

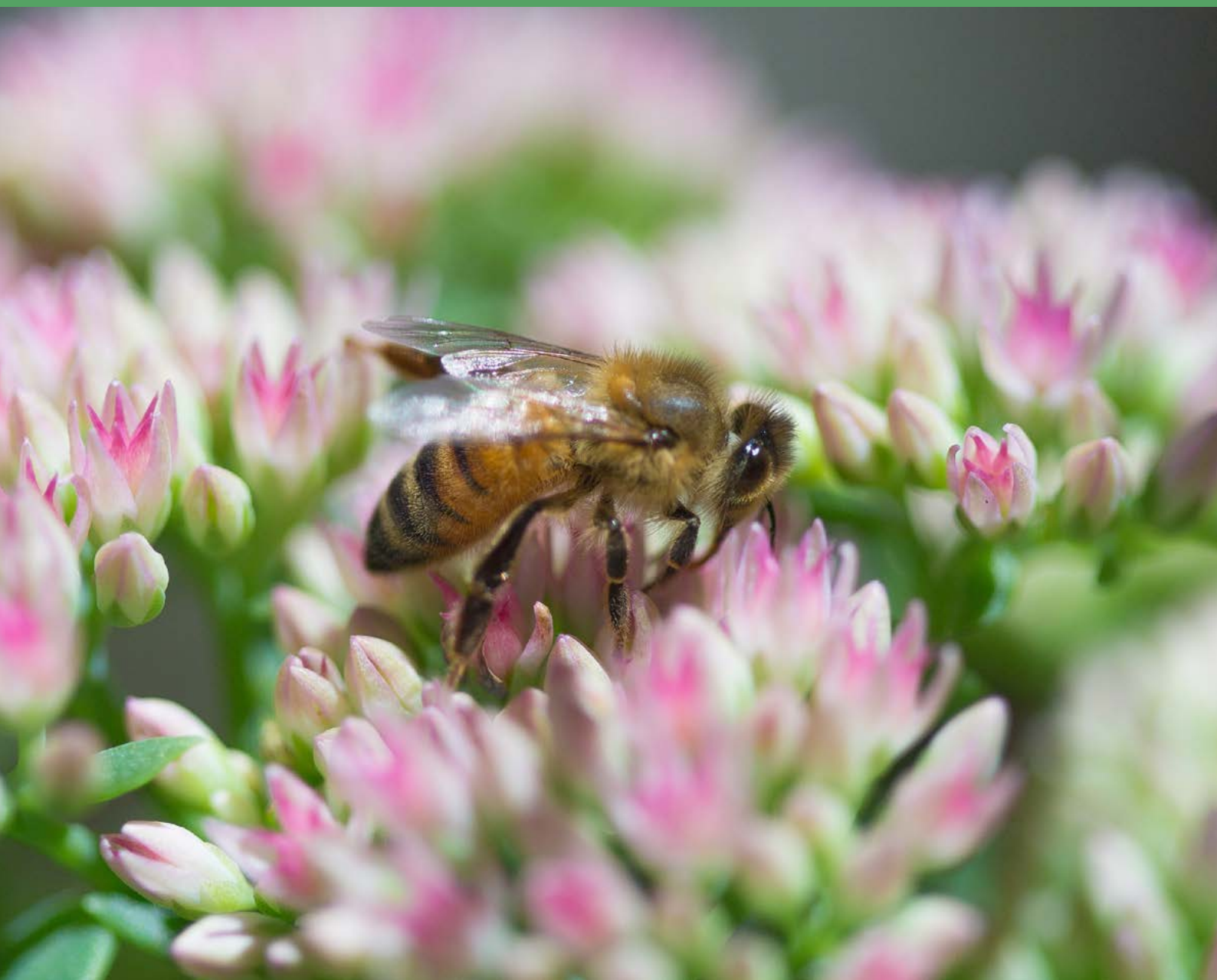


Food and Agriculture  
Organization of the  
United Nations

DECEMBER 2021

**ACTION PLAN FOR  
MAINSTREAMING BIODIVERSITY  
ACROSS AGRICULTURAL SECTORS  
IN EASTERN EUROPE AND CENTRAL ASIA  
2022 – 2023**

FAO REGIONAL OFFICE FOR EUROPE AND CENTRAL ASIA



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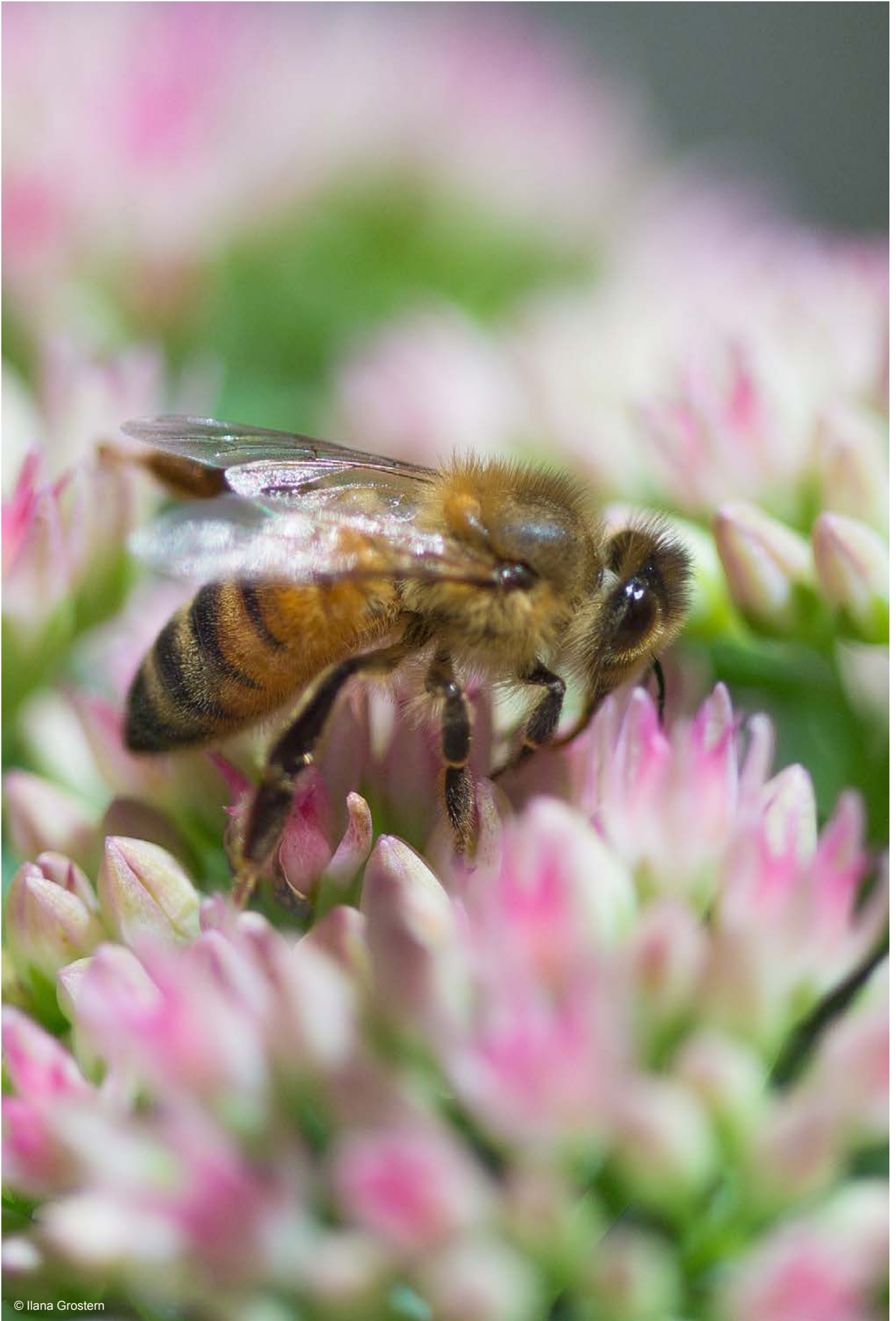
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# ABBREVIATIONS AND ACRONYMS

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<b>BFA</b>	Biodiversity for Food and Agriculture
<b>CBD</b>	United Nations Convention on Biological Diversity
<b>COP</b>	Conference of Parties
<b>ECA</b>	Europe and Central Asia
<b>EU</b>	European Union
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FAO REU</b>	Regional Office for Europe and Central Asia
<b>GBF</b>	Global Biodiversity Framework
<b>GDP</b>	Gross Domestic Product
<b>IFAD</b>	International Fund for Agricultural Development
<b>IPBES</b>	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
<b>KJWA</b>	Koronivia Joint Work on Agriculture
<b>SDG</b>	Sustainable Development Goals
<b>UN</b>	United Nations
<b>UNEP</b>	United Nations Environment Programme
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>WEF</b>	World Economic Forum





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# PURPOSE OF THIS ACTION PLAN

**B**iodiversity is critical for the sustainability of agri-food systems and achievement of the 2030 Sustainable Development Goals. In collaboration with its partners, such as the Convention on Biological Diversity (CBD) and other United Nations (UN) organizations, the Food and Agriculture Organization of the United Nations (FAO) leads the integration, in a structured, holistic and coherent manner, of actions for the conservation, sustainable use, management and restoration of biological diversity across agricultural sectors at national, regional and international levels.

Against this background, FAO has developed a series of instruments and tools related to biodiversity for food and agriculture (BFA) that can contribute to the implementation of the FAO Global Strategy on Mainstreaming Biodiversity across Agricultural Sectors, Post-2020 Global Biodiversity Framework and the UN Decade on Ecosystem Restoration 2021-2030, and in alignment with the mitigation and adaptation agenda of the United Nations Framework Convention on Climate Change (UNFCCC).

In line with its programming and operationalization mandate to address regional priorities, FAO Regional Office for Europe and Central Asia (FAO REU) via the Regional Initiative n°3 on Managing natural resources sustainably and preserving biodiversity in a changing climate, developed the Regional Action plan for biodiversity mainstreaming across agricultural sectors in 17 programming countries of Europe and Central Asia. During 2022-2023, it aims at addressing the priority regional challenges:

- insufficient data collection, monitoring and reporting systems on BFA, including pollinator diversity, that lead to inadequate evidence to guide the decision-making process;
- low awareness, weak collaboration and knowledge sharing on the role of BFA for food security and nutrition, and BFA mainstreaming amongst policymakers, producer organizations, academia, the private sector, civil society organizations, and local and indigenous communities on a national and regional level; and
- lack of regional capacities with regard to development and adoption of BFA-mainstreaming policies, practices, instruments and approaches, including in the context of a changing climate, considering that interconnection between biodiversity loss and climate change has a nature of mutual influence and reinforcement.

This Action plan was validated with targeting countries via the FAO Regional Dialogue on Biodiversity Mainstreaming across agricultural sectors for Europe and Central Asia held on November 16-17, 2021





# 1. SETTING THE SCENE

*“Biodiversity is the natural life system upon which human societies depend to flourish, so preserving it is essential for our own survival”.<sup>1</sup>*

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## 1.1. A GROWING CONCERN ABOUT BIODIVERSITY LOSS

The state of biodiversity all around the world is deteriorating at rates unprecedented in human history (FAO, 2019a; 2019b; Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), 2019; FAO, 2020a; 2020b; FAO & United Nations Environment Programme (UNEP), 2020). It is accelerating and is becoming one of the top threats humanity will face in the next 10 years (World Economic Forum (WEF), 2020). Almost a million of species in assessed animal and plant groups are estimated to face extinction while a quarter of all species are threatened (IPBES, 2019). Over 40 percent of insect species, which are the key pollinators for ¾ of top world food crops, are endangered (Sánchez-Bayo and Wyckhuys, 2019).

Humans rely on biodiversity in fundamental ways. It provides food and feed, energy, genetic and other natural resources, creates and maintains healthy soils, pollinates

plants, purifies water, regulates climate and protects against extreme weather events. These all are irreplaceable to human existence, wellbeing and the effective enjoyment of human rights. Over half of the world’s GDP is moderately to highly dependent on biodiversity (Guerquin & Ventocilla, 2020).

Biodiversity loss and ecosystems degradation are increasingly putting human security and livelihood at risk. It exacerbates human health crisis, causes collapse of food systems, disrupts entire supply chains and threatens the very foundations of economy. Its growing adverse effects are already disproportionately affecting marginalized populations. Undervaluation of nature-related risks and inaction in the face of biodiversity loss will cost us USD 14 trillion, or 7 percent of global Gross Domestic Product by 2050 (WEF, 2020).



## 1.2 INTERLINKED: BIODIVERSITY, ECOSYSTEMS, AGRICULTURE AND CLIMATE CHANGE

Food, land and ocean use is the economic sector most depended on biodiversity and yet responsible for 72 percent of threatened and near-threatened species. At the same time, this socio-economic system is equipped with the largest opportunity to lead the transition towards the nature-positive future that can deliver USD 3.6 trillion of annual business opportunities alone (WEF, 2020a).

Habitat loss by conversion of land to intensive monocultural agriculture and industrial expansion is the largest driver of the biodiversity loss (IPBES, 2019). Due to land and sea

use change, over 85 percent of wetlands are being lost,  $\frac{3}{4}$  of land and half of the ocean surface impacted. Pesticides and agrochemicals use, pollution, overharvesting along with proliferation of invasive species endanger biodiversity. While population growth, unsustainable consumption patterns and urbanization indirectly contribute to its loss.

The climate crisis and loss of biodiversity, two key planetary threats for the next decade, are mutually forced. Climate change currently drives up to 16 percent of biodiversity loss, and the share is growing. Triggering loss of diversity leads to a decline in the flow of ecosystem services that agriculture depends on and undermines the resilience of agrifood systems against climate change.





### 1.3. BIODIVERSITY FOR FOOD AND AGRICULTURE

Biodiversity for food and agriculture (BFA) corresponds to “the variety and variability of animals, plants and micro-organisms at the genetic, species and ecosystem levels that sustain the ecosystem structures, functions and processes in and around production systems, and that provide food and non-food agricultural products” (FAO, 2013). It includes plant, animal and aquatic genetic resources for food and agriculture, forest genetic resources, associated biodiversity and wild foods. It also includes micro-organisms used for food processing and in agro-industrial processes in crop and livestock production, forestry, fisheries and aquaculture sectors.

Associated biodiversity refers to “the myriad components of biodiversity that support food and agricultural production by providing services such as pollination, pest control, soil formation and maintenance, carbon sequestration, purification and regulation of water supplies, reduction of disaster threats, and the provision of habitat for other beneficial species” (FAO, 2019a, p. xix). “Examples [of associated biodiversity] include pollinators, the predators of crop pests, the vegetation found in hedgerows and at field margins, and the invertebrates and micro-organisms that help to create and maintain the soil and its fertility. In addition to beneficial species such as pollinators, crop associated biodiversity includes the various species that inhibit crop production by acting as weeds or pests» (FAO, 2019a, p.12).

Beyond BFA definition although of high concern, remains the *biodiversity impacted by food systems*, for instance, wild species threatened by unsustainable production practices, pesticides and agrochemical pollutants, overexploitation of natural resources, and habitat loss due to conversion in agricultural land or seascape.

#### CUSTODIANS OF BFA

Indigenous and local communities are gatekeepers of biological diversity. Comprising less than five percent of the total world population and being extremely vulnerable to human-induced environmental and socio-economic crises, compromising their food sovereignty and livelihood, indigenous peoples protect and manage 80 percent of global biodiversity (Garnett et al., 2018; Raygorodetsky, G. 2018).

The extraordinary diversity of cultivated plants, domesticated breeds, agricultural and food production knowledge co-evolved, for millenia, side by side the generations transforming surrounding landscapes and is rooted in cultural identity of local populations and their traditions. Despite that, the role of indigenous and local communities, pastoralists, livestock keepers, forest dwellers, fishers and fish farmers, small-scale food producers and family farmers as the custodians of biodiversity is poorly recognized and widely undervalued in decision-making.







## 1.4. BFA STATUS IN EASTERN EUROPE AND CENTRAL ASIA

The Europe and Central Asia region includes four biodiversity hotspots (the Caucasus, Irano-Anatolian, Mediterranean Basin, and Mountains of Central Asia) and hosts a great variety of climates, landscapes, aquatic environments, soil types, and cultures, and hence also biodiversity. Being part of the primary centres of origin of crop plants, the region is home to a great number of wild relatives of cultivated plants and domesticated animals that secure a valued reservoir of genetic diversity.

Despite the lack of monitoring systems and reliable data, the BFA loss is a reality in the region (FAO, 2020b; FAO, 2019; IPBES, 2018; Scherf and Pilling, 2015; FAO, 2014; FAO, 2010). Same as on the global scale, rich biodiversity and diverse ecosystems in the region are mostly threatened by changes in land use and intensification in agricultural sectors. The problem of genetic erosion caused by inter alia the steady trend for replacement of local varieties with modern ones is common across the region.

Forest loss, proliferation of invasive alien species, along with pollution from discharge and runoff of nutrients and other chemicals cause significant damage to terrestrial, marine and freshwater habitats and species. Globally induced climate change intensifies the pressure on regional natural resources and ecosystem services, threatening regional BFA. In Central Asian countries, the combination of excessive water use and limited water resources puts considerable stress on the aquatic ecosystems.

The majority of the region's population still live in rural areas. Agriculture plays an important role in people's livelihoods and, due to its importance, is a major user of the region's natural resources and ecosystem services. At the same time, smallholders, family farmers and small-scale food producers represent an important yet unexplored asset for the sustainable use, conservation, and restoration of BFA in the region. When managed by small-scale food producers, biodiversity can have a high level of heterogeneity embedded within it, thereby improving its adaptive capacity and increasing the resilience of ecosystems (FAO, 2021b).

## 1.5. CHALLENGES FOR THE BFA CONSERVATION AND SUSTAINABLE USE IN ECA REGION

Based on the FAO study (2021b) which examined data collection, monitoring systems and conservation initiatives as well as legislations and policies related to BFA in the region, several groupings of challenges and gaps were identified in mainstreaming biodiversity across agricultural sectors.

### WITH REGARD TO DATA COLLECTION, ASSESSMENT AND MONITORING:

Short-term and random approach to data collection and monitoring systems is prevailing across the region. BFA data are mostly collected via short-term funded projects and remain not integrated into central system, making it difficult to use in different contexts and align. As a result, compatible standardised and harmonised data is lacking. Where centralised state database of genetic resources is maintained and updated, it remains not or hardly accessible to scientific institutions, institutions of higher education, farmers, NGOs and other stakeholders.

Solid state-supported monitoring schemes for BFA are missing. It is reduced mainly to individual research projects, primarily carried out by faculties and universities, and research and academic institutions that are responsible for inventorying, collecting, characterizing and evaluating, storing in gene banks, and documenting genetic resources. Collected by various actors, the data is not systematically structured and validated, which makes it very difficult to use and/or establish or improve monitoring.

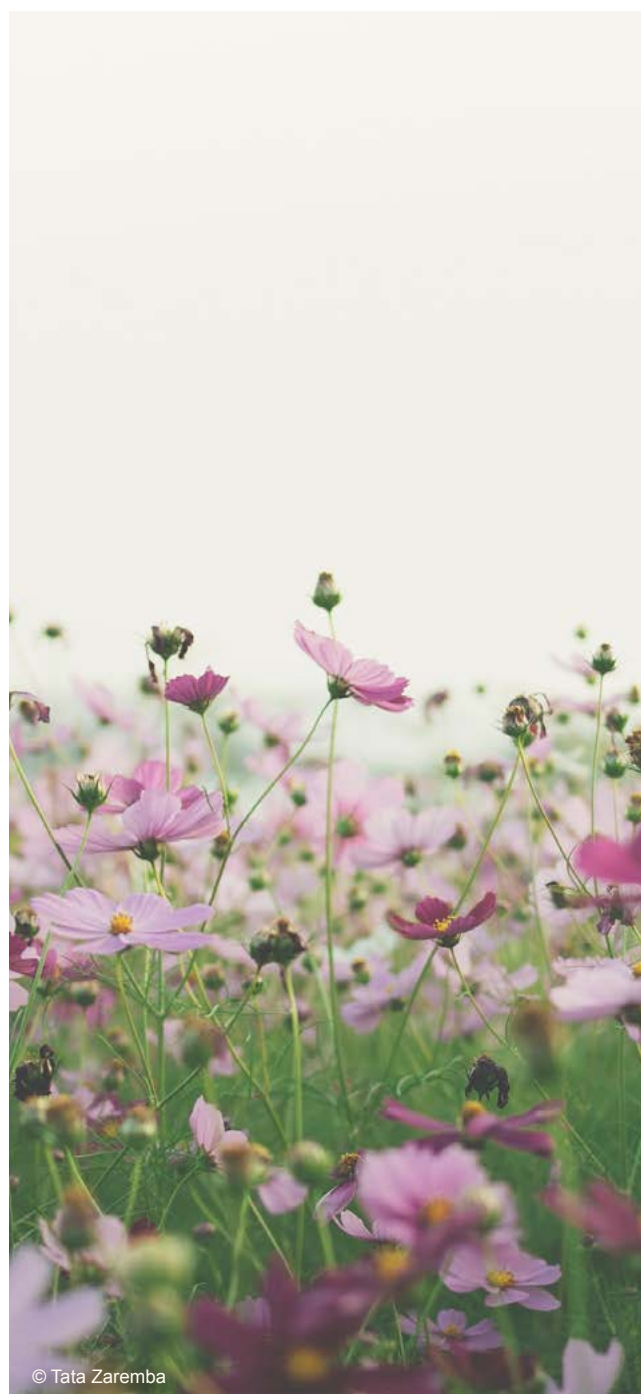
Where data for assessment and monitoring purposes are collected, it is mainly focused on habitat conservation. Specific focus on local threatened varieties and breeds beyond habitat conservation or on wild biodiversity loss (including on pollinators) caused by food systems is lacking, highlighting the gap in monitoring of the impacts of agri-food systems on BFA and wild biodiversity degradation.

More specifically, there are critical data gaps on associated biodiversity in each agriculture sector and on soil microbiological diversity. Instruments and systems that allow for monitoring and assessment of the quality of seeds and planting material are lacking. In most cases, genetic resources are under-researched and under-known.

Separately, wide knowledge gaps on the most wild and managed pollinators groups should be underlined. There is a lack of good examples of data collection, vulnerability assessments of groups of pollinator species and other beneficial organisms, or assessments of changes in the distribution and levels

of pollination services. The volumes of inputs (pesticides, fertilisers, and their adjuvants) utilised by landholders are not clearly assessed and their consequences on pollinator decline and threats to pollinator communities are not studied, thereby remain unknown.

Despite the important potential of smallholders and family farmers, livestock keepers, forest dwellers, fishers and fish farmers in BFA conservation they are poorly considered as custodians of biodiversity and reliable knowledge holders by official systems. Hence, their involvement in monitoring and data collection processes is non-existent or very low. Supporting policies and schemes for assessment of their conservation activities, as well as coordinated efforts with scientists in this regard, are missing.





## WITH REGARD TO POLICY AND LEGISLATION:

It is common across the region, that national policies, legislation and programmes prioritise wild biodiversity conservation through habitat protection and ex-situ plant and animal genes conservation. Actions may target habitats and species in and around agrifood systems, although they are typically not targeted specifically thanks to their beneficial roles in food and agriculture. While conservation initiatives are useful to protect biodiversity, there is still an enormous need to reverse BFA degradation.

Despite some efforts for developing new strategies and action plans for the conservation and sustainable use of biodiversity, and ratifying multilateral environmental agreements, the institutional and legal framework for the regulation and management of BFA's conservation and sustainable use remains weak and fragmented. There is no systematic and specific approach to adequately address the root causes of BFA loss adopted across the legislative frameworks, policies and

actions. The legal and policy basis in the field of environmental protection, agriculture and rural development does not serve BFA.

Where BFA-friendly strategies exist, there remain the lack of laws and regulations that translate them into actions. In some cases, such regulations exist, but the implementation is poor due to insufficient institutional structures, resources, staff or multi-sectoral coordination. Despite all countries in the region being signatories to CBD, practical mechanisms are not implemented and hinder the potential positive effects of the CBD on BFA.

Despite all countries being parties to the Cartagena Protocol, initiatives to mainstream biosafety into national biodiversity strategies and action plans, relevant policies, and regulations are poor. Institutional arrangements and infrastructure, well-trained human resources, adequate funding, access to relevant information, inter-agency coordination, regional cooperation, and public awareness on issues related to biosafety are lacking.



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There are not clearly defined and uniform legal regulations regarding access to genetic resources and benefit-sharing, genetic leakage of local traditional varieties or the protection of traditional knowledge associated with genetic resources. International instruments that serve to guarantee the rights of producers to grow and raise local varieties and breeds are poorly fulfilled.

Even wider ecosystem approach is not yet integrated into the management of natural resources, in sectoral or cross-sectoral plans. The value of ecosystem services provided by and to agriculture, livestock, fisheries and aquaculture, forestry and wildlands very often is not considered during economic assessments and decision-making and is not sufficiently reflected in the legislative framework or economic indicators.

Similarly, knowledge and understanding of tools and techniques for the economic valorisation of BFA are lacking, and the economic valuation of BFA as a value of ecosystem services is widely missing. Integration of the BFA values in policy documents, strategies and programs across economic sectors remains insufficient, relevant economic mechanisms, such as payments for ecosystem services, are not developed.

Gaps in the legislation targeting mobilisation of private finance for protection and sustainable use of BFA prevent businesses from developing activities in this area. Despite their economic, social and environmental importance, ecosystem services, in general, are poorly understood, have not been properly valued and integrated into market relations yet, hence, do not receive adequate attention, resources, or investment.

Harmful to nature subsidies are widely applied across agricultural sectors' policies and legislation are counter-

directed to the mainstreaming of biodiversity and serving as a disincentive for the conservation and sustainable use of BFA. Lacking transparency, subsidy programmes limit general public's understating of their effects and prevent creation of public pressure on decision-makers to revert them. Moreover, subsidy systems marginalise smallholders and family farms, as they are practically unavailable to them.

The importance of pollination services for agriculture is widely underestimated amongst public and private agencies. And this is reflected in the gap in pollinator-related legislation or policies to protect wild and domesticated pollinators. There exist some basic legislations related to beekeeping or to protection of bees from poisoning with agrochemicals.

In a wider perspective, missing strategies in support of local markets development also have negative impact on BFA sustainable use, limiting the diversity of consumed food. The potential of short food value chains, that allow for the commercialisation of a wider variety of products than long value chain while contributing to resilience of food systems, is not exploited. Poor support and a lack of interconnection amongst local community BFA-related initiatives and food value chains represent additional gap.

## WITH REGARD TO CAPACITY AND AWARENESS:

Lack of funding remains a major obstacle to more effective implementation of BFA relevant strategies and action plans. In general, national policies do not define a vision and plan for securing stable and long-term financial resources for biodiversity monitoring and conservation resulting in flows of finance being sparse and poorly interconnected. Official activities for data collection, monitoring and protection take place mainly as part of national or regional projects financed by foreign donors.



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The responsibilities of the different national ministries and institutions involved are not clearly defined and activities are not coordinated; this is both at the policy level and at the level of the management and support measures for the BFA conservation and sustainable use. Mentioned above low awareness amongst institutions and decision-makers about ecosystem approach and the value of biodiversity limit their understanding of the benefits this can bring to improve the institutional and legal framework and facilitate decision-making.

There are also insufficient mechanisms of cooperation, coordination and inadequate flow and exchange of information amongst all actors and stakeholders involved — local communities, civil society, academic, government, and business sectors — at any stage of the processes for BFA conservation and sustainable use. The problem of coordinated management, in general, has two aspects: horizontal (linking with the sectors) and vertical (coordination of work at different levels).

Low awareness of wide public and users of ecosystem services about the services provided by ecosystems, and the role of BFA for food security, leads to its poor valuation in societies and a low level of public participation in the decision-making process, which, on its turn, leads to a low priority of BFA

issues among decision-makers. In particular, low awareness and under-acknowledgement of the vital role of pollinators for food security limit the mainstreaming of pollinators protection across the policies and strategies.

Poor public understanding of the connection between the nutrition quality of foods and BFA results in a loss of diversity in consumed food. The lack of institutional framework, studies on public awareness' assessments, and cooperation between state structures and civil society hamper the development of relevant communication strategies, environmental education initiatives and coverage of BFA issues and its value in the media.

### WITH REGARD TO KNOWLEDGE AND RESEARCH NEEDS:

In general, the lack of comprehensive knowledge about the functions of biodiversity and agricultural ecosystems makes it difficult to achieve holistic conservation and sustainability objectives. Scientific uncertainties and gaps in understanding the combined impact of climate change and context-specific indirect and direct drivers of BFA loss pose additional constraints. There is a key gap in the identification, quantification and assessment of trends in drivers over time owing to their high spatial and temporal variability.



Significant knowledge gaps exist in studies focused on wild and domesticated pollinators. There is a lack of region-specific studies on the impact of industrial agriculture on the loss of BFA and wild biodiversity and how BFA contributes to provision of ecosystem services, especially in marine systems. In several countries, Central Asia in particular, large information gaps of past and current BFA trends exist. Existing assessments mechanisms inadequately depict the subtle changes in land-use and generally ignore interaction mechanisms between land-use and climate effects, and consequently fail to accurately project BFA change.

Little research has been conducted on the integration of local and indigenous knowledge into national and international policy frameworks and initiatives to create synergies across knowledge systems, also in sectors of direct relevance to BFA, such as agriculture, forestry, fisheries, water and climate change.

More knowledge is needed about the effectiveness and efficiency of policy instruments that also consider institutional contexts, social and gender impacts and how equity can be improved as well as on the effects of policy instruments on behaviour and on the economic and social systems within which the stakeholders operate.

In addition to very insufficient financing of scientific research and training of specialists in the field of biodiversity

studies, BFA topic is generally not included in formal academic curricula or in the training of specialists in biodiversity studies. What is more, addressing issues related to the BFA conservation separately from those related to BFA sustainable use results into “decoupling” of expert knowledge and the trained specialists lacking competences for interdisciplinary work.

### WITH REGARD TO THE ROLE OF SMALLHOLDERS AND FAMILY FARMERS:

Even though there exists greater traditional knowledge of farmers who maintain local and old varieties and populations of species and the ways of their reproduction, farmers and other food producers lack incentives and capacities to engage in conservation activities on BFA and wild biodiversity impacted by food systems.

Notwithstanding local and indigenous knowledge starting to be acknowledged as a key for an improved understanding of local BFA status and trends, very few BFA conservation activities refer explicitly to them. The supporting policies, measures and monitoring systems to protect traditional knowledge and practices of family farmers, livestock keepers, forest dwellers, fishers and fish farmers and the regulations that recognise their contribution to the genetic heritage are missing.





Despite being an important element of maintaining BFA as the primary place for the protection of genetic resources of cultivated plants and domesticated breeds, actions targeting in situ and on farm conservation are very rare. No database of farms where landraces, local varieties and populations, as well as autochthonous plants and breeds, can still be found exists.

There is a weak legal framework for protecting farmers' rights to seeds and a clear and understandable mechanism for regulating access to and use of benefits on a fair and equitable basis is missing. A significant gap exists in the alignment of seed legislation to the purposes of BFA conservation and use, in general, and protection of local varieties and breeds produced by farmers, in particular. Absence of legal and institutional mechanisms that would allow farmers to legally market their seeds of local plant varieties limits their access to formal distribution channels.

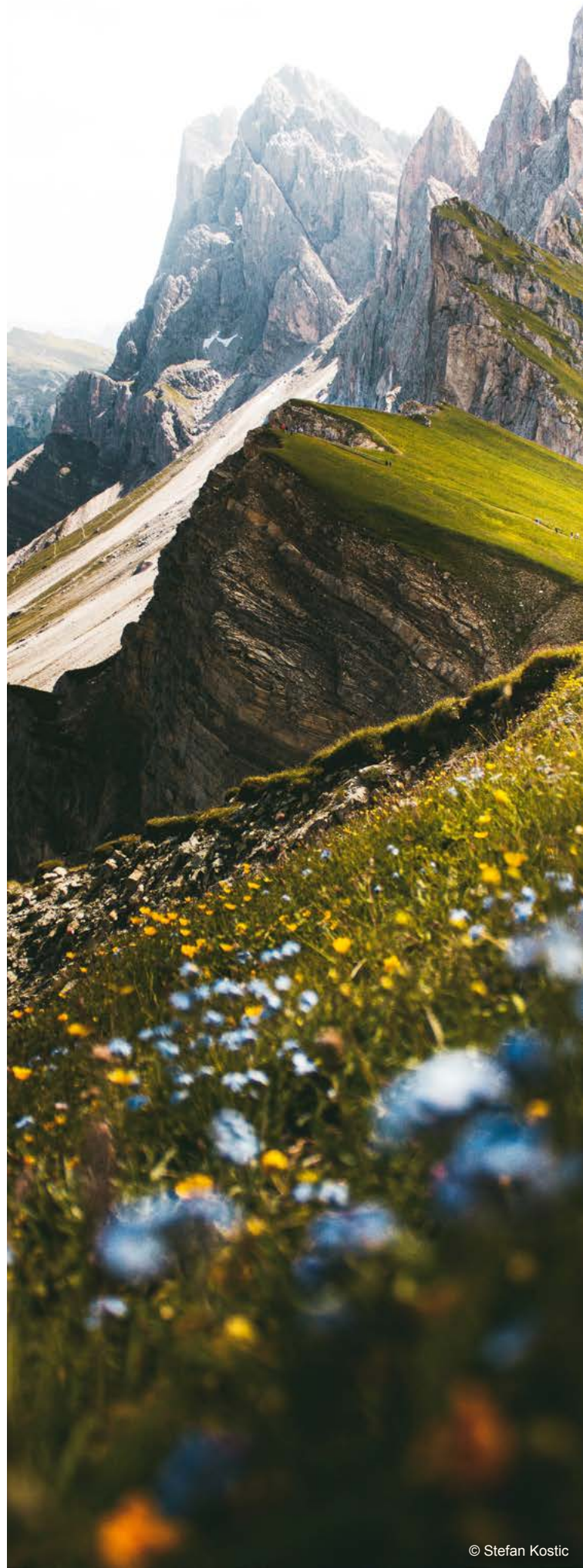
The level of awareness of local communities and indigenous peoples, regarding the value of BFA and the importance of local and indigenous knowledge, skills and resources they possess for BFA conservation and sustainable use is low. In rural areas, there is a general lack of easily accessible up-to-date information on the status and values of BFA and current threats to it.

Along with that, weak rural extension and training programmes for farmers, livestock keepers, forest dwellers, fishers and fish farmers, and food producers in the field of BFA, ecosystem services and agroecology create gap in capacity of local actors to practice on-farm conservation, sustainable agriculture approaches and engage in ecosystem schemes and community efforts beneficial for biodiversity.

## WITH REGARD TO REGIONAL AND INTERNATIONAL COOPERATION:

Initiatives on regional and international cooperation to monitor the state of BFA and sharing of data are not developed sufficiently, remain fragmented and inadequate. Regional networking, transnational programmes and projects for cross-border cooperation in these regards are missing. Continuous cooperation between the countries on BFA conservation and preservation of genetic resources is weak.

There is experience gap between the countries that have just recently adopted ecosystem approaches and find it difficult to develop adequate policies and strategies to ensure the application of these approaches and the countries that have more experience with the implementation of ecosystem approaches. Strengthening of regional cooperation and increasing of international dialogue can fulfil this gap.





## 2. MAINSTREAMING BIODIVERSITY ACROSS AGRICULTURAL SECTORS

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### 2.1. INTERNATIONAL POLICY FRAMEWORK

#### *2030 Agenda for Sustainable Development*

The Agenda sets out universal Sustainable Development Goals (SDGs) and targets to address a range of global challenges. Biodiversity underpins the whole Agenda, while directly relates to 14 out of 17 SDGs and is critical to the success of achieving their targets. It brings multiple benefits to, among others, achieving poverty eradication, health and food security, human rights, gender equality, climate resilience.

Current trends on biodiversity loss and degradation of ecosystem are impeding the progress on most of the SDG targets, posing a risk to the overall achievement of the 2030 Agenda. Effective progress towards sustainable development is indivisible from the need to better mainstream biodiversity across all sectors of the economy and society.

#### *UN Convention on Biological Diversity and Post-2020 Global Biodiversity Framework*

In 2022, the Conference of Parties (COP) to the CBD will adopt the Post-2020 Global Biodiversity Framework (GBF)



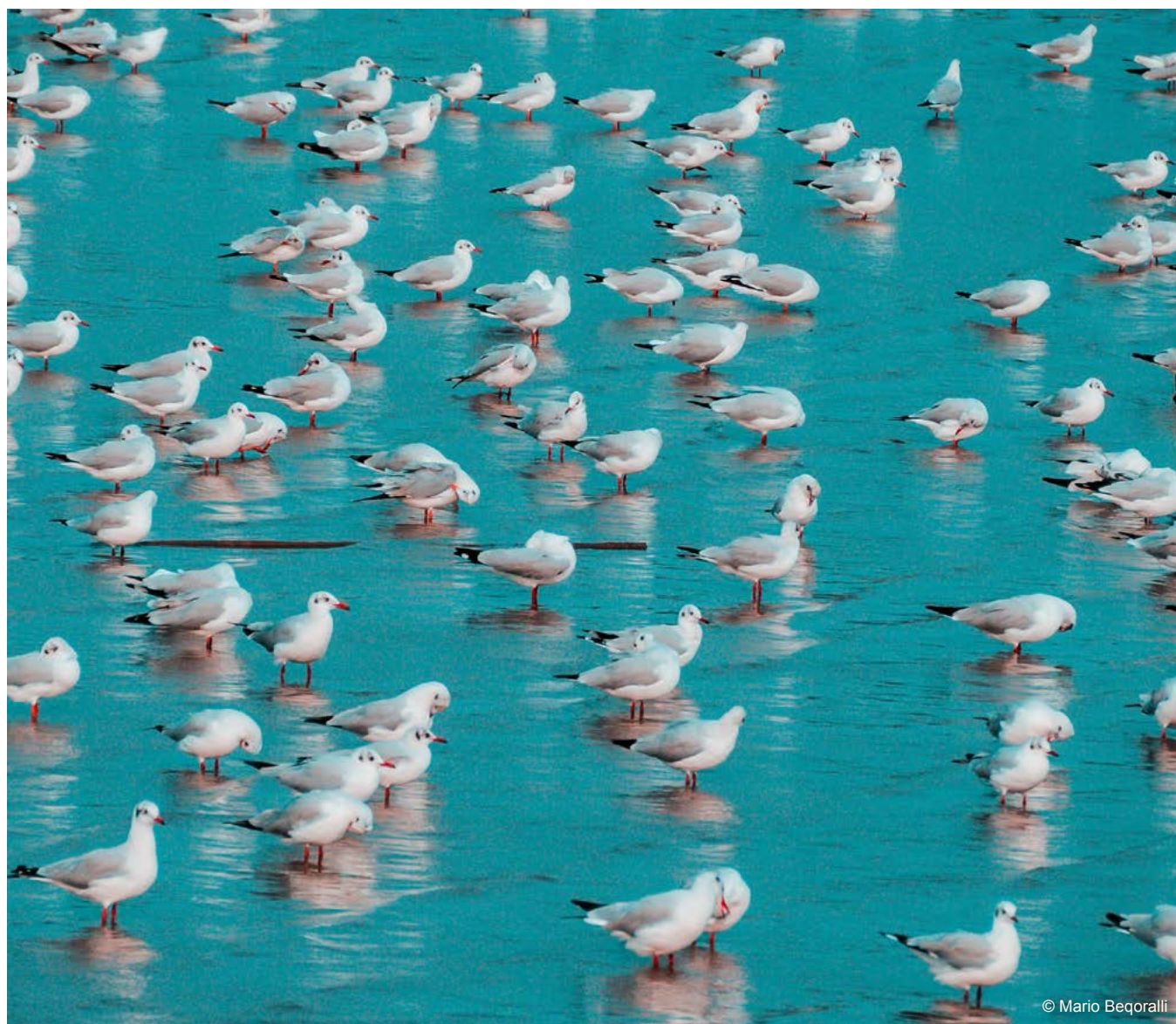
designed to set the targets and ‘milestones’ for the next 10 years’ progress toward the 2050 Vision of «Living in harmony with nature». To allow for reversing biodiversity loss and embarking on a nature positive pathway, effective implementation of this framework will require the full engagement of all food and agriculture sectors and enhancement of the dialogue and joint action between agricultural and environmental sectors. To tackle direct and indirect drivers of biodiversity loss, the role of gender, Indigenous and local communities, family farmers, small-scale producers, fisherfolk, livestock keepers and foresters are highlighted.

The *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization* to the CBD sets a framework for access to genetic resources, fair and equitable benefit-sharing and compliance to create incentives to conserve and sustainably use genetic resources as well as traditional knowledge associated with genetic resources and genetic resources held by indigenous and local communities. Four cross-cutting initiatives, on pollinators, soil biodiversity,

biodiversity for food and nutrition, and genetic use restriction technologies, make part of the programme of work on BFA under the CBD. FAO collaborates with the CBD to ensure that food security and the agriculture sectors are well integrated in the global biodiversity agenda.

### *UN Decade of Ecosystem Restoration 2021–2030*

Healthy marine and terrestrial ecosystems are the important reservoirs of biodiversity. Unsustainable management and use of landscapes, river basins, and seascapes often result in degradation of ecosystems. Associated loss of biodiversity and ecosystem services inevitably leads to decline in agricultural productivity, threatened food security, loss of livelihoods, increased poverty, weaker resilience to climate change, and in overall, disrupts progress towards achieving global development goals.



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To protect ecosystems and catalyze ecosystem restoration for the benefit of people and nature, the United Nations Environment Programme (UNEP) and FAO are leading the world-wide multistakeholder action to implement the global Decade on Restoration – from 2021 to 2030. It aims to inspire and support governments, UN agencies, civil society, private sector, youth, indigenous peoples, local communities, smallholders and farmers, and individuals globally, to collaborate, develop and accelerate restoration initiatives across the world. Ecosystem restoration actions will aim to generate sustained flows of ecosystem services that contribute to restoring biodiversity and climate change mitigation and adaptation

### *UN Decade of Family Farming 2019–2028*

Family farmers are custodians of biodiversity; they manage natural resources and contribute to ecosystems' resilience, maintain community and cultural heritage, preserve and share the knowledge to produce food as part of local traditions. A world where diverse and sustainable food and agricultural systems flourish cannot be imagined without family farming communities enjoying a high quality of life in dignity, equity, free from hunger and poverty. To advance family farmers' position to lead the economic, environmental and social transformational changes that affect rural areas and the entire planet, the Decade aims at bringing together the efforts of the international community in promoting favourable policies and actions.

The Decade's Global Action Plan (FAO and IFAD, 2019) places farmers and rural youth at the center of the actions that strengthen the multifunctionality of family farmers and, among others, explore their potential towards preserving the diversity of ecosystems and genetic resources, traditional practices and knowledge. It emphasizes

the importance of inter-generational and intra-generational collaboration and learning processes to share and transmit local knowledge and traditional practices to conserve, sustainably use, exchange and dynamically manage biodiversity. It also recognizes the key role women knowledge play in safeguarding biodiversity, including native seeds, farmers' varieties, landraces, neglected and underutilized species.

### *UN Declaration on the Rights of Peasants and Other People Working in Rural Areas*

Adopted in 2018, it recognizes the value of peasants, indigenous peoples and local communities, other people working in rural areas, for conservation and enhancement of biodiversity for food and agricultural production throughout the world. It enforces the right for peasants to maintain, control, protect and develop their own seeds. Supporting measures to prevent the depletion and ensure the conservation and sustainable use of biodiversity, promote peasant seed systems, and their use, and protect relevant traditional knowledge and practices, are declared.

### *The Convention on Protection of the World Natural and Cultural Heritage*

Many cultural landscapes safeguard important biodiversity values and conserve ecosystem integrity. Recognizing the interconnection between cultural and biological diversity, World Heritage sites constitute significant opportunities for reinforcing biodiversity conservation and sustainable use. The World Heritage Convention ensures global commitment for the conservation of this biocultural heritage. To coordinate global action, UNESCO and the Secretariat of the CBD run their Joint Programme on Biological and Cultural Diversity.



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### *International Treaty on Plant Genetic Resources for Food and Agriculture*

This international instrument is key for the conservation and sustainable use of plant genetic resources for food and agriculture. It supports the use and breeding of local crops, protects the traditional knowledge of farmers and promotes diverse farming systems. Recognizing the farmers' contribution to the diversity of crops around the world, the Treaty facilitates access to the global system of genetic materials and establishes benefit-sharing mechanisms from their use.

### *EU Biodiversity and Farm to Fork Strategies*

In line with the European Green Deal, an umbrella strategy to make the EU economy sustainable by turning climate and environmental challenges into opportunities, in 2020, the

European Commission adopted the EU Biodiversity Strategy for 2030 and the Farm to Fork Strategy.

The Biodiversity Strategy is a comprehensive and long-term plan to put Europe's biodiversity on the path to recovery, to protect nature and reverse the degradation of ecosystems for the benefit of people, climate and the planet. The aim of the Farm to Fork Strategy is to make food systems fair, healthy and environmentally friendly.

Developed in the post-COVID-19 context, both strategies focus on building resilience to future threats and are placing the regeneration of the natural world at the center of the EU plan for economic recovery following the COVID-19 pandemic. Both 10-years Action Plans embrace measures to ensure more sustainable food production, improving food systems, and encouraging better food consumption and diets. Part of the EU action is to support measures to tackle the global biodiversity challenge and lead the global transition to sustainable agri-food systems.



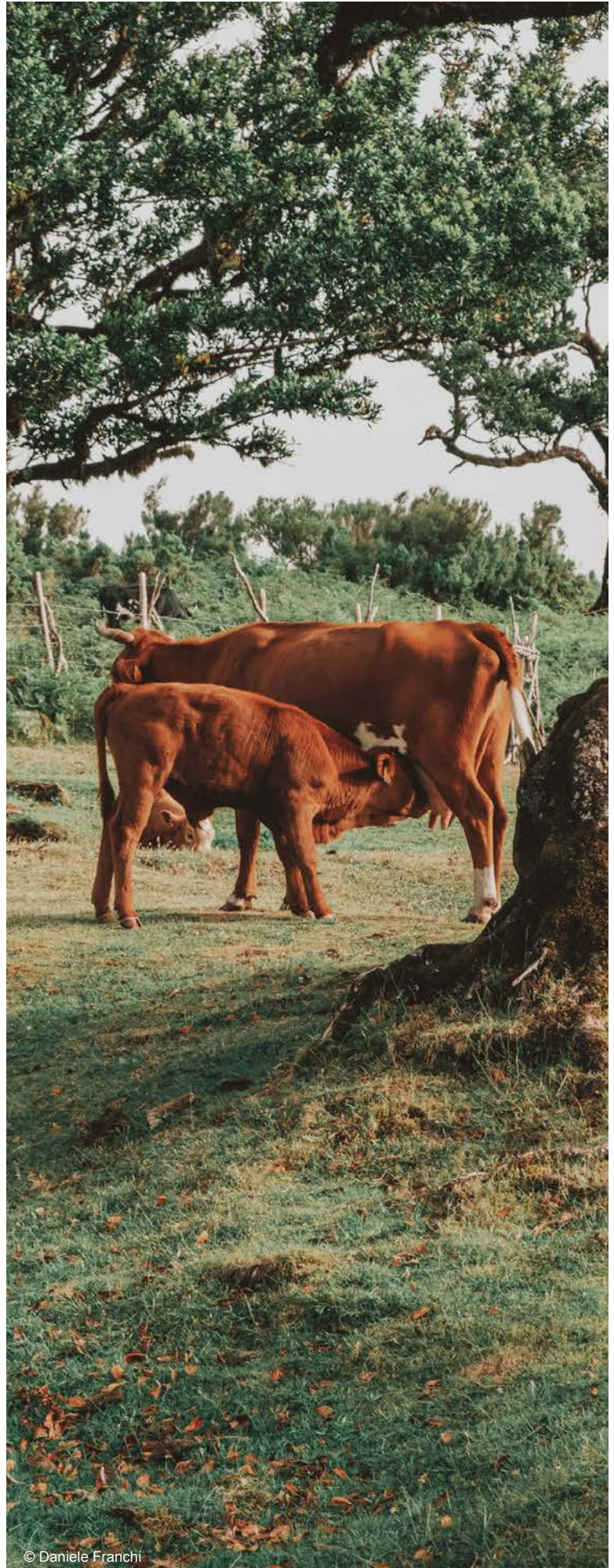
## *Global climate action and biodiversity*

Agriculture, including forestry, fisheries and livestock production, generate around a fifth of the world's greenhouse gas emissions. It is also one of the sectors most devastatingly affected by the impacts of climate change. At the same time, agriculture and food systems are critical entry-points for the protection of biodiversity and addressing climate change. All these poses agri-food system transition and biodiversity loss as well as exploration of the nature-based solutions at the heart of the climate action.

Recognizing the unique potential of agriculture in tackling climate change, at the 23d Conference of Parties to the United Nations Framework Convention on Climate Change (COP23), the Koronivia Joint Work on Agriculture (KJWA) was established. The KJWA aims at supporting agricultural development that ensures both increased food security in the face of climate change and a reduction in emissions. It addresses six interrelated topics on soils, nutrient use, water, livestock, methods for assessing adaptation, and the socio-economic and food security dimensions of climate change across the agricultural sectors.

In 2021, Nature Campaign, the policy campaign on commitments to nature and biodiversity, was announced as part of the path towards the COP26 by the UK Presidency. The results of the COP26 show, the role nature and biodiversity play in meeting climate change targets and adapting to climate change is increasingly recognised. Outlining the importance of protecting biodiversity, the Glasgow Climate Pact acknowledges the role of diverse and integral ecosystems in mitigating climate change.

The signed Glasgow Leaders' Declaration on Forests and Land Use affirms the critical role of biodiversity, and local and indigenous peoples and communities as its stewards, and the need for transformative action, including in food and agriculture sectors providing support for smallholders. With an aim to bridge biodiversity restoration to climate change solutions, the third part of the World Biodiversity Summit that took place during the COP26 facilitated joint commitments on both the global biodiversity and the climate agenda.



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## 2.2. FAO GLOBAL STRATEGY AND ACTION PLAN ON BIODIVERSITY

Within FAO, biodiversity became a cross-cutting technical theme in the new Strategic Framework 2022-2031 (FAO, 2021d). Four Programme Priority Areas of the Framework – better production, better nutrition, a better environment, and a better life – seek to support the 2030 Agenda through the transformation to more efficient, inclusive, resilient and sustainable, agri-food systems while leaving no one behind.

Within the ‘Better Environment’ area, maintenance of BFA and promotion of sustainable use, conservation and

restoration of marine, terrestrial and freshwater ecosystems, and their services are programmes through adoption of targeted policies and practices.

In 2020, the FAO Strategy on Mainstreaming Biodiversity Across Agricultural Sectors (FAO, 2020a) was developed with the aim to mainstream biodiversity across agricultural sectors at the national, regional and international levels in a structured and coherent manner, taking into account national priorities, needs, regulations and policies, and country programming frameworks; the idea was to reduce the negative impacts of agricultural practices on biodiversity, to promote sustainable agricultural practices, and to conserve, enhance, preserve, and restore biodiversity as a whole.



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**Four overarching goals of the Strategy have been defined as:**

- Goal 1** • Promote sustainable use and management of biodiversity with a special focus on landscape and ecosystem approaches in agricultural sectors;
- Goal 2** • Conserve, enhance and restore biodiversity and ensure the continued provision of ecosystem services;
- Goal 3** • Promote sustainable agriculture and food systems that integrate the conservation, recognition and promotion of biodiversity throughout value chains; and
- Goal 4** • Safeguard the livelihoods of small-scale producers and indigenous peoples and local communities as custodians of biodiversity, and emphasise the role of all relevant stakeholders as custodians of biodiversity.

To operationalise the Strategy, the global Action Plan for 2021–2023 (FAO, 2021a) was developed with key actions, deliverables and delivery dates for each of the Strategy’s four outcomes:

- Outcome 1** • support provided to Members, at their request, to enhance their capacity to mainstream biodiversity.
- Outcome 2** • biodiversity mainstreamed across FAO REU programmes and activities.
- Outcome 3** • role of biodiversity and its ecosystem services for food security and nutrition regionally recognized.
- Outcome 4** • coordination and delivery of FAO’s work on biodiversity strengthened.

In 2021, the Framework for Action on Biodiversity for Food and Agriculture was developed by the Commission on Genetic Resources for Food and Agriculture in response to the report on the State of the World’s Biodiversity for Food and Agriculture (FAO, 2019a). It identifies needs and interlinked possible actions for the sustainable use and conservation of BFA, organized into three strategic priority areas:

### **1. Characterization, assessment and monitoring of BFA**

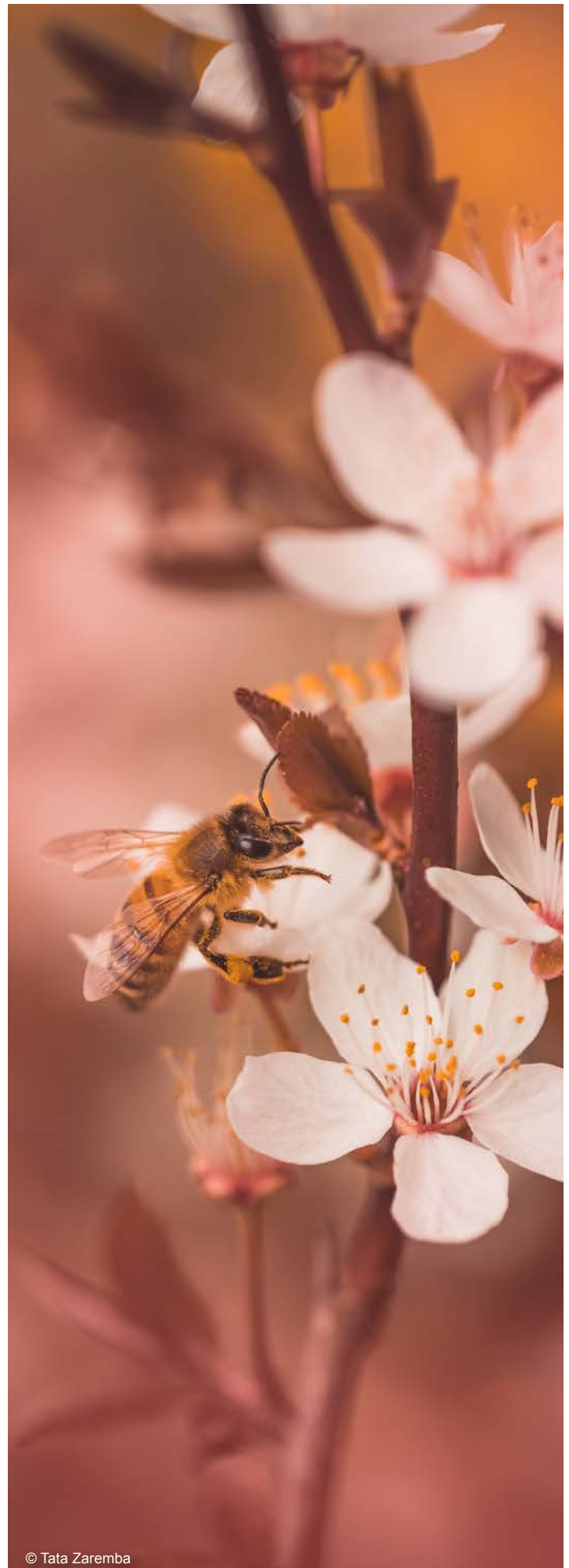
- 1.1. Improve availability of, and access to, information on BFA

### **2. Management of BFA**

- 2.1. Promote sustainable use of BFA and integrated approaches to its management
- 2.2. Improve conservation and restoration of BFA

### **3. Institutional frameworks for BFA**

- 3.1. Build capacity through awareness raising, research, education and training
- 3.2. Strengthen legal, policy and incentive frameworks
- 3.3. Improve cooperation and funding



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### **2.3. REGIONAL ACTIONS TO MAINSTREAM BIODIVERSITY ACROSS AGRICULTURAL SECTORS**

The FAO Regional Office for Europe and Central Asia (REU) is an important player in the region, providing support for countries, accelerating their capacities, and sharing best practices to facilitate the region's response to the FAO priorities and contribute to countries' achievements under the 2030 Agenda.

In line with programming and operationalization to address regional priorities, REU's Regional Initiative 3 (RI-3) on Managing natural resources sustainably and preserving biodiversity in a changing climate responds to sustainability challenges faced by the agriculture, livestock, forestry and fishery sectors across the region with a multidisciplinary and holistic programmatic framework.

This programmatic umbrella translates global instruments and specific regional challenges into actions at the country level, linking support to policy processes in the region to better answer climate change and biodiversity loss, two major environmental threats of the twenty-first century. This includes the provision of strategic and policy guidance for mainstreaming of the BFA conservation and restoration, in the context of Better Environment 3: Biodiversity and Ecosystem Services for Food and Agriculture.





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### *Regional plan for 2022–2023*

To close the existing gaps and address the increasing challenges of the BFA conservation and sustainable use in 17 countries of the regional programme – Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, Montenegro, North Macedonia, Republic of Moldova, Serbia, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan – the Plan of actions to mainstream biodiversity across agricultural sectors was developed.

For each of the four outcomes of the global Strategy, this Action Plan, in Annex 1, specifies core action areas, key

actions, activities, countries/sub-regions, responsible person, and a timeline.

The key actions listed are not exhaustive of FAO's planned work, and this plan of action should be considered as dynamic guidance and tool to the regional work for mainstreaming BFA in Europe and Central Asia.

The Action Plan was discussed with stakeholders during the consultations performed within the [FAO Regional Dialogue on Biodiversity Mainstreaming across agricultural sectors for Europe and Central Asia](#) held on November 16–17th 2021.



## *Multi-stakeholder engagement*

Realization of this Action plan requires a multi-stakeholder and multi-sectoral approach. It intends to mobilize a wide range of stakeholders and initiatives from different sectors to work collaboratively and create synergies. Mobilization will seek to consolidate the past and on-going efforts of different organizations and sectors into priority and common actions.

The regional Action Plan fully acknowledges the need for appropriate recognition of gender equality, women's empowerment and gender-responsive approaches, in accordance with the Regional gender equality strategy for Europe and Central Asia 2019–2022, and the full and effective participation of youth, indigenous peoples and local communities in the implementation of this Action Plan. Stakeholders include governments and regulatory authorities, smallholders and family farmers, the private sector and the food industry, civil society and academics, consumers' organizations, scientists and media.

## *Monitoring and evaluation*

In order to evaluate and track progress towards the objectives of the Action plan, monitoring and evaluation activities will be performed every six months. Regular workplans with specific actions will be developed including tangible milestones.



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## ANNEX 1. THE 2022–2023 REGIONAL ACTION PLAN

CORE ACTION AREAS	KEY ACTIONS	ACTIVITIES	COUNTRIES/ SUB-REGIONS	RESPONSIBLE PERSON	TIMELINE
<b>OUTCOME 1: SUPPORT PROVIDED TO MEMBERS, AT THEIR REQUEST, TO ENHANCE THEIR CAPACITY TO MAINSTREAM BIODIVERSITY</b>					
Policy, normative and standard-setting instruments related to BFA	Support countries in national implementation of international instruments and multilateral agreements related to biodiversity	Provide at least 2 supporting activities for integration of BFA within policy, sector or planning documents, including at the nexus of climate change, food security, nutrition, poverty eradication, as requested	Programme countries	Anna Kanshieva	2022–23
BFA-related data and information for decision-making	Support countries in the generation, collection, analysis and dissemination of BFA-related data and knowledge	Prepare one baseline study, with data available, on BFA conserved and maintained on-farm, including the diversity of honeybees and other pollinators	Programme countries	Carolina Rizzi Starr	2023
		Develop guidelines on forest biodiversity monitoring methodologies in the sub-region	Sub-region	Peter Pechacek	2022–23
		Develop, apply and present the bioindicators methodology to evaluate the Globally Important Agricultural Heritage Systems (GIAHS) impact on biodiversity, including its integration in the methodology for assessing GIAHS vulnerability and resilience to climate change	Programme countries	Marta Arnes Garcia, LoA with WBA	2022
		Develop and present the diagnosis and methodology on Nature-based Solutions (NbS) identification and implementation to GIAHS sites	Programme countries	Marta Arnes Garcia, LoA with Malaga University	2022
Capacity in BFA mainstreaming	Support countries in developing capacity for adopting and implementing policies and instruments to protect and value BFA and integrate it within and across sectors and in relevant planning instruments, including with related gender strategies, Indigenous Peoples and Local Communities, and traditional knowledge	Provide 2 capacity building programmes for the designation and dynamic conservation of GIAHS, promoting the sustainable use and conservation of natural capital in the region	Programme countries	Marta Arnes Garcia	2022–23
		Study report in the REU region “Building regional capacities to reduce the impact of forest invasive species to mitigate forest biodiversity losses”	Programme countries	Norbert Winkler	2023
		Organize training on the guidelines on forest biodiversity monitoring methodologies in the sub-region	Sub-region	Peter Pechacek	2022–23
		7 trainings for build capacities of COs and partner organizations to apply the Livestock Environmental Assessment Partnership's (LEAP) Guidelines for quantifying the impact of livestock on biodiversity (in coordination with NSAL)	Programme countries	Yuriy Nesterov	2022–23
		Formulate One Country One Priority Product (OCOP) strategies aiming to develop green and sustainable value chains for special agricultural products (SAPs) at the country level	Pilot countries	Pedro Arias	2022–23
	Support countries in developing capacity for mobilising resources for BFA mainstreaming and sustainable agriculture approaches that contribute to sustainable use and conservation of BFA	Contribute to at least one Concept Note to secure national or subregional funding for projects with the BFA-mainstreaming component (GEF-8, GCF, EU, TCPs, additional donors, etc)	Programme countries	Anna Kanshieva	2022–23
		Prepare methodological guidelines on developing and piloting economic instruments that can generate finance for BFA mainstreaming and sustainable ecosystem approaches, including Payments for Ecosystem Services scheme and Climate finance opportunities	Programme countries	Anna Kanshieva	2022–23



## ANNEX 1. THE 2022–2023 REGIONAL ACTION PLAN

CORE ACTION AREAS	KEY ACTIONS	ACTIVITIES	COUNTRIES/ SUB-REGIONS	RESPONSIBLE PERSON	TIMELINE
<b>OUTCOME 2: BIODIVERSITY MAINSTREAMED ACROSS FAO REU PROGRAMMES AND ACTIVITIES</b>					
Uptake of knowledge, technologies and good practices by FAO and partners	Assist REU, FAO Subregional Office for Central Asia, COs and partnership offices in the promotion of actions to transform food systems, priorities and capacity to concurrently feed the planet and halt the loss of biodiversity and degradation of ecosystems	Prepare and disseminate the BFA-related knowledge and awareness-raising materials among regional, subregional and country offices and national partners		Anna Kanshieva	2022–23
		Deliver capacity development on BFA mainstreaming to the technical staff from regional, subregional and country offices and national partners (workshops, meetings, etc )		Anna Kanshieva	2022–23
		Provide technical support to REU staff, COs and focal points on BFA-related activities in TCPs, projects and programme activities, as requested		Anna Kanshieva	2022–23
<b>OUTCOME 3: REGIONALLY RECOGNIZED ROLE OF BIODIVERSITY AND ITS ECOSYSTEM SERVICES FOR FOOD SECURITY AND NUTRITION</b>					
Access to knowledge, technologies and best practices that demonstrate the links between BFA and food security and nutrition	Raise awareness amongst various stakeholders about ecosystem approaches, the value of BFA and the benefits it can bring to improve the institutional and legal framework and facilitate decision-making	Organise 2 <sup>nd</sup> Regional dialogue on BFA mainstreaming across agricultural sectors and facilitate incorporation of BFA-related topic into agendas of regional and project events	Programme countries	Anna Kanshieva	2023
		Deliver at least 2 raising awareness activities on the benefits of a synergetic approach to BFA mainstreaming and encouraging intersectoral coordination among line ministries and government agencies	Programme countries	Anna Kanshieva	2022-23
		Develop and disseminate awareness-raising publications and communication materials about: <ul style="list-style-type: none"> <li>the role of small-scale producers and indigenous peoples and local communities as custodians of biodiversity and the importance of local and indigenous knowledge for BFA conservation and sustainable use</li> <li>ow to mainstream and integrate policy objectives for BFA conservation and sustainable use with climate change</li> </ul>	Programme countries	Anna Kanshieva	2022-23
	Contribute to sharing and uptake of good practices and tools that demonstrate the links between conservation and sustainable use of BFA and food security and nutrition and support the transition to achieve BFA-friendly agriculture and food systems	Collect, map, analyse and disseminate, via the Regional Technical Platform on Green Agriculture, the regional/ national case studies/ lessons learned of nature-based solutions (Nbs), including in organic and traditional agriculture, targeting BFA conservation and sustainable use	Programme countries	Marta Arnes Garcia	2022-23
<b>OUTCOME 4: COORDINATION AND DELIVERY OF FAO'S WORK ON BIODIVERSITY STRENGTHENED</b>					
Enhanced capacity of FAO in biodiversity-related matters	Contribute to an FAO-wide internal working group on biodiversity, including, as appropriate, thematic sub-working groups, for knowledge exchange on biodiversity matters	REU representative(s) participate in the FAO-wide working group, collect and present inputs for preparation of the post-2020 global biodiversity framework, as requested		Tania Santivanez	2022–23
Strengthened collaboration with relevant organisations	Establish biodiversity as a key area of collaboration with relevant regional organisations, civil society and private sector actors, and indigenous peoples and local communities	Facilitate integration of BFA-related topics in new and updated Country Program Frameworks (CPFs)		Anna Kanshieva	2022–23

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DECEMBER 2021

ACTION PLAN FOR  
**MAINSTREAMING BIODIVERSITY  
ACROSS AGRICULTURAL SECTORS**  
IN EASTERN EUROPE AND CENTRAL ASIA  
2022-2023

FAO REGIONAL OFFICE FOR EUROPE AND CENTRAL ASIA

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