



Food and Agriculture
Organization of the
United Nations

A woman wearing a purple sweater and a blue patterned headscarf is working in a vineyard. She is holding a branch of a grapevine and appears to be pruning or tending to it. The background is filled with green grape leaves and vines.

FAO in Europe and Central Asia 2022

FAO in Europe and Central Asia

2022

Food and Agriculture Organization
of the United Nations

Budapest, 2023

Required citation:

FAO. 2023. *FAO in Europe and Central Asia 2022*. Budapest. <https://doi.org/10.4060/cc5252en>

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

© FAO, 2023



Some rights reserved. This work is made available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo/legalcode>).

Under the terms of this licence, this work may be copied, redistributed and adapted for non-commercial purposes, provided that the work is appropriately cited. In any use of this work, there should be no suggestion that FAO endorses any specific organization, products or services. The use of the FAO logo is not permitted. If the work is adapted, then it must be licensed under the same or equivalent Creative Commons licence. If a translation of this work is created, it must include the following disclaimer along with the required citation: "This translation was not created by the Food and Agriculture Organization of the United Nations (FAO). FAO is not responsible for the content or accuracy of this translation. The original English edition shall be the authoritative edition."

Disputes arising under the licence that cannot be settled amicably will be resolved by mediation and arbitration as described in Article 8 of the licence except as otherwise provided herein. The applicable mediation rules will be the mediation rules of the World Intellectual Property Organization <http://www.wipo.int/amc/en/mediation/rules> and any arbitration will be conducted in accordance with the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL).

Third-party materials. Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures or images, are responsible for determining whether permission is needed for that reuse and for obtaining permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

Sales, rights and licensing. FAO information products are available on the FAO website (www.fao.org/publications) and can be purchased through publications-sales@fao.org. Requests for commercial use should be submitted via: www.fao.org/contact-us/licence-request. Queries regarding rights and licensing should be submitted to: copyright@fao.org.

Cover photo: ©FAO/Vasily Maksimov

CONTENTS

INTRODUCTION	1	Managing natural resources sustainably and preserving biodiversity in a changing climate	8
HIGHLIGHTS OF FAO WORK IN THE REGION	2	Climate action	8
BETTER PRODUCTION	4	Regional Technical Platform on Green Agriculture	9
Empowering smallholders, family farms and youth through inclusive rural transformation, digitalization and innovation	4	Evaluating water quality data	9
Land tenure	4	Mainstreaming biodiversity for food and agriculture	9
Digital agriculture	4	Environmental sustainability and the promotion of bioeconomy	10
Transforming food systems and facilitating market access and integration	5	Non-wood forest products	10
One Health	5	Integrated natural resource management	10
Managing natural resources sustainably and preserving biodiversity in a changing climate	5	BETTER LIFE	11
Seed programme	5	Empowering smallholders, family farms and youth through inclusive rural transformation, digitalization and innovation	11
BETTER NUTRITION	6	Integrated community development and the United Nations Decade of Family Farming	11
Transforming food systems and facilitating market access and integration	6	Managing natural resources sustainably and preserving biodiversity in a changing climate	11
Food loss and waste	6	Assessing the impacts of climate-related disasters in agriculture	11
Agricultural Trade Expert Network	6	CROSS-REGIONAL INITIATIVES	12
Improved food security with the Economic Cooperation Organization	6	Agrifood system transformation	13
Food safety	7	Regional Overview of Food Security and Nutrition in Europe and Central Asia	13
Agrifood price and market information systems and policy analysis	7	Rural youth	14
BETTER ENVIRONMENT	8	Gender	15
Transforming food systems and facilitating market access and integration	8		
Geographical indications	8		

COUNTRIES: PROJECT OVERVIEW	16	Montenegro	23
Albania	17	North Macedonia	24
Armenia	17	Serbia	25
Azerbaijan	18	Tajikistan	25
Belarus	19	Türkiye	26
Bosnia and Herzegovina.....	19	Turkmenistan	29
Georgia	20	Ukraine	29
Kazakhstan	21	Uzbekistan	31
Kyrgyzstan	22	RESOURCE MOBILIZATION	32
Republic of Moldova	22		

INTRODUCTION

In 2022, the war in Ukraine produced cascading effects on the global economy, which already had suffered from the ongoing impacts of the COVID-19 pandemic and climate change. The Europe and Central Asia region has experienced the effects of a triple crisis in food, energy and finance, as steeply rising food and energy prices and tightening financial conditions have impacted the region and most countries throughout the world.

The region has been severely impacted through price shocks, exchange rate depreciation, accelerated inflation, increased import bills and trade disruptions.

The FAO Regional Office for Europe and Central Asia work programme 2022–2023 implements the [FAO Strategic Framework 2022–2031](#) and contributes to achieving the Sustainable Development Goals (SDGs) through three Regional Initiatives. In line with the regional priorities endorsed by the [Thirty-third FAO Regional Conference for Europe](#) in May 2022, FAO keeps its focus on rural livelihoods with an emphasis on smallholders, women and youth; food system transformation, trade and markets; sustainable natural resources management and resilience to climate change; and food insecurity and the reduction of all forms of malnutrition – all while considering the emerging issues and changed context from the crisis.

This report provides highlights of important efforts and achievements under the 2022 work programme at the regional and country levels.



**HIGHLIGHTS OF FAO WORK
IN THE REGION**





BETTER PRODUCTION

REGIONAL INITIATIVE 1:

EMPOWERING SMALLHOLDERS, FAMILY FARMS AND YOUTH THROUGH INCLUSIVE RURAL TRANSFORMATION, DIGITALIZATION AND INNOVATION

Land tenure

In 2022, FAO continued supporting LANDNET, an informal technical network of land tenure professionals in Europe and Central Asia focusing on various land policy issues. The [thirteenth regional LANDNET meeting](#), held in May 2022 in Skopje, North Macedonia, was organized under the umbrella of the FAO [Regional Technical Platform on Green Agriculture](#). The meeting focused on land banking and land consolidation instruments and their application in the region. The lessons learned from the introduction of land consolidation in North Macedonia under the [European Union–FAO MAINLAND project](#) are applicable to other countries introducing land consolidation.

During the LANDNET workshop, FAO launched an initiative to enhance educational programmes

on land consolidation and land banking and to facilitate the cooperation of universities in the region offering courses in these areas. During a technical workshop in November in Budapest, participants discussed a draft master's course on land consolidation and land banking.

FAO and the International Federation of Surveyors (FIG) have continued their longstanding partnership, organizing a joint session during the FIG Congress 2022 in Warsaw on the potential for multipurpose land consolidation in countries in Eastern Europe and preparing a background paper on the topic. In addition, FAO and FIG collaborated on spatial planning and development and co-authored a [publication on the fundamentals of land consolidation](#).

Digital agriculture

In 2022, FAO began rolling out its global [Digital Villages Initiative](#) and revitalizing rural areas across the Europe and Central Asia region by improving access to information and communication technologies and key digital services. Capitalizing on the European Union experience with smart villages and



©FAO/Marco Palombi

FAO's knowledge of rural development and digitalization, the initiative aims to address agrifood system challenges at the community level. To smooth the adoption of this initiative, FAO developed a regional readiness tool that already has helped select more than 30 candidate villages in seven countries and areas in the region. In addition, for the first time, FAO launched village twinning activities among Lormes (a European "smart village" in France), Përmet (Albania) and Rahovec (Kosovo). The approach aims to establish cooperation among villages, towns and rural communities for the exchange of knowledge, good practices and technology.

During the [World Food Forum](#) in October, FAO engaged young farmers, digital innovators and members of academia in a discussion on agricultural employment and the sharing of success stories. The event advocated for youth-led digital innovation in agriculture that can enhance the sector's performance and improve working conditions, thereby attracting more youth.

Strengthening the collection and spreading of good practices involving information and communication technologies in agriculture is key to FAO in this region. With cooperation from the American University of Central Asia and Central European University, FAO identified several good practices – including the use of social media and messaging apps and more advanced technology solutions, such as drones – and featured the ones most relevant, accessible and affordable for smallholder farmers.

REGIONAL INITIATIVE 2:

TRANSFORMING FOOD SYSTEMS AND FACILITATING MARKET ACCESS AND INTEGRATION

One Health

[One Health](#) addresses four major issues: neglected zoonoses, antimicrobial resistance, food safety and emerging infectious diseases.

FAO launched a series of surveys to better understand antimicrobial use in the livestock sectors of 13 selected countries. In parallel, samples were collected for laboratory testing of antimicrobial resistance to establish national baselines, which had been absent in most countries. Among other efforts, FAO helped laboratories improve national antimicrobial resistance surveillance systems in the food and agriculture sectors through the [FAO-ATLASS tool](#), conducted targeted trainings on antimicrobial

resistance testing, established a regional laboratory network, and developed informational materials in multiple languages.

FAO also conducted a series of field trainings for dairy and poultry veterinarians and farmers with the aim of reducing the use of antibiotics and lowering the risk of antimicrobial resistance through improved husbandry practices and animal health. Hundreds of field practitioners participated in certified trainings on One Health challenges, such as avian influenza and African swine fever, offered by the [FAO Regional Virtual Learning Centre](#).

Additionally, FAO initiated the establishment of the [Central Asia Animal Health Network](#), prioritizing work on neglected zoonoses, and launched a One Health pilot against echinococcosis involving veterinary and public health authorities, among others, in Kazakhstan.

REGIONAL INITIATIVE 3:

MANAGING NATURAL RESOURCES SUSTAINABLY AND PRESERVING BIODIVERSITY IN A CHANGING CLIMATE

Seed programme

Seeds are crucial elements of our agrifood systems. This past year, FAO developed a regional seed programme to coordinate countries' seed-related work and support them in developing and improving their seed systems through the strengthening of seed laboratories and the training of seed analysts and inspectors. Seed system projects are underway in Armenia, Azerbaijan, Georgia, Kyrgyzstan, North Macedonia, Tajikistan and Ukraine.

Capacity-development activities organized through the seed programme included a study tour for representatives of Armenia, Kyrgyzstan and North Macedonia on seed production and breeding to enhance their seed systems and ensure proper seed supply. An FAO webinar allowed countries of Europe and Central Asia to present their legal frameworks for emerging biotechnologies in plant breeding, permaculture and community seed production, with special emphasis on the conservation and sustainable use of genetic resources.

FAO also provided emergency aid by [distributing seed potato kits](#), including 862 tonnes of seed potatoes, to 17 740 conflict-affected households in Ukraine.

¹ All references to Kosovo should be understood to be in the context of United Nations Security Council resolution 1244 (1999).



BETTER NUTRITION

REGIONAL INITIATIVE 2:

TRANSFORMING FOOD SYSTEMS AND FACILITATING MARKET ACCESS AND INTEGRATION

Food loss and waste

FAO's efforts to further develop the regional community of practice under its global [SAVE FOOD](#) initiative focused on expanding and strengthening the network of partners and their collaboration across Europe and Central Asia. Together with Messe Düsseldorf and Bahçeşehir University in Türkiye, FAO facilitated a research project and piloted sustainable packaging made of food waste.

A [two-day regional conference on food loss and waste](#), held by FAO in October in Istanbul, served as a platform for sharing ideas and experiences and contributed to the initiation of new country- and regional-level partnerships. A multidisciplinary working group comprising experts from throughout the region was conceived to address such issues as deficient surplus food recovery and redistribution systems and unsustainable consumer behaviour.



©FAO

Agricultural Trade Expert Network

To facilitate the sharing of knowledge in the region and support policy decisions for trade development, FAO has been facilitating the [Agricultural Trade Expert Network \(ATEN\)](#) in Europe and Central Asia. The network brings together professionals who conduct economic research, carry out training programmes and advise on issues related to agricultural trade and trade policy.

The [eighth annual meeting](#), held virtually on 30 November 2022, provided an overview of the main drivers of global and regional markets related to increasing uncertainty in global food markets and the impacts of the war in Ukraine on agrifood exports and imports in Central Asia. Attendees also discussed ways to address current risks and challenges.

In 2022, in collaboration with the World Bank and ATEN experts, FAO prepared two technical reports on the war's possible trade and food security impacts in Central Asia and the South Caucasus.

Network experts contributed to quarterly bulletins in English and Russian on agrifood trade measures in Eastern Europe, the Caucasus and Central Asia and to two additional publications – one a biennial [analysis of trade policies](#) in 12 countries and the other a [study reviewing the agricultural policy environment](#) and providing quantitative indicators for policy incentives and disincentives to agricultural producers for key commodity value chains.

Improved food security with the Economic Cooperation Organization

The [Regional Coordination Centre for Food Security](#) – a subsidiary body of the Economic Cooperation Organization (ECO) – benefited this past year from an FAO project under the [FAO–Türkiye Partnership Programme](#).

With technical input from FAO, the centre finalized the ECO Regional Programme for Food Security, which was officially endorsed by the ECO Regional Agricultural Ministers Meeting hosted by Uzbekistan.

FAO provided technical support to the centre in developing an [overview report of food](#)

[security in the ECO region](#). Using an evidence-based approach, the report aims to provide a comprehensive analysis of food security in line with relevant Sustainable Development Goal indicators.

Also with help from FAO, the centre launched its [new website](#) in 2022 to make regional food security information available in three languages. All joint documents and publications are accessible through the website.

Food safety

FAO works with governments and other partners to improve food safety as an integral part of agrifood systems and an essential aspect of food security and nutrition, supporting the countries of Europe and Central Asia through country-specific and regional projects.

In 2022, FAO collaborated with the University of Belgrade to build evidence and boost understanding of the priority issues and trends related to food safety in the region. A report identifying priority regional and global issues was prepared based on the findings of a literature review and a survey of food chain actors and food safety authorities. In addition, FAO worked with the University of Helsinki to highlight good practices and innovative solutions from the region on improving food safety. Five good practices were identified related to measuring



the effectiveness of food control, supporting small-scale producers in complying with food safety requirements, and using digital solutions to improve food safety management. The results of both collaborations were promoted in a webinar.

For [World Food Safety Day](#), FAO and the WHO Regional Office for Europe held a virtual panel discussion on 10 June 2022, with speakers sharing how food control is becoming more science- and risk-based and highlighting issues related to food fraud and the prominent role that science plays in today's food safety systems. Participants stressed the importance of proper legislation, continuous development and the sharing of science and information as keys to increasing trust in food safety.

Agrifood price and market information systems and policy analysis

Recent developments have underlined that agricultural price and market information systems are key to agricultural development, especially for smallholders and food producers. Sound market information can contribute to market transparency, competitiveness and equity and can promote sustainable food value chain development.

In Europe and Central Asia, an FAO project has helped selected countries strengthen their price and market information systems and policy monitoring in response to COVID-19 and other shocks. This region-wide effort allows countries to improve the collection, analysis, monitoring and dissemination of price information and market development in a timely manner for selected priority value chains and, through regional cooperation with OECD, improve evidence-based decision-making.

In 2022, this work included the publishing of a series of baseline reviews on agricultural markets and food supply chains and the development of national food price monitoring and analysis tools and food balance sheet tools for market monitoring and analysis for selected agrifood commodities.

A regional training workshop on agricultural policy monitoring included a methodological session on estimating support to agriculture using a comprehensive system in line with OECD methodology.



BETTER ENVIRONMENT

REGIONAL INITIATIVE 2:

TRANSFORMING FOOD SYSTEMS AND FACILITATING MARKET ACCESS AND INTEGRATION

Geographical indications

Building on the outcomes of the [third regional consultation on geographical indications](#) (organized by FAO and oriGIn in 2021) and of a public consultation, a synthesis report was prepared to highlight the experience with geographical indications of nine countries from Europe and Central Asia. Although most countries in the region made significant progress in revising legal frameworks and providing policy support to producer groups and consumers, it also emerged from the studies that the awareness of geographical indications quality schemes varies among countries. Therefore, there is a clear need to raise awareness on the role of geographical indications in transitioning to more sustainable agriculture, specifically with regard to benefits for food producers.

FAO helped many countries in the region increase the number of registered geographical indications products and improved legal frameworks by introducing a new definition for geographical indications. The technical staff of national food safety authorities and ministries learned first-hand how to register and certify these products, while agencies and food producer groups received training in promotion.

REGIONAL INITIATIVE 3:

MANAGING NATURAL RESOURCES SUSTAINABLY AND PRESERVING BIODIVERSITY IN A CHANGING CLIMATE

Climate action

With support from FAO, countries progressed in reporting on the agriculture sector to the [United Nations Framework Convention on Climate Change](#). Specifically, FAO helped train 90 people and, in collaboration with the Greenhouse Gas Management Institute, held a virtual training session and delivered two online courses. A hybrid event in Istanbul covered such topics as climate change and gender, agricultural loss

and damage, international negotiations, and enhanced transparency framework reporting.

In terms of climate finance, FAO provided assistance to Bosnia and Herzegovina, Georgia, North Macedonia and Turkmenistan in the development of new proposals for the readiness and preparatory support programme of the Green Climate Fund (GCF), with readiness projects successfully concluded in Azerbaijan, North Macedonia and Serbia.

Significant milestones were reached in terms of engaging the private sector in climate action. Private-sector consultations and related materials and toolkits were used to share the sector's potential role in reducing greenhouse gas emissions. FAO shared opportunities with the private sector for engaging in partnerships and obtaining resources from the GCF and other international funding mechanisms.

Within the framework of the [Issue-based Coalition on Environment and Climate Change](#), in partnership with the World Meteorological Organization, FAO published in 2022 a synopsis of European climate-related extreme events in 2021 and their impacts on the agriculture sector.



©FAO/Nozim Kalandarov

Regional Technical Platform on Green Agriculture

Since its official launch in May 2022, the online [Regional Technical Platform on Green Agriculture](#), available in English and Russian, has received a considerable number of visitors from across the Europe and Central Asia region.

Bridging gaps in science, policy and digital communication, the platform catalyses the transfer of knowledge and good practices within and among regions. In collaboration with the Sant'Anna Institute in Italy, the platform conducted a literature review of around 3 000 papers on green agriculture to be included in the Green Practices Repository and a position paper on green agriculture. Jointly with the Polytechnic University of Madrid, a scientific review and analytical work was conducted on science and innovation for green agriculture. A total of 15 blogs and 60 thematic publications were published.

The platform also helps advance policy dialogue and capacity development. A number of technical webinars were held in 2022, including LANDNET workshops, a special event in the FAO Science and Innovation Forum, and an event on pesticide life cycle management in Central Asia and Türkiye. A selection of e-courses was included in the platform on green agriculture.

By promoting the use of multistakeholder and multidimensional approaches and the sharing of advance data and information, the Regional Technical Platform on Green Agriculture fosters the use of technology, innovation and digital transformation. In 2022, a discussion forum was developed and piloted and a forum on COP27 launched. In addition, several Communities of Practice were connected to the platform.

Evaluating water quality data

Freshwater resources are dwindling at an alarming rate, accelerated by population growth and climate change. This has made water scarcity one of the leading global challenges for sustainable development and agricultural production, especially in Central Asia.

An often-overlooked factor contributing to water scarcity is the deterioration of water quality, especially where population growth and urbanization outpace the development of water treatment. Salinity is another limiting factor of agricultural production, and both salinity and pollution are prominent in Central Asia.



Farmers facing water quality challenges need guidance to help them understand the risks and how to address them, especially where conventional wastewater treatment is not yet available. In partnership with the International Water Management Institute and supported by key experts from around the globe, FAO developed a new publication for use by farm and project managers, engineers and the academic community to evaluate water quality data and identify applied solutions for a water-secure future. The publication's guidelines and explanations offer great help to efforts related to the reuse of wastewater in Central Asia.

Mainstreaming biodiversity for food and agriculture

In 2022, FAO began implementing a regional action plan to mainstream biodiversity across agricultural sectors in Europe and Central Asia. FAO developed and published several awareness-raising materials, including two issues of the [Biodiversity in Action](#) series sharing information on support for reversing biodiversity loss in the food and agriculture sectors and the transition to more climate-resilient, sustainable agrifood systems.

In cooperation with research institutions, a biodiversity impact assessment of [Globally Important Agricultural Heritage Systems \(GIAHS\)](#) was performed to demonstrate that GIAHS can

be a strategic tool for biodiversity preservation and resilience to climate change. Furthermore, these collaborations produced science-based evidence of traditional agricultural systems as live reservoirs of nature-based solutions.

As part of its support to enhance Members' capacities to mainstream biodiversity, FAO developed guidelines on forest biodiversity monitoring methodologies and organized a regional webinar on resilient ecosystems for food security.

Environmental sustainability and the promotion of bioeconomy

Two sectors hardest hit by climate change are agriculture and forestry. However, these sectors also bear solutions to several societal challenges – not only climate change but also human health, food and water security, and disaster risk reduction. In its regional work, FAO promotes nature-based solutions aimed at the protection, sustainable management and restoration of natural ecosystems, with benefits to human well-being and biodiversity.

The [Joint FAO/UNECE Forestry and Timber Section](#) in Geneva assists in the application of impactful research to shape policy and practice on nature-based solutions through research, the raising of awareness, and engagement with policymakers and practitioners.

In 2022, the Joint Section released a publication that analyses how circular economy principles can be applied to forest-based industries and highlights the potential opportunities and limitations. The Joint Section also produced a catalogue of wood waste classifications that takes stock of existing classifications of wood waste streams developed by governments and various international organizations in Europe and Central Asia.

Non-wood forest products

Non-wood forest products (medicinal and aromatic plants, fruits and berries, and mushrooms) are often neglected and considered secondary products. These products are often collected and consumed by rural people, thus not entering the market, and their importance in rural livelihoods remains unknown.

FAO addressed this issue through an analysis of non-wood forest products in the Western Balkans that included household surveys in Albania, North Macedonia and Serbia. The results showed

that in all three countries, the most vulnerable groups of people – the unemployed, older people and people with low education levels living in remote areas – rely on the collection of non-wood forest products.

In general, products reach the market through intermediaries in an unorganized and ad hoc manner. Processing other than drying at home is also missing, and this could be a solution to ensure longer product shelf life and higher value. The study recommends improvements to legal frameworks, market access and processing and notes that data on quantities would be essential.

Integrated natural resource management

FAO organized the [fifth virtual meeting of agricultural ministers of Central Asian countries](#) in March 2022. Participants included ministers and vice-ministers from Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan and representatives of United Nations agencies and international financial institutions.

The meeting allowed ministers to discuss integrated natural resources management and to better understand related FAO initiatives on land degradation neutrality, sustainable land management and integrated water and pest management implemented in the region. They shared good practices from their countries on the sustainable use of global natural resources and made recommendations for public policies to promote the sustainability of agriculture through integrated natural resources management.



©FAO/Nozim Kalandarov



BETTER LIFE

REGIONAL INITIATIVE 1:

EMPOWERING SMALLHOLDERS, FAMILY FARMS AND YOUTH THROUGH INCLUSIVE RURAL TRANSFORMATION, DIGITALIZATION AND INNOVATION

Integrated community development and the United Nations Decade of Family Farming

Rural communities in Europe and Central Asia, including smallholders and family farmers, are facing many constraints – including the impacts of the COVID-19 pandemic and the war in Ukraine – that can be addressed only through an integrated and intersectoral approach.

Based on more than a decade of experience in integrated community development, FAO aims to further develop the concept of integrated community development through a regional technical network. Network members met in June 2022 in Budapest and reviewed a draft version of a study presenting good community development practices and providing policy recommendations and guidance for countries.

To support smallholders, family farmers and rural areas in general, FAO contributes to the implementation of the United Nations Decade of Family Farming in Europe and Central Asia. In 2022, FAO supported the development of national action plans on family farming in Albania, Kyrgyzstan and the Republic of Moldova. These plans provide countries a context-specific framework of action, promoting interinstitutional cooperation to integrate issues related to family farming into wider national strategies.

Together with the United Nations Development Programme (UNDP), FAO is implementing a project in Armenia funded by the European Union to ensure an active role for communities in creating inclusive, resilient and sustainable local development through the application of the principles and mechanisms of the European Union LEADER approach.

REGIONAL INITIATIVE 3:

MANAGING NATURAL RESOURCES SUSTAINABLY AND PRESERVING BIODIVERSITY IN A CHANGING CLIMATE

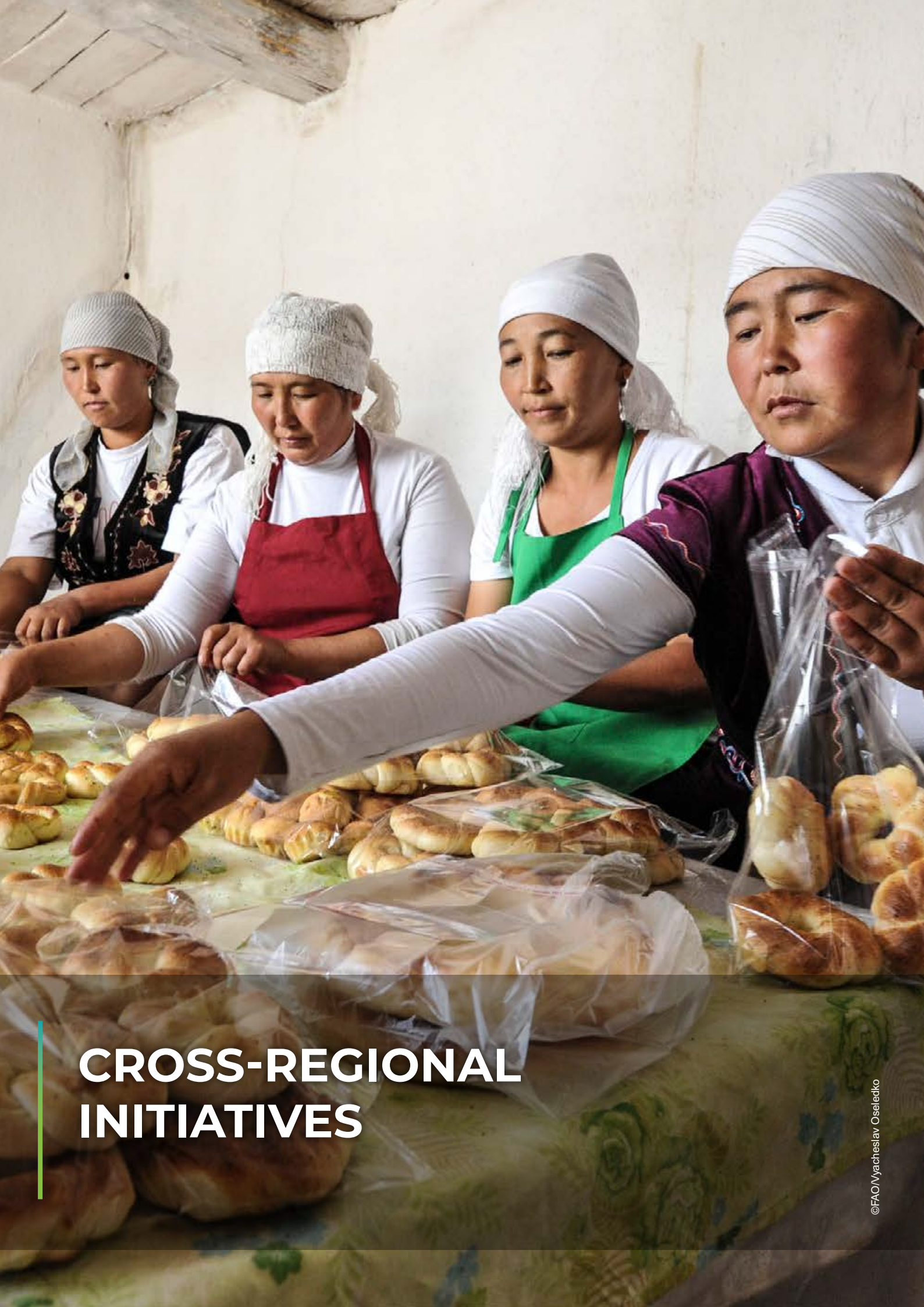
Assessing the impacts of climate-related disasters in agriculture

Due to climate change and other shocks, countries in the region face increasing climate variability and more frequent and intense weather extremes, all of which take a serious toll on agriculture. Still, evidence is scarce, as damage and loss assessments are mostly conducted irregularly, often only after major large-scale disasters. To address this information gap, FAO helps governments in the region monitor and report direct economic losses caused by disasters and climate change in agriculture.

In partnership with the Centre for Emergency Situations and Disaster Risk Reduction, FAO piloted in 2022 its damage and loss assessment methodology for agriculture in Kyrgyzstan and tested it on crop and livestock production in the Ton district. The pilot resulted in a comprehensive methodological guide that includes methodology tailored to country needs; provides specific examples, data requirements and protocols; and includes an organizational and legal framework for its application.

To further support country efforts in generating evidence of the impacts of shocks and disasters on agriculture, FAO finalized in 2022 the development of web-based, interactive software for damage and loss assessment in agriculture. Meant for use by national and local authorities, the software facilitates the field collection, editing, aggregation and reporting of damage and loss data and geographical extensions for all subsectors. The software was designed to be easily adaptable to country contexts and languages and can be used on various devices.

Also in 2022, e-learning courses on damage and loss were made available in Russian at the [FAO eLearning Academy](#): one on FAO's damage and loss assessment methodology and another on how to compute damage and loss. These online trainings are accessible easily and at no cost to facilitate the initial induction and training of a wide number of actors from all sectors.



CROSS-REGIONAL INITIATIVES

AGRIFOOD SYSTEM TRANSFORMATION

FAO works actively in the region to realize the commitments of the United Nations Food Systems Summit and continue the progress towards food systems transformation, in coordination with relevant regional mechanisms, such as the [Issue-based Coalition on Sustainable Food Systems](#).

In recent months, FAO has worked to build capacities and facilitate discussions and information exchange for the implementation of national pathways. Examples include the work in Armenia and Tajikistan, in collaboration with Chatham House, to detect necessary adjustments in the process stemming from the changing context in the region. Support was provided to Albania and Serbia to continue national dialogues, develop country roadmaps and work on priority areas. Ongoing Sustainable Development Goals Fund projects are collecting evidence of the impacts of the war in Ukraine.

FAO has also been working on a number of knowledge products, including a Food Systems Summit regional stocktake exercise with Chatham House, and organized the [Food Systems Countdown Initiative](#) regional consultations in May 2022, together with the Global Alliance for Improved Nutrition and Johns Hopkins University, to develop a set of indicators for monitoring the status of food systems.

As co-lead of the Issue-based Coalition on Sustainable Food Systems, FAO is also a strong supporter of United Nations collaboration in the region. In 2022, the coalition organized a series of advocacy and capacity-building events, such as the “Sustainable food systems to build back better in Europe and Central Asia” event jointly with Chatham House, and webinars on a holistic approach in food systems transformation in Europe and Central Asia and on the food systems impact of the war in Ukraine. Several information products were developed, including a report on the region’s food system challenges and priorities and a brief on the food system implications of the war in Ukraine.

REGIONAL OVERVIEW OF FOOD SECURITY AND NUTRITION IN EUROPE AND CENTRAL ASIA

The SDGs in 2015 renewed commitments to ending hunger and malnutrition and reducing premature mortality caused by non-communicable diseases. With the adoption of the 2030 Agenda for Sustainable Development and its ambitious goals for a more sustainable and equitable world, countries committed to regularly monitor and report on their progress.

Since then, FAO has increased its efforts to monitor the SDGs related to food security and nutrition in Europe and Central Asia through the publication of the annual [Regional Overview of Food Security and Nutrition](#) report. The 2022 edition was prepared jointly by the eight members of the Issue-based Coalition on Sustainable Food Systems for Europe and Central Asia.

The new estimates confirm that the prevalence of chronic or severe hunger remained relatively low in the region, though the prevalence of food insecurity at moderate or severe levels can be quite high, with rates worsened by the pandemic and the war in Ukraine. The cost of healthy diets has increased in almost all subregions. The region is seeing alarmingly high – and rising – rates of overweight and obesity.

This report contains an in-depth analysis of the repurposing of food and agricultural policies to ensure the food systems transformation is better suited to addressing the “triple challenge” of achieving food security and good nutrition for better health, providing livelihoods to farmers and others connected to the sector, and reducing the nature and climate footprint of the sector.

RURAL YOUTH

Youth can catalyse economic growth and development in rural areas. However, more dialogue and evidence are needed to elucidate the specific economic, social and cultural issues that affect them and to improve their livelihoods and integration into rural economies.

In Europe and Central Asia, in consultation with Members, FAO made efforts in 2022 to promote youth empowerment, enhance the generational renewal of family farms, and develop an enabling environment for youth. As in 2021, FAO supported the World Food Forum, an independent global network of partners created for and led by youth to transform agrifood systems. Youth organizations and other partners in the region

were mobilized to increase impact. A delegation from Uzbekistan participated in the global flagship event and was highlighted as a good example of youth empowerment.

As part of the World Food Forum week in October, continuing a regional series launched in 2021, FAO organized an online event on how digitalization can bring youth back to agriculture. Young farmers, entrepreneurs and researchers from the region shared the challenges faced by farmers, including access to land, knowledge and finance. They also discussed innovative and digital solutions that can help farmers overcome those challenges.





GENDER

FAO continued to provide policy advice and technical assistance in evidence-based, socially inclusive and gender-equitable agrifood system policies and practices. To provide a fundamental basis for this work, FAO published in 2022 [country gender assessments](#) for Azerbaijan and the Republic of Moldova.

To showcase the pioneering roles of women in sustainable and agroecological practices, FAO and Schola Campesina APS organized four successful subregional webinars for Central Asia, the Western Balkans, Türkiye, and Eastern Europe and the Caucasus. In monitoring SDG 5 on gender equality and women's empowerment in the region, FAO collaborated with the German international cooperation group Deutsche Gesellschaft für Internationale Zusammenarbeit in the Western Balkans to help measure women's ownership of and rights to agricultural land and assisted national actors in Albania and

North Macedonia in sex-disaggregated data collection and SDG reporting.

As part of its advocacy for rural women and its adherence to the principles of leaving no one behind, FAO published a quarterly newsletter in 2022 featuring good practices from the region and engaged in various national and regional advocacy events, including the celebration of the [International Day of Rural Women](#) on 15 October.

Within the framework of the FAO–Türkiye Partnership Programme, FAO launched a subregional project targeting policy and grassroots community action for socially inclusive agrifood systems and joined efforts with United Nations partners in sharing knowledge, advocating for gender equality in food systems, and supporting the regional refugee response to the war in Ukraine.



COUNTRIES: PROJECT OVERVIEW

In each of the FAO programme countries in Europe and Central Asia, the Organization and its many partners achieved great success in 2022 in advancing towards the four betters – better production, better nutrition, a better environment and a better life. Below is a snapshot of these developments.

ALBANIA

The decline in the dairy sector continued in 2022. In response, FAO held a meeting as part of a project to support the dairy value chain. Meeting participants discussed challenges and avenues to improving competitiveness, increasing productivity and achieving improved food standards. A dairy development programme was implemented to increase productivity, maintain quality standards and ensure the fast delivery of raw milk to processing plants.

Albania is dominated by smallholders and small family farms that often are not economically viable and that have limited access to production factors, natural resources and finance. To remedy this situation, FAO contributed to the design and realization of components of the Farm Accounting Data Network, considered one of the key issues for the design and development of comprehensive agricultural policies for family farms, the promotion of rural development, and the betterment of rural welfare.

In 2022, Albania piloted the Digital Villages Initiative Readiness Assessment Tool to identify villages that could successfully engage in the digital rural transformation process. Under a twinning programme, compatible villages were matched up to share best practices and exchange experiences. Përmet, in Albania, was paired with Lormes, a European Smart Village, and Rahovec, a village in Kosovo² famous for its quality wine production.



FAO strengthened partnerships with the private sector, umbrella organizations and associations during several events that encouraged entities to integrate the SDGs into business activities. FAO Albania organized the first national dialogue on Sustainable Food Systems, in partnership with the Ministry of Agriculture and Rural Development of Albania, to accelerate the transformation of food systems in the Mediterranean region.

As part of its commitment to addressing gender disparities, FAO completed an analysis of the determinants of vertical chain coordination, including contract farming and horizontal cooperation, within the [Gender Rural Equality and Tourism project](#). Two round tables involving 57 farmers, of whom more than 50 percent were women, were held in May and June 2022 in Leskovik and in the Kuqan village of Elbasan.

ARMENIA

In 2022, FAO supported community-driven local development initiatives for smallholders and family farmers.

Under a European Union Local Empowerment of Actors for Development (LEAD) project in the Lori and Tavush regions, project beneficiaries were taken on study tours to Austria, Hungary and Slovenia to explore the principles, methods and best practices of the LEADER methodology.

At a project workshop, participants discussed the results of an impact assessment of the COVID-19 pandemic on food value chains – namely, that smallholders and family farmers need increased resiliency to recover from shocks. Accordingly, FAO organized a round-table discussion on building smallholder farmers' resiliency in times of crises.

Additionally, humanitarian assistance was provided to project beneficiaries in the form of fodder and combined feed for livestock and small agricultural equipment to communities. At the request of the Lori regional administration, FAO also created a platform for local and international actors supporting the economic development of the region.

Harmful pathogens – including zoonotic diseases, antimicrobial resistant organisms, and endemic and emerging animal and plant pests and diseases – are a threat to human health, agriculture and biodiversity. For the first time in Armenia, FAO commissioned a comprehensive survey on antimicrobial use in the food and veterinary sectors, identifying knowledge gaps

² All references to Kosovo should be understood to be in the context of United Nations Security Council resolution 1244 (1999).



and inappropriate practices and establishing a baseline for intervention measures to promote the prudent use of antimicrobials.

FAO's emergency assistance projects provided much-needed agricultural support to protect and rebuild the livelihoods of displaced and host communities after the Nagorno-Karabakh conflict. The assistance included the provision of animal feed, live poultry, wheat and legume seeds and trainings and consultations on effective agricultural practices.

On World Food Day, FAO and its partner organizations held a forum to discuss challenges and opportunities in the field of food and agriculture in Armenia. In celebration of the seventy-seventh anniversary of the United Nations in Armenia, FAO joined other agencies to plant 18 000 trees in the Lori region.

AZERBAIJAN

In 2022, under the FAO–Azerbaijan Partnership Programme, FAO continued to help develop sustainable agrifood systems and agricultural production, with emphasis on women's empowerment and youth employment. Capacity-development activities and equipment support for start-up businesses helped boost the hazelnut, potato, sheep and cattle value chains.

In May 2022, Director-General Qu Dongyu participated in a high-level international conference in Baku on the transition to digital agriculture, highlighting the need for innovation, environmental conservation and sustainable

agrifood systems. While in Azerbaijan, he made field visits to farms and agricultural production sites.

The [FAO Country Gender Assessment for Azerbaijan](#) also was published in 2022. The assessment includes recommendations on enhancing agriculture and developing rural communities with a gender-sensitive perspective, taking into consideration gender roles and differences between women and men in access to productive resources, inputs and information.

FAO supports the establishment of Globally Important Agricultural Heritage Systems (GIAHS) sites in Azerbaijan, including a potential site in three adjacent regions in the northern area of the country. A draft proposal was shared with the [FAO GIAHS Secretariat](#). The candidate site works primarily in beekeeping and traditional honey production, traditional hazelnut production and processing, and traditional persimmon production and processing systems.

FAO in 2022 signed a memorandum of understanding with Azersun Holding to provide innovative solutions and new approaches related to value chain development, eco-agriculture, environmental protection, agrarian advisory services and adaptation to climate change. FAO



also signed an implementation agreement with Agrarco LLC to help hazelnut farmers learn and apply best practices to increase yields using sustainable methods.

BELARUS

The growth of the agricultural sector in Belarus is fundamental to the country's economy and key to its strategies to reduce rural poverty and increase food security.

FAO provides technical assistance to Belarus in developing procedures and methodologies for the implementation of social protection schemes to strengthen national food security and nutrition and agricultural trade policy. In 2022, FAO supported the preparation of two national reports on these topics. The work involved a synthesis of four international case studies looking at best practices in developing regulatory frameworks for domestic nutrition-sensitive food aid policies. The conclusions and recommendations from the analyses provided the basis for discussion and planning with national government agencies and institutions at a FAO technical workshop on food aid strategies held in Minsk in December 2022.

Gender work in Belarus in 2022 focused on an FAO initiative to expand the economic empowerment of rural women by promoting entrepreneurship, creating jobs, diversifying income-generation opportunities and ensuring the creation of an enabling environment for rural business development. Evidence and data on the needs and priorities of rural women in agricultural areas of Belarus are being gathered to produce the first country-level analysis of gender and agrifood systems issues.

Endemic and emerging animal and plant pests and diseases are a threat to human and animal health and the environment. A key component of the One Health programme is the reduction of antimicrobial resistance in livestock. In 2022, FAO led efforts to procure reagents and equipment for the laboratory testing of antimicrobial resistance. Food safety and animal health laboratory experts conducting antimicrobial resistance surveillance participated in a two-day workshop in Moscow in December 2022 to foster the establishment of a regional laboratory network for improving the detection of antimicrobial resistance and the harmonization of laboratory methods in food and agriculture in Belarus and five other countries in the region. To reach smallholders, leaflets on antimicrobial resistance were distributed during the annual agricultural exhibition Belagro 2022 in

June, and lectures were delivered to students of two veterinary schools, among others.

In its efforts to control plant pests, FAO continued to support Belarus in managing bark beetle outbreaks and pine dieback by helping the country improve institutional capacities and integrated pest management practices.

Smallholders and family farms often face constraints related to poor infrastructure, a low uptake of innovation, and limited access to technologies. In 2022, FAO launched a project to strengthen information, innovation and consultation agricultural services in Belarus, first conducting a comprehensive assessment of these services and then using the data to develop a model for their delivery that will be piloted in one region of the country.

BOSNIA AND HERZEGOVINA

A Digital Villages Initiative Readiness Assessment Tool was piloted in seven villages within two municipalities in 2022, with the results providing valuable insights into local strengths and challenges for digitalization in agriculture.

To boost resilience among family farmers, FAO trained them on disaster risk management, conducting farmer field schools in Kakanj, Gradacac, Kalesija, Bihac, Trebinje, Prijedor, Banja Luka, Srebrenica, Sanski Most and Bijelina. FAO trained 206 farmers, of whom 64 were women,



on agricultural best practices, the cultivation of fruit trees resistant to flooding and drought, summer pruning, and protecting trees from hail damage. This work was done under the auspices of a joint programme of the Government of Switzerland and the United Nations.

Because Bosnia and Herzegovina depends on fertilizers, natural gas and petroleum from the Russian Federation and on some agricultural commodities from Ukraine, in 2022 the country experienced price hikes on commodities, food and energy. FAO and the UNDP collaborated in 2022 to produce two documents to help policymakers better understand the impacts of the war on agriculture and households, especially among groups of people who already were disadvantaged. The six-month project, funded by the SDG Fund, was the first one implemented by FAO in the country to mitigate the Ukrainian humanitarian crisis.

Food losses due to inefficiencies in national food value chains are harmful to food and nutrition security. FAO supported in 2022 the development of an action plan on food loss and waste in Bosnia and Herzegovina with the overall objective of reducing food waste by 50 percent by 2030 and reducing food losses along food supply chains.

GEORGIA

In 2022, FAO's work in Georgia highlighted digitalization, job creation and gender equality.

FAO initiated a strategic collaboration with the Georgian Farmers Association to accelerate the digital transformation of agriculture. Following an assessment of the needs and digital capacities of more than 300 farmers, the Georgian Farmers Association developed online tutorials to help farmers digitally promote their businesses. Good practices on the use of information and communications technologies were collected, with these success stories illustrating how farmers from Kvareli, Didi Lilo, Kvemo Kartli and Shida Kartli improved production and increased sales due to precision agriculture technologies, farm management apps and social media.

After the successful implementation of Georgia's National Animal Identification and Traceability System (NAITS), FAO Georgia launched NAITS II in 2022. The electronic system consists of 25 modules that bring together hundreds of system users and information on more than a million bovines. FAO also introduced a consumer module, accessible with the help of a QR code, that provides access to essential information about animal product safety.



©FAO/Madimir Valishvili

Georgia was the first country in the region to introduce NAITS, and several states already have expressed interest in sharing the system or its development experiences.

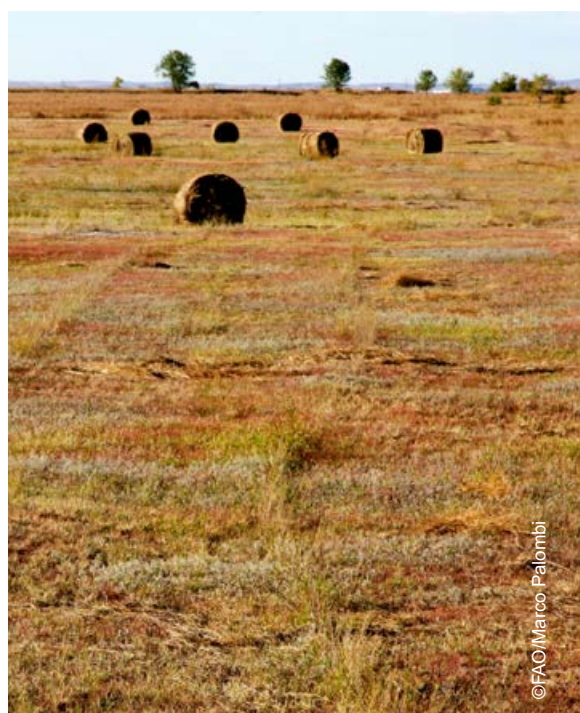
FAO in 2022 finalized the third phase of a European Union-funded project to support the Georgian agricultural sector, working to increase equitable participation in sustainable food value chains through improved access to finance, inputs and services. A total of USD 6.2 million has been co-invested in the agriculture sector, catalysing the creation of 1 500 jobs. The project's extension component trained and supported more than 1 900 people in several regions, and an FAO team of agronomists trained 780 farmers through farmer field schools, including dairy and vegetable producers and women beekeepers.

A fundamental objective of FAO is the empowerment and support of rural women. Under the Inform, Educate, Empower initiative from FAO and the United Population Fund, more than 300 women received information about gender equality issues and reproductive health and rights. In the Samegrelo-Upper Svaneti region, FAO collaborated with UN Women to train nearly 400 women farmers on such topics as food safety, good hygiene practices and contemporary cheese-making technologies. Farmer field schools were set up in 20 villages in the houses of lead farmers, with half of these farmers exhibiting their goods in the new [Unique Georgian Taste agrarian market series](#) set up in 2022.

KAZAKHSTAN

The mismanagement of pesticides and fertilizers and related plastic wastes generates land and water pollution, contributes to the loss of beneficial species such as pollinators and birds, and contributes to the proliferation of obsolete pesticide stocks. In 2022, FAO completed an inventory of obsolete pesticides in the pilot Karaganda, Akmola and Pavlodar provinces. To prepare the national team for the inventory, FAO organized a pair of three-day trainings on FAO methodologies for pesticide inventory, data processing and storage. The trainings also aimed at developing a roadmap and identifying ways of cooperation among agencies to provide administrative and technical support in the inventory process.

Farmers' limited access to capital for financing operational activities and low financial literacy impede the sustainable and effective development of agriculture in Kazakhstan.



FAO conducted a five-day training for 14 representatives from credit associations, small and medium enterprises and the Kazakh National Agrarian University on the FAO RuralInvest toolkit to improve farmers' financial and investment awareness.

Also in 2022, a new project designed to support the development of small family farms in the post-pandemic and changing climate became operational. The project, which supports the commercialization of rural house holds and smallholder farms in Kazakhstan, will include a detailed analysis of the country's land tenure situation and assess the development of agricultural land markets, particularly regarding access to land for family farmers, women and youth.

The past year set the groundwork for two important land use projects. In 2022, Kazakhstan was chosen as a pilot country for the implementation of an FAO project to test, develop and improve tools and methodologies using existing remote-sensing data for monitoring agricultural lands and their yields.

The [Kazakhstan Resilient Agroforestry and Rangeland Project](#) to restore rangeland through the wider use of sustainable management practices was approved in 2022. The project's objective is to stabilize and even reverse land degradation trends and increase carbon sequestration in Kazakhstan.

KYRGYZSTAN

The FAO Framework for Cooperation in Kyrgyzstan for 2023–2027 was signed in 2022, with key points related to improving food security and nutrition, promoting organic agriculture, boosting digitalization, stimulating agricultural development, increasing household sustainability, improving environmental protection, and improving the sustainable management of natural resources and adaptation to climate change.

In 2022, FAO collaborated with the American University of Central Asia in Bishkek to identify good practices involving the use of information and communications technology and to locate suitable areas for the Digital Villages Initiative. Five good practices featuring the stories of farmers and agripreneurs were collected. The university performed an analysis based on geospatial data related to digital infrastructure, connectivity and food security, triangulated with livestock and other rural development indicators. The results highlighted five rural communities – Belovodskoye, Kyzyl-Suu, Panfilov, Sokuluk and Suusamyr – with the preconditions for the Digital Villages Initiative.

Another important development was the approval by the GCF Board of a [project that aims to transform the management of pasture and forest resources](#) to ecosystem-based sustainable natural resources management in the target Osh, Jalal-Abad and Naryn regions.

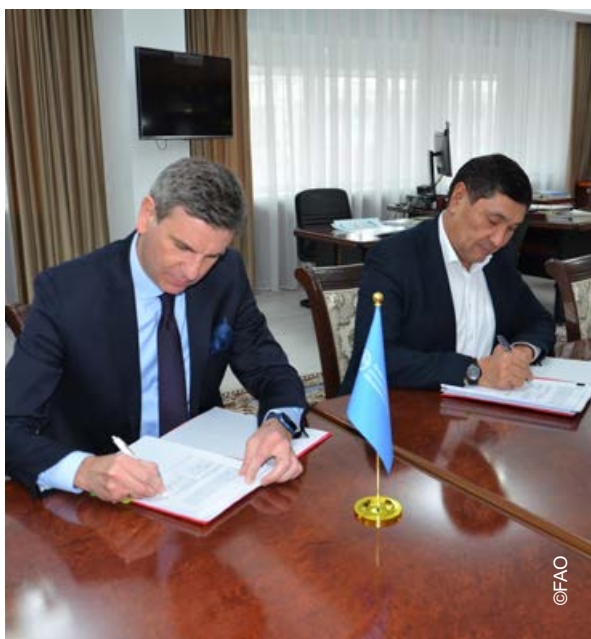


As part of the International Year of Artisanal Fisheries and Aquaculture, FAO and the Ministry of Agriculture held an event in Bishkek to promote awareness of the fisheries sector and the benefits of fish consumption.

FAO conducted a two-day simulation exercise of an outbreak of nodular cattle dermatitis in the village of Bokonbayevo in the Ton district of the Issyk-Kul region. The training helped increase the capacities of veterinary services and strengthen their competence in epidemiology, risk assessment and emergency preparedness.

REPUBLIC OF MOLDOVA

In the field of digitalization, FAO's work in 2022 focused on policy, digital literacy and market access. FAO published a study of the feasibility of launching an e-commerce platform for small local producers and returned migrant workers. With the Federation of Agricultural Producers, FAO delivered training aimed at raising digital literacy among rural women in the Cantemir, Hâncești and Râscani districts. FAO and the Independent Analytical Center "Expert-Group" conducted an assessment of farmers' needs in digitalization and developed a digital agriculture programme containing recommendations for the Ministry of Agriculture and Food Industry. The assessment showed that, while farmers' access to the internet and digital devices is high, these are not frequently used for agriculture purposes due





to a general lack of awareness of the potential benefits of digital resources.

In 2022, Digital Villages Initiative assessments were run in the villages of Andrusul de Jos, Rădoaia, Bahmut, Bascalia, Ciutești, Balasesti and Darcauti. The analysis provided data on the importance of agricultural jobs for each of the villages, their specialization in the agrifood sector, their agritourism potential, the availability of basic public services, past or current projects being implemented in the chosen locations, and stakeholders potentially interested in participating.

MONTENEGRO

For Montenegro, 2022 marked the start of the development of the new Country Programming Framework (CPF) cycle, which runs to 2027. In the CPF, FAO pledges partnership and cooperation with the Government of Montenegro in implementing the 2030 Agenda for Sustainable Development and achieving sustainable food systems along the entire agrifood value chain.

Work to reduce antimicrobial resistant organisms and control zoonoses helped advance the One Health programme in the country. FAO conducted a study to understand antimicrobial use patterns, common syndromes and significant users of antimicrobials in the livestock sector and help smallholders and family farmers better understand how to avoid the overuse and misuse of antimicrobials. Face-to-face knowledge, attitudes and practices surveys were conducted with 510 farmers, field veterinarians and veterinary pharmacies.

As part of its work in animal health preparedness and the control of emerging zoonotic diseases, FAO held a survey of 35 hunting grounds in Montenegro to better understand the risk of African swine fever (ASF) in wild boar. The Hunting Association of Montenegro conducted the survey in 2021–2022 under an FAO emergency regional project on ASF emergency preparedness in the Balkans. The data were analysed using a novel tool developed by FAO to determine the level of risk of ASF introduction, spread and detection. In addition, a feasibility study was carried out to understand how difficult it would be to implement certain measures to reduce the level of various risk factors, and a



series of risk maps was created to visualize and better interpret the data. The survey found that the overall level of hunting biosecurity is low and there is an elevated risk of ASF.

Under a project to build the capacities of livestock keepers in farm management, hygienic standards and farming practices, discussions were held in the pilot regions of Pljevlja, Berane and Bijelo Polje. Focus groups were organized with smallholder farmers to better understand their opinions on dairy production, milk hygiene, the farming environment and feeding. Similar discussions were held with advisory services, veterinary clinics, dairy and beef processing units and animal feed distributors. The results contributed to the development of a questionnaire for the collection of baseline information for farmer field school events.

FAO has been working in Montenegro to alleviate the impacts of the COVID-19 pandemic. To increase integration and sustainability in the food value chains in Montenegro, FAO and the European Bank for Reconstruction and Development (EBRD) have worked to [enhance local sourcing](#) and improve the connections among producers, processors and retailers in the horticultural, dairy and meat subsectors, among others. FAO and the EBRD also worked in 2022 to promote specific products, value chains and tourism markets and have been steadily

supporting the development of short food supply chains.

FAO [published a document](#) with guidelines and recommendations for rural households and their families providing agritourism services during the COVID-19 pandemic. In addition, the GIAHS accreditation process was launched for recognition of the Katuns traditional farming system, and a stakeholder workshop brought together Katuns farmers, ministry representatives, and participants from academia and civil society to further this work.

NORTH MACEDONIA

In 2022, the five-year [MAINLAND](#) land consolidation project, funded by FAO and the European Union, was successfully finalized in North Macedonia, paving the way for the structural land reform in agriculture and for further scaling up of the National Land Consolidation Programme in the country. After analysing 14 rural areas through the preparation of feasibility studies, the project developed land consolidation plans for nine project areas spread over 4 700 ha of agricultural land owned by about 6 300 landowners. FAO and the European Union then launched a follow-up project in November 2022 to further enhance land consolidation in North Macedonia. This project aims to improve the institutional and regulatory framework



©JN/Aleksandar Dimishkovski

for land consolidation, prepare a national strategy for land consolidation through 2030, finalize land consolidation projects in Dabjani and Chiflik, and support the construction of agricultural infrastructure.

In response to COVID-19 and other potential shocks, FAO worked on strengthening national capacities in price and market information systems and policy monitoring for food commodity and value chains. FAO helped North Macedonia link the national Agriculture Market Information System with FAO's Food Price Monitoring and Analysis system, resulting in a [dedicated national tool for North Macedonia](#) that contains information on the domestic prices of basic foods.

FAO supported the Ministry of Agriculture in 2022 in finalizing the country-based [Earth Map web platform](#) as part of a collaboration with Google to make data available related to sustainable agricultural productivity growth and to assist in the transformation to sustainable, shock-resilient agrifood systems. The web platform aims to help elucidate the trends and drivers of sustainability transitions in agriculture, combining global analysis with country assessments and expertise from key partner institutions. The platform also includes a diary tool enabling farmers to keep farm-level records of agricultural production (inputs, outputs, costs, income, and so on).

SERBIA

FAO, the European Union and the Ministry of Agriculture, Forestry and Water Management teamed up in 2022 to [strengthen the resilience of agriculture to climate change and natural disasters](#), bringing more than 50 civil servants – of whom 80 percent were women – to trainings to deepen their knowledge on climate-smart agriculture and disaster risk reduction. At the local level, nearly 60 representatives of cities and municipalities learned how to integrate this knowledge into the agricultural support programmes of 23 communities.

Also in 2022, more than 300 agricultural workers – half of them women – attended trainings on the impacts of climate change on agriculture and livestock production.

Recognizing the role of youth in addressing climate change, FAO partnered with the Ministry of Education to plan for introducing the topic of climate change into the curricula of secondary agricultural schools.



©FAO/Igor Pavicevic

A GCF readiness project in 2022 worked on engaging the business community in climate financing. FAO conducted research to help Serbian authorities identify obstacles to private-sector engagement, such as limited expertise in climate technologies. To address these barriers, FAO and its partners developed a road map for private-sector participation in projects related to climate change in the upcoming decade.

On World Food Day, FAO and the Ministry of Agriculture, Forestry and Water Management held a national dialogue to draw attention to the global challenges affecting food security, including the COVID-19 pandemic, conflicts, climate change and rising prices. To reach younger audiences with messages on healthy nutrition, FAO produced and distributed 2 000 posters and 270 000 flyers featuring characters from the children's movie *Trolls*.

TAJIKISTAN

Tajikistan has been greatly affected by climate change and is prone to climate disasters. To help farmers better predict the weather, FAO has been installing agrometeorological stations throughout the country. A pilot agrometeorology network was established that covers table grapes in the Tursunzoda district, apricots in the Konibodom district and cotton in the Jaloliddin Balkhi district.

Also in 2022, FAO provided technical assistance to the Ministry of Agriculture for the development of a national road map for accelerating digital agriculture. As part of a multistakeholder workshop, three experts from the Republic of Korea were invited to share their knowledge and experiences related to digital agriculture policy, programmes and practices.

FAO supported small-scale investments in agriculture and post-pandemic recovery efforts in Tajikistan in 2022, including through the delivery of 40 demountable solar fruit and vegetable dryers to eight farmer groups in four districts of Khatlon. In total, USD 20 000 was given to the 40 most vulnerable female-headed households in the Yovon district. Eight field farmer schools were established to promote drought-resistant, salt-tolerant crops, and 340 kg of high-quality legume seeds were given out. A series of capacity-building events for 268 farmers – of whom 61 percent were women – was organized, and FAO continued to support the development of the Tajik seed sector by supporting cooperatives and informal production groups in seed multiplication in six districts of the country.

As part of ongoing work to reduce animal and plant pests and diseases, FAO conducted a training and simulation exercise for veterinary services responding to lumpy skin disease. In addition, to combat potential locust invasions,



FAO disseminated background literature and delivered five water tanker trucks, two air blast sprayers, 12 shower units and 343 camping items, including beds and mattresses. The project contributed to the development of a regional [monthly locust bulletin](#) and supported two cross-border locust surveys between Tajikistan and Uzbekistan.

During COP27, FAO Tajikistan arranged three side events related to regional cooperation on climate action and the role of agrobiodiversity and climate finance in mitigating climate change.

TÜRKIYE

FAO, in partnership with the Ministry of Agriculture and Forestry of Türkiye, held a regional conference in October 2022 in Istanbul on food loss and waste reduction. The conference brought together 32 speakers to share their experiences and best practices related to reducing food loss and waste, including the creation of an enabling legal framework, the establishment of adequate food supply chain processes, and the promotion of behavioural change among consumers. In addition, a project steering committee meeting of the Economic Cooperation Organization Regional Coordination Centre for Food Security (ECO-RCCFS) was held as a side event during the convention.

Under the [FAO–Türkiye Forestry Partnership Programme](#), a document was developed on improving biodiversity and sustainable forestry. The project will be implemented in Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan, with Azerbaijan, Montenegro and Turkmenistan being the beneficiary countries for capacity-building activities.

Financed by the United Nations Joint SDG Fund in 2022, FAO Türkiye started to implement the Supply Chain Analysis for the Turkish Wheat Sector – Building A Resilient Food System joint project. Under the coordination of the United Nations Resident Coordinator Office of Türkiye and in close collaboration with the World Food Programme and International Fund for Agricultural Development (IFAD) country offices, the project will identify necessary investments and supports required along the chains; define the actors, their functions in the sector, and the interactions and dynamics among the main actors; and map out the existing supply chain capacities, strengths, challenges and limitations, from farming to consumption.

FAO supported the Ministry of Agriculture and Forestry in developing a national e-agriculture



strategy, launched in 2022. The Digital Villages Initiative Readiness Assessment Tool was translated to Turkish, and the tool was piloted in Yağcı, Güneyce and Boyalı. The assessment showed that Türkiye is ready to proceed with the digital rural transformation process.

A project to support the improvement of peri-urban agriculture and rural livelihoods in Ankara involved the implementation of case studies on local agrifood value chains to strengthen urban-rural linkages and peri-urban agriculture. Value chain analyses were carried out on five crops (cumin, onions, carrots, cherries and grapes) suitable for the agroecology of the province, and the analyses showed great potential for ease of market access among smallholder farmers.

Fusarium Tropical race 4, which differs from other races of the fungus that causes Fusarium wilt disease in bananas, was first identified in studies in 2019. It poses a significant threat to banana production along the southern coast of Türkiye. Through a project to support the prevention and management of the disease in the country, FAO conducted a range of surveys, training sessions and awareness-raising activities throughout 2022.

A project to conserve and manage the [steppe ecosystems in Şanlıurfa](#), one of the driest provinces in Türkiye, concluded in 2022. To mainstream the outcomes and achievements, several multilateral agreements and protocols were signed, including a GIAHS application package for Karacadag rice. The application, prepared in collaboration with the ministry, was the first of its kind in Türkiye. It recognizes

the importance of Karacadag rice as a unique mountain crop.

A project in the Konya Closed Basin related to sustainable land management and climate-friendly agriculture also came to a close in 2022. The project led to fuel savings of up to 5 litres per day – without any loss of yield – through the cultivation of drought-tolerant varieties of chickpeas and lentils without tillage. A total of 8 960 580 kg of CO₂ was saved through the planting of legumes on 668 700 decares, and the total size of the carbon sink in the Konya Closed Basin increased, sequestering 290 360 tonnes of CO₂eq in 2022 alone.

A land degradation neutrality project in the Upper Sakarya Basin focused on developing a model for land degradation neutrality target setting, planning and decision-making and demonstrating the land degradation neutrality approach. The first land degradation neutrality decision support system was developed, with new features added, and the decision support system ground validation was performed in the field, with high accuracy. A country-specific land degradation neutrality degradation matrix was developed through participatory technical workshops, and the base for the Performance Review and Assessment of Implementation System country report was developed using decision support system results. Moreover, an action plan was developed for mainstreaming the land degradation neutrality approach into policies. It provides a guide on following the land degradation neutrality hierarchy and selecting the best sustainable land management.

The Syrian Refugee Resilience Plan aims to guide FAO in its support for the Government of Türkiye in addressing the needs of Syrian refugees and host community members. It benefits from and utilizes the technical expertise and knowledge of FAO to provide unique opportunities for creating resilient communities while ensuring social and economic integration. Since the beginning of the Syrian Refugee Resilience Plan project, 125 vocational training groups have completed their activities, with 2 947 people having graduated from the trainings. Most of the trainees (59 percent) were women. A women-led cooperative was selected and supported in line with the selection criteria in each project province in the area of agrifood business development to strengthen resilience, create new employment opportunities and increase incomes. FAO provided social security premium payments to the project beneficiaries who found employment after graduation and were willing to receive premium support. The total number of social security premium support beneficiaries reached 574 as of November 2022, implying that 36 percent of employed beneficiaries benefited from this support.

On 17 October 2022, within the context of World Food Day, FAO also celebrated the fortieth anniversary of FAO in Türkiye and the fifteenth anniversary of the FAO Subregional Office for Central Asia with a photo exhibition and high-level reception, with participation from key stakeholders.

In addition, FAO accelerated its programme implementation in Türkiye through the exploration of multistakeholder partnerships, including with food retailers, chambers, commodity exchanges, academia, and farmers' and producers' unions, among others. Country experiences related to the multistakeholder partnership were shared during a side event of the FAO Science and Innovation Forum held online in October 2022.

With technical support from FAO and national experts, the Türkiye Ministry of Agriculture and Forestry prepared and adopted in December 2022 a [food literacy strategy and action plan](#) for the country, backed by a communication strategy and visibility materials. The strategy is based on research and analysis, scientific literature and media products and considers international good practices.

FAO was actively involved in the preparation of a [joint study](#) on empowering rural smallholders through digital marketing and business solutions in the post-COVID-19 period, together with IFAD and the UNDP and with technical support from the Ministry of Agriculture and Forestry.

The risk perception of small-scale farmers and services delivered under agricultural risk management in Türkiye was analysed by a study titled Developing Options For Risks Management of Smallholder Farmers in Agrifood Value Chain Context in Türkiye, prepared in collaboration



with the Union of Chambers and Commodity Exchanges of Türkiye.

TURKMENISTAN

Among the highlights of FAO's work in Turkmenistan in 2022 were improvements to the cotton value chain, increased capacity of lumpy skin disease resistance, and increased sustainability in agrifood systems.

Cotton production plays an important role in the economy of Turkmenistan. FAO assisted the country in 2022 in improving its cotton value chains and ensuring the sustainability of the sector. To facilitate dialogue and explore potential collaborations between Türkiye and Turkmenistan, FAO facilitated two reciprocal in-country field visits of cotton experts. Workshops were held on improving cotton production and mechanized harvesting. Work on a gender-sensitive strategy for accelerating the mechanization of the cotton industry is ongoing under an agreement with Nazilli Cotton Research Institute Türkiye.

FAO works to control transboundary animal diseases and to halt the spread of animal diseases such as lumpy skin disease, which is causing significant income losses for affected farmers. FAO offered an online course on the disease in 2022, with more than 400 veterinarians participating. The four-week training, designed to help veterinarians better detect, prevent and control lumpy skin disease, began in April through the [FAO Virtual Learning Centre](#).

In March 2022, FAO and the Ministry of Agriculture and Environmental Protection of Turkmenistan held the [Fifth Meeting of the Ministers of Agriculture of Central Asia](#). Participants discussed

how integrated natural resources management contributes to agricultural sustainability and learned about FAO tools, initiatives and projects that support its realization.

Under the [CACILM 2 project](#), which aims to scale up integrated natural resources management in drought-prone and salt-affected agricultural production landscapes in Central Asia and Türkiye, experts are drafting a law related to soils and have prepared a report on early warning systems, disaster risk management and agrometeorological services. The project built two plant nurseries and a demonstration plot for reclamation measures to reduce soil salinization and procured 25 000 fruit tree seedlings to expand horticultural areas in various soil and climatic conditions.

UKRAINE

The [war in Ukraine](#) is destabilizing the socioeconomic situation across the region. The evolving humanitarian crisis is affecting not only Ukraine but also the neighbouring countries hosting many refugees.

The agriculture sector of Ukraine is a fundamental pillar of the country's economy and a vital source of livelihood for the roughly 13 million Ukrainians – almost one-third of the country's population – living in rural areas. While around two-thirds of overall agricultural production is made by enterprises, rural households account for the remaining one-third, including approximately 85 percent of fruit and vegetable production, 81 percent of milk, and around half of livestock production. Since the escalation of the conflict into war in February 2022, rural households across the country



have been, and continue to be, specifically and increasingly affected, as many are forced to scale down or abandon agricultural activities.

In response to urgent and extensive needs, FAO scaled up its presence and programme in Ukraine to reach the affected populations with emergency livelihood support. One month after the beginning of the war, FAO developed a [Rapid Response Plan](#) to assist vulnerable rural households and small- and medium-sized farming households. The Government of Ukraine requested that FAO support vulnerable producers through the provision of cash and critical agricultural inputs and continued access to critical markets.

Resources mobilized in 2022 have enabled FAO to assist around 40 000 households (100 000 people) with agricultural inputs and cash so they could continue food production for their own consumption and affected rural communities. Of these, 20 147 households (52 382 people) received vegetable kits, 18 258 households (47 470 people) were assisted with seed potatoes, and 1 857 households (5 321 people) have so far been assisted with multipurpose cash. In addition, FAO distributed winter wheat seeds to 1 508 small-scale farmers and 6 619 rural households in war-affected oblasts. Through early 2023, FAO has distributed animal feed and health supplements to more than 27 000 vulnerable livestock keepers and has given 4 200 vouchers to enable rural families to purchase tools, machinery, seeds,

pesticides and building materials for use in repairing damaged livestock shelters.

Through its [Grain Storage Support Strategy](#), developed and implemented in close cooperation with the Ministry of Agrarian Policy and Food of Ukraine, FAO has committed to addressing 25 percent of the national grain storage deficit of 16 million tonnes. With generous contributions from Canada, Japan and the Australian philanthropic organization Minderoo Foundation, FAO exceeded its expected target. In all, FAO has distributed 30 000 polyethylene grain sleeves with a capacity of 200 tonnes each —equivalent to over 6 million tonnes of storage capacity – to 1 312 small- and medium-scale farmers and 105 sets of grain loading and unloading machinery to local agricultural producers. In addition, FAO is providing both technical and material support to the State Service of Ukraine on Food Safety and Consumer Protection to strengthen the country's capacity to conduct the required testing and certification of food commodities for export at border facilities.

Six national laboratories are being assisted with the equipment required for the detection of nucleic acids of infectious diseases via real-time polymerase chain reaction. FAO is also supporting the relocation of the National Gene Bank of Plants of Ukraine from Kharkiv to the relative safety of Lviv. This unique national collection of plant genetic resources is of global significance in terms of its volume and diversity of genetic materials.

FAO also has conducted critical needs assessments to determine the impacts of the war on food security and agricultural livelihoods. These include an assessment of the impact of the war on rural people, a national survey of micro- and small-scale farmers to assess the impact of the war on agricultural activities, and a damage and loss assessment focusing on fisheries and aquaculture, conducted in collaboration with the Kyiv School of Economics. One of every four of the 5 200 rural people surveyed had reduced or stopped agricultural production due to the war. The situation is much worse in the frontline oblasts, where almost 40 percent of rural families reported having reduced or ceased agricultural production.

Despite the war, FAO continues to implement development-oriented activities in Ukraine that were ongoing prior to February 2022, focusing on the promotion of conservation agriculture practices in degraded landscapes and the longer-



term development of the Ukrainian agriculture sector. With support from the European Union, FAO continues to support the functioning, reinforcement and strengthening of selected agricultural value chains in the west of Ukraine and their adaptation to the current environment.

As the war and its impacts are worsening and will deeply affect the sector in 2023, FAO will further scale up its presence and programmes to protect the food security and livelihoods of the rural population, to prevent the sizeable contraction of Ukraine's agriculture sector, and to support the government in its efforts to safeguard the country's agrifood systems and exports, which are a vital contributor to global food security.

UZBEKISTAN

In 2022, Uzbekistan continued to move towards digitalization in agriculture. FAO is providing technical assistance to the Ministry of Agriculture for the development of a programme to identify key priority areas and activities to accelerate the digitalization of the sector and strengthen agricultural knowledge and information systems. Through the [Smart Farming for the Future Generation project](#), funded by the Republic of Korea, FAO is helping smallholder farmers in three communities produce more food with less pesticides, fertilizers, water and labour, using low-cost digital and non-digital technologies. During the first crop cycle, farmers achieved a 90 percent increase in tomato production and a 140 percent increase in sweet pepper production.

FAO achieved valuable results in the implementation of various projects in Uzbekistan related to sustainable forest management, drought and salinity stress responses, conservation of desert biodiversity, smart farming, locust management and more. Three projects were launched in 2022: Sustainable Forest and Rangelands Management in the Dryland Ecosystems of Uzbekistan; Food Systems, Land Use and Restoration Impact Program in Uzbekistan; and Capacity-building to Establish an Integrated and Enhanced Transparency Framework in Uzbekistan to Track the National Climate Actions and Support Measures Received.

FAO also built fruit tree nurseries in three households in the Muynak, Kungrad and Bozatau regions of Karakalpakstan and planted more than 3 000 seedlings. An aquaculture pond was established in Bozatau, and two more fishponds are being established in the Muynak and Kungrad regions. The FAO smart farming project upgraded greenhouses in 40 households



©FAO/Giuseppe Carotenuto

in the Andijan, Namangan and Ferghana regions, resulting in higher yield and better incomes for beneficiaries. FAO also provided technical support and expertise on statistics to ensure that the main agricultural census coming in 2024 meets international standards.

FAO also contributed in 2022 to the improvement of three legal instruments in Uzbekistan related to agriculture. Through a project to support the implementation of inclusive agricultural policy, the gender team at the FAO Regional Office for Europe and Central Asia developed a draft gender equality strategy for the Ministry of Agriculture of Uzbekistan.

FAO also supported the Intellectual Property Agency under the Ministry of Justice of the Republic of Uzbekistan in drafting a new law on geographical indications, which was adopted into law on 3 March 2022.

RESOURCE MOBILIZATION

In terms of resource mobilization, 2022 was an unprecedented year for FAO in the Europe and Central Asia region. The total financial resources mobilized for the region was USD 160 million (up from USD 37 million in 2021), split almost evenly between emergency and development projects.

With a total contribution of USD 65 million, the GCF, the Global Environmental Facility and the European Union represent 80 percent of the development portfolio, while Canada and Japan have contributed 77 percent of the emergency portfolio. More development funds went to Kyrgyzstan (USD 33.6 million) than to any other country, thanks to a GCF-funded project that was the largest in the region. Georgia received USD 15.5 million from the European Union and Sweden as major resource partners.

In 2022, the Europe and Central Asia region became a pioneer in launching a food safety programme in Georgia under the European Union's Team Europe Initiative (USD 11 million), in cooperation with Czechia and with additional financial contribution from Sweden. Moreover, FAO signed the first cooperation agreement with the World Bank for Tajikistan, with the Government of Tajikistan being the donor (USD 2 million). Finally, as part of a stronger collaboration with the private sector, the Australian philanthropic organization Minderoo Foundation pledged to support FAO in Ukraine with USD 3 million.



Regional Office for Europe and Central Asia
Website: <https://www.fao.org/europe>

Food and Agriculture Organization of the United Nations
Budapest, Hungary