NDMA PARTNERS WITH ACADEMIA FOR DROUGHT RISK MANAGEMENT RESEARCH

Lake Naivasha Resort
September 28-29, 2021.

NDMA Board members (seated) with PhD students and their university supervisors during a Research Seminar

The NDMA has partnered with local universities for research into areas relating to drought risk management and climate change adaptation. The Authority gave research grants to six PhD students drawn from the **University of Nairobi,** among them Mr. Alphayo Lutta**, PhD student in** Dryland Resource Management offered in the Department of Land Resource Management and Agricultural Technology (LARMAT)**,** University of Eldoret and Kenyatta University.

In his opening remarks during a seminar for the presentation of research findings, NDMA Board Chairman **Mr Raphael Nzomo** noted that the event came at a critical time when the country is looking for practical solutions to challenges posed by droughts.

NDMA Chief Executive Officer **Mr James Oduor** noted that this was the first time the Authority was engaging in demand-driven research. The research process was led by Professor Kinuthia Ngugi from the University of Nairobi **Department of Land Resource Management and Agricultural Technology**. As lead expert, Professor Kinuthia supported progress monitoring of research deliverables by the PhD students, ensuring they responded to the Authority's research needs. Other representative for Faculty of Agriculture were, Dean Faculty of Agriculture (FOA) and A professor in LARMAT, Prof. Moses Nyangito and Prof, Michael Okoth (Department of Food science and Nutrition Technology (FOA).

During the research seminar, six students presented findings of their studies as follows;

1. **Lutta Alphayo:** *Topic: Pasture production under different micro-catchments and their economic optimization in agropastoral areas in Kenya – Isiolo and Tana River Counties.* The study aims to increase pasture feed and seed production in pastoral areas of Kenya through the use of micro-catchments for water harvesting and economic valuation of rangeland management practices in pastoral systems to inform sustainable rangeland use and management at local and landscape scales in Isiolo and Tana River Counties.

2. **Benson Wang'ombe:** *Design of a vacuum solar water desalination plant along River Athi, Makueni County*. The main study objective is to ensure the development of a tool that can be used to design a vacuum solar water desalination plant and maximise its production.
3. **Cecilia Wawira Ireri:** *Topic: Gully erosion and stabilisation in semi-arid environment of Wanjoga River catchment of Tana River Basin, Embu County.* The study seeks to establish factors that influence gully erosion in the semi-arid environment of Wanjoga River catchment of Tana Basin, Embu County.
4. **Dorcas Ndunge Benard:** Topic: Effects of super absorbent polymers on irrigation water requirement, efficiency and African leafy vegetables growth in greenhouse: Case study of Kitui County. The study assesses the effect of Super Absorbent Polymers (SAP) on irrigation water needs, frequencies, efficiency and growth of African Leafy Vegetables (ALVs) in a greenhouse with a case study of Kitui County.
5. **Hannah Mugure Kamano:** *Topic: Efficacy of plasma technology in eliminating fungi and aflatoxins in Maize in Makueni and Baringo Counties, Kenya.* The study seeks to determine the efficacy of plasma technology in eliminating fungi and aflatoxins for increased food safety in specified community knowledge, attitude and practice contexts, with the case of Makueni and Baringo counties.
6. **Stephen Kimno:** *Topic: Breeding dolichos bean (Lablab purpureus (L.). Sweet) using gamma induced mutation for earliness and yield-related traits, West Pokot.* The main objective is to improve dolichos production for food and nutritional security in ASAL areas of Kenya by creating desirable allelic variants through mutation breeding and evaluating for earliness and traits associated with yield.