**World Bank – IFC Pakistan Office and Oxford Pakistan Programme Partnership**

 **November 30, 2022 – January 30, 2023**

**Short-Term Consultant (STC): Water GP**

**Terms of Reference:**

Water resources are under unprecedented and increasing pressures, driven by greater climate variability, population and economic growth, land use changes, and declining quantities and qualities of both ground and surface waters.  With cross cutting impacts on agriculture, education, energy, health, gender, and livelihoods, water is an essential resource for all life on the planet and is at the center of economic and social development.  The world will not be able to meet the great development challenges of the 21st century - human development, livable cities, climate change, food security, energy security, and universal access to services – unless we ensure a water-secure world for all.

The Water Global Practice (GP) is in a unique position to help governments take an integrated and strategic approach to securing water for all through partnerships (e.g. Global Water Security and Sanitation Program, 2030 Water Resources Group), finance, and knowledge.  The Water GP places water resource management (hydrology, economics, storage, groundwater use, rivers and deltas, disaster management), service delivery (to households, businesses, and farmers), and an understanding of water in the context of the broader economy at the center of its efforts to help countries address these challenges.

**Duties and Accountabilities:**

The STC will provide support to the team at the Bank’s office in Islamabad, Pakistan, in carrying out different bioeconomic modeling and simulation studies in different irrigated areas in Balochistan.

The STC will assist in bioeconomic model development, calibration and validation, sensitivity analysis, documentation, and application of the model at different spatial and temporal scales. The STC will also be involved in data review, collation and literature review. The STC will also assist in developing climate change scenarios using most current climate projections.

* Assist in collecting hydrological, agricultural and economic variables from national and international data archives.
* Assist in developing crop growth models using appropriate tools (CLimWat, Aquacrop).
* Assist in parameterizing the farm level economic model using the data collected from different data repositories.
* Assist in developing different scenarios of climate change
* Conduct simulations to determine optimal water allocation
* Support the preparation of stakeholder meetings and disseminating the results at different levels.
* Assist in preparing the report on the modeling work.
* Other activities as defined by the Task Team Leader

**Qualifications**

* Graduate degree in water resources management, hydrology, economics of natural resources or related topics.
* Advanced knowledge of surface and groundwater hydrology principles.
* Prior experience with simulation models in economics and agronomy will be an added advantage.
* Good knowledge of Microsoft Word and powerpoint and advanced understanding of Microsoft Excel.
* Good command of written and oral English
* Good report writing skills

**Application and Selection Process:**

This is a pilot phase of partnership program at the World Bank Group Pakistan Country Office where up to 9 STCs will be selected to work with us in a hybrid mode. This pilot phase is being implemented initially with 20 universities across the Pakistan in partnership with the Oxford Pakistan Program. In Phase 2, scheduled to start in March/April 2023, the program will expand to include all universities in Pakistan.

Each applicant can only apply to one position advertised. Shortlisted applicants will be interviewed, and one candidate will be selected per position.