

The International Center for Tropical Agriculture (CIAT) – a member of the CGIAR Consortium (www.cgiar.org) – 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. CIAT conducts research for development in tropical regions of Latin America, Africa, and Asia (www.ciat.cgiar.org).

ILRI works to improve food and nutritional security and reduce poverty in developing countries through research for efficient, safe and sustainable use of livestock. It is the only one of 15 CGIAR research centers dedicated entirely to animal agriculture research for the developing world. Co-hosted by Kenya and Ethiopia, it has regional or country offices and projects in East, South and Southeast Asia as well as Central, East, Southern and West Africa. www.ilri.org.

Project Summary:

Livestock feed is a critical constraint to livestock productivity in Low and Middle Income Countries. Livestock feed development efforts have, however, tended to promote new feeding strategies in a piecemeal fashion without sufficient consideration of system level constraints such as availability of land, labour and market opportunities. These constraints have an important bearing on which of a range of feed options will work best. ILRI and CIAT have been working on feed option prioritization approaches at local level, notably through the development of the Feed Assessment Tool (FEAST). FEAST consists of a database of feed options which are prioritized for a local community based on a participatory assessment of local system constraints. The logic of the feed option ranking method in FEAST approach is scalable and we now see opportunities to develop regional “feasibility surfaces” for different feed options by mapping system constraints using global/regional data sets.

A brief description of the methods to be used:

The overall objective of the activity is to develop maps of likely feasibility of a variety of candidate feed options. Based on the FEAST approach/logic, two sets of underlying GIS data layers need be developed:

1. Core feed issues: overall feed availability, seasonal feed availability and overall feed quality;
2. A series of adoption factors that constrain feed interventions, such as land availability, labour availability, access to standing water and access to inputs.

The initial geographical focus of the work is East-Africa (Tanzania, Kenya, Uganda, Rwanda, Burundi and Ethiopia).

The position:

CIAT/ILRI seek to appoint two short-term (1-4 months) visiting scientists to work on the above tasks. The incumbents will work with the science team to develop feasibility surfaces working towards four core deliverables:

- Maps of core feed issues (overall feed availability, seasonal feed availability, overall feed quality)
- Maps of adoption factors (land, labour, water and market access)
- Feasibility surfaces for 4 candidate feed options e.g. grass hay, planted grasses, irrigated forage, forage trees
- Draft manuscript (Mapping of feasibility surfaces for livestock feed interventions based on feed constraints and socio-economic conditions in East Africa)

Activities include:

- Refinement of methodology in consultation with ILRI and CIAT scientists

- Identifying and querying existing data sets and relevant databases
- Data analysis and mapping
- Report writing

Skills required

- MSc/PhD in GeoInformatics, Geography, Agriculture, Agricultural Economics;
- Either final year of study or recent graduate;
- One or both of the following:
 - o Understanding of livestock feeding/production systems/natural resource management with a view to using existing datasets to estimate feed composition in different locations. Feed composition data will be further used to develop feed indicators;
 - o Socio-economic data skills. Ability to use existing datasets to develop suitable indicators/ proxies for adoption factors such as land availability, labour availability, water availability and market access.
- Strong spatial analysis skills, preferably experience with publicly available spatial data sets (e.g. satellite imagery, climate data, etc) or large household surveys (e.g. LSMS, DHS);
- Experience in low or middle income countries.

Location

The position is open to all nationalities. The task could be implemented virtually with interaction by skype and e-mail or it could be based in Nairobi, Kenya or Edinburgh, Scotland. The position is offered by the International Center for Tropical Agriculture (CIAT) in collaboration with the International Livestock Research Institute (ILRI).

How to apply:

Applicants are invited to visit <http://ciat.cgiar.org/ciat-jobs> to get full details of the position and to submit their applications, clearly indicating position applied for as **Ref: FR-2319 Student (Visiting Scientist)** as the position applied for. All the documents should be saved as one document using the candidate's last name, first name for ease of sorting.

CIAT does not charge a fee at any stage of the recruitment process (application, interview meeting, processing or training). CIAT also does not concern itself with information on applicants' bank accounts.

Applications closing date: 18th April 2019.

Please note that email applications will not be considered.

Only short listed candidates will be contacted.