The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT) delivers research-based solutions that harness agricultural biodiversity and sustainably transform food systems to improve people’s lives. Alliance solutions address the global crises of malnutrition, climate change, biodiversity loss, and environmental degradation. With novel partnerships, the Alliance generates evidence and mainstreams innovations to transform food systems and landscapes so that they sustain the planet, drive prosperity, and nourish people.

The Alliance is part of CGIAR, a global research partnership for a food-secure future.
www.bioversityinternational.org www.ciat.cgiar.org www.cgiar.org

Background
The Alliance of Bioversity and the International Center for Tropical Agriculture (CIAT) - hereafter the Alliance has various operations in Ethiopia. Some of the key activities are aimed at improving the livelihoods of smallholders by providing integrated solutions. In addition to population pressure and land degradation, climate change in the form of rainfall variability is one of the major problems undermining the economic performance of the county and people’s livelihoods. The major part of the country’s agriculture is based on rainfed system, which is susceptible to rainfall variability and drought. Recently, the country has ventured into large-scale irrigation system to complement the variable rainfall condition. This is commendable effort, and if implemented properly can enable food sufficiency and sustain the environment. In addition to the large- and medium-scale irrigation schemes, there are also widespread small-irrigation practices across the country. However, the spatial distribution, extent and operational framework of these practices are not clearly documented. Despite various efforts to map ‘irrigation potential’ in the country, there is no significant engagement to identify and map small-scale irrigation practices and characterize their operations. Understanding the extent and scale of these practices as well as their associated operations across the whole value-chain can be essential to understand those schemes and support their transformation.

Deliverable
The Alliance intends to engage a team of experts related to water resources management and ICT to: (a) identify and map small-scale irrigation practices in Ethiopia; (2) characterize those schemes in terms of crops irrigated, yield gained, market availability and access, benefits gained and challenges faced; (c) propose management plan to enhance their performances and capacitate the communities to get improved benefits. This can be achieved through a combination of approaches such as remote sensing, google earth engine, crowdsourced citizen science and interview of development workers/extension agents and lead farmers. The latter one will be key to make sure that ‘actual small-irrigation’ sites are identified using local experts and farmers. It will be possible to consult the extension program of the Ministry of Agriculture (MoA) and regional agricultural bureaus and the research system to undertake this task. The key deliverables of this engagement will be (i) detailed map of small-scale irrigation practices in Ethiopia; (2) automated dashboard that can enable visualization and updating; (3) detailed report about the approaches followed and associated results, and (4) clear guideline on how the system can be updated in real-time using crowdsourcing and citizen science.

Approach
The Alliance proposes a group of 2-3 experts, one of them being a software engineer to support automation of the system when building the database and maps. The Alliance can support the engagement and associated exercises.
As the work will be undertaken in Ethiopia and involves engagement with the national extension system and development agents on the ground, knowledge of country’s agricultural system and local languages are essential.

DURATION OF WORK:
The assignment will be for a duration of three months. The task however can be completed within two months. The assignment will commence from a date agreed in the contract and end by the date indicated in the contract.

LOCATION OF WORK:
The location of work will be Ethiopia. The consultants will be based in Addis Ababa but their work requires communication and interaction with extension workers/developments agents across the country. This interaction can be handled through telephone conversations or other means at the team’s disposal.

QUALIFICATION REQUIREMENTS AND EXPERIENCE

The Consultant shall have the following competencies, skills and experience:
- MSc or PhD Degree in agricultural water management, irrigation engineering, water resources management, irrigation agronomy, land and water management, hydrology
- Geospatial analysis skills and also use of citizen-science
- Must have a minimum work experience of 3-5 years in related field
- Good exposure to remote sensing data analysis
- Conversant with open source programs such as R, Python, QGIS
- Amharic and English languages

SCOPE OF PROPOSAL PRICE
The proposal for the assignment should contain:
- Cover letter explaining why you are the most suitable candidate for the advertised constancy and a brief methodology on how you will approach and conduct the work.
- Examples of previous works - Online links or samples showing quality of previous works done by the applicant. If other people/entities collaborated in those examples, please indicate the specific contribution of the applicant
- Contact details of at least 3 professional referees

Selection criteria:
- Experience of the consultant:40%
- Methodology and approach: 40%
- Appropriate references: 20%

The financial proposal will be requested from the best candidate

How to apply:
Applicants are invited to visit http://ciat.cgiar.org/ciat-jobs to get full details for the assignment and to submit their applications. Applications should include reference number Ref: CON-ETH-LC-2020-043 as position applied for. Applications should be saved as one document using the candidate’s last name, first name for ease of sorting.

Applications closing date: 10 July 2020