

## Post Doctoral Scientist in Soils and Crop Modeling

The International Center for Tropical Agriculture (CIAT) – a member of the CGIAR Consortium – develops technologies, innovative methods, and new knowledge that better enable farmers, especially smallholders, to make agriculture competitive and profitable as well as sustainable and resilient. Headquartered near Cali, Colombia, CIAT conducts research for development in tropical regions of Latin America, Africa, and Asia. [www.ciat.cgiar.org](http://www.ciat.cgiar.org)

CGIAR is a global research partnership for a food secure future. Its science is carried out by the 15 research centers of the CGIAR Consortium in collaboration with hundreds of partner organizations. [www.cgiar.org](http://www.cgiar.org) The CGIAR has a portfolio of global research programs to implement a recently agreed strategy of research for development. Key areas within the strategy and the portfolio are farming systems intensification, reducing risk for vulnerable populations, and sustainable management of natural resources in landscapes to benefit the poor.

The Tropical Soil Biology and Fertility Institute (TSBF) joined CIAT in 2001, and since then has grown and evolved to become one of the three research areas of CIAT. Taking forward the original focus of TSBF, scientists at CIAT are working at the interface between agriculture and ecology to achieve durable food security, particularly in sub-Saharan Africa, but with a global agenda. CIAT's soils research is extremely well placed to contribute in the reformed CGIAR. To build up the momentum of this work, CIAT is recruiting new members for its soils research team.

CIAT and ICRISAT ([www.icrisat.cgiar.org](http://www.icrisat.cgiar.org)) are looking for a post doctoral scientist to work closely with scientists at CIAT working on the mapping of soil functional properties, and with scientists at ICRISAT engaged in global yield gap assessment, in order to better understand and map soil constraints limiting the yield potential in SSA.

The candidate will work with a variety of data from agronomic trials, weather stations and detailed soil information and apply crop growth simulation modeling to develop scenarios for addressing yield gaps that answer important development questions. S/he will specifically look at the importance of good soil information for crop growth simulation and assess how and which detailed soil data can improve simulation results. S/he will be expected to engage actively with users of knowledge such that these efforts bring important knowledge to researchers about the needs of users, and help tailor products of that work to expressed needs.

Through this work the post doctoral scientist will be contributing to the bridging of data and knowledge between two large on-going initiatives, the Global Yield Gap and Water Productivity Atlas (GYGA) and the Africa Soil Information Service (AfSIS), and bridging gaps between knowledge generation and use. The incumbent will apply agronomic, spatial analysis and modeling skills.

### **Role and Responsibilities**

- Contribute expertise and research innovation in the areas of soils and crop modeling within the context of on-going initiatives in collaboration with senior scientists.
- Publish results in peer reviewed journals.
- Supervise technical staff and graduate students.
- Engage with partners to learn and disseminate knowledge.
- Support knowledge sharing and communications efforts.

### **Requirements**

- A PhD in Soil Science, Agronomy, Natural Resources Management, Spatial Analysis (GIS) or related discipline.
- At least two years of relevant research experience in farming systems in developing countries.
- Knowledge and skills in the use of crop models.
- Understanding of smallholder farming systems in sub-Saharan Africa, the constraints of smallholder farmers, and the role of research for development processes.
- Pro-active researcher with demonstrated interest in and ability to publish in peer reviewed international journals.
- Proven experience and capacity for field work.
- Proven interpersonal skills and ability to work independently and with diverse teams representing different cultural and professional backgrounds.
- Willingness to live in Nairobi and travel widely in the region.
- Excellent writing and communication skills in English.

### **Terms of employment**

The Post Doctoral Scientist will report to a Senior Scientist at CIAT and at ICRISAT. S/he will be based in Nairobi, Kenya and the contract will be for an initial 2 year period, subject to a probation period of six (6) months. CIAT will be responsible for performance appraisals and evaluation of the Post Doctoral scientist in consultation with ICRISAT. CIAT offers internationally competitive salary and benefits packages. CIAT is an equal opportunity employer, and strives for staff diversity in gender and nationality. Female candidates from Latin America, Africa, and Asia are encouraged to apply.

### **Applications**

Applicants are invited to send a cover letter illustrating their suitability for the above position against the listed qualifications, competencies, skills together with a detailed curriculum vitae, including names and addresses of three referees knowledgeable about the candidate's professional qualifications and work experience. All correspondence should be addressed to the CIAT Human Resources Office to Catalina Montoya ([c.m.ruiz@cgiar.org](mailto:c.m.ruiz@cgiar.org)) and Alice Kareri ([a.kareri@cgiar.org](mailto:a.kareri@cgiar.org)) and should clearly indicate "Soils and Crop Modeling" on their application letters or email submissions.

**Closing date for applications: 15 June 2012**