

**TERMS OF REFEREMCES (TOR)**  
**FOR**  
**DATA SERVICE PROVIDER (DSP) OF INDEX BASED INSURANCE.**

## **Introduction**

Bangladesh's topography and geographical location make it particularly exposed to extreme weather events including cyclones, floods, river erosion and storm surges and geological risks such as earthquakes. Bangladesh's socio-economic factors such as its dependence on agriculture, its high population density, and levels of poverty make the country especially vulnerable. The aftermath: more than 80% of the population is potentially exposed to floods, earthquakes and droughts, and more than 70 percent to cyclones.

The above-mentioned disasters are becoming more severe and frequent because of climate change. The cool season has decreased in length, average temperature during the monsoon season is increasing, a significant increase has been observed in cyclone frequency during cyclone seasons, sea level is rising considerably, and glacial melt in the Himalayas is contributing to floods in the Ganges-Brahmaputra-Meghna River Basin. It is expected that within three decades, the country's average temperature will be at least 2°C warmer. By 2050 it is expected that one-meter sea level rise would inundate 18% of Bangladesh's land and will likely affect 27 million people by 2050.

## **Background**

Enhancing resilience against climate risks is very crucial. Therefore, the World Food Programme (WFP) and Oxfam Bangladesh are eager for integrating risk transfer solutions such as insurance products that could benefit directly or indirectly of smallholder farmers and the most vulnerable households. The broader objective of this approach will be to gather evidences on climate risks, share knowledge with government and incentivise private sectors as an active partner to roll out the learning.

The Government of Bangladesh is ready and willing to enhance access to insurance for all. According to statement of the honourable Prime Minister Sheikh Hasina in the Global Micro-insurance 2019 "Micro-insurance mechanism if geared to tackle the situations arising out of climate hazards will go a long way to address the needs of the millions living mainly at the lower rung of the society".

Objective of this ToR is to determine extreme climate events, critical flood level and flood inundation level in the selected zones of Kurigram district for fixation of insurance premium and pay-outs to the affected people. Extreme climate events are related with temperatures such as less rainfall, heavy rainfall, drought, cold wave etc.

## Scope of works

Data Service Provider will be responsible for the following tasks:

- a. Prepare the list of Historical Events in Chilmari and Kurigram Sadar Upazila under Kurigram District and corroborate the events using following datasets:
  - Weather Data– Historical and Real Time, A Excisable Web based Portal should be available for all stakeholders
  - Remote sensing inputs
  - Water level data collection on the flood plain at selected area
  - Cross section and spot level survey on rivers
  - River flow data and inundation data
  - Loan loss data from MFI
- b. Data Service Provider (DSP) will provide remotely sensed data/information, evidence and data analytics related to Hydro-meteorology, Agrometeorology, Agronomy and application specific climate services using numerical modeling systems
- c. Monitoring, maintenance, trouble shooting, calibration, validation and related services for different hydro-meteorological observation sensors.
- d. Develop software and hazard models of data generation, data analysis, assessment and reporting for financial remediation scheme e.g. insurances on flood and extreme climate events.
- e. Conduct field level survey and data collection, using appropriate machinery apparatus, tools and things necessary for data management and information sharing.
- f. Collect and process relevant field and secondary data, information, reports, and documents, and review of the most updated past studies; provide necessary data whenever it requires for the sake of Climate Risk Insurance (CRI) project.
- g. Data Service Provider will install gauges (if require) at village/union to collect primary data on through measurement of hydrometric data from Rivers passing through the working area; will collect Cross- sections and Spot level data on project locations.
- h. DSP will generate flood inundation maps for historical flood events and validate with available satellite images.
- i. DSP will conduct model simulation and data generation for defined insurance coverage period on daily basis during the specific season of the year.
- j. DSP will share maps, charts, half yearly reports, annual reports and provide technical assistance to project partners/ Micro- Finance Institutions (MFI)/Insurance company's concern officials for successful implementation of the project.
- k. DSP will prepare profile on Loan Loss and asset loss with available information of all sources including partner MFI.
- l. DSP will support to prepare parametric insurance indices with payoff matrix based on probability and damage ratio.
- m. DSP provide data support for product designing and pricing with insurance companies; and must have a data portal.
- n. The DSP will orient/ train the MFIs/ WFP/ Oxfam and relevant stakeholders on the operation and awareness building.

## **Deliverables:**

- Data support services and installation
- Data collection, monitoring, processing and analysis.
- Relevant reports including coordination meeting report of partners such as insurance company, reinsurer, MFIs, IDRA etc.
- Capacity development of partners

## **Terms and Conditions**

- DSP will abide by the project implementation activities as per the project action plan.
- Maintain close collaboration with project partners.
- Keep OXFAM and WFP abreast with project updates at regular intervals.
- Share the model with different stakeholders/donors' meeting/ workshop as necessary to disseminate the product/model.
- Prepare details progress report on quarterly basis and short reports on need basis and share with Oxfam and WFP.
- Agree to deliver services to the agreed timescales and quality in accordance with proposal.
- DSP will be treated as technical partner and therefore liability for paying Income tax and National Insurance (or equivalent) contributions will rest with them.
- DSP will be responsible for making all travel arrangements including food and accommodation.

## **Required experiences and qualification**

- Interested institutes/firms should have relevant experiences to provide scientific solutions for all kinds of Hydro-meteorological, Agrometeorological, Climate Risk Insurance and other application specific climate services DRR and agromet advisory services. Moreover, they should have relevant experience on hydro-meteorological observation system installation, system integration, commissioning, system monitoring, maintenance, trouble shooting, calibration of sensors and related services.

## **Budget & Expenses**

- Payments will be made as per schedule and against the invoices. It is suggested to submit different payment against milestones.

## **Data Protection Act**

- It is agreed that Oxfam & WFP will have authority to use these data for the purposes of the project. DSP must keep all such data secure and protected against improper disclosure or use.

## **Warranty**

- As a technical partner DSP will undertake to warrant that all the work is original, that it shall not be defamatory, and shall not infringe the rights of any third party or be in any way unlawful.
- If DSP make use of the services of any third party, DSP undertake to procure an assignment of copyright and waiver of moral rights from such third party in such terms as Oxfam reasonably requires at no cost to Oxfam.

## **Assignment**

- Except with the prior written consent DSP may not assign or sub-contract their rights or obligations of the Agreement.

## **Evaluation of the Proposal:**

Technical Paper Score: understanding of the ToR/assignment + Relevant Experience + Team Composition + Track Record/Referees): 80%, Additional scopes could be added other than the mentioned scopes and if add values to the technical proposal could be considered as credit.

and

Financial: 20%: Affordability of insurance companies with recurring costs will be a consideration of financial credibility. It's important for long run sustainability.

## **Contact Signing date and proposed timeline:**

- February' 2020. The field activity should be kick off from Kharip 1, means that, the product designing support should be ready by March 2020. The field support could continue for other seasons such as Kharip 2 and Robi depending on the successful execution.