

University of Nairobi Students' Educational Visit to Drylands Natural Resources Centre (DNRC), Makueni County

Date: 17th April, 2025

Venue: DNRC, Mbumbuni , Makueni County



Staff and students during the excursion tour at DNRC

Introduction

On the 17th April 2025, students pursuing various degree programmes with a niche in Dryland resources management, Dryland sustainability science and technology and Management of Agro ecosystems and from the Department of Land Resource Management and Agricultural Technology (LARMAT) - University of Nairobi were exposed to an excursion to the Drylands Natural Resources Centre (DNRC) in Makueni County. The DNRC is a Kenyan-registered NGO, under leadership of Nicholas Syano (A PhD student at LARMAT). The NGO is dedicated to promoting sustainable development in Kenya's drylands. Its mission is to improve the livelihoods of marginalized communities by sharing best practices in agroforestry, agro ecology, permaculture, and cultural regeneration. The excursion was led by Dr. Stephen Mureithi, Joseph Ndutu, Carolyne Kyalo and John Kimotho.

During their visit, the students engaged in various hands-on activities and observed DNRC's community-based approaches to sustainable land management. Key learning experiences included:

1. **Agroecological Practices:** Students learned about permaculture and agroecology techniques used to restore degraded lands. They observed how DNRC equips subsistence farmers with tools to address challenges such as deforestation, declining agricultural yields, water scarcity, and climate variability.
2. **Community Engagement:** students observed DNRC's outreach programs that educate over 700 households and 12 schools on organic and agroecological methods. They learned about the significance of community involvement in sustainable practices and the role of education in promoting environmental stewardship
3. **Value-Added Products:** Students explored DNRC's initiatives in producing and marketing value-added products such as green charcoal, Moringa powder, Honey, activated charcoal from *Terminalia brownii*, and locally-produced handicrafts. This experience highlighted the integration of economic development with environmental conservation
4. **Tree Nursery Management:** The students learned about activities at DNRC's tree nursery, which houses over 30 species and more than 100,000 seedlings. They gained insights into potting, propagating, and transplanting tree saplings, understanding the importance of drought-resistant and fruit-bearing trees in enhancing soil fertility and water retention.
5. **Livestock, fish farming and Poultry keeping**



Briquettes and charcoal production using various kilns

Importance of the Visit

For Students:

- **Practical Application:** The visit provided students with real-world exposure to sustainable land management practices, complementing their academic studies in dryland resource management and agricultural technology.
- **Skill Development:** observed how hands-on activities can enhance their technical skills in agroecology, nursery management, and community engagement.
- **Career Inspiration:** Observing DNRC's approach to sustainability inspired students to consider careers in environmental conservation, community development, and sustainable agriculture.

For the University:

- **Curriculum Enhancement:** Insights gained from the visit can inform curriculum development, ensuring that academic programs remain relevant to current environmental challenges and community needs.
- **Research Opportunities:** The partnership with DNRC opens avenues for collaborative research projects, internships, and knowledge exchange between the university and the community.
- **Community Engagement:** The visit strengthens the university's commitment to community service and its role in promoting sustainable development in Kenya's drylands.

Conclusion

The educational visit to DNRC was a valuable experience for the University of Nairobi students, bridging theoretical knowledge with practical application. It underscored the importance of sustainable practices in dryland ecosystems. Such field experiences are crucial in preparing students to become effective agents of change in addressing the challenges of dryland resource management.