Ecological and social dynamics modelling specialist

The Dry Pastoral Areas Unit (PPZS) in Senegal was set up within the framework of research into sustainable pastoral livestock farming. Based on a multidisciplinary approach, the aim is to facilitate integration of pastoral farming into the national economy and other production systems and to work with local people on identifying practical solutions which maintain social structures and the production potential of natural ecosystems. Among its various areas of research, the unit works on modelling of ecological and social dynamics and their interactions. This field demands pioneering skills. You are a specialist in system modelling, with a grounding in mathematics and Information Technology coupled with an interest in the natural and human dynamics of developing countries. You are keen to apply your know-how within a team whose remit is to provide pastoral environments with sustainable management tools.

Job description

Based within the PPZS (dry pastoral areas unit) in Senegal, the post holder will have the following remit:

- ⇨ Spatial modelling of natural and pastoral ecosystems management in arid and semi-arid environments: primary resources, livestock mobility, ecological and socio-economical dynamics.
- ⇨ Risk analysis and modelling (ecological and man-made pressures, degradation and desertification, etc.)
- ⇨ Participation in the preparation, installation and management of spatial information systems (environmental, socio-economic) covering various organisational levels (local to regional)
- ⇨ Methods support to researchers working on the management of natural resources (biodiversity) and risk management (environmental, health, etc.)
- ⇨ Training of students and interns.

Required profile

- ⇨ PhD or post-graduate diploma in biomathematics or modelling
- ⇨ Advanced knowledge of statistical and computing tools (mathematical and/or computer modelling, geostatistics, multi-agent systems, geographic information systems, databases)
- ⇨ Knowledge of information system (Merise, Uml) design methods preferred
- ⇨ Must enjoy field work within multidisciplinary team
- ⇨ Experience of tropical environment preferred
- ⇨ Fluent in English and French

Reference to quote : DRH - 434
Date of publication : 20/12/2001
Closing date : 14/02/02
Location : Senegal
Type of contract : Permanent
Start date : Immediately
Further information from

- ⇨ Emmanuel Torquebiau - CIRAD TERA, Land and Resources Programme -Montpellier
  Tel 04 67 59 38 41 Fax 04 67 59 38 38
- ⇨ François Monicat - CIRAD EMVT – Montpellier
  Tel 04 67 59 37 16 Fax 04 67 59 37 99
- ⇨ Alexandre Ickowicz - CIRAD EMVT - Senegal
  Tel (221) 832 08 21