of joined-up solutions and motivate collaboration. Partners that should be included are, among others, the civil society, local and regional authorities, people and communities, local traditional leaders, women and youth, the private sector, international financial institutions and donors, academia and think tanks.¹¹⁸ Cross-border collaborations, for example regarding locust (mainly in Central Asia), should be encouraged. Resilience should be mainstreamed into an agriculture and food systems approach. Collaboration between government offices is crucial. Among others, ministries covering such areas as agriculture and food security; environment and natural resources

¹¹¹ United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*.

New York. United Nations. <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

¹¹² FAO. 2023. *The Impact of Disasters on Agriculture and Food Security 2023 – Avoiding and reducing losses through investment in resilience*. Rome. FAO. <https://doi.org/10.4060/cc7900en>

¹¹³ Evagelos D. Lioutas, Chrysanthi Charatsari. 2021. *Enhancing the ability of agriculture to cope with major crises or disasters: What the experience of COVID-19 teaches us*. *Agricultural Systems*, Volume 187: 103023. <https://doi.org/10.1016/j.agsy.2020.103023>

¹¹⁴ United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*.

New York. United Nations. <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

¹¹⁵ United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*.

New York. United Nations. <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

¹¹⁶ United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*.

New York. United Nations. <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

¹¹⁷ FAO. 2022. *The future of food and agriculture – Drivers and triggers for transformation*. *The Future of Food and Agriculture*, no. 3. Rome. FAO. <https://doi.org/10.4060/cc0959en>

¹¹⁸ United Nations. 2020. *United Nations Common Guidance on Helping Build Resilient Societies*.

New York. United Nations. <https://unsdg.un.org/resources/un-common-guidance-helping-build-resilient-societies>

(which usually deal with climate change); health; and social protection should be consulted and engaged in resilience policymaking.

49. Governments in the ECA region are encouraged to seek opportunities for regional cooperation to strengthen the resilience of agrifood systems, utilizing a multistakeholder approach, so that agrifood systems can become one of the primary solutions for inclusive, resilient and sustainable development for all.