

Significance of dryland forests for achieving land degradation neutrality, combatting biodiversity loss and climate change

6 December 2024, 13h – 14h30, Room *MET 8, Blue Zone*

Side Event Co-Organized by the Secretariat of the UN Forum on Forests (UNFFS) and the National Centre for Vegetation Cover Development and Combating Desertification (NCVC) of the Kingdom of Saudi Arabia at the Sixteenth Conference of Parties of the UN Convention to Combat Desertification (UNCCD COP16) in Riyadh, Saudi Arabia

SUMMARY

I. Background and context

Global drylands contain 1.1 billion hectares of forests, which constitutes 27 per cent of the world's forest area. Drylands are home to about 2 billion people, who depend on ecosystem services and products from forests and trees outside forests. These include important ecosystem services such as regulation of water, microclimate and soil fertility, prevention of erosion and desertification, and important contributions to livelihoods and food security. Dryland forests also contain unique and globally important biodiversity, protect against land degradation, and play an important role in mitigating climate change through carbon storage in soils and vegetation.

The Bureau of the twentieth session of the UN Forum on Forests (UNFF20), in response to a proposal from Saudi Arabia, decided that "dryland forests" will be discussed under the agenda item of "emerging issues" during UNFF20. This decision is based on the significance of dryland forests for the socio-economic development and environmental integrity of many countries. The UNFF session, which will be held from 5 to 9 May 2025 at UN Headquarters in New York, will be a technical session focusing on the thematic priorities of the Forum regarding the conservation and sustainable management of all types of forests, in line with the UN Strategic Plan for Forests.

In preparation for the discussions at UNFF20, the UNFF Secretariat and the National Centre for Vegetation Cover Development and Combating Desertification (NCVC) of Saudi Arabia co-organized an event on the sidelines of UNCCD COP16. The side event provided a space for representatives of UNFF members, UN entities and other experts to discuss the challenges and threats faced by countries with dryland forests and share information on best practices. The side event was held in person and discussions took place in English.

II. Objectives, programme and modality

The side event sought to elicit concrete suggestions for advancing the protection, conservation, and sustainable management of dryland forests, considering their contributions to the achievement of objectives under the three Rio Conventions and the UN Strategic Plan for Forests 2017-2030, as well as associated challenges and opportunities. In their remarks, experts were asked to consider the following questions:

- Why are dryland forests important? What are their main contributions in terms of livelihoods of forest-dependent communities, biodiversity, and climate action?
- What are the contributions of dryland forests to the agreements and objectives under the three Rio Conventions and the UN Strategic Plan for Forests 2017-2030?
- How can countries and partners enhance the conservation, sustainable management and utilization of dryland forests? And what can be done to address the needs and concerns of low forest cover countries?

- What are the opportunities at the global level for countries to restore, conserve and sustainably manage dryland forests, including for mobilizing the financial and other resources required?

The side event started with an opening segment, including remarks delivered by:

- Juliette Biao, Director of UNFF Secretariat (Moderator)
- Eduardo Mansur, representing Khaled Alabdulkader, CEO of NCVC
- Ismail Belen, Chair of UNFF20 Bureau
- Birguy Lamizana, Chief of Global Policy, Advocacy and Regional Cooperation, UNCCD

Following the opening segment, a video was shown with data on dryland forests in Saudi Arabia. This was followed by three keynote presentations:

- Hosny El Lakany, Adjunct Professor and Director of International Programs of the Faculty of Forestry, University of British Columbia, Canada
- Rahma Jrais AlQthanin, Professor and Director of the Prince Sultan Bin Abdulaziz Environmental Research Centre at King Khalid University
- Fritjof Boerstler, Senior Natural Resources Officer, Food and Agriculture Organization of the United Nations, and Lead of the GEF 7 Sustainable Forest Management Impact Program on Dryland Sustainable Landscapes

After the remarks and presentations, the floor was opened for questions and comments from the audience. Finally, the moderator delivered concluding remarks.

III. Summary of speeches

Dryland forests represent 27 per cent (1.11 billion ha) of global forest area, which is equivalent to the extent of boreal forests as a proportion of total forest cover. The number of trees outside forests in drylands is also significant, estimated at 13.5 billion trees, scattered over 1.9 billion ha of mostly grassland and croplands as part of agroforestry and silvopastoral systems.

Forests, trees and mangroves in drylands play a crucial role in sustaining human populations through the provision of key ecosystem services and products, including food, medicines, and other wood and non-wood forest products. Trees and forests in drylands help to regulate water flows, retain soil moisture and reduce erosion, thereby helping to combat desertification, land degradation, drought, and sand and dust storms (SDSs). As such, dryland forests are crucial allies in climate change adaptation and mitigation, in addition to serving as habitats for valuable biodiversity. The conservation, sustainable management and restoration of dryland forest ecosystems is therefore a social, moral and economic imperative.

Dryland forests and trees outside forests are under stress from water scarcity, temperature rise, unsustainable land use, invasive species, land degradation and desertification, and population pressure, among other threats. It is estimated at least 25% of dryland forests are degraded globally. The socio-economic and environmental benefits of dryland forests have been widely documented, and yet there is a lack of awareness of these ecosystems and their contributions. There is a need to conduct economic valuation efforts for consideration in decision-making at all levels.

Strategies for the sustainable management of dryland forests range from conservation to utilization of wood and non-wood forest products and from governance to participatory management. While there are some successful examples of effective management, most of the recommendations have not been fully implemented

or reported. The objective should be to sustain forests over time as productive, multi-functional renewable assets to meet the evolving needs of populations. Recent advances in the restoration and rehabilitation of degraded lands are promising, including the launch of large-scale tree planting programs in some countries to reduce pressure on natural forests. However, for these to be successful, the planning and management need to be adapted to suit the scale and unique context of these projects, rather than aggregating experiences gained from small-scale efforts in hospitable environments.

Through the GEF-7 Sustainable Forest Management Impact Program on Dryland Sustainable Landscapes, FAO has worked to better understand and tackle the challenges faced by practitioners in 11 countries in Africa and Central Asia. Because many of the challenges are shared, practitioners have greatly benefited from participating in platforms to exchange experiences, including best practices and innovative solutions for effective dryland forest management. Connecting different sectors and stakeholders is vital, notably agriculture and forestry, in order to promote collaborative and integrated approaches. A key takeaway from this work is that dryland forests provide a safety net for food security and community livelihoods during times of agricultural failure.

In Saudi Arabia, there are about 2.7 million ha of woodland in the mountains, representing 1,35% of national territory. The juniper (*Juniperus spp.*) forests are among the few dense forest habitats of Saudi Arabia. These forests prosper at 2,000 to 3,000 meters and are characterized by high diversity of species and biomass. Olives (*Olea europaea* L.) appear amongst the junipers on slopes at about 1,500 to 2,000 meters. In addition to mountain forests, there are wooded areas in arid zones featuring acacias in the desert and mangroves along the coasts. These ecosystems contribute to biodiversity, soil conservation, and local hydrology, serving as water catchments and habitats for diverse species. In regions like Najd and the Empty Quarter, dryland forests provide drought-resistant grazing grounds for livestock.

A case study in Al-Baha, initiated in August 2023 through collaboration between the NCVC and FAO, aims to promote sustainable forest management including carrying out national forest inventories, as part of a wider effort to develop a National Forest Information System. The inventories compile data on forest cover, tree species, forest health, biodiversity, carbon stocks and land use. There is a need to protect dryland forests and trees in Saudi Arabia from growing threats, including desertification and land degradation, overgrazing, pests and diseases, invasive species, expansion of urban areas and infrastructure, climate change and extreme weather events, including wildfires. There is a general lack of awareness and understanding of these challenges, particularly regarding overgrazing in arid areas.

As part of Saudi Arabia's integrated strategy to achieve the objectives of the three Rio Conventions and the SDGs, a series of planned and ongoing initiatives have been put in motion to enhance the conservation and sustainable management of dryland forests in Saudi Arabia and beyond. These include:

- **Saudi Green Initiative:** Planting 10 billion trees nationwide to combat desertification (restore 40 million hectares of land in the next decades)
- **Green Middle East Initiative:** A regional effort to plant 50 billion trees across the Middle East to combat desertification and improve ecosystems.
- **National Greening Program:** Focus on afforestation and the use of drought-resistant species in dryland areas to restore degraded lands and increase green areas.
- **National Water Strategy:** Optimizing water use with technologies like drip irrigation, desalination, and rainwater harvesting to support afforestation.
- **Desertification Control Program:** Implementing soil rehabilitation, sand dune stabilization, and native vegetation planting to prevent further land degradation.

- **Environmental Awareness Campaigns:** Raising public awareness about desertification and encouraging sustainable land management practices.
- **Collaboration with International Organizations:** Partnering with global bodies like the UNCCD, FAO, CIFOR-ICRAF, IUCN and others to share knowledge and implement desertification control programs.
- **Environmental Laws and Regulations:** Enforcing the regulatory framework to prevent illegal logging, deforestation, and overgrazing, while promoting sustainable forest management and sustainable land use.

There is a need for innovative, bold and articulated actions to protect, restore and expand dryland forests at all levels, as exemplified by the initiatives being implemented in Saudi Arabia. The upcoming discussions at UNFF20 represent a unique opportunity for Saudi Arabia and other likeminded countries to exchange experiences and best practices in the conservation, sustainable management and restoration of dryland forest ecosystems.

Within UNFF, issues related to dryland forests have been discussed mainly under the umbrella of low forest cover countries (LFCCs). Indeed, the needs and concerns of LFCCs, dryland forest countries, and countries affected by sand and dust storms (SDSs) are closely interconnected. FAO, UNEP, UNCCD also have a long history of work supporting dryland forest and LFCCs, and yet there is room for enhanced cooperation between these processes and entities to better assist countries affected by the growing challenges and threats to dryland forests. Next year, the UNFCCC COP30 in Belem will provide an opportunity to raise the profile of dryland forests and their role in combatting climate change. This could be accomplished through the launch of a global partnership or other initiative focused on the needs of dryland forests.

IV. Summary of interactive discussion

Several members of the audience welcomed the opportunity to discuss dryland forests given their important contributions and relevance to the discussions at UNCCD COP16. A productive discussion ensued, with questions and comments from the audience, followed by additional interventions by the panelists. The key issues raised are summarized below:

- Dryland forests have the potential to be a valuable source of traditional knowledge and experiences in terms of resilience and adaptation to climate change, and yet they are often overlooked in scientific and policy fora. We need to include drylands forests in the natural capital accounting. We need to make significant efforts to bring further visibility to dryland forests and the lessons dryland communities can teach the world. The designation of “Country Champions” could be one way to bring visibility to dryland forests.
- The proliferation of invasive plant species is a common issue in many dryland forests contexts, so there is a need for increased monitoring and risk assessments that consider the specific circumstances of each area. Planning is important due to the sensitivity of the ecosystem. Taking advantage of scarce resources, especially water, is critical to increase plant cover.
- Promoting the collection and sharing of knowledge among practitioners can help identify and support the dissemination of innovative practices. For example, practitioners in Namibia established a value chain for certified charcoal produced from the wood of a native invasive bush that poses a threat to dryland ecosystems. By sharing this experience, practitioners from other countries facing similar problems have been inspired to come up with their own solutions. In some cases, the utilization of invasive species is not possible due to toxicity, so alternative coping strategies need to be devised.
- Lebanon has increased its forest cover; however, it faces many challenges in forest management, notably forest fires, invasive species, pests and diseases. One problem is that forests are no longer being used. The reintroduction of agrosilvopastoralists was proposed as a strategy to improve management and

capture economic value from dryland forests. Grazing in forests can be positive for both the communities and ecosystem, as long as it is properly managed.

- Many countries in North Africa, West and Southwest Asia have yet to conduct a forest resources assessment. Such assessments can be very useful in quantifying the value of forest resources and should include urban and peri-urban forests which are not included within the definition of forests in some countries. In many of these countries, Wadi and oasis ecosystems constitute valuable resources.
- When talking about drylands, it is important to also consider the threat of Sand and Dust Storms (SDS). It is worth highlighting the investments by some countries to develop “Green Walls” to increase forest cover and tackle desertification, while mitigating the impact of SDSs.
- It is imperative to move beyond business as usual. Ministries of Finance need to be brought into the discussion, to ensure that fiscal and policy incentives are in place, and the economic value of dryland forests considered in decision-making at all levels.
- Working in partnership with communities is critical to the conservation, effective management and restoration of dryland forests. The UNFF welcomes and encourages the active participation of forest-related stakeholders in the intergovernmental process who within the context of the Forum are referred to as Major Groups, as identified in Chapter 23 of Agenda 21.

V. Next steps

The Government of the Kingdom of Saudi Arabia has expressed interest to organize a Country Led Initiative in support of the work of the UNFF that brings together dryland forest countries to exchange experiences and best practices, as well as discuss the components of a joint vision and action agenda on the conservation and sustainable management of dryland forests, and the fight against the SDSs and their impacts. At UNFCCC COP30, a program or partnership could be announced that brings further visibility and attention to dryland forests. The UNFF Secretariat is committed to providing substantive support to efforts led by Saudi Arabia and other member states in this regard.

A concise summary of the discussion during the side event will be included in the relevant official document for consideration of the Forum at its twentieth session, under the agenda item of “emerging issues”.