



DALILA

Development of new Academic curricula on sustainable energies
and green economy in Africa

SCIENTIFIC SYMPOSIUM – SECOND DAY

September 22nd, 2021

The importance of an interdisciplinary and international teaching approach in the development of new capabilities in the energy and green sector

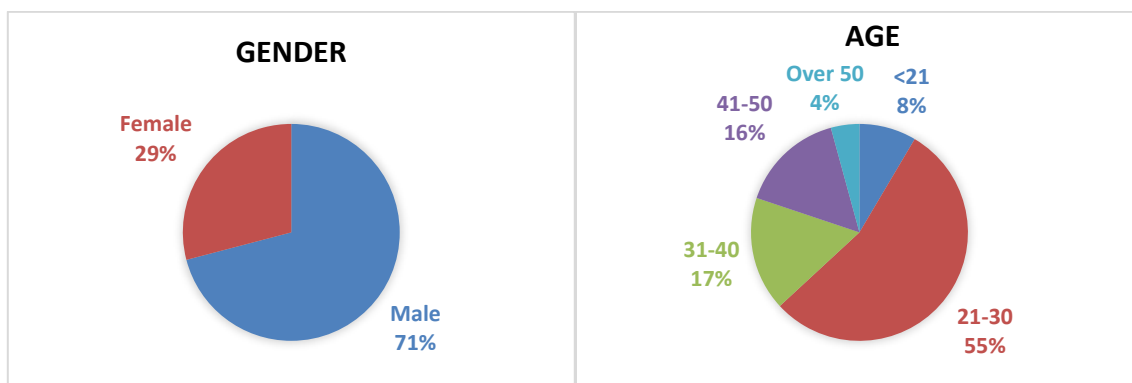
Follow-up of Economic and Technical courses of DALILA project

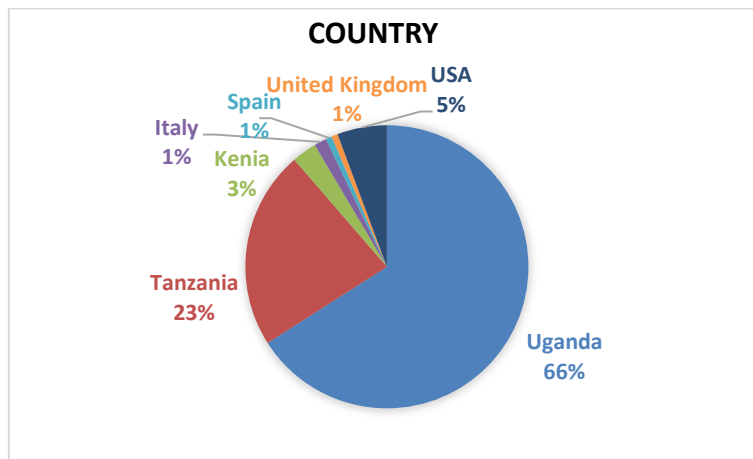
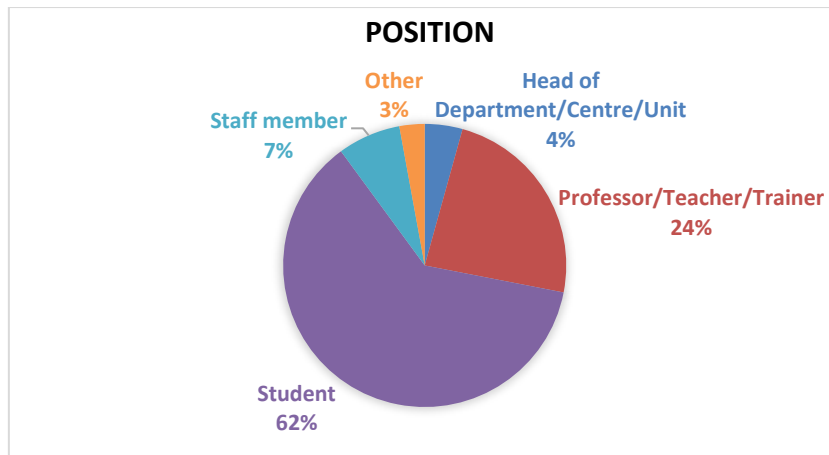
REPORT

The event was disseminated through the social media and websites of DALILA project and the Partner Universities involved: Sapienza University of Rome (Italy), University of Cadiz (Spain), State University of Zanzibar and University of Dodoma in Tanzania, Uganda Martyrs University, and Uganda Christian University.

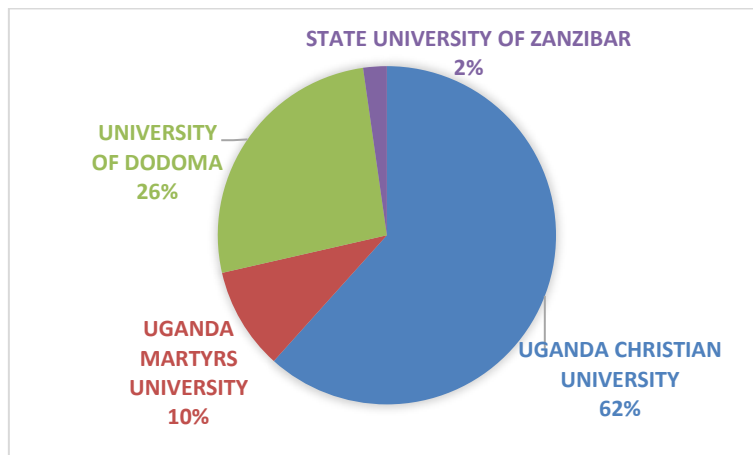
Below is provided an overview of the statistics of the people that registered (141) as well as of those who attended the event (97 people, 69% rate of participation).

Registered people:



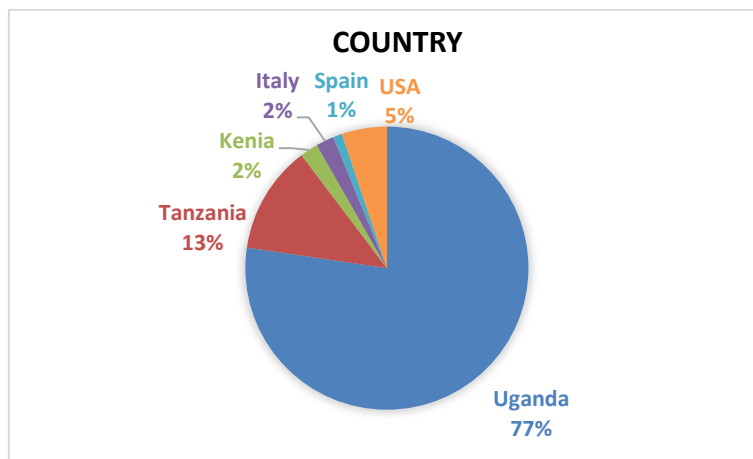
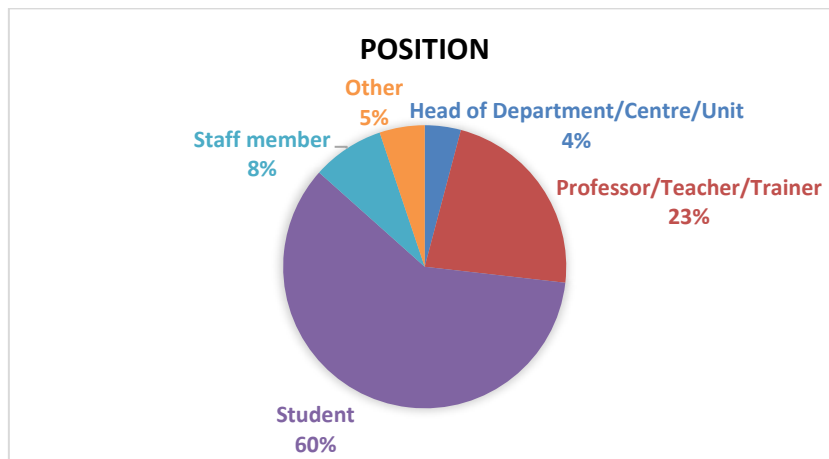
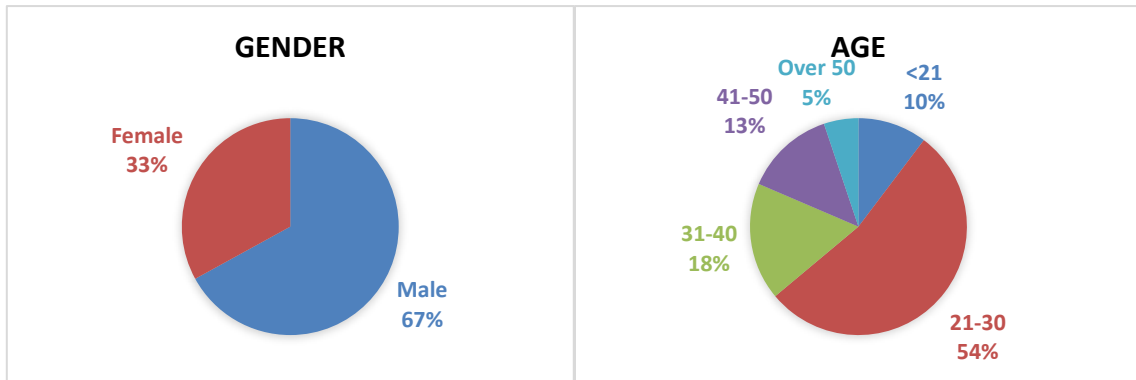


The communities of the Ugandan (Martyrs and Christian University) and Tanzanian (State University of Zanzibar and University of Dodoma) Institutions registered to the event as outlined below:



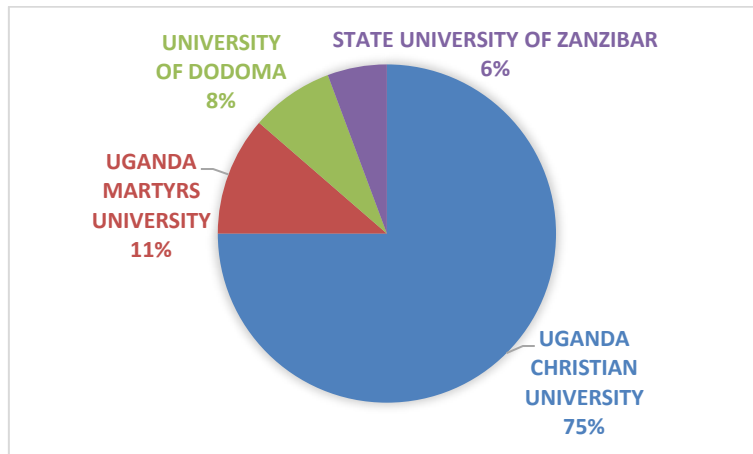


Attendees:





The participation of the communities of the Ugandan (Martyrs and Christian University) and Tanzanian (State University of Zanzibar and University of Dodoma) Institutions is outlined below:





Due to the current Covid-19 pandemic, this event was an online webinar that maintained an academic profile, with the presentation of the Economic and Technical courses developed by the collaboration of DALILA Partners. The aim of this event is to illustrate in detail the courses and their contents, enhance the interest of students and staff toward them, and promote the enrolment of students at the Beneficiary Universities.

Giulia Zacchia – Responsible for the Economic Courses, University La Sapienza of Rome

Universities should enable students to acquire a broad set of skills in the renewable energy field (technical, engineering, and economic abilities) in order to provide them with a comprehensive knowledge of the subject. In this regard, all students should understand the core economic and technical aspects of renewable energy and have adequate knowledge to meet the current job market needs in the African Countries.

As the green market is a very complex field, DALILA courses will empower students to discuss and innovate the strategies for the stakeholder market and local labour needs.

COURSE 1: BUSINESS AND FINANCIAL MODELS FOR RENEWABLE ENERGY

Prof. Peter Lugemwa – Uganda Martyrs University

This course will help students understand the business and financing modules that can be employed to establish a successful renewable energy strategy. It contains an introduction to different business and financing modules, how they work, and why they may fail in some cases. The approach to this course is critical in enhancing the understanding of the green market in developing countries.

The renewable energy sector has many job and business opportunities that can address poverty and unemployment issues, especially in a developing country, however the degree of success depends on the ability of a country to leverage its resources.

COURSE 2: RENEWABLE ENERGY FINANCING & MODELLING

Prof. Vincent Kisenyi – Uganda Christian University

This course describes the principles of financial modelling; the relevance of financial information related to renewable energy; the sources of finances, why and how to choose them; the integration of risk management in renewable energy financing; the innovation in finance in renewable energy.

Overall, this module aims at introducing students to the availability of renewable energy resources, at discussing the main characteristics of resources costs, and at providing them with the basic knowledge on financial reporting. The course is based on two key principles: innovation and relation with real life examples.

COURSE 3: RENEWABLE ENERGY ENTERPRISES' MANAGEMENT - SUPPORT TO BUSINESS AND ENTERPRISES IN RENEWABLE ENERGY

Prof. Erick Nganzi – University of Dodoma

This course will provide practical information and knowledge on the political and legal framework in the renewable energy sector; on the necessary enterprise management skills for start-ups in the green business; the course will empower students in finding out entrepreneurial opportunities in the field. Moreover, students will have the opportunity to present their business ideas and learn how to effectively develop them. Some key abilities that will be deepened in this context will be problem solving, entrepreneurial skills, business management and communication skills.



At the end of this module, students will be able to analyse the business opportunities in renewable energy market in a socio-economic context, will have basic knowledge in the renewable energy sector, in entrepreneurial processes, business management, and social marketing in the field.

Katiuscia Cipri – Responsible for the Technical Courses, University La Sapienza of Rome

To assure sustainability to DALILA project, it is crucial that these courses not only provide students with the knowledge on the economic side of renewable energy, but also with the technical aspects of the sector. There is a strong need for transversal competences to allow future professionals to work effectively in the green market.

COURSE 4: RENEWABLE ENERGY TECHNOLOGIES AND DECENTRALIZATION OF ENERGY PRODUCTION

Prof. Adriano Pamain - University of Dodoma

This module aims at teaching the local context of renewable energy in Uganda and Tanzania and the availability of clean energy resources. Students will be able to differentiate between non-renewable (fossil fuels) and renewable energy, will learn the processes of generation/conversion of renewable energy, the main components of an energy plant and how to design it, renewable energy sources and costs, national regulations, norms and incentives.

The main technical topics students are expected to learn are: photovoltaic systems, thermal solar collectors, biomass and bioenergy, wind energy, hydropower, and geothermal power.

Moreover, students will have the following available equipment: solar/wind training kit, compact solar photovoltaic tester, solar simulator, and 2 KW solar/wind hybrid power system.

COURSE 5: ENERGY AND SUSTAINABLE DEVELOPMENT

Prof. Miria Agunyo - Uganda Christian University

This module focuses on sustainable development, the role of energy for a green future and a clean environment in a sustainability era, Sustainable Development Goals and how to achieve the targets set for 2050 by the Paris Agreement. The national directions on renewable energy (energy policies, national development plan until 2025 for energy development, etc.) will be examined in depth.

Students will also be informed on how to increase access and consumption of clean energy (e.g., use of off- and mini-grids, develop medium and small enterprises, etc.)

Students will be given practical approaches in order to see how energy solutions can be replicated at a local level, learning about energy resources and how to use them, the environmental impacts, the use of renewable energy across various sectors.

COURSE 6: ENERGY EFFICIENCY (RESIDENTIAL AND INDUSTRIAL SECTORS) AND STORAGE APPLICATIONS

Prof. Rauhiya Hamdun – State University of Zanzibar

Basic areas of energy efficiency and storage applications, theory and applications of different energy storage devices, and various types of energy efficiency solutions are the main topics contained in this course.

Students will be provided with some case studies on renewable energy resources, energy consumption, energy costs, and energy efficient buildings in Tanzania and Uganda.