



## **A geoethical approach in higher education: the project RUSSADE in cooperation with Sahelian Universities**

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Sahel has been plagued by a continuous process of environment degradation since the droughts of the 70s and 80s. The desertification process has a significant impact also on the natural and artificial water bodies, on the rivers flow and the river ecosystems, damaging human activities.

Environmental damage exacerbates inequality by exerting a negative impact on the population, in the meantime, the inequalities of human development amplify also environmental damage.

The project “RUSSADE” (Réseau des Universités Sahéliennes pour la Sécurité Alimentaire et la Durabilité Environnement), included in the EuropeAid-ACP-EU Cooperation Programme in higher education (EDULINK II), has the specific objective to enhance higher education systems through the implementation of an interdisciplinary Master. The courses are designed with a geoethical approach in order to integrate Earth and Life Sciences to give the Sahelian students technical, scientific and methodological bases and to develop the skills of managing natural resources and to improve agriculture and food security.

The systemic and multidisciplinary approach will involve several fields of knowledge. The programs of the different areas are linked to each other and Italian and Sahelian teachers cooperate together both in the courses planning and in the teaching activities.

The partners, three African Higher Education Institutions (HEIs) of Niger (CRESA - Abdou Moumouni University), Burkina Faso (LERNSE – Polytechnic University of Bobo-Dioulasso) and Chad (University Institute of Sciences and Techniques of Abeché), will develop an education project with the main objective to use scientific knowledge to fight hunger and poverty and to promote environmental protection in a sustainable development perspective.

The quality of higher education in the management of natural resources in agriculture will improve living conditions of Sahelian people.

The Master, planned with innovative connections, includes a field training and a common introductory part. Three curricula follow (environmental protection, animal and vegetal productions) with the aim of giving students new opportunities in key work sectors of their countries.

Innovative teaching strategies will be prepared and proposed in order to introduce items related to the Earth Sciences, like transformation and degradation of the physical environment, soil management, water resources supply and protection, solid wastes and pollutants handling and processing. These items are also strictly connected to other key themes: agro-livestock production (preservation of local animal and vegetal biodiversity), modernization of agriculture, use of technologies for storage and processing of animal and vegetal food products, implementation of systems using solar energy (solar cookers and photovoltaic systems).

An active network between the four involved universities is provided to ensure mutual exchange of expertise and to establish theoretical, practical and experimental knowledge with special focus on local and regional issues.

As a result, the Project will improve geoeducation activities to spread new models and sustainable methods, but also to inform population and to influence decision makers for risk reduction programs and a socially compatible use of natural resources.