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JOB ANNOUNCEMENT

Molecular Breeding Consultant

Ref : CONS/IBP/2018/03

The Integrated Breeding Platform (IBP) is seeking a **Molecular Breeding Consultant in the IBP/IFAD project** - Enhancing institutional breeding capacity in Ghana, Senegal and Uganda to develop climate resilient crops for African smallholder farmers.

Background

The Integrated Breeding Platform (IBP) is conceived to help plant breeders accelerate the creation and delivery of new crop varieties in the context of an increasing global demand for food. It does so by giving access to vanguard technology and quality services for both traditional and modern breeding activities at low to no cost. In partnership with AfricaRice, IBP received an IFAD grant for a three-year project - Enhancing institutional breeding capacity in Ghana, Senegal and Uganda to develop climate resilient crops for African smallholder farmers. The project is hosted at AfricaRice headquarters, in Abidjan - Cote d'Ivoire. The project will strengthen the breeding capacity within national agricultural plans in three low-income countries of sub-Saharan Africa (Senegal, Ghana, Uganda), where agriculture is key to rural livelihoods. The project's design is anchored on knowledge building, dissemination, and policy engagement; one of IFAD's key pillars for results delivery. Implementation will also be in line with IFAD's five principles of engagement: targeting and benefitting poor rural people; social and economic empowerment; gender equality; innovation, learning and scaling up of successes; and leveraging partnerships. The project will benefit 10,000/country smallholder farmers directly (in total 30,000 over the three countries) as IBP will be linked with on-going national agricultural strategies and plans led by National Agricultural Systems (NARS) who are partners in the project implementation. There will be attendant beneficiaries in the form of additional stakeholders engaged in various aspects of the commodity (crop) value chains, including small to medium enterprises.

One of the four components of the project aims at implementing modern breeding approaches with National Programmes and in particular the use of molecular markers. As requested in the proposal the consultant must be an expert in molecular breeding who will support implementing modern breeding strategies at partner institutions, facilitating access to molecular markers and genotyping facilities for the 5 target crops of the project (common bean, cowpea, groundnut, rice and sorghum), and overseeing sample harvest and shipment. The consultant will also ensure that experimental design and interpretation of the results, combining phenotyping and genotyping information, is conducted properly by NARS partners. The consultant will also be engaged in the evaluation of the effectiveness of selected breeding programmes and will provide assessments for breeding objectives, germplasm, experimental design, and resource allocation.

AfricaRice, as host institution of the IBP is recruiting an individual consultant who will work with the partners on the Breeding components of the project. He/she will oversee the breeding activities of



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the national programmes with a focus on integrating the use of molecular markers in the selection process.

Responsibilities

The consultant will conduct activities with specific tasks that include:

- Working with individual breeding programs of the target countries for specific crops to make recommendations to increase efficiency of the breeding efforts.
- Assembling genetic information related to traits of interest in the target breeding programs.
- Working with breeders to develop work plans to integrate molecular breeding approaches.
- Coordinating genotyping activities across the crops and breeding programs.
- Assisting in data interpretation; and
- Ensuring all germplasm related information is integrated into the Breeding Management System (The BMS).

The BMS is a suite of interconnected software tools specifically designed to help breeders manage their day-to-day activities. The BMS helps manage breeding data across all phases of the crop improvement cycle and allows tracking of leaf tissue from a single plant for genotyping analysis. The BMS lets breeders manage trials, nurseries and seed inventory, run statistical analyses, and support breeding decisions through the gradual integration of genetic markers. It keeps a safe, standardized and centralized record of all data from one generation to the next.

Required qualification and experience

Education

- PhD in Plant Genetics or related field.

Experience

- At least 15 years of experience in international agriculture.
- Research laboratory management experience.
- Experience in working with multi-disciplinary teams.

Knowledge and key competencies

- Expertise in genetic analysis and application of genetic information in crop improvement.
- Expertise in germplasm characterization and germplasm development in the public sector and in the multinational seed industry.
- Expertise in molecular breeding.
- Excellent background in working with national programs in West Africa.

Terms and conditions

- This is an international, home based, part-time consultancy position.
- The duration of the consultancy contract is two years.

Apply here: <http://eservices.africarice.org/application/index.php>