

CALL FOR APPLICATION: PhD PROPOSAL

Resilience of water supply systems in semi-arid environment.

Location: UMR G-EAU (Cirad, Cemagref, IRD, AgroParisTech) in Montpellier (France) with field work in Ceara, Brazil, in connection with Ceara Federal University

PhD supervision

Advisor: Olivier Barreteau, social simulation and water management, Cemagref

Co-supervisor: Raphaèle Ducrot, water management, Cirad, visiting scholar at Funceme–Fortaleza Bresil.

Funding:

Subject to selection by sponsor. Full application (candidate + subject) should be submitted by 04/13/2009.

Requirements

Student should have a Master degree, with the following background:

- Social simulation in relation with environmental issues
- Or Water sciences / Water Management and Sociology / Policy Analysis / Geography

Good capacity of adaptation, and relations with local actors

Some knowledge of Portuguese or Spanish will be appreciated

Description of proposal

This PhD research aims at analyzing the institutional and social conditions which may affect the resilience of Socio-ecosystems, while empowering locally concerned people to keep control over some irreversible choices, as well as to strengthen their learning capacities, as a source of adaptability in a context in strong evolution (climate, economy). With a companion modelling approach, how a group of people can take care of the evolution of its water supply networks, knowing the heterogeneity and the complexity of the socio-ecosystem, due to the multiple interactions between this group, the physical environment and technology?

The PhD candidate will design and implement a simulation model allowing local populations to investigate scenarios according to their own frames of knowledge. Through an iterative approach, the PhD candidate will start with the elicitation of an initial set of representations, and make it evolve according to the interactions with the local population, who will adapt it and bring their knowledge, such as concerning the limits of the system.

Field work will take place in the context of the rural semi arid North-eastern Brazil. The water supply systems there feature multiple resources and cope with a variety of uses with diverse requirements as a matter of quality, quantity, and reliability of the supply. This area is also characterized by rules for accessing and using water depending on very unbalanced social relations.

Contacts for further information or application :

Send an application letter and a resume to:

olivier.barreteau@cemagref.fr with copy to : raphaelle.ducrot@cirad.fr

All the applications received by April 2nd will be assessed. Later applications will be considered, as long as none have been selected.