



## Specifications for ICT Consultant to develop tool and platform for Banana Xanthomonas Wilt (BXW) Disease Control in Rwanda.

The International Institute for Tropical Agriculture (IITA) is inviting bids from ICT Consultants/Vendors/Developers to work with our team in Rwanda for the development and deployment of an ICT tool that will enhance surveillance and control of Banana Xanthomonas Wilt (BXW) disease in Rwanda.

**Background:** The project (ICT4BXW) is funded by the German Development Cooperation (BMZ) and led by IITA in collaboration with major partners including Rwanda Agricultural Board (RAB), Bioversity International, and the Leibniz Institute of Agricultural Development in Transition Economies (IAMO), under the Roots, Tubers, and Bananas (RTB) research program of the CGIAR. The project aims to use citizen science and ICT to develop (cost-) effective and scalable tools for advancing the prevention and control of BXW in East and Central Africa. At its core, the project is designed to collect relevant data from extension providers and farmers, and utilize the acquired information to engage with stakeholders for effective control of the disease. Therefore, there are 2 major dimensions to the intervention. The first component involves development of an early warning system for surveillance of BXW incidence and severity, while providing farmers (and farmer promoters) with decision-support for (cost-) effective BXW control. The second dimension is focused on providing real-time data on BXW dynamics that supports governments in targeting their BXW prevention efforts in a more cost-effective way. Therefore, we envision an ICT platform and tool that is carefully co-designed to meet the core needs of ICT4BXW Project in terms of content, structure, and user-friendliness.

**Core Specifications:** The development of the tool must follow a participatory and inclusive tool development (PITD) approach. We expect to thereby build on concepts from human-centered-design (HCD) and the principles for digital development. This requires an intentional engagement of next-users throughout the conceptualization, development, piloting, and deployment of the envisioned ICT tool and platform for control of BXW. To successfully develop, pilot, and test the project tool and platform we are recruiting a consultant with proven experience with participatory design processes. The consultant will

support the project by steering the co-design process and user-experience tests with prototypes, while developing the pilot tool's user interface and platform infrastructure.

***The following are core requirements for the Tool and platform:***

- The tool (and associated platform) must be mobile-based and compatible with both smartphone and basic phone. Proposed tool can include any combination of native apps, USSD, IVR, SMS etc.
- Design approach must be flexible to allow for co-development with stakeholders including researchers and collaborators on the project and farmer promoters
- The ICT tool should provide functionality for bi-directional [near-] real-time information/data exchange with next-users
- Final ICT tool and platform must be transferable for integration with/assimilation into existing national ICT infrastructure, such as that implemented by Bank of Kigali TechHouse (BKTechHouse; <https://www.bktechouse.rw/>) through API, plugins, or any other means.

***Core requirements for the consultant:***

- Willingness to travel to Kigali (and focal project intervention districts in Rwanda) to lead the PITD process
- Intellectual Property (IP) rights must be transferrable to IITA, and in case the Consultant hold IP on existing tool, a customized and transferable version must be created under the auspices of this consultancy
- Readiness to further engage with the team for optimizing of the tool functionality and sustainability beyond the lifespan of the project.
- Willingness to engage with and be transparent towards researcher(s) within the project team whose is/are interested in studying the tool development process from a research perspective.

**Delivery Time line:** The entire tool development process will last 12 months, starting by early November, 2018. Per our tentative schedule, next-users (i.e. farmer promoters) must be engaged 4 times during this period, starting with an initial rapid appraisal workshop in Nov. 2018, and followed by other iterative steps. Tentatively specified dates for the PITD process will be communicated to the Consultant and mutually agreed upon shortly after recruitment.

**Available funding:** To develop and deploy the ICT tool and platform, ICT consultant can request for maximum funding of USD\$35,000. Costs accruing to actual stakeholder engagement (including PITD) will be covered by IITA, however Consultant's costs (including Travels) to lead the process must be provisioned within the allocated funding.

**Application Process:** The application will involve 2-stages. Interested private individuals/corporate entities should send a formal cover letter (1 page), highlight of previous projects with output evidence (2 pages max), and detailed proposal (Max. 3 pages; single-spaced, 10pt) that presents major components for the implementation plan (this must include overview of technology and platform proposed, design framework/workflow, software and hardware required, data required, timeframe, existing prototype (if any), potential limitations, and activity-based budget).

Screening of applications will be conducted, and top 3 applicants will be invited to present their ideas to ICT4BXW Project team in Kigali around mid-October, 2018, and successful applicant will be confirmed by last week of October.

**Application deadline:** *September 17<sup>th</sup>, 2018 (12 noon; C. Africa Time)*; Please submit all application documents in a single zipped folder via email to Linda Barasa, IITA Central Africa Hub, Nairobi, Kenya. [l.barasa@cgiar.org](mailto:l.barasa@cgiar.org) ;

**Zippered folder must be named in the format “*applicantname ICT4BXW Consult*”.**

For questions and inquiries, please contact Mariette McCampbell, [m.mccampbell@cgiar.org](mailto:m.mccampbell@cgiar.org)