



Master in Integrated Water Resource Management and Environment



Training area: Agricultural Sciences

Course: Water and Environment

Specialties: Integrated Water Resources Management

Grade: Master

Purpose: Professional

Duration of training: 2 semesters

Training venue: AGRHYMET Regional Centre. Niamey (Niger)

BACKGROUND

In West Africa, the decrease in water course flow following the decrease in rainfall and flooding trends lead to new approaches in water resources management. These are concentrated in a few large inter-State basins (Niger, Senegal, Volta, etc.) and in cross-border aquifers (Iullemeden, Taoudeni, Senegalese-Mauritanian, etc.). This situation makes the countries interdependent in terms of water resources and the growing pressure on this public good causes conflicts (within countries as well as among countries) between users of antagonist interests. In This context, the Integrated Water Resource Management (IWRM) is an essential and effective tool for conflict management, poverty control, and environment protection. This concept includes not only the classic water resource management but also its interactions with the environment and the socio-economics. This is why we witness a global dynamic for IWRM (Rio Earth Summit, 1992; World Water Forums, 2000, 2003, 2006; World Summit on Sustainable Development, 2002, etc.). This dynamic implies the need to strengthen capacities in water resources and environmental management in the sub-region in order, on the one hand, to accelerate the legal and institutional reforms undertaken by the countries of West and Central Africa and, on the other hand, to strengthen the services which are somewhat weakened by the aging of their executives.

For further information, please contact:
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OBJECTIVE

The training will allow capacity-building and improvement of development and the sustainability of water resources management in water services, agriculture, the environment as well as basin organizations (NBA, OMVS, the VBA, CBLT, etc.). It is generally part of the Rio Conference dynamics (1992) and decisions made at the World Summit on Sustainable Development through which the international community has recognized the need for sustainable water resources management for sustainable food and environmental security.

OUTLETS

Specialists in water services, agricultural services, environmental services; private sector, NGOs, Projects.

TARGET GROUP

The target group will consist of:

- West African executives from CILSS/ECOWAS/UEMOA region working in State services, the broader public sector, private sector, civil society and NGOs, having a professional experience in water resources management and environment;
- Other African executives working in the same sectors;
- Young graduates in the areas of hydraulics, hydrology, hydrogeology and rural engineering.

PREREQUISITES:

- Required level: bac + 4/engineering or equivalent
- Knowledge in hydrology, hydrogeology, hydraulics, field experience in projects aimed at improving water management.

TRAINING PROGRAM

Course credits	
Semester 1	Semester 2
CRE 2301: Climate Change and Water Resources	MEM 2401: Thesis
VRG 2302: Natural Resource Governance	
GRN 2303: Natural Resource Management	
OEH 2304: Hydrological Study Tools	
HYE 2305: Hydrology and Ecology	
GIR 2306: Integrated Water Resources Management	
GSA 2307: Geomatics and Applied Statistics	
OHQ 2308: Hydraulic Works and Water Quality	
COM 2309: Communication (COM)	

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