The project RUSSADE: geoethic education to face environmental problems in the Sahel

Elena Ferrero (1,2) and Carlo Semita (1,2)
(1) Interdepartmental Centre of Research and Technical and Scientific Cooperation with Sahelian and West African Countries, University of Turin, Italy (elena.ferrero@unito.it), (2) Earth Sciences Department, University of Turin, Torino, Italy

The hard environmental and climatic conditions in Sahel countries affect life choices of younger generations, whose number continues to increase especially in large Sahelian cities, with increasing levels of discomfort and lack of adequate education and governance.

To improve job opportunities and consequently the quality of life at all levels of the population, it is important to guarantee a better access to basic natural resources, such as soil, water, food. At the same time it is essential to spread awareness and knowledge of the vulnerability and of the risks that threaten natural resources, both for natural processes and for the interaction with human not sustainable activities.

For this purpose, a Master course has been achieved in the project RUSSADE (Réseau des Universités Sahéliennes pour la Sécurité Alimentaire et la Durabilité Environnementale - www.russade.eu), funded in the ACP-EU Cooperation Programme in higher education (EDULINK II). The Master course includes teaching modules dedicated to these issues and takes care of their integration with other modules in the technical and application fields of the rural development.

For instance, the objectives of the teaching module “Land and natural resources management” provide for the transmission of skills to diagnose types of soil degradation risks, to guide options for protection, conservation and soil restoration and to identify the components of integrated soil fertility management in particular African contexts (Subunit “Land management”); to choose appropriate methods of management and exploitation of water resources (defining the limits in the use of water resources) (Subunit “Water supply”); to propose alternative solutions concerning conventional energy resources, to know and promote the various possibilities of solar and other renewable energies production (Subunit “Using solar and other renewable energies”).

Some teaching modules introduce and discuss risks related to inadequate waste management and bio and geo-preservation represented by the functions of the protected areas.

The theoretical approach of these issues is enhanced by practical experiences and visits to emblematic situations and structures in Niger territory, taking care to contextualize them with the local needs and integrating the experience and skills of partner teachers of Niger, Chad, Burkina Faso and Italy). The students work through individual internships (for example internships on bio-digesters) that give rise to a report to be presented at the end of the Master.

It is expected to publish the various reports on the appropriate magazines as well as on the websites of CISAO and of the involved universities, to give the best diffusion to the achieved results and to develop the potential applications in the Sahelian countries.