Food and Agriculture Organization of the United Nations

ENGAGING **WOMEN AND MEN** EQUALLY IN MANAGING **BIODIVERSITY**

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Abbreviations and acronyms

CBD	Convention on Biological Diversity
CGIAR	Consultative Group on International Agricultural Research
CGRFA	Commission on Genetic Resources for Food and Agriculture
CIAT	International Centre for Tropical Agriculture
CINE	Centre for Indigenous Peoples' Nutrition and Environment
COP 15	United Nations Biodiversity Conference
CRBA	community rights-based approach
ENPARD	European Neighbourhood Programme for Agriculture and Rural Development
FAO	Food and Agriculture Organization of the United Nations
FESM	Framework for Environmental and Social Management
FFS	farmer field school
FPIC	Free, Prior and Informed Consent
GEF	Global Environment Facility
GIAHS	Globally Important Agricultural Heritage Systems
IFAD	International Fund for Agricultural Development
IGETI	Practical Guide for Improving Gender Equality in Territorial Issues
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IUCN	International Union for Conservation of Nature
NUS	neglected and underutilized species
SDG	Sustainable Development Goals
SWM	sustainable wildlife management
UN	United Nations
UNCBD	United Nations Convention on Biological Diversity
WFP	World Food Programme

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Omani coastal women crushing and grinding dried sardines to prepare a local dish known as Qashea'a.

Introduction

Biodiversity and its associated ecosystem services are crucially important for food security and for the livelihoods of many people involved in various food and agricultural production systems around the world. Throughout agrifood systems, social, cultural and power differences determine the roles and responsibilities of women and men, their specific tasks and degree of influence over decision-making and planning, and affect their access to productive resources, services and institutions. This means that women and men use and manage biodiversity resources in different ways, and they face specific constraints and opportunities. They each have unique knowledge, as well as responsibilities toward, the sustainable use of biodiversity that must be fully recognized to ensure better gender outcomes and resource management.

In many countries, women are the main custodians of biodiversity and of important natural resources. Yet, their valuable contributions are not adequately valued. Women tend to be more vulnerable to biodiversity loss affecting the livelihoods of their households and communities. Gender roles and norms depend on the local socio-cultural contexts and are highly diverse. However, some global trends can be observed in the rural sector. Women are often responsible for such activities as managing seed, foraging for food or medicinal plants, and food processing and preparation, while men manage incomes and profits and make decisions on resource allocation. This division of roles based on gender is often the result of gender-based inequalities that limit women's access rights to, as well as ownership of, land and other productive resources and services. Additionally, it limits women's access to the latest information and knowledge about natural resources, which reduces their participation in decision-making related to managing such resources. The labour burden of women is significantly increasing in rural regions with high rates of male outmigration, where women take on additional farming, resource management and household responsibilities. Such inequalities are often exacerbated by multiple and intersecting forms of discrimination and social exclusion of women. For example, indigenous and ethnic minority groups, marginalized castes, women affected by HIV/AIDS and/or disabilities, youth and displaced populations are likely to suffer additional barriers in overcoming poverty and vulnerability (UN Women, 2018).

Too often, policies and programmes related to biodiversity overlook gender aspects to the detriment of social and environmental outcomes. Recognizing gender relations and addressing gender concerns and related risks in biodiversity policies and projects can increase equality between women and men, and it can help to realize women's full potential in combatting biodiversity loss and in the sustainable management of natural resources. Inclusive biodiversity interventions can also lead to positive gender equality outcomes such as increased income-generating opportunities, women's economic empowerment and improved involvement in decision-making, reduction of unpaid work, as well as increased access to productive resources, food and essential household products, services and local institutions.

In response to this situation, the Food and Agriculture Organization of the United Nations (FAO) has prepared guidelines entitled "Engaging women and men equally in managing biodiversity - Guidelines to address gender equality in policies and projects related to biodiversity".

A. What is the purpose of the guidelines?

These guidelines aim to raise gender awareness and to provide guidance to FAO staff working in the field of biodiversity for helping them to better identify and address the gender and social dimensions in biodiversity management. The guidelines are divided into two chapters:

Chapter 1 illustrates the nexus that exists between gender equality and biodiversity. This information can support project design, policy making and advocacy work. Through illustrative case studies, it explains the importance of integrating gender equality into policies and programmes in order to increase their effectiveness and impacts, showing how gendered differences in power dynamics and the distribution of roles, tasks and responsibilities affect the use and management of biodiversity by men and women. It also outlines women's essential roles as farmers, livestock keepers, fishers and forest dwellers and recognizes the value of their specific knowledge and the unique challenges they face.

Chapter 2 is organized in two parts; the first one provides detailed guidelines on how to better address and integrate gender equality in projects and programmes, while the second part guides the reader on how to mainstream gender issues in programmatic and policy work. It provides a set of tools and recommendations that can be used to identify opportunities for achieving sustainable biodiversity outcomes, while also improving gender equality and women's empowerment through building on the FAO Strategy on Mainstreaming Biodiversity Across Agricultural Sectors (FAO, 2020a) and using examples of gender-responsive and transformative approaches.

B. What are the main frameworks and strategies guiding FAO's work on gender equality and biodiversity for food and agriculture?

Biodiversity and ecosystems feature prominently across the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs) and associated targets. Integrating the gender dimensions, building on the unique capacities, knowledge and skills of both women and men belonging to different socioeconomic, ethnic and age groups can help countries deliver on SDG 14 – Life below water, and SDG 15 – Life on land, and also offer opportunities to contribute towards SDG 5 – Gender equality, which includes women's empowerment.

Furthermore, the importance of gender mainstreaming in biodiversity conservation and poverty eradication policies is recognized in a wide range of global agreements,[1] including the United Nations Convention on Biological Diversity (UNCBD) and its 2015–2020 Gender Plan of Action). At the United Nations Biodiversity Conference (COP 15) in 2022, a gender plan of action for the post-2020 global biodiversity framework[2] was adopted to systematically integrate a gender perspective and ensure the appropriate engagement of women in UNCBD processes.

The FAO Strategic Framework 2022–2031 seeks to support the 2030 Agenda, through the transformation to more efficient, inclusive, resilient

[1] Including, but not limited to, chapter 24 of Agenda 21 (UNCED, 1992), https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf ; the Johannesburg Plan of Implementation (2002), www.un.org/en/conferences/environment/johannesburg2002; paragraph K of the Beijing Platform for Action (4th World Conference on Women 1995), www.un.org/womenwatch/daw/beijing/platform/index.html; the World Conference on Human Rights (1993), www.ohchr.org/en/about-us/history/vienna-declaration; the Millennium Declaration (2000), www.un.org/millennium/declaration/ares552e.htm; and the requirements and agreements stated in the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), www.un.org/womenwatch/daw/cedaw/

[2] See Convention on Biological Diversity, SBI Recommendations, www.cbd.int/recommendations/sbi/?m=sbi-03

and sustainable agrifood systems for better production, better nutrition, a better environment, and a better life, leaving no one behind. In FAO's Strategic Framework, biodiversity work is captured under the Programme Priority Area (PPA) on Biodiversity and ecosystem services for food and agriculture (BE3) and is also mainstreamed across many other programme priority areas, including in BL1 on Gender equality and rural women's empowerment. As of 2021, more than 800 FAO projects, investing over USD 2 billion, have biodiversity as their principal objective or as a significant objective. Some of the most noteworthy biodiversity initiatives include:

- The Globally Important Agricultural Heritage Systems (GIAHS), through which FAO has designated 62 agricultural heritage sites in 22 countries since 2005. Many, if not most of these areas, harbour important agrobiodiversity. The GIAHS programme is designed to identify and ensure recognition of the importance of unique traditional agricultural systems for food security and sustainable development. Throughout history, people have domesticated plants and animals and developed sophisticated and diversified farming systems, using some 10 000 plant species for food. However, traditional crops and farming systems are disappearing along with the traditional knowledge and cultural diversity linked to these agricultural systems, and today's diet is based on just over 100 species.

- FAO Programming on Crop Wild Relatives. FAO is a neutral convener of knowledge and expertise and offers a platform for countries to reflect on issues related to Crop Wild Relatives through a wide range of tools and knowledge products such as its flagship Report on The State of the World's Plant Genetic Resources for Food and Agriculture, the Voluntary Guidelines for the Conservation and Sustainable Use of Crop Wild Relatives and Wild Food Plants, the Interactive Toolkit for Crop Wild Relative Conservation Planning, and the World Information and Early Warning System on Plant Genetic Resources for Food and Agriculture (WIEWS), which is an information system used by FAO for the preparation of periodic, country-driven global assessments of the status of conservation and use of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).

Normative tools such as the International Treaty on Plant Genetic Resources for Food and Agriculture aim to guarantee food security through the conservation, exchange and sustainable use of the world's plant genetic resources for food and agriculture, to ensure the fair and equitable benefit sharing arising from the use of such resources, and the recognition of farmers' rights. The Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture[3] calls on FAO to provide technical guidance and assistance to countries in their work on animal genetic resources.

The current FAO approach toward biodiversity mainstreaming is outlined in the FAO Strategy on Mainstreaming Biodiversity across Agricultural Sectors (2020a) and the associated 2021–2023 Action Plan (2021a). The Strategy aims to support FAO Members in mainstreaming biodiversity across agricultural sectors at multiple levels, in a structured and coherent manner, in order to reduce the negative impacts of agricultural practices on biodiversity, support sustainable agricultural practices, and conserve, enhance, preserve and restore biodiversity as a whole.

FAO has also published The State of the World's Biodiversity for Food and Agriculture 2019[4] to assess how biodiversity as a whole contributes to food and agriculture. The Framework for Action on Biodiversity for Food and Agriculture 2022 (FAO, 2022b) was endorsed by the FAO Council in 2021. It contains more than 50 individual actions and was developed in response to the country-driven report on The State of the World's Biodiversity for Food and Agriculture.

[3] Prepared under the auspices of the Commission on Genetic Resources for Food and Agriculture and adopted by the FAO Council at its 143rd Session in November 2011.

[4] This report, which presents the first global assessment of biodiversity for food and agriculture, includes the inputs of 91 countries that prepared and submitted reports on the state of their biodiversity for food and agriculture and its management, focusing particularly on associated biodiversity and its role in supporting and regulating ecosystem services and on wild species that are sources of food.

The Commission on Genetic Resources for Food and Agriculture (CGRFA) is the only permanent intergovernmental body that specifically addresses biological diversity for food and agriculture. It aims to reach international consensus on policies for the sustainable use and conservation of genetic resources for food and agriculture and the fair and equitable sharing of benefits derived from their use.

In June 2022, FAO approved the Framework for Environmental and Social Management (FESM) developed to (i) identify potential negative environmental and social impacts; (ii) propose mitigation measures; (iii) provide basic selection criteria for the selection of sub-activities; (iv) list the type of instruments to be developed for individual sub-activities during implementation; and (v) provide institutional agreements, grievance redress mechanisms and monitoring, reporting and documentation measures for compliance with environmental and social safeguards. The FESM requires that all FAO projects with a budget of over USD 100 000 screen for environmental and social risks, including those related to biodiversity, gender equality and the prevention of gender-based violence. It is also required to prepare relevant instruments, including a grievance redress mechanism and stakeholder engagement plan to address gender concerns and risks.

The Policy on Gender Equality 2020–2030 *of FAO* (2020c) aims to achieve equality between women and men in sustainable agriculture and rural development for the elimination of hunger and poverty. It includes the four gender equality objectives presented in Figure 1. FAO is committed to the systematic integration of gender equality in all its normative and technical work and to pursuing integrated and transformative approaches that address the root causes of existing inequalities and promote inclusive agricultural and rural development.

The second gender equality objective of the policy (as shown in Figure 1) aims at ensuring that women and men have equal rights, access to and control over natural and productive resources, to contribute to and benefit from sustainable agriculture and rural development. This objective comprises important gender aspects related to biodiversity management in terms of equal rights and entitlements to resources, such as productive inputs for biodiversity management and equal opportunities to control, purchase, own and use resources, and to access advisory and financial services tailored to the different needs and priorities of men and women.

Figure 1. The four objectives of FAO's Policy on Gender Equality

Source: FAO. 2020c. *FAO Policy on Gender Equality* 2020–2030. Rome.

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A female farmer manually winnowing wheat grains in Afghanistan.

1. The nexus between gender equality and the sustainable management of biodiversity for food and agriculture

1.1. What is biodiversity for food and agriculture?

Biodiversity includes domesticated plants and animals raised in crops, livestock, forest and aquaculture systems, harvested forests and aquatic species, wild relatives of domesticated species, other wild species harvested for food and other products. It also includes what is known as "associated biodiversity", which comprises the vast range of organisms that live in and around food and agricultural production systems, sustaining them and contributing to their output. This type of biodiversity, which exists within and among species and ecosystems, is necessary to sustain the key functions, structure and processes of agricultural ecosystems. Changes in biodiversity can influence the supply of ecosystem services.

Box 1. Definitions of biodiversity and ecosystems services

UNCBD defines biological diversity as "the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems" (CBD, 2020).

Biodiversity for food and agriculture (BFA) refers to the subset of biodiversity that contributes, in one way or another, to agriculture and food production. FAO's comprehensive 2019 report, The State of the World's Biodiversity for Food and Agriculture, defines biodiversity for food and agriculture (BFA) as "...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, 2019b, p. xxxvii).

The term ecosystems refers to the "living elements that interact with each other and their non-living environments and provide benefits or services to the world" (FAO, 2022a).

Ecosystem services "make human life possible by, for example, providing nutritious food and clean water, regulating disease and climate, supporting the pollination of crops and soil formation, and producing recreational, cultural and spiritual benefits. Despite an estimated value of $125 trillion, these assets are not adequately accounted for in political and economic policy, which means there is insufficient investment in their protection and management" (FAO, 2022a).

1.2. Why is biodiversity important for building sustainable and resilient food and agriculture systems?

Biodiversity is essential for building sustainable and resilient food systems and livelihoods for many people who depend on it, especially in rural areas, and for communities in resource-poor or environmentally harsh regions. Moreover, biodiversity can help improve the yield and nutritional content of food and other products, while requiring less land and water and fewer other agricultural inputs (FAO, 2019b). It is also of crucial importance for farmers in environments that do not facilitate high-yield crop varieties and livestock breeds, helping them to maintain their agricultural production and livelihoods in the face of pest and disease outbreaks, variable weather patterns, poor access to high-quality feed, limited agrochemical inputs and other disruptions (FAO, 2005).

As natural resource managers, farmers' decisions about planting, harvesting and processing directly affect the biodiversity conserved in agricultural systems (CBD, 2008). Local knowledge and culture are integral elements of the sustainable management of biodiversity, which might not survive without human intervention (FAO, 2005). Small-scale farmers are key players in biodiversity conservation, often through the traditional management practices of their production environments (FAO, 2019b).

Achieving food security and nutrition for all depends on biodiversity, which generates multiple livelihood benefits. As highlighted by two recent landmark global assessments,[5] biodiversity and ecosystem services are essential for sustainable agriculture, forestry, aquaculture and fisheries. They enable sustainable

[5] FAO's *State of the World's Biodiversity for Food and Agriculture* and IPBES's *Global Assessment Report on Biodiversity and Ecosystem Services.*

production in the agricultural sectors. Biodiversity provides regulating and supporting ecosystem services, including nutrient cycling, soil formation and rehabilitation, carbon sequestration, water storage and filtration, habitat provision for wild species, biological pest control and pollination (FAO, 2019b; IPBES, 2019). They also make production systems and livelihoods more resilient to economic, social and environmental shocks and stresses, including the effects of climate change (FAO, 2020a). Biodiversity also has unique cultural values and spiritual significance and is a cornerstone of traditional customs for indigenous and tribal peoples.

Box 2. The role of soil in biodiversity management

Soil plays a prominent role in maintaining biodiversity, hosting more than 25 percent of global biodiversity and up to 90 percent of living organisms. These organisms mediate natural processes that support soil and wider ecosystem functioning. Specifically, soil biodiversity is critical to food and fibre production, and represents an important regulator of other vital soil services, including biocontrol, nutrient cycling, moderation of greenhouse gas emissions and water purification. Many farmers, especially those living in environments where high-yield crop and livestock varieties do not prosper, rely on a wide range of agrobiodiversity including non-harvested species that support production (soil micro-organisms, predators and pollinators). This helps them maintain their livelihoods in the face of numerous threats. Crops that grow in infertile or eroded soils, and livestock that feed on degraded vegetation, are often used by women and girls to support household nutritional strategies (FAO, 2006, 2022).

Box 3. The importance of wild biodiversity for food and agriculture

Wild biodiversity provides a range of non-food products such as timber and medicines, which can be used directly or sold for cash. For example, natural gum arabic obtained from acacia trees supports the livelihoods of millions of the poorest people in the Sudan, some of whom rely on it for half their total cash income (FAO, 2019b). Women are usually the primary collectors of the wild foods that provide essential dietary micronutrients, support incomes and bolster household food security during food shortages (World Bank *et al.*, 2009).

Wild biodiversity also represents important sources of food, particularly in the poorer regions of the world, and can alleviate micronutrient and protein deficiencies to make diets more nutritious and balanced (Broegaard *et al.*, 2017). An estimated 77 percent of households living in or close to forests across 24 countries in Latin America and the Caribbean, Africa and Asia collect wild food (Hickey *et al.*, 2016). In the United Republic of Tanzania, 2013 data showed that wild foods provided 31 percent of vitamin A, 19 percent of iron and 16 percent of the calcium in the diets of mothers and children in smallholder households (Powell *et al.*, 2013).

Sustainable wildlife management (SWM) is the efficient management of wildlife species to sustain their populations and habitat over time and maintain ecosystem services, while responding to the socioeconomic needs of human populations. SWM and related factors such as the provision of food and livelihoods, human–wildlife conflict, the illegal wild meat trade and land rights have significant gendered dimensions that must be addressed adequately.

Safeguard the ancestral identity of Indigenous Peoples, and rural and artisan communities in Peru, by recovering cotton varieties and training in production and processing, value addition, management and sale.

1.3. What are the main gender dimensions in biodiversity management?

To better understand the context and to support the sustainable management of biodiversity, it is crucial to analyse and address gender concerns. While both men and women play critical roles in sustainable biodiversity management, they generally have different responsibilities, needs and priorities regarding which resources they value the most (FAO, 2019b). Gender differences relate to the social roles of men and women and the power relations that exist between them. They are influenced by local values, norms and customs, and are not based on sex or biological differences between men and women. Gender roles are highly context-specific and intersect with other relevant social identities such as age, ethnicity, education, health and social status. This means that experiences related to biodiversity may vary significantly within groups of men and women and are not homogenous within genders (FAO, 2005). For example, in the Gambia, women are traditionally more involved than men in managing seeds and crop varieties. But this is partly driven by socioeconomic factors that influence the fact that women often have to resort to the labour-intensive farming practices that require such skills, whereas men deal with cash crops and have more access to different technologies (FAO, 2016b) (Nuijten, 2010). To improve agrifood systems and rural development, and to avoid exacerbating or perpetuating existing inequalities and discriminations, interventions should be based on an understanding of the socio-cultural context and should define the mechanisms to that would prevent women from being excluded from cash crop systems and the unequal distribution of resources and services between men and women.

Doss and colleagues underline the risks and inaccuracies associated with the common belief that women are better stewardesses of the environment than men. Since women are not an homogenous group, their capacities and opportunities for managing biodiversity in a sustainable way, compared to men and other groups of women, is highly context specific. The authors explain that in many cases women's observed preference for the adoption of sustainable practices may be motivated by their specific situation – such as limitations in accessing other resources and work burden concerns, rather than by an inherent connection to nature (Doss *et al*, 2018). Due to the lack of sex disaggregated data at global level and the mixed nature of available evidence (EnGen Collaborative, CARE & WWF, 2022; Doss *et al*, 2018) it is recommended to carry out a gender analysis (Annex 2 provides detail guidelines) and adopt an intersectional approach to better understand the roles of women and men in managing biodiversity for every specific context. Nevertheless, despite the lack of global data, some gender-related aspects and challenges in bio-

diversity managements can be observed in different value chains across regions. These trends and examples can help understand the most common challenges and opportunities that men and women face in the sustainable management of biodiversity and how interventions can be designed to take into account these different roles, needs and vulnerabilities.

In many contexts, women are more actively engaged in the household economy than men, and they carry the primary responsibility of providing their families with food, water, fuel, medicines, fibres, fodder and other products (UN Women, 2019). To meet these daily needs, women often select, improve and adapt a diverse range of plant varieties, based on nutritional, medicinal or culinary benefits, such as growing a variety of traditional species in home gardens (Sisto and Furst, 2019; Huss, K. *et al*, 2020). Discriminatory social norms and biases may also prevent women from working outside the home, traveling long distances and interacting with outsiders (World Bank, 2019). Men are often responsible for growing cash crops with high yields or market value, and they are traditionally seen as "breadwinners" by society (and by themselves) – hence, they believe that they are supposed to manage the income of the family. Instead, women are expected to stay at home, where it is believed they don't need to have an income of their own. Women often prioritize different traits in their crops such as cooking time, taste or preservability (FAO, 2019b; Sisto and Furst, 2019). It is important to note that this division of tasks does not always correspond to reality, yet it often informs the common social conceptions of the roles of men and women in agriculture, which are directly linked to the lack of economic autonomy for women.

In livestock management, while men often rear cattle and larger animals, women are responsible for poultry and other smaller animals (FAO, 2005, 2011; Galiè *et al.*, 2018), and often they are the invisible guardians and managers of livestock diversity (FAO, 2012). For example, with regard to choice of breeds, women's traditional household responsibilities, combined with their limited access to land and other resources and services, often results in their higher dependency on common-property resources. This often implies that they manage locally adapted breeds that are easier to care for and well able to range over local common lands (FAO, 2012).

Another important aspect to consider in addressing gender concerns is that any intervention that involves assessing or monitoring drivers of change affecting or potentially affecting biodiversity (negatively or positively) should take into account the changing gender roles among the relevant factors (i.e. as part of a broader assessment of the impact of changing livelihoods and production systems). For example, if women are considered the guardians of a specific component of biodiversity that is or has been particularly significant to their livelihoods, when this changes there is a risk that it might fall out of use or be lost, unless some alternative use for it emerges (this applies particularly to biodiversity components that require human management, such as crop varieties and livestock breeds). The role of women as guardians

Supporting the poorest livestock herders in Mongolia with social protection measures in anticipation of Dzuds to mitigate its devastating impact.

©FAO/K. Purevraqchaa

of diversity may be transitional (FAO, 2012) given the changes occurring in the livestock sector. Interventions might lead to the loss of certain components of biodiversity while others benefit. It is important to consider such negative effects and the possible need to mitigate or monitor them when planning gender-responsive policies and investments.

Despite their vital roles as biodiversity keepers, women's contributions are still frequently unrecognized and considered linked to the domestic sphere. In contrast, men's involvement in the commercialization of natural resource products is visible and considered more valuable (FAO, 2015). Moreover, women often face structural gender-related barriers to access and use the agrobiodiversity resources they rely on. They may have less access than men to land, livestock, inputs, technology and services such as education, extension and credit (World Bank *et al.*, 2009; World Bank, 2012; FAO, 2011). Female farmers are also relatively time-poor, constrained by the triple work burden they face covering the productive, reproductive and social spheres (FAO, 2015).

Efforts made towards commercial agriculture may bypass women, and due to their limited access to financial resources, they may not benefit as much as men from seeds, technologies, fertilizers, training or information (World Bank *et al.*, 2009). In many parts of the world, women are excluded from decision-making processes regarding natural resources or may be reluctant to speak up in the presence of men or outsiders because of local socio-cultural norms (IUCN, 2020; Agarwal, 2001). Women's time constraints and lower educational levels may imply that they are less engaged in decision-making and planning processes. When women are consulted, they tend to be part of the local elite, with different concerns than poorer and more marginalized women, and this situation can lead to the voices of the most vulnerable women not being adequately represented.

Despite a reported increase in many biodiversity-friendly practices – such as agroecology, organic agriculture, sustainable forest management, agroforestry, integrated pest management, ecosystem approach to fisheries and aquaculture – biodiversity is declining at the genetic species and ecosystem levels (FAO, 2019b). For example, plant diversity in farmers' fields is decreasing in some

A woman weeding Acacia seedings in a forest nursery in Viet Nam.

©FAO/Joan Manuel Baliellas

areas, and globally more livestock breeds are at risk of extinction (1 975 breeds in 2022[6]) and more than one-third of fish stocks are overfished. Many countries report severe threats to numerous vital species and ecosystems that provide essential services for food and agriculture (FAO, 2019b).

Women and other vulnerable social groups are often more dependent on biodiversity for their livelihoods, as crops and breeds constitute their only source of food and income, and are, therefore, disproportionately affected by biodiversity decline, ecosystem degradation, climate change and natural disasters (Sallan, 2020; IPCC, 2021; IUCN, 2015). There is also a risk of local knowledge systems and management practices disappearing between generations, when women will no longer pass information on to their daughters, nor men to their sons (World Bank *et al.*, 2009). This may affect poor rural communities in particular, whose livelihoods and survival depend on the specific skills and knowledge related to biodiversity (FAO, 2005).

1.4. How can the integration of gender issues lead to more efficient and sustainable biodiversity management?

A more detailed analysis of different initiatives intended to mainstream gender issues in the management of biodiversity for food and agriculture are presented in a series of case studies. Case Study 1 shows how the Sustainable Wildlife Management Programme [7] addresses the needs, knowledge and capacities of men and women and how engaging them actively in decision-making can lead to social cohesion, gender equality and sustainable wildlife management (Bottaro *et al.*, 2022; Portier *et al.*, 2022).

Case Study 1 – Sustainable Wildlife Management (SWM) Programme: a gender responsive and community rights-based approach

The Sustainable Wildlife Programme puts people's rights at the centre of wildlife management, and seeks the optimal balance between conservation needs and the use of wildlife for food security and nutrition. To achieve this, SWM developed the community rights-based approach (CRBA), for local and indigenous communities to equitably and fully participate in all project activities. Gender equality and women's empowerment are core principles of the CRBA. To promote these principles, SWM follows a six-step gender approach for conducting gender analyses, and community and household assessments; collecting sex-disaggregated data; organizing capacity development initiatives and awareness-raising campaigns; developing specific activities to empower women; formulating and using gender-sensitive indicators; and documenting and disseminating relevant gender-related good practices.

Investing in women's traditional knowledge and strengthening their capacities actively contributes to managing wildlife in a sustainable way, while also preserving forest ecosystems and biodiversity.

The SWM Sahelian Wetlands Site (RESSOURCE Project) in the Senegal River delta supports the preservation of traditional knowledge and sustainable use of biodiversity by local women through the experimental cultivation of the water lily. Water lily production can help the local economy, and wetlands and waterbirds conservation. It involves nature-friendly activities and includes not only women, but also members of local communities such as rice-farmers and restaurant owners.

[6] See FAO's Domestic Animal Diversity Information System (DAD-IS), www.fao.org/dad-is/sdg-252/en/

[7] The SWM Programme is an organization of 15 countries in African, Caribbean and Pacific states managed by a consortium of partners including FAO, the French Agricultural Research Centre for International Development, and the Center for International Forestry Research and the Wildlife Conservation Society.

In Papua New Guinea, male and female community representatives participated in gender equity and diversity training, where they exchanged views on how they can sustainably manage complex ecosystems together. Open discussions were organized to better understand the gender issues and to see how they fit into wildlife management and biodiversity conservation.

A local woman is fishing with her family using a net in the shallows of a river.

Sources: WCS Newsroom. 2018. In Papua New Guinea, an Indigenous Tribe's Journey to Protect its Forest. In: WCS Newsroom. Goroka. Cited October 2022. https://newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/11713/In-Papua-New-Guinea-an-Indigenous-Tribes-Journey-to-Protect-its-Forest.aspx; FAO. 2022. Les communautés conservent les zones humides et les oiseaux d'eau au Sénégal - #SWMProgramme [video]. Cited October 2022. https://youtu.be/wSk0FpsBQXY; FAO. 2021. Preserving wetlands with white water lilies - #SWMProgramme (long version) [video]. Cited October 2022. https://youtu.be/3vDbsQS5zt4

Case Study 1 shows that traditional knowledge on wild species management associated with men and women and Indigenous Peoples can be valued by interventions that adopt gender responsive approaches at community level. Similarly, in different contexts, women often have highly specialized knowledge of the wild plants used for food and medicinal purposes and are responsible for selecting, improving and adapting plant varieties (FAO, 2015). For example, women often manage home gardens containing a variety of underutilized plant species (Eyzaguirre and Linares, 2004). They also play an important role in procuring medicinal products and maintaining biodiversity, especially from forest or mangrove ecosystems, and are actively involved in wildlife management. Women usually have more in-depth knowledge of medicinal plant species and their uses, especially for species associated with childbirth and childhood ailments (Yang *et al.*, 2018). For example, in Burkina Faso, and throughout the West African Sahel, rural women carefully collect fruits, leaves and roots of native plants for use in their family diets, supplementing the agricultural grains that provide only part of the nutritional spectrum and may be subject to insufficient yields. More than 800 species of edible wild plants have been catalogued across the Sahel (FAO, 2006).

Another important food source is represented by underutilized crop species, which can be grown in infertile or eroded soils, supplementing staple or cash crops in local food production systems and providing income, through market trade, and a source of food for livestock. Helping rural communities, especially women, realize the potential of underutilized crops is an effective way of maintaining their knowledge and their distinct identity, improving their livelihoods and empowering them (Bioversity International, 2014).

Case Study 2 shows how prioritizing minor millet species has provided nutritional benefits and income opportunities for rural households in India.

Case Study 2: Minor millet species boost nutrition in India

Minor millets, such as finger millet, little millet, foxtail millet and barnyard millet, are genetically diverse cereal species that can withstand severe biotic and abiotic stresses. Minor millets are more nutritious than maize, wheat and rice, and can thrive with few inputs under harsh conditions where major cereals cannot survive. However, over the past few decades in India, there has been a steady decline in the cultivation of these neglected and underutilized species (NUS).

Under an IFAD and Bioversity project, international action research was conducted to mainstream the use of minor millets in 34 villages across four states in India. The project aimed to improve the nutritional status and incomes of farmers, while also empowering them. As a result, female farmers have benefited, as their groups have operated specialized dehusking and milling equipment that make processing the millets for market much easier. By addressing gender issues, the programme was able to reduce women's work burden and strengthened the capacity of both men and women in marketing and product development.

The benefits of minor millets have since become well known. Chefs, Bollywood stars, retail brands and popular cook books are using in their recipes minor millets that are increasingly being utilized in daily food items like chapatis and upma. The project has also resulted in a policy change and the Government now includes millets in the public distribution system, alongside major grains such as rice and wheat.

Workers sort grains at APMC market in New Mumbai.

Source: IFAD & Alliance of Bioversity International, & CIAT. 2021. *How to do: Promote neglected and underutilized species for domestic markets.* Nutrition-Sensitive Agriculture – Note no. 3. Rome.

Case Study 2 highlights how improved and selected crops and species, combined with the introduction of specialized equipment and gender-responsive approaches, can reduce the labour burden for women. Since millet is a crop with high labour requirements, especially for the planting, weeding and harvesting that are traditionally done by hand by women and children, a cultivar with a "snapping" trait was discovered and improved making it easier, faster and less tiring to harvest as compared to harvesting by hand with a knife. Since using this cultivar, the productivity and income of women harvesting this variety has improved compared to previously used varieties (CGIAR, 2022). Another example of biodiversity leading labour-saving outcomes was identified in South Viet Nam, where short-duration rice varieties reduced the work burden in communities, relieving women of the drudgery and taking up less of their time. The improved varieties reduced the labour time spent during the season from 180 days to 105–120 days per season (FAO, 2017).

Many women build their businesses on the sustainable use of biological resources. For example, non-wood forest products, such as shea butter and soumbala, a traditional aromatic condiment from the seeds of the African locust bean tree, are important for sustaining women's livelihoods in Burkina Faso (FAO, 2019b).

Case Study 3 illustrates how traditional gender roles and knowledge play complementary roles in managing biodiversity in different countries among various socioeconomic groups and communities.

Case Study 3: Traditional knowledge improves seed sowing in Peru and Zimbabwe

The IFAD-Oxfam Novib programme "Putting Lessons into Practice: Scaling up People's Biodiversity Management for Food Security" harnessed the traditional knowledge of farmers to improve crop resilience to environmental shocks. A total of 83 700 households from Peru, Viet Nam and Zimbabwe benefitted from this programme designed to strengthen the technical capacities and seed systems of farmers. Farmers received training through the farmer field schools (FFS) and were encouraged to propose solutions and innovations to address the challenges they face. Women represented 72 percent of participants, and many reported greater knowledge and self-confidence after attending the FFS.

In the Lares region of Peru, farmers use biocultural indicators for seed management. Women specialize in plant behaviour, while men observe the colour and size of the land. The programme leveraged the traditional role of women as the custodians of seed management to reintroduce native potato varieties in the region. Based on their experiences of blight (indicating soil infertility) and the behaviour of wild animals and star positions (indicating the time to sow), women planted cultivars that were resistant to local climate and would produce the nutrients needed for daily household diets.

Similarly in Zimbabwe, women were able to predict the weather based on factors such as tree phenology, wild animal behaviour and recent climatic patterns. Women's weather forecasts are often considered to be more accurate and specific than national forecasts, and this local knowledge was used in the programme to time the sowing of seeds and to plan crop-diversification strategies. By considering and valuing the traditional knowledge of both women and men, and by empowering female farmers to utilize their skills, the programme was able to improve crop diversity and household diets in different regions.

A family walking with their allocation of seeds and fertilisers received by a programme designed to improve crop diversity and household diets.

Source: Oxfam Novib, ANDES (Asociación para la Naturaleza y el Desarrollo Sostenible), CTDT (Community Technology Development Trust), SEARICE (South East Asia Regional Initiatives for Community Empowerment) & CGN-WUR (Centre for Genetic Resources – Wageningen University & Research). 2015. *Women's roles in biodiversity management. From lessons to practice and impact: Scaling up pathways in people's biodiversity management.* Case study. The Hague, Oxfam Novib. https://doi.org/10.1163/2210-7975_HRD-9824-2015077

Case Study 3 shows that institutions are increasingly recognizing and harnessing the specific knowledge of both men and women in biodiversity management, including Indigenous Peoples' knowledge. There is increasing awareness of the important role of women in community efforts to reduce pressure on natural resources and how they may act as "scientists" and decision-makers in selecting and improving animal and plant genetic resources (Sisto and Furst, 2019). For example, traditional Andean farming systems depend on women's knowledge to maintain a vastly biodiverse selection of crops. Peruvian women have preserved the genetic biodiversity of the potato, despite serious adversities such as constant climate stress. The Papa Andina regional initiative sought to add value to the production, processing, use and biodiversity of native potatoes, while strengthening community food security and nutrition (Escobar *et al.*, 2016).

Indigenous Peoples, and indigenous women in particular, hold a wealth of ancestral knowledge about the sustainable use and management of biodiversity (FAO, 2020b). At least a quarter of the global land area is traditionally owned, managed, used or occupied by Indigenous Peoples (Garnett *et al.*, 2018). Indigenous management of biodiversity is biocentric, following the belief that all elements in a system are important and need to be considered, which encourages a richness of biodiversity that is at the heart of healthy indigenous food systems. Indigenous women are often custodians of native seeds, which sustain the reproduction of native biodiversity. They are also the guardians and holders of ancestral knowledge systems of traditional medicine and food, which are intrinsically unique to the fauna and

flora of each territory, and this knowledge is orally transmitted to the younger generations. This wealth of botanical knowledge may include the medicinal value and food use of plants, herbs, shrubs and trees that are unique to their territories (FAO, Alliance of Bioversity International, and CIAT, 2021). Indigenous women are key practitioners of sustainable development, and their knowledge is fundamental for the preservation of Indigenous Peoples' food systems and territorial management systems.

It is crucial to consider a gender perspective when collaborating with Indigenous Peoples, as women are systematically excluded through unpaid labour and a lack of access to land titles or credit, which means they rarely participate in policy- and decision-making (FAO, 2021d). Indigenous women are also affected by high levels of violence and restrictive social norms (FAO, 2021). FAO plays a leading role in generating knowledge and hosting a series of key coordination efforts on Indigenous Peoples, traditional knowledge systems and their link to biodiversity and food systems (FAO and CINE, 2009).

Case Study 4 shows how giving indigenous women legal rights and a voice in the male-dominated decision-making arenas can empower them as natural resource guardians, to the benefit of their households, communities and their local ecosystems.

Case Study 4: Indigenous women restore and manage forest resources in the Bolivarian Republic of Venezuela

FAO and the Global Environment Facility work with indigenous communities in the Bolivarian Republic of Venezuela on the sustainable management of forest resources, which also aims to achieve gender equality in the forest sector. One restoration project implemented in Imataca offers an extraordinarily biodiverse tropical forest home to the Kariña people. Their indigenous rights are not always respected by mining companies that have unsustainably logged and degraded the forest, without providing any benefits to the local communities.

To restore the forest, a group of Kariña women created a company together with the Government of the Bolivarian Republic of Venezuela and FAO. Decision-making has traditionally been dominated by men, but this started to change when Cecilia Rivas was elected as the first female Kariña community leader in 2013. The company has since been granted 7 000 hectares of Imataca forest reserve to co-manage, and women now are using their ancestral knowledge to build hundreds of nurseries for restoring the degraded forest, improving soils and revitalizing rivers. Women have also set up an indigenous market in a nearby town, where they sell the honey produced from local stingless bees and other agricultural products, such as cassava and cassava bread.

Source: FAO. 2021. The female guardians of Venezuela's Imataca Forest Reserve. In: *FAO*. Rome. Cited October 2022. www.fao.org/fao-stories/article/en/c/1318734/

Studies have shown that gender equality and women's empowerment can improve both nutrition and biodiversity outcomes, for example in agroecology systems (Anderson *et al.*, 2019). This Case study shows that addressing gender inequalities that limit women's participation in agroforestry can create more opportunities for them to produce a diversity of food, products and services, without the high-cost technologies associated with conventional agriculture that they may not be able to afford (Kiptot and Franzel, 2012). Some preliminary results of the field applications of FAO's analytical framework for the multidimensional assessment of the performance of agroecology (TAPE) in Lesotho, the United Republic of Tanzania and Uganda, have shown that more advanced agroecological farms tend to have better soils, use fewer pesticides, have more biodiversity and

more empowered women who participate in decision-making processes.[8] Gender is also a key variable in biodiversity and climate adaptation processes (Bhattarai *et al.*, 2015). Evidence from Nepal shows that empowering women to adopt climate-smart approaches and technologies, such as climate-adapted varieties, is an effective way to build agricultural resilience to climate change and support their livelihoods, while reducing their work burdens (Khapung, 2016).

Incorporating gender-responsive and gender-transformative approaches in policy and programmes can produce win-win outcomes and benefits for biodiversity protection, households, communities, and agribusiness. Case Study 5 shows how a gender-responsive approach addressing structural gender inequalities, such as access to credit, training and agricultural extension services, can lead to improved protection of natural resources and more sustainable production. It also helps to overcome the structural barriers and the multiple forms of discrimination that women belonging to different socioeconomic and ethnic groups still face and gives them equal decision-making power and the same access to resources and services. The established farmer field schools were able to empower women, recognizing their knowledge and addressing unequal power dynamics to help equip them to better manage biodiversity.

Case Study 5: Farmer field schools for women beekeepers in Georgia

The COVID-19 crisis decimated the tourism industry in Georgia. Sales of local wine, a traditional product of the Kakheti region, plummeted, taking a heavy toll on the national economy and on the livelihoods of rural households. Farmers struggled with the loss of income, and in many families, women became the primary providers for their household.

Since 2013, FAO has worked with the European Union, through the European Neighbourhood Programme for Agriculture and Rural Development (ENPARD), to reduce rural poverty by making access to knowledge and investment opportunities more equal to both men and women. The programme established 10 farmer field schools and more than 80 demonstration plots, and organized training for 1 200 farmers in honey, dairy and vegetable production. The training also focused on sustainable beekeeping and safeguarding pollinators. Many women attended the training on honey production, which is a traditionally male industry, and, as a result, were able to provide stable incomes for their families during the COVID-19 pandemic and support local biodiversity. Since, female farmers have increasingly become engaged in beekeeping businesses and have formed a local community network of female honey producers to market their honey under a single brand.

Source: FAO. 2021. The challenge of BEE-ing a pandemic. In: *FAO*. Rome. Cited October 2022. www.fao.org/fao-stories/article/en/c/1400118/

It is crucial to consider, in addition to gender issues, other relevant social factors such as age, ethnicity, health and social status, to ensure that all members of the community can equally benefit, and so that biodiversity is harnessed to its full potential (FAO, 2005). For example, a recent inter-generational study in Nepal found that both gender and age play an important role in the management and usage of rice varieties (Chaudhary *et al.*, 2020). Young women in the Nepalese communities of the study are more knowledgeable about rice crops and their varieties than young men because they are more engaged in household and farm activities, while boys are more involved in off-farm work and attain higher grades in school. Among the older generation,

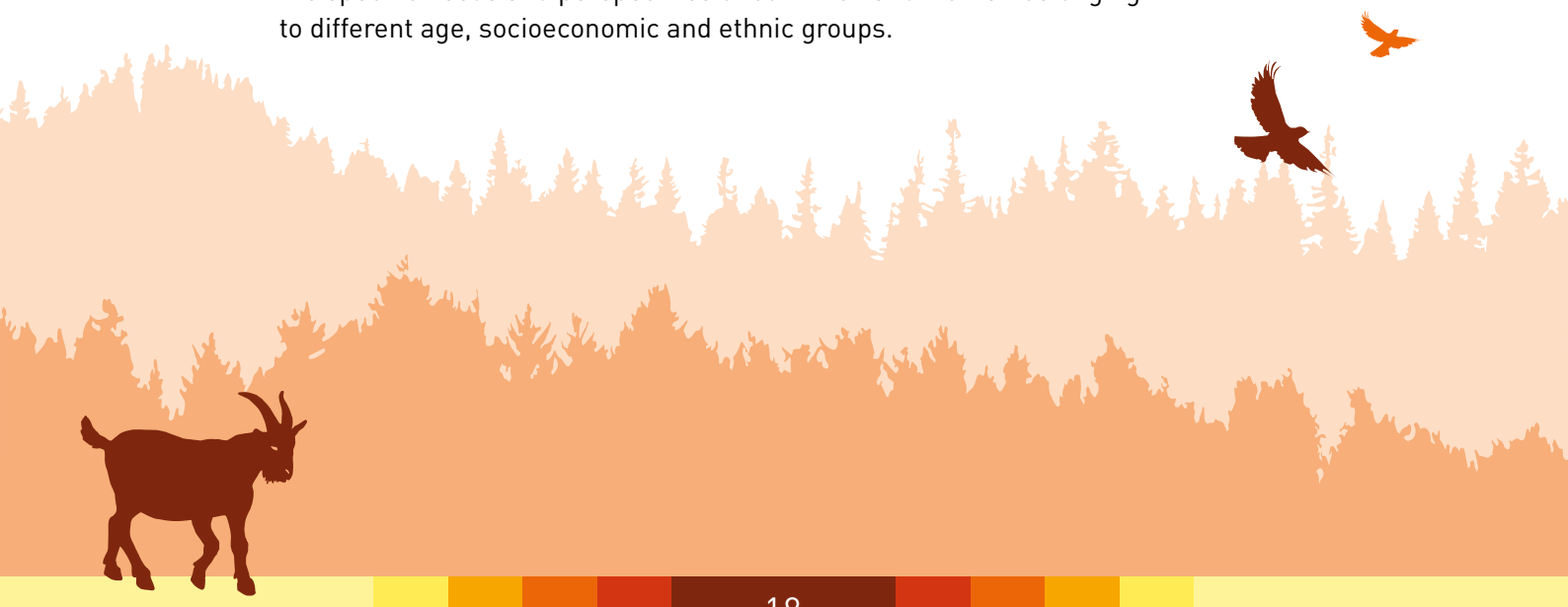
[8] The TAPE measures the transition of farms toward agroecology (women's empowerment is one of the dimensions of the analysis). In the countries mentioned, the data collected shows a positive correlation between more agroecologically advanced farms and women's empowerment dimensions (in other countries this was not the case).

however, male farmers were more knowledgeable than female farmers. The study concludes that proper knowledge transfer is required between the generations to reduce the knowledge gap between young men and women. Younger generations, if empowered, are more suited to adopt new farming technologies and practices that are more environmentally sustainable with positive impacts on local biodiversity.

Agricultural and environmental policies and programmes often do not adequately recognize gender differences and the valuable efforts made by male and female farmers in sustainable biodiversity conservation and use, or they overlook women's knowledge and experience in biodiversity management (Howard, 2003). The lack of gender consideration in biodiversity policies can perpetuate unequal benefit sharing and social inequalities, further marginalizing women and vulnerable groups in the agricultural workforce (FAO, 2005). For example, offering new technologies mostly to men can have a negative impact on women's specialized knowledge and use of local biodiversity (FAO, 2015). Both men and women must have adequate resources and equitable access to technologies and services to effectively manage and use biodiversity in a sustainable way.

Available evidence and different case studies presented in the previous sections show that the integration of gender considerations in projects related to biodiversity conservation and use could generate the following co-benefits, among others:

- sustainable and equitable biodiversity management, based on local practices and adapted to the socioeconomic and cultural context;
- recognition of the traditional knowledge and skills of men and women from local and rural communities, and Indigenous Peoples;
- social mobilization and higher engagement of communities, taking into account the specific needs and priorities of men and women, boys and girls;
- higher participation of women and girls in planning and decision-making, and leadership in natural resources and ecosystem governance;
- increased business opportunities, value added and socioeconomic empowerment of women;
- improved food security and nutritional benefits;
- reduced labour burden for women, through increased and equitable access to technologies and practices;
- increased resilience of rural communities against shocks and improved capacity to mitigate the effects of climate change and natural resources depletion; and
- gender-aware and efficient local institutions that consider and address the specific needs and perspectives of both men and women belonging to different age, socioeconomic and ethnic groups.



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Aicha Dalati works as a beekeeper with her husband in Aleppo Governorate, Syria, to secure the family income and achieve household food security.

2. How to integrate gender issues in policies, projects and programmes related to biodiversity

The State of the World's Biodiversity for Food and Agriculture report (FAO, 2019b) consistently acknowledges the role of gender equality in biodiversity conservation and considers the specific challenges that male and female farmers face in agrifood systems around the world. To operationalize the FAO Strategy on Mainstreaming Biodiversity across Agricultural Sectors (FAO, 2020a) the FAO Council approved an Action Plan (FAO, 2021a) for the period 2021-2023, which includes concrete actions and deliverables to guide biodiversity mainstreaming across FAO's policies and activities; to enhance the capacity of Members to better mainstream biodiversity across policies and programmes; to give greater global recognition of the role of biodiversity and its ecosystem services for food security and nutrition; and to strengthen the coordination and delivery of FAO's work on biodiversity.

More efforts are still needed to systematically integrate gender equality issues throughout FAO's work to improve biodiversity management and produce socioeconomic outcomes. The following are recommendations for possible actions that FAO could undertake in its work related to biodiversity, as well as for addressing the gender dimensions in projects and programmes related to biodiversity management.

2.1 Strategies and recommendations for including gender aspects in FAO biodiversity projects and programmes

The following strategies and recommendations, framed around the four objectives of FAO's Policy on Gender Equality, can be applied to FAO biodiversity projects at different phases of the project cycle.[9] They can also be used to guide FAO's work envisaged under programme priority area on Biodiversity and ecosystem services for food and agriculture (BE3), and the Global Environment Facility (GEF) biodiversity focal area and impact programmes,[10] among other initiatives.

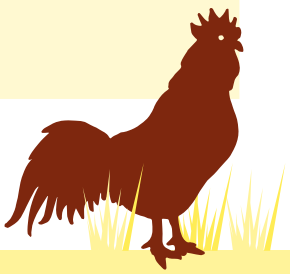
To complement this information, it should be noted that different technical divisions have developed specific tools and guidelines to mainstream gender into their technical and normative work, which can support the implementation of the recommended actions. More information on these resources can be obtained from the respective divisional Gender Focal Points.

	Recommended actions	How to take action	Resources
PROJECT IDENTIFICATION	Ensure inclusive stakeholder engagement	• Prepare an inclusive stakeholder engagement plan, which is a requirement for all FAO projects covered under the FESM. All projects with a budget of more than USD 100 000 must prepare and implement a stakeholder engagement plan, using an available template. • Take into account FAO's commitments on accountability to affected populations. • Consult with both men and women in the communities to identify, in an inclusive manner, the priority areas to be addressed by the project and plan how the provision of ecosystem services can respond to the gender-related needs and priorities of local people, taking into account the cultural and spiritual values of natural resources. • Apply gender-responsive and gender-transformative approaches to overcome structural barriers to gender equality and better engage men and women in the targeted communities – such as the Practical Guide for Improving Gender Equality in Territorial Issues (IGETI) Guide or the Free, Prior and Informed Consent (FPIC) leading to local ownership of the entire project activities and monitoring and evaluation system.	• CBD. 2022. Convention Text. In: CBD *Convention*. Montreal. 18 May 2022. www.cbd.int/convention/articles/?a=cbd-02 • CBD. 2014a. 2015–2020 *Gender Plan of Action*. Pocket Guide: Summary and Examples. Montreal. CBD. https://www.cbd.int/gender/action-plan/ • FAO. 2018. Practical Guide for *Improving Gender Equality in Territorial Issues (IGETI)*. Land and Water Division Working Paper no. 18. Rome. http://www.fao.org/3/I8769EN/i8769en.pdf • FAO. 2016a. *Free Prior and Informed Consent (FPIC): An Indigenous Peoples' right and a good practice for local communities*. Rome. www.fao.org/3/I6190E/i6190e.pdf • FAO. 2022. *Framework for Environmental and Social Management*. Rome. www.fao.org/documents/search/en/?agrovoc=ZW52aXJvbm1lbnRhCBwcm90ZWN0aW9u FAO. Undated. FAO in Emergencies. Guidance Note: *Accountability to affected populations*. Rome. www.fao.org/fileadmin/user_upload/emergencies/docs/Guidance%20Note_Accountability_Publi.pdf

[9] Some of these recommendations are based on the Convention on Biological Diversity's Gender Plan of Action for2015–2020 (CBD, 2014).

[10] The eighth GEF replenishment cycle (GEF-8), from July 2022 to June 2026, will offer new opportunities for countries working with FAO and other partners to enhance the conservation and sustainable use of biodiversity. Under GEF-8, the guiding principle for biodiversity projects is the implementation of integrated investment strategies covering landscape and seascape mosaics. As determined by the FAO Programmatic Area of Work for the GEF-8 on biodiversity, FAO will support countries in achieving the following objective: to support coherent approaches to mainstreaming biodiversity into sustainable agriculture, forestry, fisheries and aquaculture production systems, through integrated land/seascape management at multiple geographic scales, in order to globally conserve biodiversity, sustain and restore diverse ecosystem services, increase resilience to climate change, and enhance food security, nutrition and other equitably shared benefits for the world's population.

	Recommended actions	How to take action	Resources
PROJECT IDENTIFICATION	Conduct a risk assessment	• As required by the FAO Framework for Environmental and Social Management, identify and address potential environmental and social risk factors, paying adequate attention to the gender dimensions. • Raise awareness on sexual harassment and gender-based violence among other potential social risks.	Consult the latest Environmental and Social Standards framework. • FAO. 2022. Environmental and Social Standards. In: *FAO*. Cited October 2022. www.fao.org/environmental-social-standards/en/ • FAO. 2022. *Framework for Environmental and Social Management*. Rome. www.fao.org/documents/search/en/?agrovoc=ZW52aXJvbm1lbnRhCBwcm90ZWN0aW9u
PROJECT DESIGN	Conduct a gender analysis	• Adopt an intersectional approach to identify multiple social intersections and causes of discrimination (i.e. gender, age, ethnic group, disability and displaced person). • Collect and use sex- and age-disaggregated data, combining both quantitative and qualitative methods, to analyse the local socio-cultural context and the specific situation of men and women – such as focus group discussions. • Identify the main gender gaps and differentiated uses of biodiversity and ecosystem services. This could include an assessment of differences in biodiversity values, and the analysis of the distribution of costs and benefits of ecosystem degradation and restoration options between men and women • Identify and address gender-related constraints, capacities and gaps that are holding back the equitable adoption of more sustainable biodiversity practices.	• Consult the guidelines for conducting a gender analysis in the context of biodiversity (see Annex 2). • Consult the gender analysis section in the FAO guide on how to mainstream gender in the project cycle. • FAO. 2017. *Guide to mainstreaming gender in FAO's project cycle*. Rome. www.fao.org/publications/card/en/c/3ff71f41-8828-483a-b9fd-b9cec12a82b4/ • CBD. 2019a. *Addressing Gender Issues and Actions in Biodiversity Objectives*. Montreal, CBD. www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf
	Conduct a gender sensitive vulnerability assessment	• Identify, as part of the project's environmental and social risk assessment, the gender differentiated risks and impacts of biodiversity degradation and loss, the resilience and adaptive capacity of men and women to climate change and their preparedness to other crises. • Conduct a gender impact assessment and address the potential negative impacts of planned actions on women and men, by analysing gender roles and relations. This assessment may need first-hand and site-specific research and consultations with local communities and affected populations, as women's roles are often not documented. Ensure that "affirmative action mechanisms" support both women and men, based on an adequate understanding of their specific needs and priorities. This information is used to inform the gender action plan (for projects that require one).	• CBD. 2019a. *Addressing Gender Issues and Actions in Biodiversity Objectives*. Montreal, CBD. www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf
	Conduct a gender sensitive institutional assessment	• Assess the gender awareness and capacity of different institutions, to identify and address existing gaps of knowledge and skills. This information is used to inform the gender action plan (for projects that require one). • Address the gender gap in terms of the access both men and women have to natural resources and services in the design of biodiversity and poverty alleviation and sectoral policies and programmes. This can be done by collecting and using sex-disaggregated data on biodiversity use and management for planning and tracking progress to ensure equal rights for men and women.	• CBD. 2019a. Addressing Gender Issues and Actions in Biodiversity Objectives. Montreal, CBD. www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf



	Recommended actions	How to take action	Resources
PROJECT DESIGN	Develop a gender responsive logical framework	• Include gender-responsive outcomes, outputs and activities and gender-sensitive indicators in the project log frame to address the identified gender gaps and establish measures to strengthen the resilience of male and female farmers (see Implementation section for suggested actions).	• Consult the guidelines for conducting a gender analysis in the context of biodiversity (see Annex 2). • Consult Annex 1 for examples of gender sensitive indicators. • Consult the gender analysis section in the FAO guide on how to mainstream gender in the project cycle. FAO. 2017. *Guide to mainstreaming gender in FAO's project cycle.* www.fao.org/publications/card/en/c/3ff71f41-8828-483a-b9fd-b9cec12a82b4/
	Make sure there is a budget for gender	• Allocate adequate financial and human resources to conduct a gender analysis and implement gender-responsive activities. This includes introducing gender-responsive budgeting by allocating adequate funds to implement gender-responsive actions, and to hire a gender expert to support gender-responsive policy development.	• CBD. 2019a. *Addressing Gender Issues and Actions in Biodiversity Objectives.* Montreal, CBD. www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf
Apply gender responsive tools and approaches – the gender focal point in your division can support you in identifying them – to achieve the four objectives of the FAO policy on gender equality.			
PROJECT IMPLEMENTATION	**Objective 1:** Make sure women and men have equal voice and decision-making power in rural institutions and organizations to shape relevant legal frameworks, policies and programmes.	• Engage equally men and women in planning and decision-making related to biodiversity and ecosystem management and user groups and community consultation activities, to adequately consider their distinct needs and priorities, and their specific knowledge. • Strengthen the technical capacity of existing local groups and formal and informal networks or create new local committees for biodiversity management with equal representation of women. • Engage equally women and youth in the design of national and local biodiversity strategies, action plans and sector policy processes, including revisions, reporting and enforcement, involving ministries and civil society with a mandate to address gender equality. • Strengthen the negotiation and leadership skills of women and youth and make concrete provisions to address gender inequalities and build on women's potential in policies, legal provisions and programmes.	• CBD. 2019a. *Addressing Gender Issues and Actions in Biodiversity Objectives.* Montreal, CBD. www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf • CBD. 2022. Convention Text. In: *CBD Convention.* Montreal. Cited 18 May 2022. www.cbd.int/convention/articles/?a=cbd-02
		• Facilitate women's participation in discussions and negotiation fora relating to the effective implementation of the Nagoya Protocol at local and national levels.	Article 12.3 of the Nagoya Protocol requests Parties to support, as appropriate, the development by indigenous and local communities, including women and measures to guarantee access to traditional knowledge associated with genetic resources and the fair and equitable sharing of benefits arising out of the utilization of such knowledge. • CBD. 2011a. Text of the Nagoya Protocol. Article 12. Traditional Knowledge Associated with Genetic Resources. In: *CBD Access and Benefit-Sharing.* Montreal. Cited 30 August 2022. www.cbd.int/abs/text/articles/?sec=abs-12

Recommended actions	How to take action	Resources
	• Introduce targeted measures to ensure that women and men from different socioeconomic, ethnic, age and religious groups are equally represented and respected in relevant institutions, including at senior levels. This means encouraging more women to join, by reviewing eligibility criteria, meeting times and venues to see if they inadvertently discriminate against either gender (quotas and targets systems for example for the equal engagement in capacity development activities of both women and men). Special measures can also help to build an organizational culture that enables women and men to enjoy equal respect and voice.	Such action is emphasized in international obligations such as the United Nations Declaration on the Rights of Indigenous Peoples, and decisions and guidelines under the Convention on Biological Diversity, such as: • UN. 2007. *United Nations Declaration on the Rights of Indigenous Peoples*. Adopted: United Nations General Assembly, 13 September 2007UN, New York. www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf • CBD. 2004. *Akwé: Kon Guidelines*. CBD Guidelines Series. Montreal, CBD. www.cbd.int/traditional/guidelines.shtml • CBD. 2011b. *Tkarihwaié:ri Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities Relevant to the Conservation and Sustainable Use of Biological Diversity.* Montreal, CBD. www.cbd.int/traditional/code/ethicalconduct-brochure-en.pdf • CBD. 2011c. The Plan of Action for the retention of traditional knowledge, innovations and practices. In: *CBD Traditional Knowledge, Innovations and Practices*. Montreal. 30 August 2022. www.cbd.int/traditional/plan.shtml • CBD. 2012. *CBD Programme of Work on Article 8(j) and Related Provisions of the Convention on Biological Diversity*. Montreal, CBD. www.cbd.int/traditional/programme/programme-8j-en-web.pdf • CBD. 2014b. *Plan of Action on Customary Sustainable Use of Biological Diversity.* Montreal, CBD. www.cbd.int/doc/publications/cbd-csu-en.pdf • CBD. 2019b. *Mo' otz Kuxtal Guidelines*. Montreal, CBD. www.cbd.int/doc/publications/8j-cbd-mootz-kuxtal-en.pdf
Objective 2: Make sure women and men have equal rights, access to and control over natural and productive resources, to contribute to and benefit from sustainable agriculture and rural development.	• Remove structural barriers to women having access to natural resources and services, by creating targeted incentives established by recognizing equal natural resources rights and associated benefits. • Recognize and increase women's land rights and all the associated ecosystem services (water, food and natural resources for livelihoods activities). This could involve conducting literacy and awareness campaigns on women's legal rights that target both women and men, including also local leaders; and providing training for local women and men to help them understand their rights in relation to biodiversity and articulate their priorities effectively. • Increase the visibility of women's contributions to biodiversity management in the household, community and specific sectors, using strategies such as improved data on women's roles, and sensitization of traditional authorities and national advocacy campaigns.	• CBD. 2019a. *Addressing Gender Issues and Actions in Biodiversity Objectives*. Montreal, CBD. www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf • CBD. 2022. Convention Text. In: *CBD Convention*. Montreal. Cited 18 May 2022. www.cbd.int/convention/articles/?a=cbd-02

Recommended actions	How to take action	Resources
	• Facilitate the engagement of women and men in traditional in situ conservation work – such as supporting the work of indigenous and local women who safeguard traditional species. • Ensure equal benefits for men and women, making sure they are equally informed and included in restoration initiatives, alien species management, sustainable management of protected areas and wildlife, among other areas of intervention. • Build the resilience of identified vulnerable groups and their ability to adapt to climate induced ecosystem degradation, through gender-responsive climate-smart practices and improved and timely access to climate information.	
	• Provide training for men and women to strengthen the community capacity on sustainable biodiversity management, adopting gender transformative approaches that can support community learning.	Adopt participatory methods, such as the Farmers' Field and Business Schools or the Dimitra Clubs to empower individuals and groups to move towards more sustainable practices and improve the livelihoods of rural people. • FAO, IFAD & WFP. 2020b. *Gender transformative approaches for food security and nutrition: Good Practice Dimitra Clubs.* Rome. www.fao.org/3/cb1331en/cb1331en-08.pdf • FAO, IFAD & WFP. 2020c. *Gender transformative approaches for food security and nutrition: Good Practice Farmers' Field and Business Schools.* Rome. www.fao.org/3/cb1331en/cb1331en-09.pdf
	• Target women and men differently in initiatives to achieve sustainable consumption and production. In designing sensitization campaigns and incentives make use of sex-disaggregated data to understand different preferences and priorities.	An example of a gender-specific incentive scheme is the W+ Standard, which offers a certification scheme to measure the impacts of environmental and economic projects on women. • CBD. 2019a. *Addressing Gender Issues and Actions in Biodiversity Objectives.* Montreal, CBD. www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf
Objective 3: Make sure women and men have equal rights and access to services, markets and decent work, and ensure they have equal control over the resulting income and benefits.	• Invest in women, including indigenous women; facilitate their access to markets and financial services; build their skills and business opportunities throughout value chains; incorporate the gender dimensions into financial investments in ecosystems services; and ensure benefits are equally distributed. • Identify targeted actions to increase market access and add value (quality standards, certifications, improved conservation techniques and marketing) to women's production, considering the existing roles and skills in processing the products of biodiversity. • Give women and men equal access to clean energy and energy services, by building an understanding of their energy priorities and developing mechanisms to facilitate equal access and services for women and men, and reduce their dependence on unsustainable alternatives.	

Recommended actions	How to take action	Resources
Objective 4: Reduce the work burden on women by enhancing their access to technologies, practices and infrastructure and by promoting an equitable distribution of responsibilities, including at the household level.	• Raise awareness and make the business case for the increased participation of women in entrepreneurial opportunities to create a supportive environment in the community; identify new income-generating opportunities for women, throughout value chains and targeted activities. • Identify and disseminate labour-saving technologies and practices with the potential for agrobiodiversity innovation. This is particularly relevant for time-poor women. • Use participatory research methods, when introducing new practices, consider local knowledge and available innovations and discuss the uptake with all members of the community. Account for women's and men's perspectives and knowledge, uses and practices, including indigenous and traditional knowledge, in scientific and social research relevant to biodiversity; make sure the beneficiaries have equal access to information on innovative and promising practices and consider language and literacy barriers. • Strengthen the collaboration and information sharing between research institutions, extension service providers, farmers and farmer organizations. • Engage equally girls and women in the fields of science, technology, engineering and mathematics, as they relate to biodiversity.	Involve women in non-traditional employment, for example, as forest wardens, tour guides and market sellers; forest fire fighters and wildlife patrollers; and in forest management. • CBD. 2022. Convention text. In: *CBD Convention*. Montreal. Cited 18 May 2022. www.cbd.int/convention/articles/?a=cbd-02 • CBD. 2019a. *Addressing Gender Issues and Actions in Biodiversity Objectives*. Montreal, CBD. www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf
	• Support the redistribution of tasks and roles between men and women and facilitate more equitable decisions made on consumption and production at the household level. Use, for example, "household methodologies" or other gender transformative approaches that encourage joint and equitable planning at the household level.	• CBD. 2019a. *Addressing Gender Issues and Actions in Biodiversity Objectives*. Montreal, CBD. www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf • FAO, IFAD (International Fund for Agricultural Development) & WFP (World Food Programme). 2020a. Gender transformative approaches for food security, improved nutrition and sustainable agriculture: A compendium of fifteen good practices. www.fao.org/documents/card/en/c/cb1331en
	• Target women and men differently in awareness raising campaigns and ensure equal access to education and information through different channels. For instance, community radio may be more effective for reaching women in some areas.	• CDB. 2019. *Addressing Gender Issues and Actions in Biodiversity Objectives*. Montreal, CBD. www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf • FAO, IFAD (International Fund for Agricultural Development) & WFP (World Food Programme). 2020a. Gender transformative approaches for food security, improved nutrition and sustainable agriculture: A compendium of fifteen good practices. www.fao.org/documents/card/en/c/cb1331en
	• Plan capacity development activities for project staff and community sessions to discuss gender issues and engage men and women in identifying solutions. For example, the "journeys of transformation" methodology engages men as allies in women's economic empowerment, through group education sessions that challenge inequitable gender norms and power dynamics.	• FAO, IFAD (International Fund for Agricultural Development) & WFP (World Food Programme). 2020a. Gender transformative approaches for food security, improved nutrition and sustainable agriculture: A compendium of fifteen good practices. www.fao.org/documents/card/en/c/cb1331en

	Recommended actions	How to take action	Resources
		• Formulate gender-sensitive indicators related to traditional knowledge, innovations and practices, and collect sex-disaggregated data to support the recognition and integration of the traditional knowledge and customary practices of indigenous women and men.	Consult the indicators listed in CBD Decision XIII/28. • CBD. 2019a. *Addressing Gender Issues and Actions in Biodiversity Objectives.* Montreal, CBD. www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf
IMPLEMENTATION AND MONITORING	Design a gender responsive monitoring and evaluation plan.	• Define the gender equality strategy to be adopted during project implementation, making sure to "do no harm", protecting the poor and most vulnerable men and women, and leave no one behind. Safeguarding requirements may include an environmental and social management framework and/or plan, and a gender action plan. • Involve the target community in the design and implementation of the monitoring and evaluation plan, including gender-sensitive indicators. • Collect the views and perceptions of both men and women belonging to different age, socioeconomic and ethnic groups, during the monitoring and evaluation of the project, to be included in the Stakeholder engagement plan.	• FAO. 2018. Practical Guide for Improving Gender Equality in Territorial Issues (IGETI). Land and Water Division Working Paper no. 18. Rome. www.fao.org/3/I8769EN/i8769en.pdf • FAO. 2016a. *Free Prior and Informed Consent (FPIC): An Indigenous Peoples' right and a good practice for local communities.* Rome. www.fao.org/3/I6190E/i6190e.pdf
		• Develop gender-sensitive indicators and collect sex-disaggregated data to monitor the gender outcomes of the project and assess whether the projects met the needs of the most affected and disadvantaged women and men.	Consult the monitoring and evaluation section in the FAO guide on how to mainstream gender in the project cycle. • FAO. 2017. *Guide to mainstreaming gender in FAO's project cycle.* Rome. www.fao.org/publications/card/en/c/3ff71f41-8828-483a-b9fd-b9cec12a82b4/

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A woman collecting potatoes in Türkiye, benefitting from emergency assistance provided to small-scale farmers affected by Marmara earthquake.

2.2. How to integrate gender in FAO programmatic and policy activities related to biodiversity

Recommendation	How to take action	Resources
Integrate relevant gender issues in global, regional and national plans of action and policy dialogues on biodiversity, genetic resources and phytosanitary standards.	Include gender equality as a theme in global expert meetings, side events and high-level events related to biodiversity and its ecosystem services.	Follow the guidelines and tools on how to mainstream gender available on the Convention on Biological Diversity website: CBD. 2022. A Gender-Responsive Process. In: CBD Conferences. Montreal. Cited October 2022. www.cbd.int/conferences/post2020/gender#
	Develop the capacities for integrating a biodiversity perspective, including gender-responsive strategies in relevant planning instruments such as FAO Country Programming Frameworks and regional initiatives, national plans for agricultural sectors, food security and nutrition.	
	Advocate and provide support and capacity development to policy makers for integrating gender issues in sectoral policies in order to create an enabling environment for gender equality and the empowerment of women and girls in biodiversity management.	
	Collaborate with ministries for supporting gender equality and outreach women's groups, by partnering with organizations that are connected with women's groups, so as to gain insights into gender-biodiversity issues and as potential implementation partners (CBD, 2019a).	
	Advocate and provide support and capacity development to policy makers to adopt gender-responsive budgeting to ensure that financial policies address the needs and interests of both men and women and support the achievement of gender equality in biodiversity management.	
	Develop the national capacity for mobilizing resources for biodiversity mainstreaming, and for meeting the GEF and Green Climate Fund requirements on gender mainstreaming.	
	Address the gender dimensions in all discussions of biodiversity mainstreaming within FAO's technical committees, regional conferences, and in FAO statutory bodies.	
Collect, analyse and disseminate data and information to monitor the status of biodiversity at all levels, including sex-disaggregated data, as appropriate.	Organize capacity development activities for countries on how to collect, assess and report data on biodiversity, including sex- and age-disaggregated data (FAO, 2021a).	Follow the gender relevant actions under the core action areas in the 2021–23 Action Plan: • FAO. 2021a. 2021–23 Action Plan for the Implementation of the FAO Strategy on Mainstreaming Biodiversity Across Agricultural Sectors. Rome, FAO. www.fao.org/3/cb5515en/cb5515en.pdf Follow the guidelines and tools on how to mainstream gender: • CBD. 2022. A Gender-Responsive Process. In: CBD Conferences. Montreal. Cited October 2022. www.cbd.int/conferences/post2020/gender# Consult the guide: Sex-disaggregated data in agriculture and sustainable resource management: New approaches for data collection and analysis: • FAO. 2019a. Sex-disaggregated data in agriculture and sustainable resource management: New approaches for data collection and analysis. Rome. www.fao.org/3/i8930en/i8930en.pdf
	Document and disseminate efforts made to conserve, sustainably use and develop genetic resources, including sex-disaggregated data, to monitor progress related to SDG indicators 2.5 and 15.6. (FAO, 2021a).	

Recommendation	How to take action	Resources
	Compile sex-disaggregated data and conduct baseline analysis of gender norms, roles and relations to identify and address gender issues relevant to biodiversity policy.	
	Perform comprehensive analysis of sex-disaggregated data to inform national biodiversity policy and programming making visible women's roles in official statistics; integrating gender dimensions in surveys; and engaging with women to develop gender-responsive research (CBD, 2022).	
Engage with external partners to globally recognize the importance of integrating gender in the work on biodiversity and its ecosystem services.	Acknowledge and expand the work on gender equality and biodiversity carried out by numerous partners.	
	Engage the FAO gender team, divisional gender focal points and the CBD gender team when relevant.	
	Acknowledge and disseminate the work on gender and biodiversity that is being carried out under different periodical campaigns, United Nations decades, international years and other initiatives.	
Strengthen the coordination and delivery of FAO's gender related work on biodiversity.	Include a gender expert within the FAO-wide internal working group on biodiversity and the thematic sub-working groups, for knowledge exchange on biodiversity matters	Contact the gender focal point in your unit/office for further guidance.
	Take into consideration the recommendations on how to integrate gender in biodiversity projects available in section 2.1.	
	Include under the biodiversity collaborations the gender units of relevant international organizations, women groups and organizations working on gender issues.	

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An extension officer assisting rural women in a vegetable field in Pakistan, involved in the Women Open School (WOS) established to strengthen their skills in pesticide management.

Annex 1. Examples of gender-sensitive indicators related to biodiversity management

To clearly analyse gender issues, it is important to combine both quantitative and qualitative measurements of gender aspects, which help capture the different views and perceptions of male and female farmers.

Quantitative indicators:

- Share of female and male agricultural holders
- Percentage of female- and male-controlled land holdings
- Average size of farms owned by men and by women
- Average yields produced by male- and female-headed households
- Share of men and women who own and/or control productive assets for biodiversity management
- Percentage of women and men who produce food crops for household consumption
- Percentage of women and men who produce commercial crops that are marketed and sold
- Average yield produced by male and female farmers
- Share of men and women using improved technologies and practices
- Number of female and male farmers with access to rural infrastructure (i.e. silos, storage or refrigeration facilities, gear and boats)
- Number of women and men who participate in community-based or village forest committees
- Number of female and male farmers who receive support from extension services
- Number of men and women who receive financial support
- Number of men and women who participate in training and demonstration sessions
- Number of gender awareness raising sessions organized for staff of agricultural advisory or financial services
- Number of female and male farmers who participate in selected value chains
- Number of programmes targeted at women's and girls' activities
- National and local resource allocation (gender-responsive budgeting) to support gender-responsive interventions
- Number of local women and youth associations and organizations participating in project design and implementation
- Percentage of female and male farmers involved in biodiversity governance
- Number of gender-responsive investments and measures related to biodiversity management

Qualitative indicators:

- Perceptions of male and female farmers of their access to land and other productive resources
- Perceptions of men and women on the support received from extension services
- Views of male and female farmers on their land rights and access to inputs and output markets
- Perceptions of men and women on the support received by policy makers
- Opinions of men and women on their participation in planning and decision-making
- Perceptions of women and girls on their participation in selecting plant, livestock and forest species
- Views of men and women on their mobility constraints for accessing markets
- Perceptions of men and women on how climate change is affecting the management and productivity of their plots
- Views of men and women on local social norms and gender roles that affect their land ownership and rights over land and other productive resources and services

Annex 2. Gender analysis in the context of biodiversity management for food and agriculture: A tool to identify and address gender-related specific needs and constraints

Biodiversity management is highly context specific and is, therefore, essential for conducting a gender analysis to assess the specific gender roles and needs related to the management of biodiversity in a given geographical, socioeconomic and productive context. Different types of gender analysis are available, including a context analysis, a stakeholders' analysis, a livelihood analysis and a needs assessment.

Box A1: What is gender analysis?

Gender analysis is the study of the different roles of men and women to understand: What do they do? What resources do they have? What are their needs and priorities? What are the power relations (who decides on what)? It provides the basis for addressing inequalities in policies, programmes and projects, and it can be conducted at multiple levels (household, community and national), across different life stages, taking into account the various roles of men and women.

A. Context analysis for biodiversity management

This type of gender analysis assesses several socioeconomic patterns that influence the coping strategies of women and men and their opportunities for sustainable development and resilience building. These socioeconomic patterns can either support or constrain the adoption of biodiversity management practices.

Possible environmental and socioeconomic patterns that can affect women and men in different ways include, among many others: land and water scarcity, land and ocean degradation, extreme climate events such as floods and droughts, rising temperatures, changes in precipitation patterns, deforestation, conflicts over natural resources, growing population, migration, gender and social inequalities, feminization of agriculture, job opportunities, available advisory and financial services, markets and farmers' organizations.

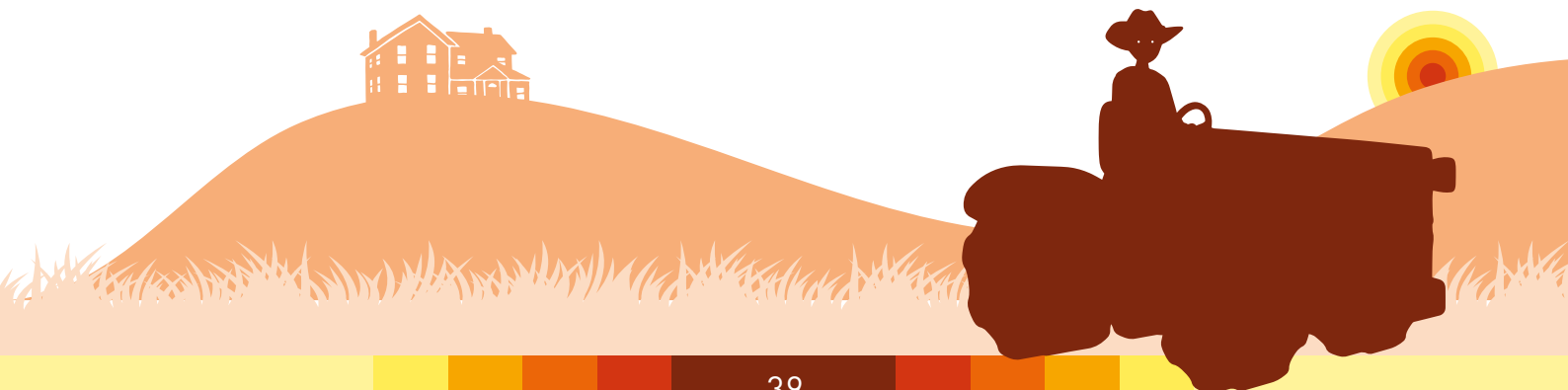
Box A2. Possible questions to conduct a gender-sensitive context analysis for biodiversity management

- Do women and men have equal land ownership?
- Do women and men have secure access to land and with the same contracts?
- Do women and men have the same roles in the management of biodiversity and related ecosystem services?

- Do women and men have the same priorities and knowledge in the context of biodiversity and related ecosystem services?
- Do women and men report changes or impacts in the local context related to the degradation of the environment? What are their specific perceptions of what is getting better or worse in terms of biodiversity?
- How many households are female-headed or youth-headed households? Are theseincreasing?
- What policies and institutional support mechanisms exist to facilitate the adoption of sustainable biodiversity management practices, while taking into account the gender dimensions? What are the main constraints for implementing them?
- Are women and men affected in different ways by existing policies and institutional support mechanisms related to biodiversity management?
- How are women and men affected and benefitting from financial incentives oriented toward biodiversity conservation?
- Who (women and/or men) is benefitting from biodiversity management practices and technologies to sustainably increase productivity, address environmental degradation and climate change? What are the constraints that men and women face when participating in the interventions to support biodiversity management? And what are the benefits?
- How will female and male farmers be affected by the introduction of biodiversity management practices and technologies?
- What are the existing knowledge and skills of female and male farmers related to biodiversity management practices and technologies? What are the specific training needs of men and women?
- What are the existing assets of female and male farmers related to biodiversity management?

B. Gender-sensitive stakeholder analysis for biodiversity management

This type of gender analysis helps to identify the stakeholders, relevant institutions, and groups to be involved in biodiversity management. It aims at establishing how a specific problem related to biodiversity health and management affects different stakeholders, and their views on what will contribute to relieving their concerns. This analysis is useful to determine the specific priorities of different stakeholders and to decide how to address their interests and needs, to overcome the constraints on their participation or access to expected benefits, and to find out how different women and men stakeholders are likely to be affected.



Box A3. Possible questions for conducting a gender-sensitive stakeholder analysis for sustainable biodiversity management

- What are the most important environmental, economic, institutional and social partners in a specific context that influence biodiversity management and biodiversity degradation?
- Who are the stakeholders or institutions to be involved in the planning and decision-making process regarding sustainable biodiversity management practices and techniques?
- What do men and women from different socioeconomic groups have at stake?
- What are the stakeholders' priorities? Are there gender-linked differences among various stakeholder groups?
- Who are the main stakeholders representing the interests of women and youth involved in sustainable biodiversity management?
- What are the perceptions of men and women in terms of their engagement in the sustainable biodiversity management intervention?
- How can we better engage women, youth, and their organizations in sustainable biodiversity management?

To conduct a gender-sensitive stakeholder analysis, it is important to allow space for women and men to express their views and concerns, participate in decision-making within households and communities, and equally benefit from planned interventions. It is also important to avoid considering women and men as homogeneous categories, but to take into account other intersectional issues such as age, class, caste, ethnicity, religion, education levels, disability and socioeconomic status. Lastly, it is important to let stakeholders representing marginalized groups and those who lack power and capacities make their voices heard in planning and decision-making. This means planning targeted actions to reach specific stakeholders who might not be easy to access during the analysis to hear their views, due to pre-existing social norms, power differences and remoteness.

To address these different needs, taking an intersectional approach is recommended, as well as organizing separate meetings with female and male community members. This includes tailoring the training to their specific educational and knowledge levels, planning them at a time and venue that is convenient and accessible for all, and responding to their different needs and priorities related to biodiversity management. Identifying and involving women's and youth groups and gender experts is also recommended.

C. Livelihood analysis for biodiversity management

This type of gender analysis tries to answer the questions: Who does what? Who uses what? Who controls what? It analyses the specific gender roles, the different access to and control over natural and productive resources, the services for women and men to meet their basic needs and generate an income, and their main sources of expenditures and income. Livelihood analysis takes into account the gender dimensions, and the differences between various socioeconomic groups with respect to labour and time-use and decision-making patterns, which also affects the update of technologies and practices for biodiversity management.

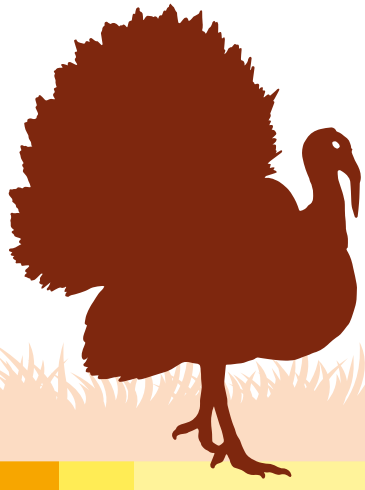
Box A4. Possible questions to address in a gender-sensitive livelihood analysis for biodiversity management

- How do men, women, boys and girls make their living? Are there any differences between various socioeconomic groups?
- How do the livelihood systems of men and women from different socioeconomic groups compare?
- What are the most important sources of income for men and women? What are their main sources of expenditures?
- How does biodiversity degradation and management affect the livelihoods of men and women, and their opportunities for development and resilience building?
- What are the likely impacts of biodiversity loss and degradation on the livelihoods of rural people? Are certain sectors or socioeconomic groups more or less vulnerable than others? Why?
- Are biodiversity management practices equally available to both men and women farmers, and will their uptake be affected by the local socio-cultural context?
- What are the specific perceptions of men and women regarding availability of technologies and good practices and promising approaches for biodiversity management?
- How diversified are the livelihoods of men and women? What specific biodiversity management practices have they applied in response to changing climatic conditions and biodiversity degradation?
- What kind of support (financial and non-financial services) do men and women farmers need to adopt biodiversity management practices and technologies?
- What are the main differences between men and women from different socioeconomic groups with respect to labour and decision-making patterns on biodiversity management?
- What kind of labour-saving technologies and practices related to biodiversity management can be introduced to reduce the work burden of women farmers?

D. Gender-sensitive needs assessment for biodiversity management

This type of gender analysis is used to identify the specific needs and priorities of women and men from different socioeconomic groups, to set priorities for action, collect data disaggregated by sex and age for planning, and determine the anticipated impact of the intervention on women and men most affected by the risk of biodiversity degradation and climate change.

It is important to distinguish between practical and strategic gender needs. There is no absolute division between these two types of needs. In some cases, a project may address practical needs, whereas in a different context the same project might meet strategic needs of men and women.



Box A5. Definition of practical and strategic gender needs

Practical gender needs relate to the basic and material needs of men and women for their day-to-day survival, and refer to their living conditions, for example, access to resources and services, decent employment opportunities, education, financial services and local institutions, among others, including both short-term and urgent needs such as healthy and nutritious food, safe water and income. In meeting these needs, the existing division of labour between men and women is accepted and gender roles are not challenged. These needs can be satisfied without changing the status of men and women in the household and the community, and in some cases, they enforce traditional gender roles. The practical needs are related to improvements in the living conditions of men and women by improving the efficient use of resources rather than by supporting women's empowerment or by achieving gender equality.

Strategic gender needs challenge the existing gender identities and relationships between men and women in favour of equity for all. They are usually long-term interests and are, therefore, sustainable and continuous needs (namely, social structures). After meeting the strategic needs, the division of labour between men and women would no longer be broadly determined by gender. Similarly, restrictions on access to and control of resources and benefits would be independent of gender issues.

Table A1. Possible interventions for meeting the gender needs for sustainable biodiversity management

Interventions to meet gender needs in biodiversity management	(Desired) result of intervention
• Sensitize and empower women and men to address the underlying causes of biodiversity loss. Mainstream gender into biodiversity policies and programmes, and biodiversity into national gender policy/programming as well as key sectoral policies, especially land, water and agriculture.	• Addressing the underlying causes of biodiversity loss by mainstreaming biodiversity.
• Build on women's primary roles in land and natural resource management, improve their access to natural resources and promote their equal voice in decision-making processes to incentivize more sustainable use of ecosystems and biodiversity.	• Reducing the direct pressures on biodiversity and promoting sustainable and equitable use of resources.
• Engage both women and men in natural resource management initiatives, especially in animal and plant genetic diversity, and ensure that alternative sustainable livelihoods also work for women by taking account of their use of ecosystems.	• Improving the status of biodiversity by safeguarding ecosystems, species and genetic diversity across government and society.
• Contribute to building an enabling environment so that policies and programming and investments in conservation and sustainable management efforts respond to the priorities of both women and men regarding biodiversity and related ecosystem services.	• Ensuring equal benefits to all from biodiversity and ecosystem services.
• Support both women and men to further develop and apply their knowledge, capacities and voice in implementing biodiversity policies and programmes, including fostering women's leadership and scientific contributions.	• Enhancing implementation through inclusive planning, knowledge management and capacity development.

Source: CBD. 2019a. *Addressing gender issues and Actions in Biodiversity Objectives.* Montreal, CBD. www.cbd.int/gender/doc/cbd-towards2020-gender_integration-en.pdf

Biodiversity and associated ecosystem services are crucial for food security and for the livelihoods of people involved in food and agricultural production systems around the world. Women and men use and manage biodiversity resources in different ways, and face specific constraints and opportunities. Their unique knowledge and responsibilities in the sustainable use of biodiversity must be fully recognized to ensure better gender outcomes and resource management.

The publication **Engaging women and men equally in managing biodiversity,** provides some guidelines for integrating the gender dimensions in projects, policies and other initiatives of FAO related to biodiversity. The aim is raising gender awareness and providing guidance to FAO staff working in the field of biodiversity to help them to better identify and address the gender and social dimensions in biodiversity management.

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