

Forest-based agrifood systems

Defining priorities on the sustainable use of forest foods in Africa

18-20 June 2024, Virtual event (DRAFT)

Context

The urgency of agrifood system transformation is irrefutable, and critical to multiple global agendas (e.g. Paris Agreement, Global Biodiversity Framework, SDGs).ⁱ At the same time, acknowledgement of the potential of forests, trees and wild species for transforming agrifood systems is growing.ⁱⁱ Forests are humanity's life-support system,ⁱⁱⁱ hosting immense biodiversity and boasting vital functions and services such as pollination, carbon sequestration and climate regulation — essential for human and ecological health, including sustainable agricultural production. Sustainably managed forests are among the most important climate change mitigation strategies currently proposed in global policy, and associated forest agrifood systems are equally critical to preserving biodiversity and supporting livelihoods.

Hosting the majority of terrestrial biodiversity,^{iv} forests, woodlands and wild ecosystems harbour thousands of wild plant, fungi and animal species, often referred to as non-wood forest products (NWFPs). An estimated 5.76 billion people across socio-economic groups and geographic regions use NWFPs.^v Some 50 000 wild species are used worldwide for food, medicine, energy, income, cultural identity and other practices, supporting half of the world's population and about 70 percent of the world's poor.^{vi} 10 000 species are vitally important as food, particularly for Indigenous Peoples and rural communities. NWFPs play an important role in human health, contributing to diet quality and providing vital nutrients, especially for women, children, and vulnerable segments of society. Increasingly, NWFPs are re-emerging in global multiple, billion-dollar industries, providing biological materials that can contribute to growing bioeconomies for sustainable agrifood systems.

Alarming levels of biodiversity loss and mass extinction of species however are threatening vital forest ecosystems, and with it human and ecological health. Two in five of the world's plant species are at risk of extinction, mainly from the disruption of ecosystems and overexploitation.^{vii} The contributions of NWFPs to food security, nutrition and landscapes, moreover, usually go unnoticed; as such they are hardly priorities, and often invisible in environmental and development agendas. Within agrifood systems, the acknowledgement of the failures of global food systems to sustainably deliver sufficient and nutritious food for all, and of their environmental impacts, has recently prompted growing interest in the unlocked potential of plant resources, including trees, for transforming food systems.^{viii, ix} Preserving traditional and local wild species and associated food systems and landscapes can contribute to improving and safeguarding future food security, nutrition, and livelihoods, and at the same time offering nature-based solutions to address biodiversity loss and climate change.

Despite being distributed unevenly across the continent, the African region contains about a quarter of the world's biodiversity, including between 52 000 and 73 000 plant species, and about 150 000 species of insects are known for subSaharan Africa. Terrestrial ecosystems in Africa have already experienced major biodiversity losses in the past 30 years, which has negative impacts on nature's contribution to people;^x in part due to the increased net forest loss in each of the three decades since 1990.^{xi} In parallel, according to the most recent data from The State of Food Security and Nutrition in the World 2023, the prevalence of moderate or severe food insecurity in Africa increased by one percentage point in one year to 60.9 percent in 2022, adding to the increase trend observed since 2015. The same report, points the increase in the cost of a healthy diet in the region, where 78 percent of its population cannot afford one.^{xii} The food security and nutrition forecast is of paramount importance for the rapidly growing population in the continent, which is projected to reach approximately 2.5 billion people by 2050.^{xiii}

The outlined situation lays the groundwork for how forest, particularly forest foods, can help address Africa's food systems challenges, in the face of growing pressures on land use. This underscores the need to consider not only how people interact with and benefit from forests, including those within protected areas, but also how nature-based solutions for food systems can be maximized. For instance, Africa's abundant biodiversity, combined with its substantial potential for ecosystem restoration,^{xiv xv} presents opportunities to simultaneously tackle integral objectives, including the access to healthy diets, which can release pressure on natural ecosystems.^{xvi}

Scope

Following the request from the Committee of Forestry¹ at COFO 25 and 26, as well as subsequent interest and technical support requests from the FAO Council to enhance the complementarities between agriculture and forestry and to strengthen mutually-beneficial linkages,² FAO is engaging with interested Members and partners to harness the potential of NWFPs by promoting the sustainable use and consumption of forest foods, contributing to safeguarding biodiversity while improving nutrition, food security, and livelihoods. As such, FAO is organizing workshops to identify opportunities, challenges and region-specific actions to unlock the full potential of forests and associated food systems. The workshop will focus on forest plants, fungi and insects, complementing and sharing lessons learned of ongoing initiatives such as the Sustainable Wildlife Management Programme³, The Sustainable Forest Management Impact Program on Dryland Sustainable Landscapes,⁴ Action Against Desertification,⁵ the Forest and Landscape Restoration Mechanism⁶ and the FAO Technical Cooperation Programme (TCP/INT/3905) Strengthening Country Capacities to Enable Forest-Based Contributions to Healthy and Sustainable Agrifood Systems,⁷ and follows similar workshops for countries in Latin America and the Caribbean, Asia and the Pacific, and Türkiye.⁸ The workshop offers key stakeholders an opportunity to collectively define and prioritize a proxy regional agenda of action.

In line with the requests from FAO's Regional Conference for Africa (ARC 32)⁹ and its African Forestry and Wildlife Commission (AFWC 24),¹⁰ the workshop targets interested experts from Africa with the aim to identify and promote priority actions enhancing the sustainable use of forest plants, fungi and insects relevant to their area of competence and influence.

The specific objectives of the workshop are:

1. Facilitate knowledge exchange among participants on enabling contributions from forest plants, fungi and insects to sustainable food systems as well as related co-benefits for biodiversity, climate and health.

¹ COFO 25 (para 51.b.vi: “The Committee requested FAO to regularly update Members on the development of initiatives in the forest sector in which FAO participates, including ... a possible initiative on forest foods, and consult Members”).

² [COFO/2022/6.1](#); [COAG/2022/12](#); [COFO/2022/4](#), [COFO/2022/3](#); [COFO/2020/REP](#)

³ <https://www.swm-programme.info/>

⁴ <https://www.fao.org/in-action/action-against-desertification/en/>

⁵ <https://www.fao.org/in-action/action-against-desertification/en/>

⁶ <https://www.fao.org/in-action/forest-landscape-restoration-mechanism/en/>

⁷ <https://www.fao.org/forestry-fao/nwfp/101247/en/>

⁸ Workshop reports are available at <https://www.fao.org/forestry-fao/nwfp/100926/en/>

⁹ FAO Regional Conference for Africa in its thirty-second session (para 22.iv a: “continue its technical and resource mobilization support, through e.g. the Green Climate Fund (GCF) and the Global Environment Facility (GEF), to Members for the formulation and implementation of large-scale restoration investment programmes toward increasing agricultural production and resilience of livelihoods”).

¹⁰ African and Forestry Commission in its twenty-fourth session ([AFWC/2023/4](#): “Support countries, subject to the availability of resources, with developing, monitoring and adaptively managing programmes on sustainable, legal, and safe harvest, use and trade in wild species at a national level..”).

2. Identify the main opportunities and challenges, and associated actions for the sustainable use of forest plants, fungi and insects and enhancing forest-agriculture linkages based on four thematic areas: **Food security and nutrition, conservation and sustainable management, innovative and sustainable value chains, and enabling environment.**
3. Define a prioritized agenda of action for each thematic area.
4. Identify potential partners, and obtain firm commitments from interested stakeholders in support of a possible initiative on forest foods.

Main outputs of the workshop are:

1. Guide and strengthen FAO's technical support in response to its members' request for harnessing the contribution of forest foods to the transformation of agrifood systems.
2. Feed global, regional and national policy processes to make the contributions of forest foods more visible and advocate for policy action for the prioritized agenda.
3. Support resource mobilization for the prioritized agenda of action related to a possible initiative on forest foods.

The workshop is organized by FAO in collaboration with the Ministry of Forestry and Wildlife (MINFOF) of Cameroon.

Format and programme

The 3-days workshop will be held online following the design thinking and theory of change approaches. Participants from Cameroon will be able to join day 1 in a hybrid mode. Preparatory activities will be carried out to collect inputs from the participants for the workshop.

Language: English and French interpretation will be available.

Participants

The target audience of the workshops includes some 30 representatives, including governmental representatives from food and agriculture, health, environment, foreign affairs, and culture; representatives of academia, NGOs, local and indigenous communities, civil society, development partners and the private sector.

Preparatory activities

The pre-workshop activities intend to collect and analyze inputs from confirmed participants that will be further discussed during the sessions of the workshop. For this, an online form will be sent to participants to be completed prior to the workshops. Inputs collected will be analyzed by FAO and used as inputs for the workshop in order to enable participants to:

1. Explore trends associated with the sustainable use of forest plants, fungi and insects, and synergies with other sectors (e.g. agriculture, nutrition).
2. Elaborate a draft collective vision for each theme (**Food security and nutrition, conservation and management, innovative and sustainable value chains, and enabling environment**). A draft collective vision will be further discussed during the workshop.
3. Identify challenges, opportunities and actions for each theme that will be further discussed during the workshop.

Participants will receive materials and instructions on how to complete the form once they confirm their participation.

Workshop

The 3-day workshop is divided into two sessions per day and will take place on June 18 (14:00 - 17:00; Yaoundé, Cameroon – UTC+1), 19 (9:00 - 11:00 and 14:00-16:00; Yaoundé, Cameroon – UTC +1) and 20 (9:00 - 12:00; Yaoundé, Cameroon – UTC +1), 2024. Participants are invited to attend all sessions. In case of difficulties in participating throughout the three days, participants are encouraged to participate in the opening session on Day 1, the closing session on Day 3 and the discussion of at least two thematic sessions. The thematic discussions follow the same structure and methodology.

Generic Programme

Day 1 (14:00-17:00 – UTC+1)	
Opening (expected duration 80 minutes)	
14:00 – 14:05	Introduction
14:05 – 14:15	Welcome remarks (FAO, AU, COMIFAC)
14:15 – 14:20	Opening speech (H.E. Jules Doret Ndongo, Minister of Forests and Wildlife)
14:20 – 14:25	Signature of TCP/INT/3905 (MINFOF-FAO)
14:25 – 14:40	Overview of forestry and food security and nutrition in Africa
14:40 – 15:10	Panel on forest foods for sustainable agrifood systems
15:10 – 15:20	Closing remarks
Break (10 min)	
Technical session 1: Food Security and Nutrition (expected duration 90 minutes)	
15:30 – 15:45	Welcome, presentation of results from the pre-workshop activities and explanation of the methodology for the sessions
15:45 – 15:55	Keynote
15:55 – 16:20	Brief presentations on opportunities/best practices
16:20 – 16:40	Moderated break-out groups: Challenges, priority actions and best practices.
16:40 – 17:00	Back to session and wrap-up.
Day 2 (Session 2: 9:00 - 11:00 – UTC +1 / Session 3: 14:00-16:00 – UTC +1)	
Technical session 2: Conservation and management (expected duration 120 minutes)	
09:00 – 09:15	Welcome, presentation of results from the pre-workshop activities and explanation of the methodology for the sessions
09:15 – 09:25	Keynote
09:25 – 09:50	Brief presentations on opportunities/best practices
09:50 – 10:00	Q&A
10:00 – 10:45	Moderated break-out groups: Challenges, priority actions and best practices.
10:45 – 11:00	Back to session and wrap-up.
Break (3 hours)	
Technical session 3: Innovative and sustainable value chains (expected duration 120 minutes)	
14:00 – 14:15	Welcome, presentation of results from the pre-workshop activities and explanation of the methodology for the sessions
14:15 – 14:25	Keynote
14:25 – 14:50	Brief presentations on opportunities/best practices

14:50 – 15:00	Q&A
15:00 – 15:45	Moderated break-out groups: Challenges, priority actions and best practices.
15:45 – 16:00	Back to session and wrap-up.

Day 3 (09:00-12:00 – UTC+1)	
Technical session 4: Enabling environment (expected duration 120 minutes)	
09:00 – 09:15	Welcome, presentation of results from the pre-workshop activities and explanation of the methodology for the sessions (moderator)
09:15 – 09:25	Keynote
09:25– 09:50	Brief presentations on opportunities/best practices
09:50 – 10:10	Moderated break-out groups: Challenges, priority actions and best practices.
10:10 – 10:30	Back to session and wrap-up.
Break (10 min)	
Closure (expected duration 80 minutes)	
10:40 – 10:45	Introduction
10:45 – 11:20	Presentation and discussion of outcomes from thematic sessions
11:20 – 11:45	Looking ahead: Emerging partnership opportunities
11:45 – 12:00	Wrap-up (FAO) Closing remarks (AU, COMIFAC, MINFOF)

Thematic areas

Food security and nutrition (sustainable and safe consumption)

Forest and local peoples' traditional knowledge of forests and of a wide vast genetic pool of species adapted to local conditions, and their associated gathering and management practices, plays a critical role in preserving biodiversity, associated ecosystem services and enhancing food security and nutrition. At a global scale, the growing use of a narrow range of plant species for our essential needs have made our food systems inherently fragile and vulnerable to expected or unforeseen shocks. Out of the ca. 400 000 known plant species that exist on the planet, fewer than 200 plant species currently make substantial contributions to food production globally, regionally or nationally, and only nine account for 66 percent of total crop production.^{xvii} This is in stark contrast to the rich biodiversity found in forest and wild food systems, characterized by a mean use of 100 species per location, and between 300-800 at a country level. These species are increasingly important to maintain and build resilient food systems and provide the wide variety of nutrients that people need for a healthy life. In many rural areas, foods obtained from forests account for a large part of micronutrient intake, particularly important for childhood development and pregnant women. Forest foods contribute to dietary diversity, to seasonal evenness - providing important nutrients and complementing many staple-based diets in any given month of the year, and are often a source of income. However, consumption of wild species also raises concerns about their safety, where gaps in evidence and knowledge are present. In addition to direct contributions, forests also sustain the ecological basis of agricultural production through services such as pollination, water regulation and soil protection, and can ensure sustainable food production, particularly in the face of challenges such as climate change, diseases, pressure on feed and water and pollinator declines.

This session will focus on topics such as: traditional and indigenous food systems, enhancing biodiversity in food systems, food composition, food consumption data, food safety, and mainstreaming nutrition into agriculture and forestry.

Conservation and sustainable management (ensuring and monitoring supply, community management, domestication, knowledge)

Some eighty percent of the world's terrestrial plant and animal species can be found in forests and woodlands. Yet land-use change, habitat loss, and fragmentation, associated in particular with the expansion of agriculture, are causing an unprecedented decline in this biodiversity. Plant diversity moreover has for millennia underpinned ecosystem services essential for human health and well-being, and contributed to making production systems and livelihoods more nutritious and climate resilient. Biodiversity in a food system is well acknowledged to ensure sustainability and resilience. Yet this biodiversity is declining at an unprecedented rate. Two in five of the world's plant species are at risk of extinction, and from 2010 to 2015, the natural forest area worldwide decreased by 6.5 million ha per year. It is estimated that three-quarters of the varietal genetic diversity of agricultural crops has been lost over the last century. At a global scale, the growing use of a narrow range of plant species for our essential needs have made our food systems inherently fragile and vulnerable to expected or unforeseen shocks.

This session will focus on: traditional knowledge and management techniques; nutrition-sensitive forest management and restoration; community biodiversity/forestry management; monitoring and risk assessment; and domestication opportunities.

Innovative and sustainable value chains (quality standards, certification, efficient and safe handling, and processing)

Many traditional, NWFPs are the basis of local, regional and international trade. They are often marketed locally, may be global commodities used in cosmetics, botanicals, food and beverage and other sectors, or the basis of new product development that uses traditional knowledge. Increasingly, they are becoming the basis of multiple, billion-dollar industries. They are showing promise as bio-substitutes of chemical or polluting materials and are also important for recreation. Many products are being re-vitalized, and new uses being discovered. They are often marketed

as “super foods” in wealthier societies where they are key ingredients in food and medicinal products, for example baobab, acai and moringa, “novel” foods such as oak-acorn based flours, special drinks like birch water/sap, or shea and wild mango as palm oil and cocoa substitutes. Notwithstanding, as NWFPs play a greater role in emerging bio-based economies, the benefits of local markets for income and health should not be overlooked. Moreover, steps need to be taken to support collectors and producer groups who often do not achieve substantial economic gains for their efforts. Particularly as they engage in regional and global markets, and whose local knowledge may be exploited to develop lucrative commercial products that do not benefit local communities. Equally, it is essential to engage the private sector about the status and risk of ingredients in their products. Also in view of growing consumer interest in the social, environmental and health credentials of their food. Specific attention should involve promoting sustainability and equity in local and regional markets for threatened species; in global biotrade markets and sectors like botanicals/medicinals, novel and super foods, personal care, etc; and examining the interface of these activities with conservation of forest foods used for subsistence, local and regional trade, and global niche markets

This session will explore options for innovating and improving value chains to render them more sustainable, efficient, equitable and safe. Topics will include national and international standards and certification opportunities; producer and harvester organization and skill-building; improved processing and handling techniques; accessing markets and market information.

Enabling environment (policies, legislation, incentives, official statistics)

Policy can support diverse, nutritious, environmentally sound forest food systems, traditional foodways, and smallholder agriculture. Policy can support diverse, nutritious, environmentally sound forest food systems, traditional foodways, and smallholder agriculture. Although unintended, too often existing measures undermine these food systems. It is important for governments to recognize the ways laws relate to each other, to streamline laws, coordinate their implementation across government departments, and consider the negative impacts and unintended consequences they can produce for smallholder forest food systems. As commercial demand for forest food, including plants, fungi, and insects spikes, moreover, as well as the knowledge associated with their use, interventions may be required to ensure sustainability and equity. Intellectual property rights and land and resource rights, including access-and benefit sharing, for example, are vital to preserve and enhance ecological and cultural systems and related food systems. Evidence-based policies and laws also require systematic and reliable data on production, trade and consumption, including on subsistence use, to support policymakers, consumers and the private sector in making informed decisions to promote the sustainable consumption and production of biodiverse and nutritious foods, as well as incentivize their conservation through sustainable use.

This session will discuss enabling policies, legislative frameworks, access and use rights, data availability, incentives and other enabling conditions for the sustainable consumption and production of food plants, fungi, and insects from forests to flourish. This may include addressing issues raised under the Convention on Biological Diversity and its post-2020 global biodiversity framework and other related global policies and frameworks.

Workshop report

A brief workshop report containing the background, methodology, and main results will be developed and shared with the participants of the workshop.



References

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