



Postdoctoral Fellow, Systems Agronomist (Ref: DDG-R4D/PDF/SA/01/18)

Background: The International Institute of Tropical Agriculture (IITA) invites applications for the internationally recruited position of **Postdoctoral Fellow, System Agronomist**.

The International Institute of Tropical Agriculture (IITA) is a not-for-profit institution that generates agricultural innovations to meet Africa's most pressing challenges of hunger, malnutrition, poverty, and natural resource degradation. Working with various partners across sub-Saharan Africa, we improve livelihoods, enhance food and nutrition security, increase employment, and preserve natural resource integrity. IITA is a member of CGIAR, a global agriculture research partnership for a food secure future. Please visit <http://www.iita.org/> for more information on IITA.

Project

CocoaSoils aims to build the knowledge base for sustainable intensification of cocoa production through a large public-private partnership that spans all cocoa growing regions of the tropics. Enhancing cocoa productivity and nutrient use efficiency requires a deeper understanding of the nutrient requirements of the cocoa tree and the roles and physiological responses to different nutrients. Integrated Soil Fertility Management (ISFM) recommendations will be developed based on medium- and long-term data from carefully planned and consistently managed nutrient response trials following agreed protocols and resource commitments. Specific ISFM and other productivity-enhancing recommendations will be delivered towards the sustainable intensification of cocoa production. CocoaSoils will be implemented through public-private partnerships with leading partners IITA and WUR in collaboration with CIAT, ICRAF, UNEP-WCMC, NARS (including CNRA, CRIG, CRIN, IRAD, and Universities), cocoa authorities, fertilizer industry partners, cocoa industry partners and IDH. A global network of long-term cocoa fertilizer trials across different environments and systems will be established by companies participating in the CocoaSoils consortium. The main objective of these trials is to collectively design and adopt fertilizer recommendations for cocoa growers, guidelines for recycling of cocoa husks, as well as guidelines to manage the risk of spreading diseases; and to develop a database on the efficacy and availability of organic resources.

Position Responsibilities

The postdoctoral fellow will undertake the following activities:

- Design a decision support framework based on a stepwise approach that has been developed by IITA and partners to support the implementation of recommendations derived from the CocoaSoils experimental trials in smallholder cocoa plantations in Cameroon, Ivory Coast, Ghana and Nigeria.
- Lead work on integrating new knowledge into existing extension materials of the different countries and develop tools and processes that enable continuous updating of the existing extension package.
- Conduct a study on farmers' perspectives and practices in relation to climatic change and investigate the social challenges and opportunities about adoption of climate smart cocoa practices for cocoa intensification.
- Conduct a range of household surveys and semi-structured interviews as well as an institutional mapping focusing on how formal institutions (at local/regional/national/transnational levels) influence the use or the adoption of climate smart practices as a risk management strategy for cocoa intensification.
- Undertake studies on understanding the diversity of cocoa-based livelihoods in the four countries and the specific role of cocoa in their livelihoods, employing both quantitative and qualitative methods.

- Develop models that can prioritize sustainable intensification practices based on site specific constraints.
- Carry out cost benefit analysis for prioritized practices and integrate results with relevant agronomic information.
- Develop protocols that combine giving recommendations based on consolidated extension materials with collected data relevant for monitoring.
- Lead participatory and inclusive decision support tool design, validation and testing with research and development partners.
- Collaborate with scientists and mobile app developers to improve data collection based on principles of Citizen Science and Crowdsourcing.
- Design, develop and maintain information systems to implement procedures to avail data using mobile app- and web-based tools to end-users.
- Conduct statistical analyses of experimental and survey-based agronomic, socio-economic data.
- Align this work with adoption work across IITA and Climate Change, Agriculture and Food Security (CCAFS) R4D project portfolio in West, Central and East Africa.
- Supervise activities of PhD and MSC students who are involved in the project in areas such as research design and data analysis.

Educational Qualifications

The candidate should have a finalised PhD in Geography, Economics, Development Studies, Sociology, Anthropology, Communications, systems analysis or related fields in agriculture.

Core Competencies

- Applied knowledge, and experience in food and agricultural sciences.
- Expert knowledge in data analysis and experimental design.
- Experience and knowledge in Mobile app development.
- Big data collection based on principles of Crowdsourcing and Citizen Science (ODK).
- Proven analytical, quantitative and qualitative research skills.
- Affinity with modeling and knowledge/field experience in cocoa are an advantage.
- Ability to work independently and in a team; pro-active attitude; good communication skills; ability to deal with high a work load; and capacity to work under challenging (field) conditions.
- Proven track record of scientific publications in high quality scientific journals.
- Proactive, innovative and independent problem solver, and excellent team player.
- Experience in implementation, monitoring and reporting of research for development projects.
- Excellent communication skills, able to interact with a multi-cultural and interdisciplinary team of scientists and development partners in layman language.

Duty Station: Accra, Ghana

General information: The contract will be for an initial period of two years. IITA offers an internationally competitive remuneration package paid in US Dollars.

Applications: Applications must include covering letter which should address how the candidate's background/experience relates to the specific duties of the position applied for, curriculum vitae, names and addresses of three professional referees (which **must** include either the Head of the applicant's current or previous organization or applicant's direct Supervisor/Superior at his/her present or former place of work). The application should be addressed to the Head, Human Resources Service. Please complete our online application form using this link: <http://www.iita.org/careers>

Closing Date: 23rd February 2018

IITA is an equal opportunity employer and particularly welcomes applications from women candidates.

Please note that only shortlisted candidates will be contacted.