Innovation Fund Grantee Workshop and Coordination for Micro-Grid Pilot

Between 20th and 23rd February, a three-member team from SoLAR –Nepal traveled to Chitwan and Parsa to monitor a workshop held by Ghampower, a SoLAR IF grantee, in Chitwan and to coordinate procurement and implementation of the micro-grid pilot with Nepal Electricity Authority, Pokhariya. Mr. Zarrif Hussen, an ex-official of APEC, acted as a facilitator for one of the team's visits to Parsa.

IWMI had already conducted feasibility studies on SIPs, and a four-party MoU has been signed between Chhipaharmai Rural Municipality, IWMI, NEA, and AEPC, as part of the SoLAR project. Further, Parsa is selected as the site for the demo for the Micro-Grid connected SIP.

Highlights from Ghampower's workshop:

This was a demo workshop organized in partnership with Januthan Samudayik Lagubittiya Sanstha, a microfinance institution (MFI), and Pragati Pariwar Ama Samudya, a female group/community from Kabilash. The workshop consisted of (i) presentations on the agricultural best practices, especially in Dragon fruit cultivation, led by Mr. Hardik Sapkota, Agricultural Officer, Ghampower, and (ii) a SIP demo led by Mr. Dhiraj Thakur, Regional Manager, Ghampower.

Pointers from the workshop at Jharkhani village:

- Given the low water level in the area, Ghampower demonstrated the use of smaller capacity SIPs, between 300 WP-0.45 HP, than larger pumps.
- Farmers can advance loans at a 13% annual rate of interest from the MFI to buy the pumps from Ghampower
- The dearth of adequate water sources deters farmers from investing in the SIPs, more than the affordability of the pumps
- Lack of awareness among farmers about SIP as an irrigation technology as well as the modalities, such as government subsidies, for procuring these
- Given the limited coverage of the subsidy scheme, Ghampower is more interested in developing co-financing models for farmers' access to SIPs

Existing Water Source Issues:

- Only one community-constructed sump-well with low water discharge.
- Difficulties in bringing irrigation water to farmers' plots.
- Local government is not proactive about constructing additional sump-wells
- No streams flowing through the village
- Farming plots are at an elevation of around 150 feet from the only major river, Narayani, flowing by the village
- There is potential for community-based lift irrigation wherein solar technology can be used
- Need to leverage a local community-local government partnership for disseminating solar driven irrigation technology



Figure 1: Elevation Profile with respect to River





Figure 2 Community workshop at Kabilas, Chitwan





Figure 3 SIP Demo and current condition of the filed

Procurement Coordination Meeting for Micro-Grid Pilot: A Snapshot

The meeting was held between the IWMI team and Mr. Jagannath Jha, Chief, NEA, Pokhariya. Based on the findings from IWMI's feasibility survey, the team briefed the NEA Chief about installing equipment, particularly additional poles and wires, to support the pilot study. After an additional site survey by NEA technicians, NEA provided an estimated budget of NPR 2,146,227.64. It was decided at the meeting that NEA, with support from IWMI

personnel, will raise a file for approval for the equipment support for the project and subsequent processing of the request.



Figure 5 Additional Survey at the MG site by NEA Technician





Figure 6: Photographs from the site visit and current condition of site