



Drylands Summer School: a pathway from training to a community of professionals

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Abstract

Forests and agrosilvopastoral systems in drylands contribute to landscape resilience and environmental sustainability. They support species adapted to harsh ecological conditions and provide essential goods and ecosystem services, as well as enhanced resilience for dryland communities. When sustainably managed, they can alleviate poverty, ensure food security and improve livelihoods worldwide.

Drylands and rangelands are home to over 2 billion people globally but face significant challenges, including land conversion, climate change, unsustainable practices and poorly designed restoration programmes. The Food and Agriculture Organization of the United Nations (FAO) Drylands Programme, under the mandate of the Committee on Forestry Working Group on Dryland Forests and Agrosilvopastoral Systems (COFO WG), addresses these challenges by promoting good practices for the sustainable management, protection and restoration of drylands.

The only subsidiary body of the Committee on Forestry working specifically on dryland forests, the COFO WG is fostering resilient dryland ecosystems by training experts to drive transformative policymaking and management through its Drylands Summer School initiative, which builds a global community of practice through its participatory training programmes.

The Dryland School initiative explores transformative approaches to building climate-resilient dryland systems. The inaugural Drylands Summer School, held in Amman, Jordan, in 2023, equipped 22 participants from diverse dryland regions with tools to enhance resilience, focusing on context-specific solutions and monitoring progress through cross-cutting indicators. The second edition, hosted at the CIFOR-ICRAF (Center for International Forestry Research and World Agroforestry) Campus in Nairobi, Kenya, on 12–15 September 2024, expanded this effort with an enriched curriculum and a field trip to showcase practical applications of monitoring drylands and agrosilvopastoral systems towards climate change and sustainability.

Introduction

The Dryland School series addresses the critical need for transformative management of drylands. Currently, the dry areas of our planet are becoming increasingly vulnerable to climate change and unsustainable practices, leading to decreased production and land degradation. By training experts to drive policy, management and restoration shifts, the initiative fosters a shared vision for resilient dryland systems.

The Second Drylands School, titled “Monitoring Restoration in Agrosilvopastoral Systems for Sustainability and Ecosystem Services”, aimed to enhance participants' capacities to monitor, evaluate and provide feedback on sustainable dryland management practices. Its specific objectives were to: (1) deepen understanding of challenges and participatory approaches in managing dryland agrosilvopastoral systems; (2) adapt and apply monitoring frameworks for sustainable management and restoration; (3) co-define indicators with local stakeholders and gather field data; and (4) promote knowledge exchange and establish a long-term community of practice.

Methods

The Second Drylands School was a dynamic four-day programme, held on 12–15 September 2024 at the CIFOR-ICRAF Campus in Nairobi, Kenya. It included a one-day field trip and was facilitated by a dedicated CIFOR-ICRAF team with technical support from FAO and partner organisations. Emphasising experiential learning, the course placed participants' knowledge and experiences at the core of the curriculum, following a well-structured “storyline” to ensure logical progression and continuity.

As part of the selection process, participants submitted case studies of their work, which were further developed during the course. Participants were also required to complete FAO's e-learning course on dryland forests and agrosilvopastoral systems. The curriculum blended theoretical knowledge with practical, hands-on activities, incorporating diverse formats such as technical lectures, group discussions, individual exercises, peer-to-peer learning and outdoor activities. This variety created an engaging and interactive environment, with the programme's technical focus fostering in-depth and productive discussions.

The programme comprised seven dedicated sessions led by experts, addressing critical issues in dryland monitoring and management. These included monitoring frameworks, tools and approaches, design and implementation of indicators, and adapting monitoring strategies to pastoralist communities. The first day introduced the principles of monitoring drylands, during which participants shared their individual case studies and action plans. The second day focused on sustainability indicators and frameworks, with participants working in groups to refine their plans.

The third day featured a field trip led by the Kenya Forestry Research Institute's (KEFRI) Dryland Eco-Regional Research Centre in Kitui. Participants visited the KEFRI Tiva Woodland Conservation site to learn about dryland restoration technologies, a commercial forest farmer in Kabati, and the Kyawean Community Forest Association's restoration efforts in the Kyawea Forest Landscape. This hands-on experience highlighted practical application of dryland monitoring and restoration techniques.

On the final day, the programme explored scaling-up monitoring from local site-level efforts to global surveillance, featuring citizen data-collection practices. Participants shared their refined action plans and visions during group sessions, culminating in a discussion of future opportunities, such as the International Year of Rangelands and Pastoralists (IYRP2026), the upcoming International Rangeland Congress in Adelaide, Australia, and the third edition of the Drylands School.

The Second Drylands School was strategically scheduled before the Global Landscapes Forum (GLF) Africa event on 17 September 2024 at the CIFOR-ICRAF campus. During GLF Africa, the FAO team presented the outcomes of the Drylands School, showcasing its success.

The course fostered a positive and collaborative atmosphere, encouraging innovative and forward-looking discussions. Participants from diverse institutional affiliations and professional backgrounds actively shared experiences, enriching discussions and fostering mutual learning. Structured sessions enabled critical reflection on personal projects, promoting the enhancement of participatory monitoring practices.

Networking and experience-sharing were central to the programme, with participants exchanging insights and receiving peer feedback. These efforts aimed to build a global community of practice in dryland restoration,

supported by the adaptation of established participatory monitoring and evaluation (M&E) protocols. By equipping participants with actionable tools and methodologies, the Drylands School strengthened their capacity to address the complex challenges of dryland restoration and management.

The Second Drylands School itself followed an M&E procedure led by the organisers and supported by a daily session of recap and reflection, with a final evaluation session completed by means of an online survey sent after the school ended. The evaluation survey was structured into five categories: 'Global item', 'Organization', 'Methodology and program', 'People' and 'Logistics' (see Figure 1).

Results

The Second Drylands School marked a significant milestone in a larger, long-term initiative to foster transformative dryland management. Participants developed personal action plans during the course, tailored to apply the knowledge and skills gained, and were encouraged to implement these plans in their work. The programme emphasised sustaining momentum by encouraging participants to apply their learnings actively and to champion dryland restoration efforts.

The results of the evaluation survey show how the participants considered the Drylands School to have been a memorable and fruitful experience. The organisation and efforts to make the stay enjoyable were highly appreciated. The event was rated as well organised, and the attendees appreciated the selection of participants based on diversity of backgrounds and experiences, which allowed deep exchange in the sessions and networking. Participants expressed pride and satisfaction, noting improvements in their project management skills and understanding. Figure 1 summarises the results.

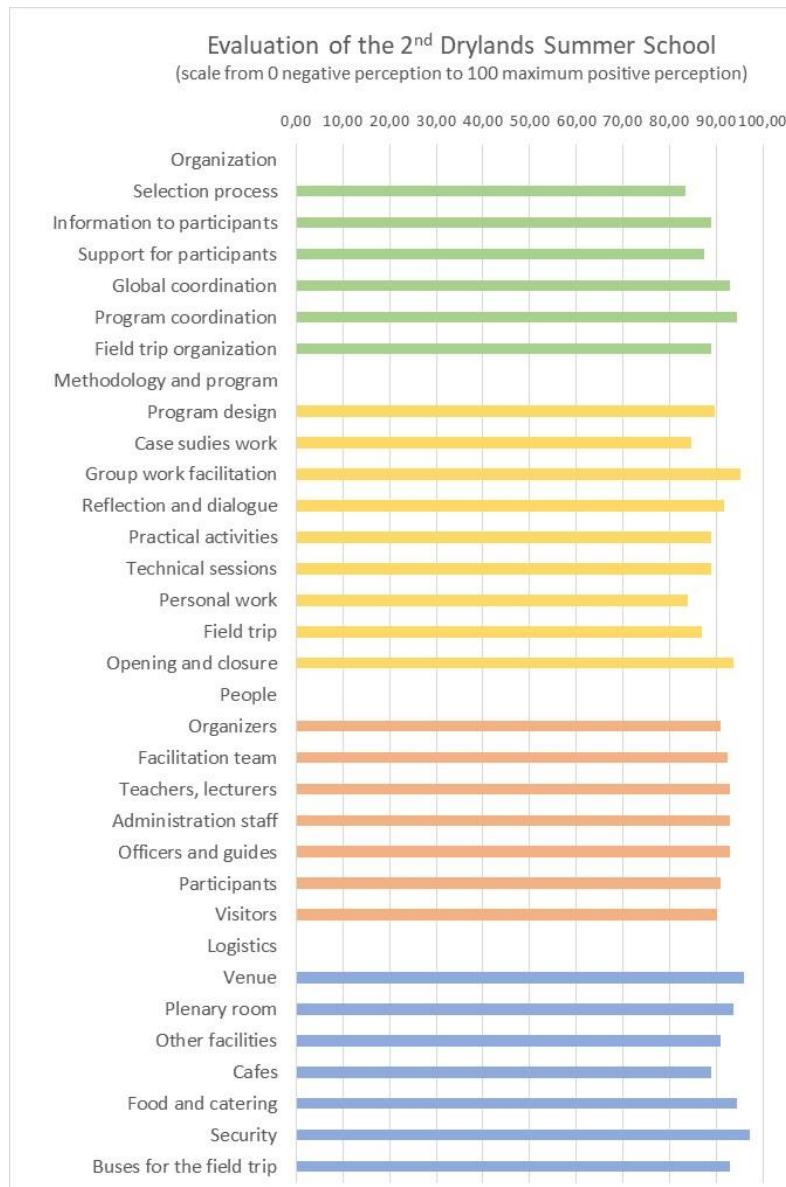


Figure 1. Results of the evaluation survey, based on answers by 19 participants

To support continued engagement, plans are underway to establish an alumni network, linking participants in the second Drylands School with those in the inaugural one. This network aims to foster ongoing collaboration, knowledge sharing and professional growth. Participants were also encouraged to leverage their participation in the Drylands School to enhance their professional profiles and advocate for improved dryland management practices globally.

Discussion and conclusions

The 2024 Drylands School highlighted the complexity of dryland ecosystems and emphasised the importance of a landscape approach that integrates both physical and socio-economic dimensions of resource management. Effective dryland management requires consideration of diverse factors, including plants, soil, water, tenure security, livestock and economic dynamics, with careful negotiation of trade-offs between production and conservation.

A focus on monitoring emerged as a critical yet complex component of sustainable management. Participants were introduced to a wide array of tools, methodologies and communities of practice spanning local to global levels. The selection of appropriate monitoring tools depends on the specific challenges being addressed and the geographic scale of application. Participatory monitoring was particularly emphasised for its role in

fostering ownership and ensuring relevance. Developing SMART (Specific, Measurable, Achievable, Relevant, Timely) indicators remains a challenge, particularly for integrating indigenous knowledge, which often informs local decision-making and management practices. Transparent organisation of data and information was underscored as essential for effective monitoring.

Field observations, validation and verification were identified as integral to successful monitoring efforts, alongside the involvement of local communities to ensure ownership, validate findings and align priorities with local needs. The course also underscored the need for combining top-down and bottom-up approaches to dryland management, ensuring that national and provincial policies are informed by field realities and that grassroots initiatives are scalable within policy frameworks.

The deliberations emphasised that addressing livelihood aspects of sustainable dryland management is often more complex than managing physical components. However, building on lessons learnt and success stories offers significant opportunities for progress. Ultimately, achieving resilient and sustainable dryland ecosystems requires an integrated, participatory and adaptive approach that bridges local realities with broader policy frameworks.

Acknowledgements

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