

Solar Irrigation for Agricultural Resilience in South Asia (SoLAR-SA)
Minutes of 2nd Project Steering Committee (PSC) Meeting
 20th July 2020, Time: 10:00 am to 12:00 pm IST, online meeting

A) Attendee

Name and Designation		Yes/No
Marylaure Crettaz Corredor, Head of SDC, Swiss Embassy, New Delhi	Chair, PSC	Yes
Mark Smith, Deputy Director General, IWMI	Co-Chair, PSC	Yes
Aditi Mukherji, Regional Project Leader, SoLAR-SA, IWMI	Member Secretary, PSC	Yes
Divya Kashyap, Senior Advisor and Project Manager SoLAR-SA, SDC	Regular Member, PSC	Yes
Alok Sikka, IWMI Country Representative, India	Regular Member, PSC	Yes
Tushaar Shah, Emeritus Fellow, IWMI (Special Advisor to the SoLAR Project)	Regular Member, PSC	Yes
Rajeev Gyani, Additional Director, International Solar Alliance (ISA)	Co-opted Member, PSC	Yes
Farzana Rahman, IDCOL on behalf of S.M. Monirul Islam, Deputy CEO, IDCOL, Bangladesh	Co-Opted Member, PSC	Yes
Akhilesh Magal, Head of Advisory and Consulting, GERMI, India	Co-Opted Member, PSC	Yes
Laxman Prasad Ghimire, Senior Office, Solar and Wind Energy, AEPC, Nepal	Co-Opted Member, PSC	Yes
Muhammad Tahir Anwar, National Project Coordinator, FWMC, MNFS&R, Pakistan	Co-Opted Member, PSC	Yes
Nirmal Sigtia, Administrative Coordinator, India	Admin support, IWMI	Yes
Pallavi Saha, Project Coordinator and Communication Officer, India	Project coordination support, IWMI	Yes

Abbreviations: AEPC: Alternative Energy Promotion Centre, Nepal; FWMC, MNFS&R: Federal Water Management Cell of the Ministry of National Food Security and Research, Pakistan; GERMI: Gujarat Energy Research and Management Institute, India IDCOL: Infrastructure Development Company, Bangladesh; ISA: International Solar Alliance; IWMI: International Water Management Institute; SDC: Swiss Agency for Development and Cooperation

B) Agenda, Discussions and Decisions

1) Welcome Remarks

- Marylaure Crettaz Corredor, Head of SDC, Swiss Embassy, New Delhi welcomed all PSC members to the 2nd Project Steering Committee Meeting. She acknowledged the progress made by the project team despite the challenges created due to the COVID-19 pandemic. She mentioned two positive developments: interest shown by the SAARC Energy Centre to join Project Steering Committee; and good response to the call for Innovation Funds.
- This was followed by a warm welcome to all the participants by Mark Smith, Deputy Director General, IWMI. He acknowledged the challenges posed due to the COVID-19 pandemic, especially for a project such as this one which required field work. However, he emphasized that this could also provide an opportunity for encouraging discussions on the importance of solar irrigation pumps (SIPs) and renewable energy for building back better. He added the SDC-SoLAR was a very important project for IWMI and fit in within its broader mandate of the role of water in climate change adaptation.

2) Project related update since the Inception Workshop in January 2020

Aditi Mukherji, Regional Project Leader for the SDC-SoLAR project shared project updates as per the meeting agenda.

a) Status of MOUs and agreements

Bangladesh

1. Contract signed with NGO Forum – field partner who will do field data collection.
2. MoU with IDCOL under discussion, expected to be signed formally by end of August 2020.
 - Due diligence procedures are pending between IWMI and IDCOL.
 - There are four activities that will be done by IDCOL. These are: a) facilitating grid connection of SIPs; b) four farmer's trainings c) four national workshops d) organising bi -annual country-PMCs.

India

1. MoU signed with GERMI

Nepal

1. Letter of support and collaboration signed with AEPC and NEA (was already reported during 1st Project Steering Committee Meeting)
2. One NGO called Sabal Nepal has been shortlisted through an open competitive bidding for field data collection, but contract has not been issued due to COVID related delays.

Pakistan

1. MoU signed with PARC
2. MoU with FWMC to be signed by end of July.

b) Update on project activities

Aditi shared a detailed update on project activities which had already been shared as part of the support documents for the PSC meeting. A few highlights are as below:

- **Bangladesh-** Farzana Rahman from IDCOL presented the updates from Bangladesh on behalf of S.M. Monirul Islam, who could not attend the meeting. She shared that on the project implementation side, a large part of the fund would be used for grid connection of SIP. The guidelines for grid connection were in the process of being approved by the government of Bangladesh. Overall, the SIP had not been much affected due to COVID-19 situation, however, there were other operational challenges. By the time the MOU with IWMI would be signed, grid connection guidelines would also be hopefully approved, and then field implementation would be convenient.
- Two field visits had been conducted in Bangladesh before the COVID-19 disruptions. One was led by Alok Sikka and the other by Aditi Mukherji. These field trips in January and February 2020 had enabled the team to finalize their strategy and plans. Field work was supposed to commence before monsoons; however, it is now postponed till October 2020.
- **Nepal-** Laxman Ghimire of AEPC reported that the IWMI-Nepal team, led by Vishnu Pandey had submitted preliminary qualitative assessment of the AEPC subsidy program. AEPC would organize a small meeting for discussing the report. Nepal team undertook field work in early March 2020, just before COVID-19 restrictions came in place. In terms of AEPC's own targets, the target for the current year was set at 600 SIPs, and despite the COVID-19 situation, they had managed to install 525 pumps.
- **India-** Akhilesh Magal of GERMI informed the PSC about his meeting with the Additional Secretary, GUVNL regarding access to secondary data on performance of SKY feeders, which would help in comparing the water and energy outcomes before and after installation. Dr. Sikka further elaborated on the ground water component of the work and the specific objectives with regards to groundwater sustainability. Methodological notes had been prepared and training needs analysis was done using the data of Year 1. A PhD student was on board who would be working on the field.
- **Pakistan-** Muhammad Tahir Anwar shared the news on status of MOU with FWMC, and overall satisfaction with the progress in Pakistan.
- Aditi shared that a baseline report for all the countries would be ready by the September 2020. This baseline report would mostly use secondary data that was received from the partners, and whatever primary data that had been collected so far.
- All country leads had identified training needs and were planning to conduct national trainings. Since the target audience of these trainings were farmers and solar mechanics, it may not be possible to do these trainings via an online platform. Therefore, face to face trainings, with all the precautions and social distancing norms would be planned. All trainings for Year 1 were expected to be completed by December 2020.

- Regional trainings for mid to senior level officials from water, energy and agriculture would be conducted online for the year 2020. We are working on finalizing modules for this training and we will work closely with ISA for this training.
- Rajeev Gyani from ISA mentioned the global portfolio of ISA, and the importance of solar irrigation pumps in that portfolio. He mentioned the synergies of SoLAR project, with their overall global portfolio and mentioned that regional training programs could be an important area of collaboration. He also emphasized the training need on water management for efficient use of water and energy.

3) Briefing on Innovation Funds

- A total of 87 proposals were received by midnight of 30th June 2020. Of these, 30 applications were rejected as they did not meet some of the submission criteria. The remaining 57 applications were shared with the country teams (members of PMU), who then further shortlisted 15 proposals. These 15 proposals will be screened by the technical committee. The applications received can be further classified under the following categories:
 - Use of artificial Intelligence (AI) for solar irrigation;
 - Better water management through innovations such as low-cost soil moisture detectors;
 - Technologies for aquifer recharge, storage and recovery;
 - Improvement of quality of solar panel;
 - Use of excess capacity, e.g. use of micro grids, using land below the solar panel for multiple purposes such as poultry, fisheries etc.
 - Building institutional capacities, for example, for women farmers.
- Mark enquired of the procedure for evaluating the proposals and also asked if the technical committee would be able to meet the original timeline set for August 2020. Mr. Sikka responded that the committee should be able to finalize the decision by 15th August 2020.
- Aditi explained the various parameters and their weightage based on which the proposals would be evaluated- 40% on innovativeness, 20% on replication/ scaling, 10% on team expertise, 10% on its relevance to climate change, 10% on GESI outcomes, 10% on financial viability/ value for money. She further shared about the scoring sheet which was being developed for the panelists so that they could have the sheets filled and completed by the first week of August 2020. The PMU would try its level best to stick to the final timeline of 15th August 2020 for announcing the final grantees. Contracts can then be signed by September 2020 and projects can commence from 1st of October.
- Detailed instructions are being prepared for the technical committee members and would be shared shortly.

4) Updates on new staff hiring for the project team

All positions mentioned during the 1st PSC meeting have now been recruited. Below are the details:

- a) Post-Doctoral Fellow (Internationally recruited staff) – full time position, to be based in India and to provide overall support to RGL, and to lead the evidence generation component of the project has been recruited and will join on the 27th July 2020.
- b) National Researcher (nationally recruited staff)– half time for this project, based in Gujarat, India has been hired and will join on 4th August 2020.
- c) Research Officer (nationally recruited staff), half time for this project, based in Nepal, has been hired and has joined the team in April 2020.
- d) There has been a change of plan with regards to hiring of a full time National Consultant at Bangladesh. Instead, in consultation with IDCOL, we have chosen an NGO called the NGO Forum as the main field partner in Bangladesh. They will liaise with both IWMI and IDCOL and implement the field activities in Bangladesh. Partnership contract has been signed with them.
- e) Research Officer (nationally recruited staff) – half time for this project, based in Pakistan- has joined the team from July 2020. He will be working closely with Azeem Shah, Country Lead for Pakistan.
- f) Project Coordinator and Communication Officer, Pallavi Saha, joined on the 15th July 2020 as part of the IWMI Delhi office staff. She will devote 100% of her time to the SDC-SoLAR project, of which 60% of her time will be for project related communications, and 40% of her time will be project management and administration.
- g) Part time Finance Assistant in the Delhi office to provide support to the finance team has joined in July 2020.

By the end of July 2020, the SoLAR Project would finally be a full-fledged team. Responding to an enquiry by Marylaure regarding this, Aditi confirmed that all these positions were already accounted for within the approved budget.

5) COVID related adjustments in plans and activities

- Aditi shared the revised work plan that had been prepared due to delays and changes caused due to COVID-19. This revision in plan was done in April 2020, in line with the overall IWMI initiative to map changes in work plans due to COVID-19. The detailed document is annexed as part of the support documents shared for the PSC. A few highlights are as below:
 - There has been a delay in field activities, especially data collection for baseline survey and other groundwork. In the meantime, the team is conducting desk reviews and analyzing secondary data from the field. These would form the basis for the country specific baseline reports which should be completed by September 2020.
 - Given that the team cannot go to the field, we have added some new outputs – namely, blogs and newspaper articles. Two newspaper articles on COVID-19 and agriculture have been published by the Nepal team, and two more are in the offing. Several relevant blogs and news articles have also been published by the IWMI-India staff.
 - Webinars on the role of renewable energy and SIPs in mitigation, adaptation and post COVID-19 recovery are being planned.
 - Alok added that in India, a farmer’s training is being proposed in November 2020 and this would be organized with GERMI, on the field near the sky feeders.

- Mark informed the PSC about IWMI wide risk assessment exercise and the steps that were being taken for the same. A risk screening process was initiated in April 2020 based on which projects were classified into high/medium/ low risk vis a vie the impact on the project.
- The SoLAR project came under high risk category due to the project volume, its significance for IWMI and also in terms of its field work component.

6) Proposal to include a member from SAARC Energy Centre, Islamabad in the Project Steering Committee

- Aditi Mukherji and Muhammad Tahir Anwar briefed the PSC regarding the ongoing dialogue with Dr. Shoaib Ahmed, Deputy Director, Coordination at SAARC Energy Centre in Islamabad about the possibility of engaging with SAARC Energy Centre. SAARC has formally shown interest in collaboration. Aditi requested PSC to approve inclusion of SAARC Energy Centre to the PSC.
- Marylaure approved this positive development and shared that having a regional organization on board would encourage further knowledge sharing and exchange. Everyone in the meeting gave their approval for partnership with the SAARC Energy Centre. Aditi will follow up on the formalization of the agreement before the next meeting.

7) Any other business

- Tushaar Shah reminded the PSC members about the rapidly changing policy discourse around solar irrigation and urged flexibility in research agenda to incorporate these new emerging issues.

8) Concluding remarks and vote of thanks

- Mark Smith thanked all the participants and summed up the next course of action.
- He mentioned that while revised work plan was already in place and different modalities were now being considered, however, it would also be good to keep the limitations of the changed modalities in mind, e.g. training of technicians could not be done online.
- All PSC members from respective countries and from ISA expressed their satisfaction with the project and the current partnerships.
- Divya thanked everyone for taking out time to participate in the meeting and expressed that it was heartening to see that the work hadn't stopped despite the constant challenges faced in all countries due to COVID-19. She appreciated the progress made so far with regards to the innovation funds and emphasized on the need for tight follow ups in the next weeks in order to select and finalize the proposals. She further thanked the PMU team as well.
- Divya further expressed that the current forum was an important one and could also be used for learning from each other. She requested for a small note incorporating the project updates from each of the project leads as well as minutes of the discussions today.
- Maryluare informed that she would be transitioning to another program on food security from August 2020 onwards and that the next PSC meeting could see her successor in place of her. She acknowledged the immense learning experience she had with India and spoke about the possibility of some great developments taking place at the country as well as regional level. She conveyed her best wishes for the project and for the current situation to everyone. With that, the meeting was concluded.

Action Items:

- Finalizing MOU with IDCOL and with SABAL Nepal.
- Continuous updating of plans in view of COVID-19 impacts, particularly with regards to field work and the technical trainings that have been planned.
- Completing the review of proposals under the Innovation Fund and moving ahead with the formal finalization and approval process, ensuring that timelines are respected.
- Formalizing the inclusion of the SAARC Energy Centre as part of the Project Steering Committee.
- Organizing webinars showcasing the importance of renewable energy and solar irrigation pumps in the post-COVID 19 recovery phase.
- Inclusion of more technical details, including findings from respective countries in the next PSC meeting. The next PSC meeting is proposed to be held in January 2021.

Annexures

Annex 1: Agenda for the Meeting

Date: 20th of July, 2020

Venue: Use Microsoft Team Link provided at the end of the invitation email to join this meeting

Time: 10:30 am to 12:30 noon, Bangladesh Standard Time

10:00 am to 12:00 noon, Indian Standard Time

10:15 am to 12:15 noon, Nepal Standard Time

9:30 am to 11:30 am, Pakistan Standard Time

Agenda

Meeting Chair: Mary Laure Crettaz Corredor, SDC; Co-Chair: Mark Smith, IWMI

1. Brief words of welcome on behalf SDC, Mary Laure Crettaz Corredor
2. Brief words of welcome on behalf of IWMI, Mark Smith
3. Project related update since the Inception Workshop in January 2020
 - a. Status of MOUs and agreements
 - b. Update on project activities
4. Briefing on applications received for Innovations Funds (applications closed on 30th June, 2020)
5. Addition of new staff to the project team
6. COVID related adjustments in plans and activities
7. Proposal to include a member from SAARC Energy Centre, Islamabad in the Project Steering Committee
8. Any other business

Annex 2: Progress report 1st February 2020 to 14th JULY 2020

Activity and deliverable details	End Date as per COVID related revised work plan	Status
1.1.1 Activities: Impact evaluation and GESI case studies of existing and new SIP programs in Bangladesh		
Gather and analysis of secondary data from existing IDCOL sites	30-08-2020	IDCOL has already shared data, Analysis is currently in progress and will be completed by 30 th August
Develop Methodology for impact evaluation; Finalize sampling methodology for IE; Preparation of quantitative and qualitative instruments for IE study	30-5-2020	Methodological Note for IE and sampling strategy is completed. Questionnaire will be developed in August 2020
Focus Group discussions/ Case study (concurrent with Baseline data)	31-03-2021	The SIP scheme study using phone based survey is planned to start from August 2020. Case studies will start when travel restrictions are lifted and is expected to start from 2021.
Baseline Survey+ Baseline Report	31-03-2021	Baseline survey is currently planned for Nov 2020-January 2021. Currently our NGO partner, NGO-Forum in Bangladesh is collecting household list for the sampling frame
1.1.1 Deliverables: Impact evaluation and GESI case studies of existing and new SIP programs in Bangladesh		
Cross sectional data from representative sample of SIPs, and electric and diesel pumps	31-12-2020	Sampling strategy is ready, household list is being prepared
Preliminary impact evaluation report	31-03-2020	Preparation for data collection is on.
GESI case study report	31-03-2020	Analysis of secondary reports is ongoing.
Policy brief	31-03-2021	Not yet started
New deliverable in view of COVID-19 delays: A blog piece, or newspaper op-ed	31-06-2020	Pending, to be written
1.1.2 Activities: Impact evaluation and GESI case studies of existing and new SIP programs in Nepal		
Short Note on sample size, sampling framework and guiding questions	31-05-2020	Completed
Detailed methodology, GESI framework, including questionnaires and checklists for FGDs	31-05-2020	Draft is completed. GESI team is also working on policy review.
Field notes, FGD transcripts prepared	31-05-2020	Completed – Submitted on 28 th May, 2020
Quantitative data collected, cleaned, tabulated, and summary statistics report generated along with final dataset [IE Study]	15-11-2020	Vendor selection process for data collection service is underway. Two finalist were asked to revise their technical & financial proposals. Revised proposals were reviewed and Sabal-Nepal was identified as first choice. However, due to COVID-19, the process is put on hold and informed to bidders accordingly. We will start the process once the situation becomes suitable for field mobilization.
Data analysis and draft report [IE Study]	31-01-2021	Not yet started
Final report submitted to AEPC and SDC PM [IE Study]	31-03-2020	Not yet started

1.1.2 Activities: Impact evaluation and GESI case studies of existing and new SIP programs in Nepal		
Draft qualitative report submitted to AEPC	31-05-2020	Completed – Submitted on 16 th May, 2020
Cross sectional data – cleaned and ready for analysis	30-11-2020	Data collection is yet to start
Draft impact evaluation report	31-03-2021	One part of it (qualitative evaluation) has been completed, the quantitative part is yet to start.
<i>New deliverable in view of COVID 19 delays:</i> An opinion piece or blog based on one fieldwork conducted in March 2020, and secondary data from AEPC and desk research, telephonic interviews and including ideas of how these SIPs could also provide the much needed water for hand washing in these times of crisis	30-06-2020	Completed - Two opinion pieces, 1 in English and 1 in Nepali are published.
1.2.1 Activities: Groundwater-related studies embedded in demonstration pilot in Bangladesh		
Collection and analysis of secondary data on biophysical and groundwater parameters in selected SIPs	31-10-2020	Secondary data collection (agriculture, climate, water etc.) along with SIP data as shared by IDCOL have been done. Selection of SIP will be done in collaboration with impact assessment group.
Collection and analysis of data on IDCOL SIPs on parameters of pumps characteristics, hydrogeology and existing infrastructure (water, electricity meter) Survey at farm level in adjoining areas of SIPs to collect data on diesel pump owners and use	31-12-2020	This will happen in collaboration with impact assessment group (once COVID-19 travel restrictions are lifted).
Develop and finalise methodology and monitoring protocol for GW sustainability studies	15-07-2020	Draft is in preparation and has been discussed internally. Also, Review paper documenting pumping hours and behaviour under different energy typologies is in progress.
Selection of instruments to put in field for measuring water and energy usage	31-12-2020	Instruments based on developed methodology has been identified which include digital and analog flow meters, time totalizers, groundwater levellers and vibration/temperature sensors. Further, vendors have been contacted regarding quotation and specifications.
1.2.1 Deliverables: Groundwater-related studies embedded in demonstration pilot in Bangladesh		
Short note based on the analysis of secondary data	30-06-2020	Is under progress. Complete data was only recently shared by IDCOL. Secondary data collection on north west districts is being collected as selection of SIP and corresponding data collection will be done with impact assessment study group.
Baseline data on diesel pump owners, well, groundwater characteristics and water management practices.	30-06-2020	Delayed. Will be done in conjunction with baseline survey of impact assessment study. Will be delayed depending on how quickly fieldwork can be undertaken post Covid-19 restrictions.

Report on monitoring protocol for the study	30-07-2020	Is under discussion and preparation.
Preliminary report on analysis of monitored data	31-12-2020	This will most likely get delayed to early 2021 – depending on how quickly fieldwork can be undertaken
1.2.2 Activities: Groundwater-related studies embedded in scale pilot in India		
Collection and analysis of secondary data on biophysical and groundwater parameters in project feeders	30-07-2020	Solar feeders in both hard rock and alluvial areas were visited. Post visits, solar feeders have been selected: Parmeshwar in Saurashtra and Ashapuri and Ishnav in Anand. Secondary data collection (agriculture, climate, water etc.) has been done for those solar feeders. BAU feeder selection is not done and data collection will depend on when field work starts again.
Census/survey at farm level in selected feeders to collect data on Pump and well details	30-07-2020	Secondary data covering some aspects (HP, use) has been collected. Farmer census will be done only after field work starts. For BAU feeders, first field work will collect data and post that only selection feeder and then census can be arranged.
Develop and finalise methodology and monitoring protocol for GW sustainability studies	30-07-2020	Draft methodological note outlining key tasks and methods is completed. Review paper documenting pumping hours and behaviour under different energy typologies is in progress.
Selection of instruments to put in field for monitoring	30-06-2020 (for procurement)	Instruments based on developed methodology has been identified which include digital and analog flow meters, time totalizers, groundwater levellers and vibration/temperature sensors. Further, vendors have been contacted regarding quotation and specifications.
Installation of instruments in field	30-07-2020 (for installation)	
Monitoring, Data Collection and Annual Reporting	31-12-2020	This will most likely get delayed to early 2021 – depending on how quickly fieldwork can be undertaken
1.2.2 Deliverables: Groundwater-related studies embedded in scale pilot in India		
Report on monitoring protocol for the study	30-04-2020	Draft has been completed and shared with internal team for review.
Short note based on the analysis of secondary data in project feeder areas with details on selected feeders for GW studies	30-05-2020	Solar feeders have been selected based on field visits for which short notes with secondary data (agriculture, climatic, irrigation, water) have been prepared. However, non-solar feeders are yet to be selected and will be delayed depending on how quickly fieldwork can be undertaken.
Database on farmers' pump, well, GW and water management practices in selected feeders	30-06-2020	Secondary data available from utility for solar feeders has been acquired. Other data and selection of non-solar feeders will be delayed depending on how quickly fieldwork can be undertaken.
Review Paper	30-07-2020	Draft review methodology is prepared, and review is under progress.
Preliminary report on analysis of monitored data	31-12-2020	This will most likely get delayed to early 2021 – depending on how quickly fieldwork can be undertaken
1.2.3 Activities: Groundwater-related studies embedded in demonstration pilots in Pakistan		

Collection of the data from the OFWM Punjab, FWMC, PARC about the diesel and SIPs in Pakistan	30/04/2020	Completed Data of SIP installed by OFWM gathered for all districts in Punjab. A situational analysis report for PARC SIP interventions in Potohar region has been received
Reconnaissance visit to the diesel and SIP sites in Punjab	30/06/2020	Reconnaissance visits could not be done due to field work restrictions
Develop Methodology for impact on Groundwater use of Diesel pumps vs SIPs	30/05/2020	We are working on the methodology based on the data received from partners
Preparation of survey instruments and selection of groundwater instruments for the study	30/07/2020	This will start once methodology is finalized
Pilot testing of methodology and survey instrument. Finalize sampling methodology	30/07/2020	Only possible once fieldwork is allowed
Start Data collection on weekly basis for the Kharif season		
Deployment of instruments for the selected diesel and SIP pumps	30/07/2020	Only possible once fieldwork is allowed
Analysis of Data for the Kharif Season	31/12/2020 if field work can begin by June 2020, or else, 15/04/2021 if fieldwork is further delayed	Not yet started
Start Data collection on weekly basis for the Rabi season	15/04/2021	Not yet Started
1.2.3 Deliverables: Groundwater-related studies embedded in demonstration pilots in Pakistan		
Data set on groundwater usage of diesel vs solar pumps in Punjab sites –	31/12/2020	Not yet started
A report/working paper on impact of SIPs on groundwater –	31/03/2021	Not yet started
A policy brief for the Government on promotion of SIPs	31/03/2021	Not yet started
<i>New deliverable in view of COVID 19 delays:</i> A review paper, based on combined methodological notes for Bangladesh and Gujarat, India and Pakistan groundwater studies will be written up as a review paper and submitted to a journal	31/07/2020	Work in progress,
2.1.1 Activities: Scale pilot for testing financial modalities for ownership of SIPs by individual farmers in Bangladesh		
Develop the Research Methodology which includes questionnaires for choice experiment, deciding the sample, exact design of the study etc.	30-05-2020	Delayed: The actual idea of field experiment has changed as IDCOL no longer wants to test this individual model. So, we have modified our plan and we will do a series of choice experiments cum case studies on various modalities of SIP access.
Conduct Choice experiment – concurrent with IE survey and Data analysis	15-12-2020	This is currently in progress to develop the methodology and it will accompany the household survey to be conducted in October 2020. This will be a combination of choice experiments and case studies.

Annual Progress Report	30-12-2020	
2.1.1 Scale pilot for testing financial modalities for ownership of SIPs by individual farmers in Bangladesh		
Methodological note on choice experiment	31-05-2020	Delayed, as we are now revising our plan in view of new requirement. We will now combine choice experiment with detailed case studies of different irrigation service modalities. Fieldwork will be conducted in October 2020 along with the primary survey to avoid going to the field more frequently than needed due to COVID 19 concerns.
2.2.1 Activities: Demonstration pilots for grid connection of SIPs in Bangladesh		
Identification of pilot sites for grid integration and developing research methodology with IDCOL.	30-06-2020	Identified the Sponsors, Site selection and communication with sponsor ongoing, extension till 30 July 2020 required
Finalisation of the grid integration policy by SREDA and its approval by GOB (new) and get NOC from GoB for piloting grid integration activities	31-12-2020	Policy has not been approved, as per Power Division it will be approved by August 2020
Baseline data collection and focus group discussions at selected sites (also see 1.1.1)	31-12-2020	Not yet started, but expected to be completed within the timeline
Identify different systems architecture and designs, and identify equipment requirement	31-12-2020	Not yet started, but expected to be completed within the timeline
Identify the EPC for the installation and commission of grid connection equipment, and connecting SIPs to the grid	31-12-2020	Dependent on the approval and NOC from the utility. However, should not take more than March 2021, if we get policy approval by August 2020.
2.2.1 Deliverables: Demonstration pilots for grid connection of SIPs in Bangladesh		
Methodology note for impact evaluation of grid connection study, and qualitative report based on sponsor's perception	31-06-2020	Methodological note is ready; phone interviews will be conducted with sponsors to elicit their views.
Technical report with systems architecture	31-12-2020	Can be developed by January 2021
New deliverable in view of COVID 19 delays: A blog/opinion piece on merits and de-merits of grid connection	30-07-2020	To be written
2.2.2 Activities: Scale pilot on institutional aspects of grid-connected SIPs in Gujarat, India		
Identification of 20-30 agricultural feeders for the study	30-06-2020	Preliminary selection of feeders has been completed; Draft questionnaires were prepared and pre-tested; however, baseline survey could not be undertaken as per plan due to CoViD-19 disruption; some telephonic surveys have been completed. Secondary data for SKY and SKY _{SPICE} feeders has been gathered and analysed using the SKY portal; additional secondary data, particularly for non-SKY feeders and pre-SKY energy consumption has been requested from GUVNL and is awaited.
Primary survey – preparation of questionnaires and pre-testing		

Preparation of IWMI-GERMI feeder-level secondary data collection protocol		
Season wise feeder-level SKY data monitoring and compilation	31-12-2020	Preliminary compilation of feeder data has been done and early results shared internally; draft methodological note has been prepared and discussed internally; a detailed note with detailed analytical framework will be ready by 30-July
Primary quantitative baseline surveys	31-03-2021	In late 2019 and early 2020, IWMI-GERMI-GUVNL organized interactions with SKY farmers. Since March 2020, fieldwork and field surveys have been disrupted but remote discussions and telephonic surveys with SKY and SKY _{SPICE} farmers are underway.
Regular focus group discussions with farmers		
2.2.2 Activities: Scale pilot on institutional aspects of grid-connected SIPs in Gujarat, India		
Detailed Methodological Note	30-06-2020	Under preparation; expected by 30-July
Feeder-level reports	31-12-2020	Feeder-level analyses have been done based on SKY portal data; this will be presented in feeder-level reports
Draft Baseline report	31-12-2020	This will most likely get delayed to early 2021 – depending on how quickly fieldwork can be undertaken
Blog / newspaper article on SKY	30-06-2020	Delayed, pending data from GUVNL; expected in Q3-2020
Policy Brief	31-12-2020	Draft will be presented at National Forum
2.2.3 Activities: Demonstration pilots on grid connected SIPs in Nepal		
Identification of potential field sites for grid connection	30-07-2020	Partially done. Report on criteria for site selection prepared, field sites also selected tentatively, but to be finalized after COVID-19 restrictions are lifted.
Design of technical parameters of grid connection pilot, identification of a control site; and design of evaluation framework, survey instruments etc.		
Baseline surveys (including GESI studies) in selected grid connection and control sites	30-10-2020	Not yet started
Procurement and installation of grid connection in one or two SIP site	30-12-2020	Not yet started
2.2.3 Deliverables: Demonstration pilots on grid connected SIPs in Nepal		
A report with description of finalised pilot area	31-03-2020	A draft was prepared, however, needs to be validated with fieldwork
Technical note, methodological note and instruments for surveys	31-06-2020	In progress
Draft baseline report summarizing results from qualitative and quantitative surveys	31-12-2020	Not yet started
Technical report with installed micro-grid system and its functioning	31-12-2020	Not yet started and likely to be delayed further by 3 months.
<i>New deliverable in view of COVID 19 delays: A blog/opinion piece/newspaper</i>	30-06-2020	Draft is prepared, expecting to finalize and submit suitable media outlet in July

article on advantages of grid connection in Nepal		
2.3.1 Activities: Administration of innovation funds		
Identification of themes/topics of IF, finalising protocol for selection; and posting of IF call on IWMI, SDC and related websites	15-04-2020	Completed – advertisement published on 15 th of May, 2020
Shortlisting, selection and finalisation for grant winners of 2020-2021 (maximum 3 to 4 grants)	30-07-2020	Ongoing, 87 applications have been received, some are incomplete. A preliminary sorting is ongoing.
Beginning of project grant period, and one review meeting with grantees	30-08-2020	In August
2.3.1 Activities: Administration of innovation funds		
Final call for Innovation grants – with details about themes for which innovation grants will be given, selection criteria for choosing grantees, and roles and responsibilities of grantees	30-06-2020	Completed, selection criteria and scoring scheme to be shared with the selection committee.
Three to four grant agreements; and minutes of one review meeting	31-12-2020	On track
3.1.1 Activities: Training of local technicians in Bangladesh, India and Nepal; and farmer's training in Pakistan		
Preparation of training curricula, training modules and selection of trainers and trainees	30-06-2020	<ul style="list-style-type: none"> a. Bangladesh – yet to start. However, IDCOL will conduct these trainings, based on their existing modules with sponsors, which have been tested extensively. b. India -- Training needs assessment has been completed; preparation of training modules is underway, expected to be completed by August c. Nepal – Training materials expected to be finalized by end July d. Pakistan: Development of WINSRFR Model for Precision surface irrigation trials in progress. We have selected two sites instead of 1 to accommodate demographic variance and demonstrate replicability. These are: <ul style="list-style-type: none"> 1. Khawaja Farid University of Engineering and Information Technology (KFUEIT) 2. PARC facility at NARC farms
Training workshop/school (3-5 days training)	31-12-2020	We are still unclear whether we will go for face to face trainings, or will do on-line trainings. Given that target audience are really technicians and farmers, online remote trainings do not look feasible.
3.1.1 Activities: Training of local technicians in Bangladesh, India and Nepal; and farmer's training in Pakistan		
Training curricula, including modules	30-06-2020	Delayed, all expected to be finished by 30-08-2020

Training report, including details of personnel trained	30-12-2020	After actual trainings are conducted.
3.1.2 Activities: Training of groundwater, energy and agriculture officials in all four countries		
Preparation of training curricula, training modules and selection of trainers and trainees; and finalisation of venue and partnership on training with ISA and GERMI	30-06-2020	Somewhat delayed, but work is in progress. In discussion with Water Mission for an online training program. Water Mission had run a successful online training course on solar pumping for domestic use.
Training workshop/school (3-5 days training)	30-12-2020	We plan to do an online course, given most of the officials will be mid to senior level. We can also have a larger intake of participants, if we do it online.
3.1.2 Deliverables: Training of groundwater, energy and agriculture officials in all four countries		
Training curricula, including modules	30-06-2020	Delayed, all expected to be finished by 30-08-2020
Training report, including details of personnel trained	30-12-2020	After actual trainings are conducted.
3.2.1 Activities: Regional knowledge and policy forums		
Organise an annual knowledge forum (Inception workshop in year 1)	31-03-2020	Completed, and workshop report prepared.
3.2.1 Deliverables: Regional knowledge and policy forums		
Approved Year 1 work plan	31-03-2020	Completed, and revised in April 2020 in view of COVID related delays
Inception workshop report	31-03-2020	Completed
All MOUs signed	31-03-2020	All MOUs, except the one with IDCOL signed. Process is on for signing with IDCOL.
3.2.2 Activities: National forums (one each in four countries)		
Organising national forum (20-30 participants, mostly policy makers)	31-03-2021	We will try to organise these by December 2020, but may be delayed due to COVID-19.
3.2.2 Activities: National forums (one each in four countries)		
National Forum Workshop Report	31-03-2021	Not yet started
Policy Briefs	31-03-2021	Not yet started

Annex 3: Status of MOUs and agreements with partners

Bangladesh

3. Contract signed with NGO Forum – our field partner who will do field data collection
4. MOU with IDCOL under discussion, and we expect to sign it formally by end of August.

India

1. MOU signed with GERMI

Nepal

3. Letter of support and collaboration signed with AEPC and NEA (was already reported during 1st Project Steering Committee Meeting)
4. One NGO called Sabal Nepal has been shortlisted through an open competitive bidding for field data collection, but contract has not been issued due to COVID related delays.

Pakistan

3. MOU signed with PARC
4. MOU with FWMC to be signed by end of July.

Annex 4: Details of innovation funds applications*

Sr. No.	Country	Number of applications received	Number of eligible applications**
1.	Bangladesh	18	16
2.	India	32	24
3.	Nepal	12	10
4.	Pakistan	14	6
6.	Country of implementation not mentioned	10	0
6.	More than one country	1	1
7.	Total	87	57

*These are application received by midnight of 30th June 2020.

**These applicants have adhered to all requirements set out in the request for proposals (RFP). One exception is that some of these applicants have not provided reference/testimonial letters and have cited COVID-19 as a reason for not been able to get those letters. Since there are quite a few such cases, we have exempted this requirement for the first round of screening.

Annex 5: Glimpses from the meeting

