

Knowledge Transfer of Nature-based Solutions through Education to Enhance Climate Change Adaptation and Resilience in Uganda"



101178503 — NbS-4-Climate

ERASMUS-EDU-2024-CBHE-STRAND

Capacity Building in the Field of Higher Education

The Capacity Building in Higher Education (CBHE) action supports international cooperation projects based on multilateral partnerships between higher education institutions (HEI) and other organizations active in the field of higher education. These projects provide significant opportunities for cooperation, with a special focus on the transfer of good practices to third countries not associated to the Program by EU Member states and third countries associated to the Program.

Capacity building in the field of higher education Strand 1

Strand 1: Fostering access to cooperation in higher education

Strand 1 projects – Fostering access to cooperation in higher education aim to include less experienced HEIs in CBHE and to serve as a tool for these institutions to reach people with fewer opportunities as well as to reduce the internationalization gap among HEIs from eligible third countries not associated to the program, from the same country or Region.

What is NbS-4-Climate?

Educational program to develop new Innovative Courses on Nature-based Solutions (NbS) for Sub-Sahara Africa with an emphasis on Uganda. The trained MSc specialists on NbS will help improve climate change adap-tation, conserve natural ecosystem services and provide incomes for rural populations.

Summary

Uganda, like many of the lowest income African countries, continue to be negatively impacted by climate change that threaten its high biodiversity. Adaptation measures, such as nature-based solutions (NbS), need to be employed. NbS a main methodology used by the Green Deal has been implemented in other regions successfully. The environmental and socio-economic conditions in Africa highlight NbS as optimal to mitigate climate change and provide job opportunities to rural people. To be effective, NbS need to be implemented properly. Thus, trained professionals on NbS are needed that currently are lacking in Uganda and the surrounding region. Through this project six new or modified courses on NbS will be developed to be adopted by two Ugandan HEIs. These two HEIs are newcomers or less experienced, meeting the needs of the strand 1. In addition, these courses will target female students and staff and young rural students that have fewer opportunities in this sector. HEIs are also not well-connected with the society at large. The NbS-Network will promote links among education, research business and communities. Business incorporation in the courses will highlight the graduates' needed skills, on new technologies to increase their employability. This networking should enhance the knowledge triangle and innovation in the NbS sector. The goal is to submit the courses for accreditation with business participation in the teaching process (e.g., providing seminars, internships). The courses will be interactive, blended and incorporate new pedagogical approaches such as social networks, flexible learning paths, and real problem-based teaching. Offering courses through blended learning in English on a virtual learning platform will be an innovation for the region and beneficial to educate rural populations. Overall, the trained specialists on NbS will help improve climate change adaptation, conserve natural ecosystem services and provide incomes for rural populations.









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Kick-Off Meeting (WP1), Drama, GREECE,

by Valasia Iakovoglou



The kick-off meeting took place in Drama, Greece on March 20-22, 2025. During the meeting, the partners planned the project's actions, which includes the creation of a network between universities, research centers, businesses and communities on nature-based solutions, six new innovative educational courses at the graduate level, and a virtual learning platform for teaching the new courses. During the meeting the main objectives and the deliverables due in the six months were discussed. The meeting was in person but also online since some partners were not able to come to Greece.







Photos from the Kick-Off meeting

Visit Nature-Based Solutions in Northern Greece



During the last of the Kick-off Meeting The partners visited different nature-based solutions that have implemented in the Regional Units of Drama, Kavala and Serres. Specifically, the partners visited a litter trap that has been installed in the Agia Varvara Park of the city of Drama. Agia Varvara Park is situated within the urban fabric of the city of Drama. It is a unique well-maintained natural riparian ecosystem. The municipality has developed it environmentally friendly, and it is a hot spot for recreational

activities, concerts and festivals. Litter trap technologies are cost-effective devices that stop the diffusion of plastic litter in waterways at its source, retrieving plastic from rivers, ports, harbors and canals before it enters our seas and oceans. In addition maintained or restored riparian areas were also visited.















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Conference Presentations (WP6)

by Georgios Gkiatas



Georgios Gkiatas presented the NbS-4-Climate project at 16th Panhellenic Conference of the Greek Hydraulic Association Xanthi, GREECE, May 29-30, 2025. The title of his presentation was "Educational Program for the Promotion of Nature-based Solutions in Uganda, Africa." During the conference he also distributed the NbS-4-Cliamte pamphlets.



Focus Group -On the links among education, research, businesses and communities in Sub-Sahara Africa (WP1) by Simon Peter Musinguzi

The University of Kisubi (UniK), in partnership with Kyambogo University (KyU) at 23-24 of July 2025 and as part of the international NbS4Climate project (nbs4climate), recently conducted a comprehensive Focus Group Discussion on Nature-Based Solutions (NbS) to advance climate adaptation and environmental sustainability. This collaborative initiative connects Ugandan institutions with European partners, in an EU funded project led by Dimokritio Panepistimio Thrakis (DUTH) in Greece fostering knowledge exchange and capacity building in Nature-Based Solutions across borders. The session revealed fascinating insights into how Ugandan communities have been practicing NbS for generations through traditional methods like striga management, soil conservation, and natural crop protection techniques. While participants demonstrated strong familiarity with NbS concepts through inherited practices, the discussion highlighted a critical gap between traditional knowledge and formal understand-ing of these solutions' scientific basis and climate impact potential. Through the international partnership, UniK is working to bridge this knowledge gap by combining local wisdom with global best practices in NbS implementation. The Focus Group concluded with actionable strategies for scaling NbS in Uganda, emphasizing practical training programs, interdisciplinary collaboration, and documentation of success stories. This research exemplifies how international partnerships can enhance local climate resilience efforts, positioning UniK at the forefront of collaborative climate action in East Africa. The other part-ners in this project include Kyambogo University (KyU), Universidad Politecnica De Madrid (UPM) and Grassroots Ministry Ltd (GRM) a local NGO.





















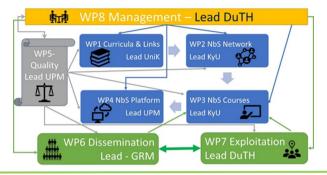
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"NbS-4-Climate" WORK PACKAGES

by George N. Zaimes



Partners

Democritus University of Thrace (DUTh), GREECE



The Geomorphology, Edaphology and Riparian Areas Laboratory (GERi Lab), of the Department of Natural Environment and Climate Resilience will primarily implement the Project. The Department of Natural Environment and Climate Resilience of Democritus University of Thrace (DUTh) that is based in Drama, Grrece, aims to create specialized scientists capable of understanding the dynamic impacts of climate change, shaping solutions and contributing substantially to the sustainable management of the environment.

Kyambogo University (KyU), UGANDA



The University focuses on experimental learning to conduct it's programs to impart long lasting knowledge and skills aimed at fostering innovation and development worldwide. The Department of Geography will be primarily involved and is currently working with a number of organizations both locally, regionally and internationally offering exchange programs coordinated and facilitated by the University International office.

University of Kisubi (UniK), UGANDA



The University of Kisubi was established, as a center of Uganda Martyrs University. In 2009 UniK was made a constituent college of the university. In 2015, it received provisional accreditation to become a separate, independent University. The University of Kisubi is a private University. The University of Kisubi will contribute to the project through its Faculty of Business and Information Communication Technology Faculty of Education as well as Faculty of Health Sciences, with particular emphasis on environmental sustainability and climate resilience initiatives.

Universidad Politécnica de Madrid (UPM), SPAIN



For over 30 years, the Universidad Politécnica de Madrid and its School of Forest Engineering and Natural Resource have played a leading role in education, research, and innovation in the environmental and natural resource management sectors. The School's strengths in landscape management or ecological restoration make it a reference institution in Europe for developing innovative, interdisciplinary approaches to natural resource conservation. It also excels in international cooperation, with longstanding participation in mobility programs, building bridges between academia and industry, and co-developing green transition strategies tailored to local needs.

GrassRoots Ministry (GRM), UGANDA



GRM's approach is to **Empower rural youth, Enrich communities**, and **Nurture the planet**. We educate, equip, and inspire rural young people through education, community empowerment, and climate-smart agriculture. By providing trade skills and knowledge, fostering resilience and pride in indigenous identity, and promoting sustainable livelihoods, we help rural communities thrive. Together, we create a future where the next generation leads with purpose, wisdom, and heart



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Pamphlet of the NbS-4-Climate





Poster of the NbS-4-Climate



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Quote "Change yourself NOT nature"















