



THE PROJECT RUSSADE: GEOETHIC EDUCATION TO FACE ENVIRONMENTAL PROBLEMS IN THE SAHEL

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INTRODUCTION

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

The **PROJECT R.U.S.S.A.D.E. "Réseau des Universités Sahéliennes pour la Sécurité Alimentaire et la Durabilité Environnementale"** (FED/2013/320-115) is funded in the ACP-EU Cooperation Programme in higher education (EDULINK II).

Partners : CISAO – University of Turin, Italy; CRESA - Abdou Moumouni University of Niamey, Niger; LERNSE - Polytechnic University of Bobo-Dioulasso, Burkina Faso; IUSTA – National Higher Institute of Sciences and Techniques of Abeché, Chad.

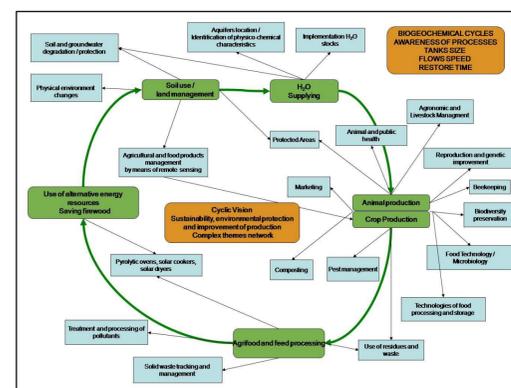
Associates : Regione Piemonte and Terre Solidali Onlus.



Main objectives: food security promotion, extreme hunger and poverty reduction.

Specific objectives: enhancement of higher education systems; improvement and sustainable management of natural resources, animal and vegetal productions, with environment and biodiversity preservation; institution of North-South and South-South networks. (www.russade.eu)

It is important to provide a **preservation and a better access to basic natural resources**, such as **soil, water, food** in order to improve job opportunities and consequently the quality of life at all levels of the population. At the same time it is essential to spread awareness and knowledge of the **vulnerability of natural resources**, of the **risk of their damage or irreversible loss**, both for natural hazards and for the interaction with human unsustainable activities.



An **interdisciplinary Master course on "Food security and Environmental Durability"** was implemented taking care of integrating the issues of different modules in the technical and application fields of the rural development.

METHODOLOGY

The theoretical approach is enhanced by practical experiences and visits to emblematic situations and structures in Niger territory, taking care to contextualize the issues 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 (i.e. internships on bio-digesters) that give rise to a final report submitted at the end of the Master.

MASTER COURSES ON "FOOD SECURITY AND ENVIRONMENTAL SUSTAINABILITY"

FUNDAMENTAL	UE 1 Livestock and crops productions		ECUE 1. Improvement of animal production systems
	UE 2 Land and resources management		ECUE 2. Improvement of vegetal production systems
	UE 3 Valorisation of agro-food products		ECUE 3. Land management
	UE 4 Policies and development strategies		ECUE 4. Integrated management of soil fertility
	UE 5 Biodiversity and biosecurity		ECUE 5. Waste management and recycling
	UE 6 Methods and communication tools		ECUE 6. Water supply
	UE 7 Global and local aspects of food security and sustainable development		ECUE 7. Using solar and other renewable energies
TRANSVERSAL			ECUE 8. Conservation, processing and packaging
			ECUE 9. Marketing
			ECUE 10. Agricultural and environmental policies and local knowledge in natural resource management
			ECUE 11. Cooperation activities planning and management
			ECUE 12. Biosecurity
			ECUE 13. Sustainable management of biodiversity and protected areas
			ECUE 14. Tools of communication and advocacy
			ECUE 15. Outreach methods and tools
			ECUE 16. Methods of collecting and analyzing data
			ECUE 17. Food security and sovereignty
			ECUE 18. Environmental sustainability

Educational objectives: transmission of skills to diagnose types of soil degradation risks, to guide protection, conservation and soil restoration and to identify the components of integrated soil fertility management in African contexts.



Educational objectives: transmission of skills to choose appropriate methods of management and exploitation of water resources (defining the limits in the use of water resources).



Educational objectives: transmission of skills to propose alternative solutions concerning conventional energy resources, to know and promote the various possibilities of solar and other renewable energies production.



CONCLUSIONS

The **spread of awareness** that the essential geo-resources for food production are limited and vulnerable is a valuable tool for **fighting poverty and hunger**, one of the priorities of the Millennium Development Goals for Sahelian countries .

It is expected to give the best diffusion to the achieved results and to **develop the potential local applications** publishing various reports on the appropriate magazines as on the involved universities websites.

WASH (Water, Sanitation and Hygiene)

Using other renewable energies

GIS and remote sensing

UE = Unité d'enseignement
ECUE = Elément constitutif l'UE

Scientific and technical English

Administrative reporting

Organic and family farming

