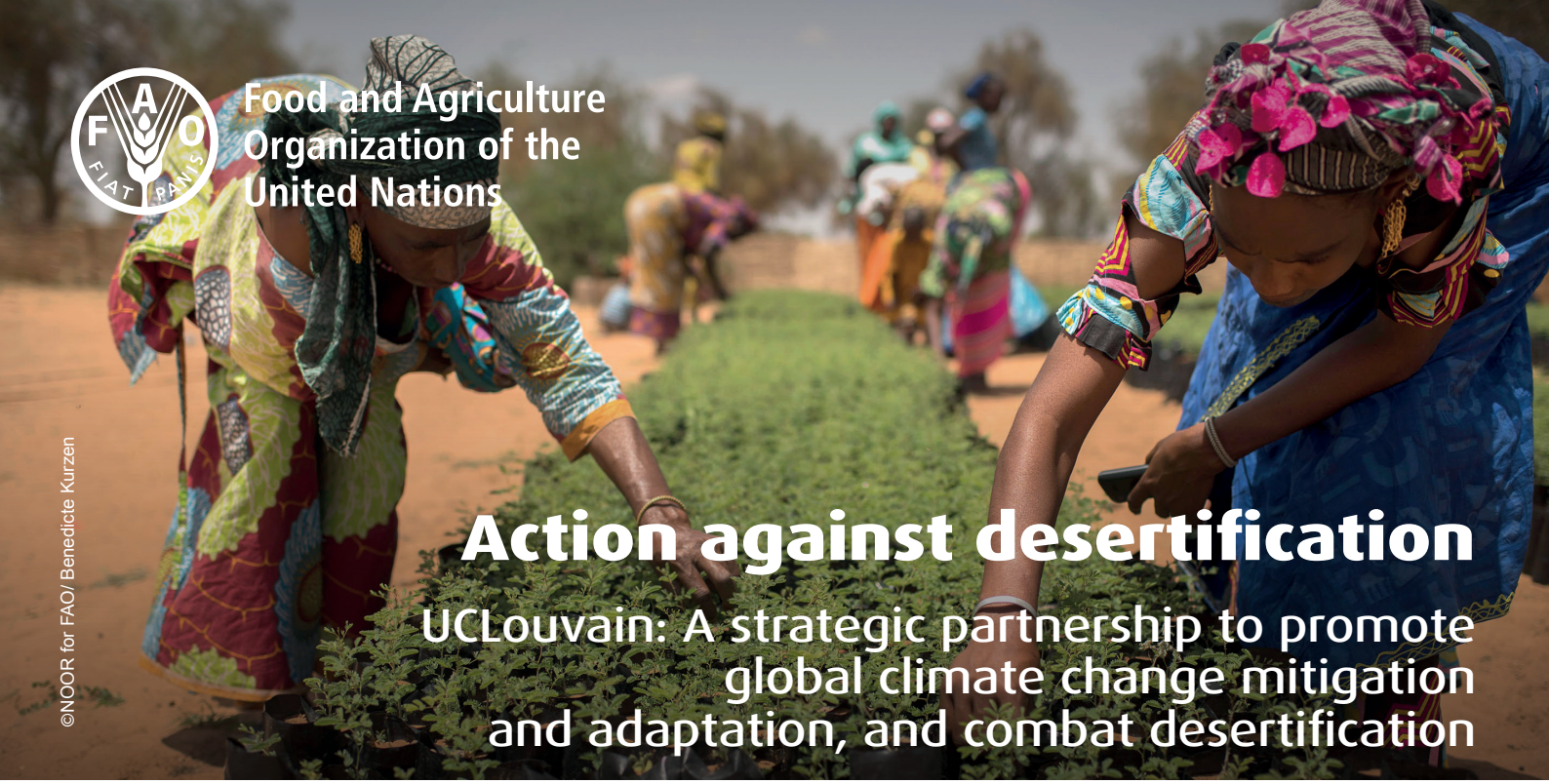
Food and Agriculture Organization of the United Nations



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Action against desertification

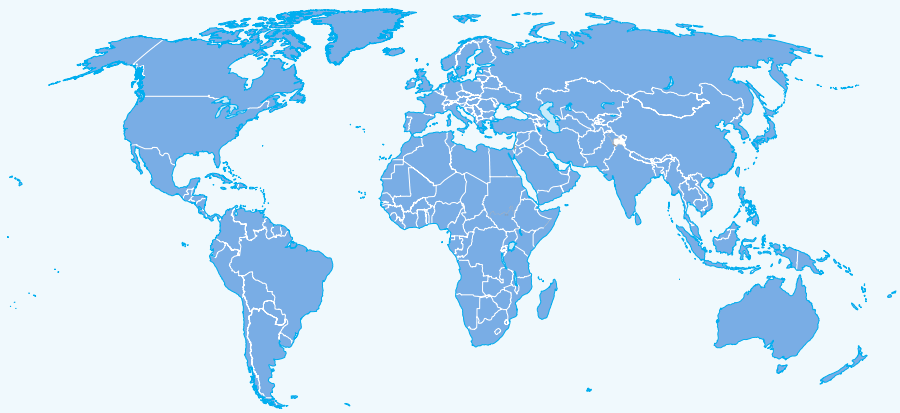
UCLouvain: A strategic partnership to promote global climate change mitigation and adaptation, and combat desertification

In 2013, the Food and Agriculture Organization of the United Nations (FAO) and the University of Louvain (UCLouvain) signed a memorandum of understanding. The first stage of the collaboration was the secondment of a scientific expert from UCLouvain to FAO's dryland forestry programme – Action Against Desertification. Continuing collaboration across a range of technical themes led to the formalization of a new partnership in December 2016, with the overall goals of enhancing institutional knowledge exchange and strengthening capacities to promote global climate change mitigation and adaptation, and combat desertification.

MAIN AREAS OF ACTIVITIES:

- Development of sustainable management and restoration of dryland forest and agrosilvopastoral systems.
- Statistics and monitoring:
  1. dryland and land degradation/desertification and climate change, in particular in Great Green Wall (GGW) countries;
  2. locust and transboundary pests and diseases in Africa and Asia;
  3. disaster impacts affecting agriculture and human health.

Geographical coverage of the partnership



Source: United Nations Map No. 4170 Rev. 18.1, February 2020

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

PARTNERSHIP MILESTONES

2013 FAO and UCLouvain started their collaboration on sustainable management and restoration of dryland forests and agrosilvopastoral systems. Secondment of a scientific expert from UCLouvain to FAO's dryland forestry programme

2016 Formalization of a new partnership to enhance institutional knowledge exchange and strengthen capacities to promote global climate change mitigation and adaptation, and combat desertification

2019 Renewal of the partnership with a focus on the development of sustainable management and the restoration of dryland forest and agrosilvopastoral systems

CONTRIBUTING TO

KEY RESULTS

01 FAO experts and the Geomatics research group of the Earth and Life Institute (ELI-Geomatics) developed and validated a project to monitor the locust habitat using the American MODIS satellite and the Belgian PROBA-V satellite. Ten-day locust watch products derived from satellite imagery, covering 60 countries, were provided to the FAO Desert Locust Watch. The collaboration also resulted in the development of three scientific publications and three Master's theses.

[1] www.fao.org/ag/locusts/en/activ/DLIS/1890/index.html

02 FAO financially supports ELI-Geomatics through projects in Senegal and Uganda entitled: Establishment of an Earth Observation assisted national crop monitoring system for production of official national agriculture statistics on crop acreage and yield (EO-Stat).

03 ELI-Geomatics also coordinates and implements a full-scale on-the-job training and a nationwide project established on FAO-based cloud computing facilities.

04 Further initiatives required the support of a researcher from UCLouvain, Christine Farcy, to provide scientific advice to the Action Against Desertification programme, with a particular focus on the GGW. Current outcomes include the submission of several research proposals.

05 Since 2018, establishment of a scientific and technical committee for the GGW in Burkina Faso to strengthen the research component of the GGW initiative, including through the Action Against Desertification programme and its partners in the country.

06 In 2017, based on the European Space Agency (ESA) Sen2Agri project led by UCLouvain, FAO's Office of the Chief Statistician (OCS) coordinated a meeting with experts, the European Space Agency, UCLouvain and other international stakeholders to identify the requirements for innovative use of Earth Observation (EO) data with the purpose of generating official agricultural statistics. As a result, the ESA Sen4Stat project was launched in May 2019 to improve agricultural statistics in five countries. FAO representatives participate as part of the Steering Board and are closely involved in project implementation. The project led by UCLouvain explores the new fleet of EO satellites, with a view to:

- improving sampling efficiency and the quality control of farm-level surveys;
- delivering early yield forecasts and production indicators.

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AREAS OF COLLABORATION

FAO and UCLouvain work in partnership in the areas of global climate change mitigation and adaptation, and combat desertification

ABOUT UCLOUVAIN

The University of Louvain, also known as UCLouvain, was founded in 1425. Today, it has seven campuses teaching and conducting research across 14 faculties and 21 institutes in the Social Sciences, Health Sciences, and Science and Technology.

FAO and UCLouvain's Earth and Life Institute and the Faculty of Bioscience Engineering have been collaborating since 2013.

LOOKING FORWARD

Partnerships with Academia and Research Institutions (ARIs) can help achieve the Sustainable Development Goals (SDGs):

- The partnership with UCLouvain highlighted the value that qualified ARI students can bring to FAO activities. The collaboration developed the capacities of future professionals while creating and sharing knowledge for the benefit of target populations.
- The extension of the UCLouvain-GGW collaboration in Burkina Faso to other GGW countries has the potential to strengthen research and studies related to land restoration and community involvement.
- The MedForYouth initiative aims to promote valuable forest products and services, while developing jobs in rural areas especially for young people and women, who are often more vulnerable in the Mediterranean rural landscapes. By identifying bottlenecks in the value chains of non-wood forest products and services, and promoting forest-based solutions, MedForYouth will contribute to the achievement of several SDGs.
- Collaborations with universities and research organizations will foster innovation/technologies to enhance food security, biodiversity conservation and climate change resilience.

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