## Minutes of the Meeting

Meeting title:	Second County Project Management Committee (CPMC) Meeting for SOLAR Project			
Date:	Thursday 17 <sup>th</sup> December 2020	Scheduled time:	10:00 – 12:00	
Location:	Conducted through MS Teams			
Present:	Mohsin Hafeez (IWMI) Arif Anwar (IWMI), Azeem Shah (IWMI), Aditi Mukherji (IWMI), M. Zain (IWMI), M. Tahir Anwar (FWMC), Bashir Ahmad (PARC), Khalid Jamil (PARC), M Waris (OFWM, Rawalpindi), M Ashraf (KFUEIT)			
Apologies:	Sardar Mohazzam (NEECA), Junaid Memon (PIDE)			
Initials	Mohsin Hafeez (MH), Arif Anwar (AA), Azeem Shah (AS), Aditi Mukherji (AM), , M. Zain (MZ), M. Tahir Anwar (TA), Bashir Ahmad (BA), Khalid Jamil (KJ), M Waris (MW), M Ashraf (MA)			

	Agenda item	Action
1.	Participants introduced themselves	
2.	Presentations  AM provided the project overview for the region. Project brief included the scope of work for the Solar project in the region and brief progress update during the FY 2020.	
	AS then presented the progress update for the year I (Pakistan Component). He provided update on sampling strategy and pre-survey in process for Behavioural study. In addition, he provided update on precision surface irrigation trials coupled with SIP at KFUEIT campus farms.	
	After this AS presented the year 2 work plan. Work plan included the detailed plan for the completion of the behavioural study, main survey for Rabi and Kharif season, webinars to be held in Jan – Feb 2021 and the training component where farmers, students and technicians will be trained on SIPs along with the precision surface irrigation trials for the FY 2021	Work plan for FY 2021 was approved unanimously by the country partners
3.	Deliberations  Khalid Jamil (PARC): KJ commented that solar pump installed by government are coupled with drip irrigation and these SIPs have low discharge rate. To compare SIP with diesel pump farmers using flood irrigation, may be most relevant will be farmers who have installed SIP privately, with high discharge rate enough to use flood irrigation.  Districts in a sample are those with deep groundwater levels i.e. Chakwal and Jehlum. Districts in central Punjab have shallow groundwater i.e. Gujranwala, here SIP technology is popular and spreading rapidly.	
	Arif Anwar (IWMI): AA commented that we are trying to assess the effect on farmer's behaviour, in terms of groundwater extraction, when farmers use SIP as compared to diesel.  At Khawaja Fareed University of Engineering and Information Technology (KFUEIT), we are trying to assess the effect of new investment on water use efficiency as compared to drip or any other method of irrigation i.e. what effects do SIP has on water use efficiency if coupled with precision irrigation as compared to drip irrigation?	

Aditi Mukherji (IWMI): AM commented that sampling strategy is not absolutely final it is worth considering farmers owning private SIPs and areas with shallow groundwater.

<u>Azeem Shah (IWMI):</u> AS commented that sampling strategy is based on data provided by PARC. In addition to this, required sample is proportionally divided among randomly selected districts. Thus, districts with most SIPs i.e. Jehlum and Chakwal, installed under government scheme gets larger chunk of sample size.

We could sample farmers from areas with shallow groundwater during pre-survey to be conducted with diesel farmers.

## 4 Follow Up and Actions

M. Tahir Anwar (FWMC): TA endorsed the work plan and extended all the institutional support required.

TA commented that by next fiscal year (starting July 2021) they will be conducting feasibility study for the solar system. Main aim of the study will be to generate evidence that SIP does not negatively affect groundwater levels. IWMI's support in these assessments will be highly appreciated.

<u>Azeem Shah (IWMI):</u> AS commented that preliminary results from data collected in Rabi season next year would be helpful in refining scientific merit of the feasibility study and convince the government.

Mohsin Hafeez (IWMI): MH thanked TA and ensured of all the support FWMC requires.

<u>Bashir Ahmad (PARC):</u> BA endorsed IWMI work plan and commented that in areas of Thal (which encompasses areas of Bhakkar, Layyah, Jhang, Mianwali and Khushab) groundwater is very shallow. Therefore, farmers are installing large SIPs for surface irrigation. If possible, this area must be studied for efficiency/inefficiency.

<u>Azeem Shah (IWMI):</u> AS we can plan demonstrations on experimental sites in Thal area next season with help of PARC.

AS emphasized farmers need simple instructions and we need to translate results from demonstrations into easy to understand guidelines

<u>Arif Anwar (IWMI):</u> AA commented that we need to be sure about the results of the precision irrigation coupled with SIP - for that we need evidence.

There are large cost implications for trade-offs between drip and precision surface irrigation, as precision irrigation entails far less cost than drip irrigation. Thus, let us first demonstrate that this technology works.

<u>Bashir Ahmad (PARC):</u> BA commented that we need to highlight the learnings from this study for Climate Adaptation Committee.

Aditi Mukherji (IWMI): AM commented if possible SAARC Energy Centre should be included as a member of CPMC

<u>Azeem Shah (IWMI):</u> AS replied Dr. Shahid will be happy to join next CPMC meeting and we will extend him the invitation.

Aditi Mukherji (IWMI): AM suggested that next meeting of CPMC should be held biannual basis (June and December)

IWMI to wotk closely with FWMC in generating evidence for the impact of SIPs on GW.

Mohsin Hafeez (IWMI) asked Azeem Shah (IWMI) to ask Dr. Shahid for his availability.

Next CPMC meeting to be held in June, 2021

Azeem Shah (IWMI): AS agreed with AM as results from RABI season will be available at that point.

Mohsin Hafeez (IWMI): MH agreed with the next meeting time and asked for suggestions on communication straategy to improve visibility of the SoLAR project.

M. Tahir Anwar (FWMC): TA suggested that National workshop can be held (given COVID situation permits) in Feb/Mar 2021 and Agricultural and food security departments at Federal and Provincial level can be invited.

Azeem Shah (IWMI): AS informed that one Webinar will be held for stakeholders in 3<sup>rd</sup> week of Jan 2021.

AS asked for suggestion, we can design flyer and circulate it to stakeholders, but should we also give invitations at individual level.

M. Tahir Anwar (FWMC): TA replied no just need to give invitation to head of each respective department and they will nominate their representatives for webinar. TA also commented, if COVID situation does not allow, then National workshop can be held virtually.

M Waris (OFWM, Rawalpindi) joined the meeting a bit late but appreciated the work done under solar project and extended support from the OFWM Department Punjab. MV commented that in context of Thal, SIP coupled with drip can provide a sustainable solution.

Khalid Jamil (PARC): KJ explained that in Thal area due to abundant supply of groundwater farmers are switching from more traditional crop (gram pulse) to cash crops (sugarcane). This is damaging sand dune structures as farmers are levelling the ground. In some people views, farmers should be discouraged to grow cash crops, instead orchards should be promoted through coupling SIPs with drip irrigation.

Mohsin Hafeez (IWMI): MH thanked everyone for joining

AS to evaluate possibility of conducting a National workshop in Islamabad towards end of first quarter 2021.

AS to send webinar invites to relevant stakeholders in Pakistan

Meeting closed Thursday, Dec 17th, 2020 11:45