Terms of Reference

For Consultant to develop Policy briefs on

“Agriculture water and hazards management in Gilgit-Baltistan”

Background
ICIMOD’s River Basins and Cryosphere program aims to generate and disseminate evidence-based scientific research and also builds capacities to catalyze policies, strategies, solutions and development programs critical to water resources management in the HKH region. It focuses on enhancing resilience to climate change impacts and strengthen regional cooperation and networks to develop water management solutions.

Agriculture sector provides 48 percent of the total farm income in Gilgit-Baltistan. Glacier fed water fed irrigation system (based on gravity flow) is the oldest and reliable system for agriculture. Subsistence agriculture is still the dominant livelihood choice for many people despite limited arable land (only 2%) and small landholdings (<0.73 ha), harsh weather, dwindling irrigation water supplies, insufficient research and development, and poor market linkages. A significant portion of the land is still uncultivated along the river banks due to gravity water absence whereas the demand for food and nutrition is increasing ever due to rapidly growing population.

Efficient use of the water and energy can enhance agricultural productivity and gains so as the livelihoods options for people living in Gilgit Baltistan. Small pilots have demonstrated the efficacy of the water lifting from river to barren areas can have significant impact. Based on initial findings, a pilot intervention is being envisaged to use innovative-water management technologies that transforms barren lands over channels into productive farm land. The proposed intervention will focus on use of water resource to generate hydro energy (or any other feasible energy sources) through a micro energy unit to be used for lifting river water to irrigate barren lands. The new land is proposed to be used for demonstrating state of the art farming techniques and technologies for efficient use of water and land resources to improve the livelihoods of the mountain communities.

Objective:
The policy briefs will be shared with policy makers at local and national level. These briefs will present concise summary of information about issues related to agricultural water and hazards exists in Gilgit-Baltistan region. The information will help readers and policy makers to understand the highlighted issues and likely make decisions accordingly.

Terms of Reference:

1. Develop inception report including methodology and parameter to assess the agricultural water, energy and hazard related issue in GB.
2. Collect and review primary and secondary data on agricultural water management, energy and hazard management field interventions.
3. Review and critically analysis of existing policies, laws and acts related to agriculture water management i.e., high efficiency irrigation system, solar powered water lifting technology and Hydro ram pump and hazard management practices i.e., Piloting of community based flood early warning systems.
4. Conduct meetings and interview related government and non-government organizations to get professional inputs and key messages.
5. Document existing irrigation practices and associated issues.
6. Document existing hazard related issues and proper mitigation measures.
7. Discuss appropriateness of proposed technology in the context of Gilgit-Baltistan.
8. The policy briefs should be incorporated with policy recommendations regarding the project interventions for endorsement at policy level.
9. Write and submit the draft policy briefs.

Expected Deliverables

1. Products should be addressing key issues and impactful to endorse at policy level.
2. Provide measures to capacitate the issues at provincial government level for proper management of the related issues.
3. Submit three (03) policy briefs related to:
   i) Solar powered motor and drip irrigation.
   ii) Hydro ram pump and drip irrigation system.
   iii) Community based flood early warning system installed for hazard management.