# Solar Irrigation for Agricultural Resilience

## Country Project Management Committee (C-PMC) Meeting | 1st Meeting

**Date:** 20/10/2020 | **Time:** 10:30 am to 12:00 pm IST | **Platform:** Zoom meeting

#### **Attendees**

- IWMI- Aditi Mukherji, Archisman Mitra, Yashodha, Pallavi Saha
- SDC- Divya Kashyap
- IDCOL- S.M. Monirul Islam, Belal Siddiqui, Mofazzal Hossain, Abdullah Matin, Kazi Ahsan Uddin
- BADC- Md. Sarwar Hussain
- DAE- Ashok Kumar Biswas
- BMDA-Md. Shamshul Huda
- BARC- Dr. Nazmun Nahar Karim
- NGO Forum- Md. Ahsan Habib
- BREB- Md. Sakil Ibne Sayeed
- SREDA- Md. Rashedul Alam

### Regrets (if any)

### Abbreviations:

Department of Agricultural Extension (DAE), Barind Multipurpose Development Authority (BMDA), Bangladesh Agricultural Development Corporation (BADC), Sustainable and Renewable Energy Development Authority (SREDA), Bangladesh Rural Electrification Board (BREB), Bangladesh Agricultural Research Council (BARC), Swiss Agency for Development and Cooperation (SDC), Infrastructure Development Company Limited (IDCOL), International Water Management Institute (IWMI)

#### **Agenda and Discussion Points**

#### 1) Welcome Remarks

- Mr S. M. Monirul Islam, Deputy CEO of IDCOL, welcomed all the participants. He emphasised
  that having all the key stakeholders in Bangladesh's energy-agricultural sector as part of the
  C-PMC was a great opportunity to discuss and develop a coordinated approach for the
  promotion of SIPs in Bangladesh, taking the best features from all the SIP projects under
  different government organisations.
- Ms Divya Kashyap from SDC expressed her pleasure in being a part of these country-level meetings, and since Bangladesh was one of the countries where various components of the SoLAR project are going to be active, being a part of this meeting is critical for SDC.

#### 2) Presentation by project team members from IWMI and IDCOL

- Dr Aditi Mukherji, the Regional Project Leader from IWMI, gave a background to the SoLAR project, highlighted the role of solar irrigation in climate mitigation and adaptation, and cautioned against the danger of creating a negative water footprint in the process.
- Archisman Mitra, Country Lead for Bangladesh, ran everyone through the work plan for Bangladesh for 2020 and also the status of each planned activity, while Ahsan Uddin from IDCOL elaborated on the proposed plan for training of farmers and grid connection of SIPs in Bangladesh.
- Dr Yashodha discussed about the comparative case study on alternative SIP modalities in Bangladesh to be undertaken under this project and sought suggestions from the members. The case study would be learning from experiences of the organisations to which the C-PMC members belonged to, collecting secondary data on aspects such as number of units installed, financial and institutional modalities followed, operational management, usage of alternative energy, training support to beneficiaries by the different organisations, along with primary data through KIIs and FGDs of beneficiaries/ relevant stakeholders. Mr Monirul Islam also suggested that it would be useful to contact the C-PMC members individually after this meeting and discuss the points Dr. Yashoda had mentioned in more detail. She requested the C-PMC members to respond to these over a period of time.

During the discussion session, several queries/suggestions were raised by the C-PMC members. Key suggestions/ queries from the C-PMC members are summarised hereunder:

SI. No	Suggestion Made	C-PMC Member
SI. NO	<ul> <li>For long term sustainability of solar irrigation, training of farmers and local technicians is essential, and good to see it as a part of the project. An expert group can be created for further advising these technicians on maintenance and other technical aspects on a regular basis.</li> <li>Since Bangladesh is nearing universal electricity connection across the country, it is important to make the SIPs competitive not only in comparison to diesel pumps but also electric pumps, and the project should study on how to promote SIPs in these changing circumstances.</li> <li>They also emphasised the need for alternative uses of SIPs, given that irrigation requirements were seasonal and the pumps remain idle for a major part of the year. While grid connection is an option for using this idle energy capacity, other options must also be explored.</li> <li>There is a need to move beyond groundwater to explore the scope of surface water</li> </ul>	Mr Mohammad Sarwar Hossain from BADC and Dr Nazmun Nahar Karim from BARC
	irrigation in Bangladesh and need to study the potential of solar power for surface water-	
	based irrigation as part of the SoLAR project	

•	With land being scarce in Bangladesh, where to install solar panels also needs to be thought through.  Technical and economic feasibility of the study area needs to be considered before the installation of panels.	
•	There needs to be some way of collecting primary groundwater data thrice a year during cropping seasons, e.g., installing a piezometer to measure the actual water level.  Archisman clarified that the groundwater team would use a piezometer if there were no monitoring wells nearby.	Md. Ahsan Habib from NGO Forum
•	As pointed earlier, the competition between electric vs solar could be intensifying in future and needed to be addressed. SREDA is considering introducing a universal tariff for different technologies and other ways to address these differences, such as through subsidies and incentives. It was important to come up with indicative solutions for this purpose that could be advocated further. Dr Aditi responded that considering electric pumps along with diesel pumps for comparison was indeed a valuable suggestion. Such a comparison should also focus on the carbon footprint of alternative energy irrigation sources, i.e. diesel, solar and electricity.  Grid integration of pumps could be a good solution for using the excessive energy produced in solar panels, but other alternative solar energy uses should be prioritised.	Mr Md. Rashedul Alam from SREDA and Md. Sakil Ibne Sayeed from BREB
•	C-PMC can further advise on studies that can be included in the scope of work.	Mr Monirul Islam
Suggest	ions from C-PMC members regarding the	
modalit	ies of committee functioning:	
1.	IDCOL can organise more country-level meetings during which the committee members can make more concrete suggestions.	Dr Nazmun Nahar, Mr Mohammad Sarwar Hossain Md. Sakil Ibne Sayeed Md. Shamshul Huda
2.	A member from India can be included for expert advice on-grid connections to get more first-hand practical knowledge.	
3.	SREDA is working on an irrigation road map; CPMC members could refer to some of the proposals within the road map for the purpose of the study.	

### **Concluding Remarks and Vote of Thanks**

Mr Monirul Islam thanked all the participants for their time and shared that IDCOL looked forward to more such meetings at the country level, and formally closed the first C-PMC meeting of Bangladesh

# **Annex 1**- Meeting Agenda

- Introduction and Welcome Note- Mr S. M. Monirul Islam and Divya Kashyap
- Background of SoLAR project and regional activities Dr Aditi Mukherji
- Sharing of Bangladesh Work Plan and update on current project status- Archisman Mitra
- Grid connection and Training of Technicians- Kazi Ahsan Uddin
- Discussion on alternative SIP models in Bangladesh and future plans Dr Yashodha
- Closing Remarks