Advertisement

Junior Professional Officer

Specialist (Technology Transfer)

International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)



Closing date 30 April 2012

I General information	
Title:	Specialist (Technology Transfer)
Sector of Assignment:	Technology Transfer
Country:	Kenya
Location (City):	Nairobi
Agency:	International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
Duration of Assignment:	Initially one year with the possibility to extend up to 3 years
Grade:	P1 step 1 or P2 step 1 in the first year, depending on the level of
	education and relevant working experience

Note: this post is opened in the context of the Junior Professional Officer (JPO) scheme sponsored by the Government of the Netherlands and is addressed exclusively to **people with the Dutch nationality.** For criteria see the website of the Dutch Ministry of Foreign Affairs: http://www.minbuza.nl/en/key-topics/development-cooperation/associate-experts-programme

II Duties, responsibilities and Output Expectations

General

A recent analysis (¹Harris and Orr, 2012) has shown that net returns from rainfed cropping can be increased substantially in percentage terms if smallholder farmers adopt improved technologies. However, the absolute amounts of income available to households with small farms (the majority in SSA) from crop production are small and livelihoods almost invariably also depend on other sources of income, including that from off farm. The relative failure of resource-poor farmers to adopt improved technologies, particularly those involving significant investments of cash and/or labour, might be associated with this 'part-time farmer' problem. Generally, researchers and extension agents make the assumptions that:

- Farmers will make decisions on the basis that crop production is the only enterprise that they
 are involved in. Trade-off analysis recognizes this to some extent but has yet to consider the
 implications of the Harris and Orr analysis.
- Technologies are generally scale-neutral. This is clearly not the case for small farms where, for instance, households have a minimum requirement for a staple crop (usually a cereal) that implies, for a given yield level, a minimum physical space that has serious knock-on effects for inclusion of other crops such as legumes in the system. Crop rotation widely promoted becomes problematic in this context, as does efficient intercropping.
- Farmers will invest in new technologies if benefit:cost ratios are favorable. Even if true, the
 attractiveness of any ratio may vary according to the risk involved and the absolute value of the
 investment required.

¹Harris, D. and Orr, A.W. (2012). Is rainfed agriculture really a pathway from poverty? *Agricultural Systems* (submitted).

1. Responsibility 1 (40% time)

Summary of duties and expected output

- Study the existing household survey databases (50%)
- Study the ICRISAT trade-off research activities (50%)
- 2. Responsibility 2 (30% time)

Summary of duties and expected output

- Investigate the factors affecting adoption of technologies (60%)
- Constraint analysis and problem diagnosis (40%)
- 3. Responsibility 3 (30% time)

Summary of duties and expected output

- Development and testing of practical ways to overcome the constraints (60%)
- Increase the adoption by smallholder farmers of technologies (and/or other strategies) that will increase household income and improve rural livelihoods (40%)

III Learning elements and expectations

The JPO learning programme includes the following elements:

During the years of service the Specialist will learn and develop practical knowledge of working with smallholder farmers, other stakeholders and the major issues involved in the technology transfer process. The information generated from this work will contribute to the various national strategies for technology transfer. The Specialist will gain experience in working in a multidisciplinary and multicultural research team.

The specialist will participate in all planning meetings of the research team, seminars, scientific workshops and symposia. S/he will be requested to prepare and give seminars on topics of her/his own work as well as integrating other researchers' results/information on technology transfer. In addition, the incumbent will participate in stakeholders meetings, integrating issues related to technology transfer into the research strategy.

Training in various aspects of research will be provided as necessary and will include use of computer models designed to quantify the benefits of trade-offs between livelihood components. More specifically, training in and application of the Tradeoff Analysis model for Multi-Dimensional impact assessment (TOA-MD) is foreseen. The TOA-MD model is a parsimonious, generic model for analysis of technology adoption and impact assessment (e.g. Claessens et al., 2009, 2010), ecosystem services analysis(e.g. Antle and Stoorvogel, 2008) and climate change and adaptation impact assessment. The TOA-MD model simulates technology adoption and impact in a population of heterogeneous farms (more information at www.tradeoffs.oregon.edu).

Antle, J.M., Stoorvogel, J.J., 2008. Agricultural carbon sequestration, poverty and sustainability. Environment and Development Economics 13, 327-352.

Claessens, L., Stoorvogel, J.J., Antle, J.M., 2009. Ex ante assessment of dual-purpose sweet potato in the crop-livestock system of western Kenya: A minimum-data approach. Agricultural Systems 99(1), 13-22.

Claessens, L., Stoorvogel, J.J. and Antle, J.M., 2010. Exploring the impacts of field interactions on an integrated assessment of terraced crop systems in the Peruvian Andes. Journal of Land Use Science 5 (4), 259-275.

Upon completion of the assignment the JPO will have/ will be able to:

- Gain practical knowledge of working with smallholder farmers, other stakeholders and the major issues involved in the technology transfer process.
- Use the application of the Tradeoff Analysis model for Multi-Dimensional impact assessment (TOA-MD)
- Publish reports and research papers on technology transfer
- Gain experience in working in a multidisciplinary and multicultural research team.

IV Supervision

Title of supervisor: Doctorate; Principal Scientist

Content and methodology of supervision

Immediate supervisor and the Director, East and Central Africa will supervise the Specialist. Evaluation will take place each year. The candidate will be asked to fill a standard performance evaluation form of ICRISAT. The supervisor will discuss with the candidate about the activities, achievements and constraints in carrying out the agreed activities. The specialist will participate in all planning meetings of the research team, seminars, scientific workshops and symposia. He/she will be requested to prepare and give seminars on topics of his/her own work as well as integrating other researcher's results/information on technology. In addition, the incumbent will participate in stakeholders meetings, integrating issues related to technology transfer into the research strategy.

V Required Qualifications and Experience

Education:

Master degree in Agricultural Economics and/or Natural Resource Management

Working experience:

Preferably 2 to maximal 4 years relevant working experience, including internships and voluntary work.

Languages:

Fluency in English is essential and knowledge of French and any other African languages will be an advantage.

Key competencies

- Knowledge of micro-economics in relation to natural resources management.
- Enquiring mind
- Data management and ability to analyse research results
- Independent and original thinking
- Scientific articles and reports writing

VI Background information on Agency/Department/Section

The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is a non-profit, non-political organization that conducts agricultural research for development in Asia and sub-Saharan Africa with a wide array of partners throughout the world. It belongs to the Consortium of Centers supported by the Consultative Group on International Agricultural Research (CGIAR). ICRISAT is headquartered in Hyderabad, Andhra Pradesh, India, with two regional hubs one each for East and Central Africa at Nairobi, Kenya and West and Central Africa at Bamako, Mali and four country offices at Niger, Nigeria, Malawi and Zimbabwe in Sub-Saharan Africa. ICRISAT staff collaborates closely with NARES, sister IARCs, ARIs, NGOs and private sector organizations. Please visit our website: www.ICRISAT.ORG

The ICRISAT genebank conserves 119,739 germplasm accessions of its five mandate crops and six small millets. This includes accessions of related wild species of sorghum (458), pearl millet (750), finger millet (105) and foxtail millet (54). Majority of these accessions needs systematic characterization/evaluation for enhanced use in crop improvement.

VII Information on living conditions at Duty Station

Living conditions in Nairobi, Kenya are good. Housing is comfortable and there is plenty of opportunity for shopping, recreation, sport and dining out. There are good international air travel connections. Medical, dental and primary education facilities are available locally.

VIII How to apply

Applications including curriculum vitae (giving contact address with email Id, date of birth, nationality, marital status – if married with spouse and children details), list of publications, and names and addresses of three referees should be sent to Human Resources, ICRISAT, Patancheru, Andhra Pradesh 502 324, India, by email to: icrisatjobs@cgiar.org before 30 April 2012.

Applicants will receive acknowledgement of receipt of their submission. Only shortlisted candidates will be contacted.