



INITIATIVE ON
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Beyond Diesel: Navigating an Equitable and Sustainable Irrigation Landscape in Bangladesh

National stakeholder workshop by IWMI- SDC-SoLAR project and CGIAR TAFSSA Initiative

Date: 6th March 2024

Time: 10:00 am – 3:30 pm BST



Conference Report



Art: Aarif Raza/IWMI

INTRODUCTION

The announcement by the honourable Prime Minister of Bangladesh to reduce dependency on diesel and convert all diesel irrigation pumps to solar power is a commendable vision. There are approximately 1.3 million diesel irrigation pumps in Bangladesh, serving an irrigated area of 3.0 million hectares. In contrast, the total installed solar capacity is around 50 MW, irrigating less than 1% of the net cultivated area. This stark contrast underscores the magnitude of the change envisioned, emphasizing the need to outline a rapid and equitable transition to solar-powered irrigation pumps (SIPs), ensuring economic and environmental sustainability. Also, simultaneous rapid electrification efforts will significantly impact the groundwater irrigation market and the transition away from diesel. In this context, it is crucial to comprehensively assess the implications of both SIP and electric pumps on broader issues such as equity, groundwater preservation, land use, food security, etc.

To understand these issues, the International Water Management Institute ([IWMI](#)), under the “Solar Irrigation for Agricultural Resilience” ([SoLAR](#))-SA project¹, funded by the Swiss Agency for Development and Cooperation ([SDC](#)), organized a national stakeholder workshop in Bangladesh in collaboration with the Infrastructure Development Company Limited ([IDCOL](#))², NGO Forum for Public Health ([NGOF](#))³, and the CGIAR initiative “Transforming Agrifood Systems in South Asia” ([TAFSSA](#))⁴.

The workshop was conducted in hybrid mode (virtual + onsite) over two sessions:

1. Transitioning away from diesel-powered irrigation
2. Mini policy hackathon: Policy pathways for reducing diesel dependency in Bangladesh’s irrigation system (group activity).

The purpose of this workshop was to facilitate deliberations and a better understanding of the issues surrounding transitioning away from diesel-powered irrigation systems in Bangladesh by bringing together relevant stakeholder groups, including government officials, academicians, civil society organizations, etc. The total number of participants at the workshop was 66.

The workshop began with welcome remarks from several key figures working in Bangladesh in the fields of sustainable agriculture, water, and energy. In his welcome speech, **Md. Enamul Karim Pavel (Head of Renewable Energy, IDCOL)** outlined IDCOL’s efforts to reduce Bangladesh’s agricultural energy dependence on fossil fuels by replacing diesel pumps with SIPs. Over 15,000 diesel pumps have been replaced across 70,000 acres in the country’s northern and southwestern regions. IDCOL is collaborating closely with government agencies and international organizations like IWMI to help

¹ The SoLAR project is a South Asian regional initiative involving Bangladesh, India, Nepal, and Pakistan. It aims to support the climate-compatible development of energy and water systems in rural South Asia for resilient livelihoods.

² IDCOL is the pioneer organization in financing renewable energy in Bangladesh and has contributed immensely to the solar irrigation sector. IWMI is partnering with IDCOL to mainstream solar irrigation in Bangladesh under the SoLAR project.

³ NGO-Forum is a non-governmental organization in Bangladesh engaged in promoting WASH, nutrition, health, governance, humanitarian responsiveness, safe migration, and climate resilience to improve public health and safety, especially for the poor, marginalized, and excluded segments of society.

⁴ TAFSSA is a CGIAR initiative with aims to support actions that improve equitable access to sustainable healthy diets, improve farmers’ livelihoods and resilience, and conserve land, air, and water resources in South Asia.

achieve the goal of 10,000 SIPs by replacing diesel pumps in the country. **Divya Sharma (Deputy Head of Cooperation, SDC)** gave her welcome remarks emphasizing the SoLAR project's mission to reduce diesel dependency and promote equitable and sustainable irrigation through SIP adoption across South Asian countries, including Bangladesh. She highlighted that one of the primary challenges in scaling SIPs is ensuring their financial viability, expressing hope that this workshop could address various challenges related to SIP adoption. **Mr. S.M.A Rashid (Executive Director, NGO Forum for Public Health)** followed next with his welcome remarks, discussing the Government of Bangladesh's mission to scale up SIPs to enhance agricultural productivity and diminish dependency on fossil fuels. He emphasized the NGO Forum's commitment to ensuring food security and reducing diesel dependence, expressing his conviction that the country can achieve key Sustainable Development Goals through collaborative efforts. **Shreya Chakraborty (Researcher - Climate Change Policy and Adaptation, IWMI)** emphasized the impending shift from diesel to solar and grid-electricity in Bangladesh's irrigation energy landscape, stressing the crucial need to consider the interaction between these concurrent transition pathways. She also highlighted the importance of integrating aspects of agricultural production, consumption, and diet into discussions on the groundwater-energy nexus. **Darshini Ravindranath (Project Leader, SoLAR-SA)** delivered her welcome remarks, underscoring the role of SIPs in fostering sustainable and equitable agricultural resilience. She noted Bangladesh's central position in this discourse, citing the Prime Minister's vision of replacing all diesel pumps with SIPs to drive progress. Additionally, she discussed the benefits of crop diversification and increased farmer income resulting from agricultural solarization, highlighting the role of the SoLAR project, where IWMI, in partnership with IDCOL and NGO Forum, is generating concrete evidence to support this transition and foster solar knowledge.



Darshini Ravindranath delivering the welcome remarks from IWMI at the workshop in Bangladesh. Photo Credit: Waresul Haque NGO Forum for Public Health

Mr. Mohammad Hossain (Director General, Power Cell), as the workshop's chief guest, delivered his welcome remarks, wherein he addressed the government's pressure to provide for a burgeoning population and made a case for utilizing limited resources to manage the country's pressing issues through renewable energy. He emphasized that solar energy was the only renewable source that could be effectively harnessed for the next two decades, noting the limited potential of wind energy. Mr. Hossain also discussed IDCOL's significant role in arranging finance for private-sector investments in renewable energy infrastructure. He underscored the potential for converting diesel pumps into SIPs in Bangladesh through the joint collaborative efforts of Barind Multipurpose Development Authority (BMDA) and IDCOL. He also spoke about joining hands with IWMI and TAFSSA to replace 40,000 diesel pumps with solar as outlined in the Asian Development Bank (ADB) roadmap for scaling solar pumps.

SESSION 1: TRANSITION AWAY FROM DIESEL-POWERED IRRIGATION

Presentation 1: Transitioning to solar-powered irrigation in Bangladesh: Challenges and Opportunities

Speakers: Archisman Mitra (Researcher - Water Resource Economics, IWMI) and Mohammad Faiz Alam (Researcher - Agriculture Water Management, IWMI)

Archisman Mitra emphasized the pressing energy security concerns in Bangladesh, noting the country's heavy reliance on imported diesel for irrigation energy needs, making the agricultural sector vulnerable to oil price shocks, as seen during the Russia-Ukraine war in 2022. Based on a study of the IDCOL fee-for-service model, he pointed out that SIPs are an attractive alternative to diesel pumps in Bangladesh, aligning with the honourable Prime Minister's vision to replace all diesel pumps with SIPs.

The study, conducted at the farmer level with a sample of 900 farmers, including both IDCOL SIP and diesel pump users, found an 89% reduction in diesel use in the SIP command area compared to diesel, leading to an estimated abatement of 190-250 kg/acre/year CO₂ emissions. SIPs also offer substantial adaptation co-benefits, including 20%-30% lower irrigation costs and additional benefits such as ease of irrigation and labor-time savings in irrigation management. Additionally, using propensity score matching, the study found a positive effect of SIP access on food security and profitability from dry-season paddy, resulting in a gain of approximately 6500-7000 BDT/Acre. However, the study also found that SIP access led to a reduction in crop diversity, with approximately a 6% increase in boro coverage in the cultivated area. Archisman underscored the need for competition in the groundwater market to sustain SIP co-benefits. He suggested that policies promoting competition are essential, cautioning against barriers like the tubewell permit system, which may limit farmers' access to new electric connections.

Archisman presented findings on six grid-integrated SIP pilots under the SoLAR project, showing substantial solar energy exports to the grid (~138,000 units), earnings for sponsors (~7.4 lakh BDT), and cost-savings in terms of avoided subsidy (~7 lakh BDT) for the Bangladesh Power Development Board (BPDB). Therefore, to address the challenge of low-capacity utilization in SIPs, he proposed grid integration as the solution, with proper incentives such as increasing feed-in tariffs above the bulk rate and allowing net metering to support high demand or low generation, thereby optimizing panel sizes. Also, all future SIP projects should prioritize grid-integrated SIPs rather than retrofitting.



Archisman Mitra presenting “Transitioning to solar-powered irrigation in Bangladesh: Challenges and Opportunities at the workshop in Bangladesh.” Photo Credit: Waresul Haque NGO Forum for Public Health

Mohammad Faiz Alam presented the results on the impact of SIPs on groundwater abstraction. In Bangladesh, the implications of SIPs on Ground Water (GW) depletion have previously been discussed only theoretically, with lower costs potentially leading to increased pumping and depletion, raising concerns about groundwater over-exploitation. This study, under the SoLAR project, offers empirical evidence on the impact of IDCOL SIPs on GW abstraction. The study methodology involved selecting farmers and training operators using data from logbooks and instruments. It monitored 107 and 141 SIP plots during the agricultural seasons of 2021-22 and 2022-23, respectively. The study conducted a comparison and assessment by analyzing data from SIP and non-SIP farmers, utilizing groundwater modeling to study sustainability.

The study employs two methods: In the first method, it compares SIP farmers with diesel farmers in adjoining areas with similar biophysical conditions (climate, soil), while in the second method, it compares the ratio of net irrigation requirement (NIR) to applied water (i.e., NIR/applied water) between SIP and diesel farmers, where NIR is estimated based on climate and soil data based on Food and Agriculture Organization (FAO) CROP-WAT model. The second method is location-agnostic (i.e., it can be compared across areas) and can account for changes in sowing dates, soil conditions, and other factors. Using both methods, the results indicate no observed differences in data (overall) between irrigation water applications among solar and diesel farmers.



Mohammad Faiz Alam presenting “Transitioning away from diesel-powered irrigation in Bangladesh: Challenges and Opportunities” at the workshop. Photo Credit: Waresul Haque NGO Forum for Public Health

Q&A session:

In the interactive Q&A session that followed, several key issues needing further research came up. Concerns were raised about the SIP's inability to meet peak irrigation demand during foggy weather that coincides with the early part of boro cultivation, necessitating a high panel-to-pump capacity ratio in Bangladesh. Archisman Mitra pointed out that net metering could be a potential solution for this, allowing grid electricity as a complementary energy source during foggy weather. There was also a question about the safe disposal of panels after their lifetime, which remains insufficiently addressed in policy, indicating a need for more work in this area. Additionally, it was mentioned that further research and pilots are needed to explore using batteries to facilitate alternative use of excess energy from SIPs.

Key discussion points:

- SIPs offer substantial mitigation benefits and significant adaptation co-benefits, including reduced costs, increased profitability, and improved food security. However, sustaining these co-benefits requires competition in the groundwater market, necessitating policies that promote such competition.
- Grid integration is crucial for enhancing SIP capacity utilization and for their financial sustainability. Hence, future policies should incentivize grid integration, including offering higher feed-in tariffs and allowing net metering.
- Based on the groundwater monitoring data, the study found no observed differences (overall) in irrigation water application between IDCOL SIPs and diesel farmers.

Panel Discussion: Empowering the marginalized through micro-SIP models

Panelists: Martina Groenemeijer (Product Manager, Futurepump), Victor Lesniewski (Co-Founder CEO, Khetworks), Ashok Kumar Biswas (Deputy Project Director (SIP), Department of Agricultural Extension), Md. Sarwar Hossain (PD (SIP) & Deputy Chief Engineer, Bangladesh Agricultural Development Corporation), Md. Jahangir Alam Khan (Additional Chief Engineer, Barind Multipurpose Development Authority)

Moderator: Archisman Mitra (IWMI)

The panel discussion delved into the potential of micro-SIP models in bridging the energy gap for poor and marginalized communities, with a particular focus on women farmers and those residing in remote locations. By sharing experiences from around the world and Bangladesh, this session aimed to identify successful strategies, challenges, and opportunities for leveraging micro-SIPs to improve agricultural productivity and livelihoods in Bangladesh. Archisman Mitra, as the moderator for the session, asked the panelists to reflect on existing technical and financial models for micro-SIPs in Bangladesh and beyond, assessing their success and challenges. He also inquired about the scope of micro-SIPs in Bangladesh.

- **Martina Groenemeijer:** Martina Groenemeijer mentioned that Futurepump implements micro-SIPs through a business-to-business model, working through distributors. They provide support to distributors through technical training, sales assistance, and after-sales support for expanding the business. Martina Groenemeijer provided cases from Africa where micro-SIPs have positively impacted people's income, food production, and lifestyle, particularly in vegetable cultivation. Countries like Nigeria and Ethiopia in Africa are actively seeking the implementation of micro-SIPs as they aim to phase out diesel pumps. Martina Groenemeijer highlighted that the main challenge of this model is understanding customer requirements, and it is very important to set up manufacturing bases closer to the targeted regions.
- **Victor Lesniewski:** Victor Lesniewski explained that Khetworks implements the micro-SIP model in off-grid areas, delivering to small-holding farmers. It operates through a mix of grants and loans and non-banking financial services, offering support for farmers purchasing micro-SIPs at low interest rates. While they operate primarily with a market-based approach, Victor iterated that they would be happy to partner with the government in a subsidy model.
- **Ashok Kumar Biswas:** Mr. Ashok Kumar Biswas discussed the potential involvement of Bangladesh's DAE in the training and after-sales service of micro-SIPs to facilitate their uptake among small farmers. He also emphasized the need for a community-based micro-SIP model to cater to small and marginal farmers.
- **Md. Sarwar Hossain:** Mr. Sarwar Hossain emphasized that areas with shallow groundwater tables, particularly in the NW region, present significant opportunities for micro-SIP implementation. The Chittagong Hill Tracts also offer a promising opportunity for micro-SIP deployment due to its unique geographical features, which provide favorable conditions for the effective utilization of micro-SIP technology. Mr. Sarwar also stressed the need for a high government subsidy model since farmers still lack affordability for micro-SIPs.



Panelists at the session Photo Credit: Waresul Haque NGO Forum for Public Health

- **Md. Jahangir Alam Khan:** Mr. Jahangir Alam Khan emphasized the necessity of expanding irrigation in the Char lands by aligning them with cropping patterns and supporting vegetable and plantation cultivation, for which micro-SIPs are best suited. He also emphasized the importance of government support in the form of subsidies, as farmers cannot afford micro-SIPs independently. He highlighted that panel sizes should be designed to meet the needs of small and marginal farmers.

Key discussion points:

- Micro-SIPs have substantial scope in Bangladesh to meet the irrigation energy demand of small and marginal farmers. Some of the regions in Bangladesh that were identified as suitable for micro-SIPs included the Char lands, the Chittagong Hill Tracts, and the north-western part with shallow groundwater tables.
- Government officials mentioned that due to affordability issues, government support in the form of subsidies is essential for the uptake of micro-SIPs among small and marginal farmers in Bangladesh, and a community-based model is more likely to succeed.

Presentation 2: Trends and Impacts from the electrification of groundwater irrigation in Bangladesh.

Speakers: Deepak Varshney (Researcher - Impact Assessment, IWMI), Anurag Banerjee (Research Officer - Economics of Water Policy and Climate Change, IWMI), Syed Adil Mizan (Researcher - Groundwater Hydrology, IWMI)

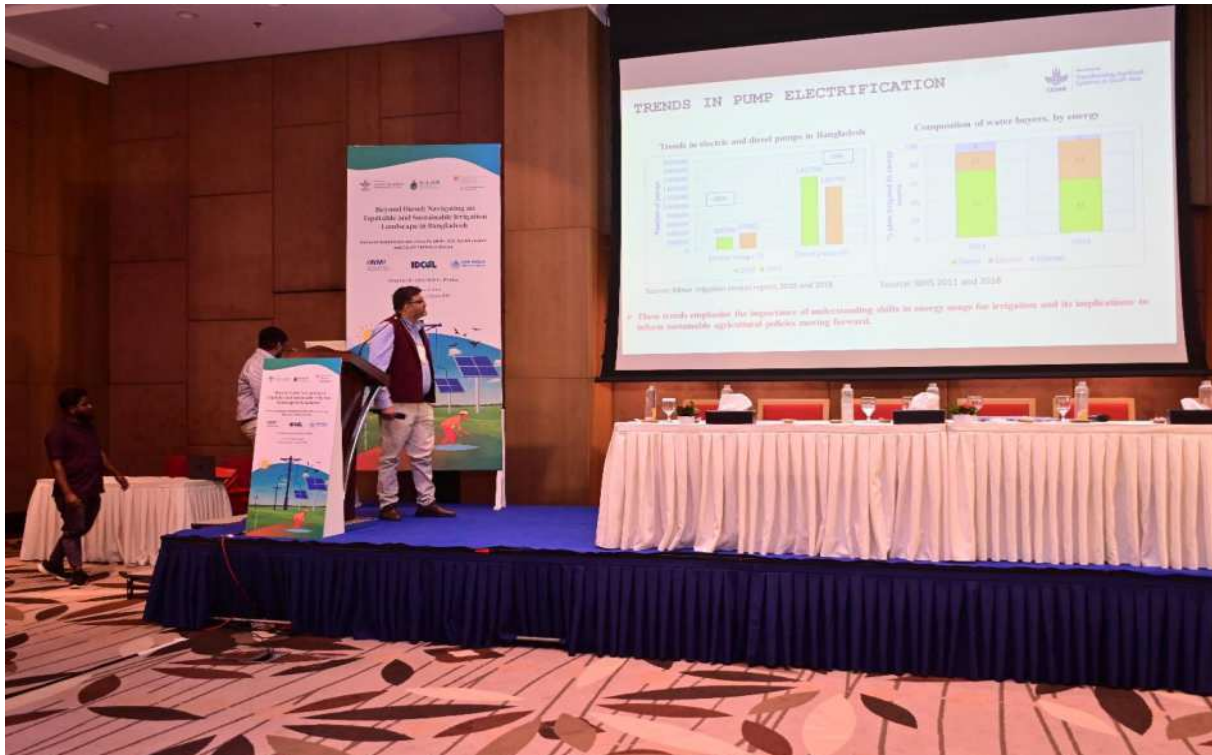
This presentation from an ongoing study under the CGIAR TAFSSA initiative highlighted the implications of the pump electrification pathway that coincides with the emergence of SIPs in Bangladesh's irrigation landscape. Shreya Chakraborty opened the discussion, emphasizing how pump electrification has crucial implications for equity, food system transformations, and

groundwater sustainability in Bangladesh that require careful analysis. She explained how the electrification pathway can coexist with the renewable energy transition pathway of SIPs.

Deepak Varshney followed with a presentation showing trends in electrification and irrigation access in Bangladesh based on the minor irrigation census and Bangladesh Integrated Household Survey (BIHS) data. The number of electric pump owners and water buyers from electric pumps increased between 2010 and 2018. To better understand the equity implications of this transition, the study uses primary survey data from the Rajshahi and Rangpur divisions of Bangladesh on a sample of 1,200 farmers, with social mapping in each village, to understand the buyer-seller dynamics in the groundwater market.

The study finds that larger-size farmers with higher education levels, banking access, higher asset ownership, and residing closer to towns are more likely to obtain pump electric connections. Interestingly, water buyers from electric pump owners are also likely to be larger land-sized farmers. Through social network analysis, the study identifies how the distribution of benefits of electric pumps and their effects are more pronounced among farmers of the same land size.

In the following presentation, Anurag Banerjee showed, using data from BIHS and other secondary sources, that pump electrification in Bangladesh led to a statistically significant increase in cropped area and area under boro paddy. Since 1996, the boro paddy area has increased by 80%. Linking this trend with concerns around groundwater sustainability, Syed Adil Mizan presented the fixed effect regression results linking the impact of district-level boro paddy cultivation on station-wise groundwater level data from 1996 to 2018. The findings show that for every one percent increase in boro paddy cultivation, there is a corresponding 1.3 percent decline in water tables.



Deepak Varshney is presenting “Trends and Impacts from the Electrification of Groundwater Irrigation in Bangladesh.” Photo Credit: Waresul Haque, NGO Forum for Public Health

Key discussion points:

- The social network analysis of the groundwater market in Bangladesh shows that pump electrification disproportionately benefits wealthier farmers, further widening the gap between affluent and marginalized farming communities.
- There is also a positive association between pump electrification with increasing boro paddy area and declining groundwater levels in the last two decades.
- Government schemes determining the modalities of pump electrification must carefully consider the long-term implications for equity and groundwater sustainability in Bangladesh. Targeted interventions promoting pump electrification across marginalized farming communities are especially needed.

Q&A Session:

In the Q&A session following the presentations, the focus shifted toward discussing the estimation strategy in network studies. Deepak Varshney responded that data collected on farmers' past adoption helps in addressing issues related to identifying the network effect. The discussion also centered on the policy implications of these findings, highlighting the need to specifically target individuals who have a social impact on technology diffusion in the village for a more equitable diffusion of the benefits of the technology transition. Additionally, suggestions were made regarding net-metering and grid integration of SIPs to address the central question of whether SIPs and electric pumps can coexist sustainably in the groundwater market.



Shreya Chakraborty facilitating the Q&A session on “Trends and Impacts from the electrification of groundwater irrigation in Bangladesh”. Photo Credit: Waresul Haque, NGO Forum for Public Health

SESSION 2: POLICY PATHWAYS FOR REDUCING DIESEL DEPENDENCY IN BANGLADESH'S IRRIGATION SYSTEM (GROUP ACTIVITY)

The post-lunch session was designed as group discussions to identify solutions to some of the key policy challenges to reducing diesel dependency in Bangladesh's irrigation system and transitioning towards cleaner energy solutions. The participants were divided into two groups, each focusing on two critical issues for this transition.

Group 1: Groundwater sustainability while transitioning from diesel to affordable irrigation (*Chair: Manoranjan Mondal (Collaborative Research Scientist, IRRI); Facilitator: Mohammad Faiz Alam (IWMI); Rapporteur: Anurag Banerjee (IWMI)*)

Solar and electricity are cheaper than diesel and allow for affordable irrigation to farmers, which is especially important from food security and farmers' resilience perspective – so there is a threat of groundwater over-exploitation. At the same time, the tubewell permit system may be too restrictive and create entry barriers and non-competitive groundwater markets. The group focussed on necessary steps in government policy that are needed to align extending affordable irrigation with sustainable groundwater management.

The key takeaways from the discussion were as follows –

- Farmers' pumping behavior and the risk to groundwater storage are influenced by various factors, including weather patterns, recharge rates, hydrogeology, and current cropping and irrigation practices. Therefore, a one-size-fits-all approach may not be effective, and it's important to develop strategies and policies tailored to each location (e.g., permit systems) to address the irrigation-energy nexus challenges.
- Affordable irrigation energy access, such as SIP deployment, should be augmented by comprehensive technical and capacity-building frameworks to facilitate optimal resource utilization. This includes coupling the adoption of water management techniques like Alternate Wetting and Drying (AWD) with SIP provisioning. In addition, investment should be made in improving the groundwater monitoring network.
- While easy access to irrigation leads to more paddy farming, changing market trends are now pushing farmers to grow higher-value crops like vegetables and fruits, showing a shift away from paddy driven by market dynamics.
- The absence of robust irrigation pricing mechanisms to incentivize responsible practices was identified. The current flat-rate system doesn't work as well as something like Pigouvian taxation, which could help account for the environmental impact of resource use.

Group 2: Ensuring equitable and inclusive access to non-diesel irrigation (*Chair: Md. Tazmilur Rahman (Deputy Director, KfW Development Bank); Facilitator: Angel Konthoujam (IWMI); Rapporteur: Shibani Chattopadhyay (IWMI)*)

Transitioning from diesel to solar and electric irrigation should be seen as an opportunity to support equitable access to affordable and reliable irrigation for all farmers. However, marginalized and poorer farmers often lack the resources to invest in solar or electric connections unless heavily subsidized. Subsidy itself can often result in elite capture. The group discussed what improvements the government needs to make to ensure that the benefits of affordable irrigation reach all, especially marginalized groups, including women farmers, poorer farmers, and farmers in remote areas.



Participants at the second group discussion in session 2 of the workshop Photo Credit: Waresul Haque, NGO Forum for Public Health

The key takeaways from the discussion were as follows –

- Inclusive governance structures and accountability mechanisms for irrigation infrastructure like SIPs are critical to ensure the long-term sustainability and effective management of irrigation systems, fostering equitable access and benefit-sharing.
- Community group formations and awareness campaigns are both extremely important prerequisites for empowering farmers to make informed decisions and adopt sustainable water management techniques, ultimately leading to improved agricultural outcomes.
- Institutional support, in the form of technical assistance, coordination of maintenance efforts, and adequate training in operations and maintenance, is indispensable for optimizing the performance and longevity of irrigation infrastructure. For example, establishing a hotline for technical support can be a vital lifeline for farmers, providing immediate assistance and guidance in troubleshooting issues.
- Meeting the irrigation energy demands of remote farmers requires innovative approaches tailored to their unique needs and circumstances. This includes the use of technology, community-based outreach, and participatory decision-making processes.

CLOSING REMARKS AND VOTE OF THANKS

Darshini Ravindranath, the SoLAR project lead, delivered the closing remarks and extended a vote of thanks. She expressed gratitude to all the participants for joining, as well as to the presenters and panelists who shared their knowledge and experience. She also mentioned plans for a larger policy hackathon aimed at scaling SIPs in Bangladesh in the future and highlighted the SoLAR project's upcoming focus on understanding the gender equity aspects of SIPs in the country.



Group photo of the participants at the workshop Photo Credit: Waresul Haque, NGO Forum for Public Health

ANNEXURE 1: LIST OF PARTICIPANTS

S. No.	Name	Organization Name
1	Mohammad Hossain	Power Cell
2	KM Ali Azam	SREDA
3	Dr Ziauddin Ahmed	SREDA
4	Shakil Ibne Sayeed	BREB
5	Md Tazmilur Rahman	KfW
6	Dr Atonu Rabbani	Dhaka University
7	Mohammad Yunus	Bangladesh Institute of Development
8	Dr Mohammad Saidur Rahman	BAU
9	Prof. Md Zainal Abedin	SAU
10	Dr Anwar Zahid	BWDB
11	Dr. Abul Fatta Mohammad Tariqul Islam	BARC
12	Engr. Md Sarwar Hossain	BADC
13	Dr. Md. Ayub Hossain	BARI
14	Nusrat Jahan	BARI
15	Md. Jahangir Alam Khan	BMDA
16	Dr. Mohammad Anowar Hossain Bhuyan	BARD
17	Dr. Md. Hossain Ali	BINA
18	Ashok Biswas	DAE
19	Mohsin Ali	WAVE Foundation
20	S.M. Shamim Reza	WAVE Foundation
21	Md. Maksoodur Rahman	BREL
22	Md. Abdul Barek Uddin	BREL
23	Md. Monir Hossain	Npolymer
24	Md. Kamruzzaman	SARPV
25	Nur Ahsan Jaber	BGEF
26	Dr. Manoranjan Mondal	IRRI
27	Dr. Wais Kabir	CIMMYT
28	Sheikh Mohd. Nurul Islam	LGED
29	Rafiqul Montu	Independent Journalist
30	Dr. Prosun Bhattacharya	KTH Royal Institute of Technology
31	Marjan Nur	FCDO
32	Divya Sharma	SDC
33	Martina Groenemeijer	Futurepump
34	Victor Lesniewski	Knetworks
35	Alamgir Morshed	IDCOL
36	S. M. Monirul Islam	IDCOL
37	Md. Enamul Karim Pavel	IDCOL
38	Mafruda Rahman	IDCOL
39	Md. Abdullah Al Matin	IDCOL
40	Wakil Ahmed Arnob	IDCOL

41	Shadman Bin Zahir	IDCOL
42	Joydev Saha Joy	IDCOL
43	Shisher Shrestha	IWMI
44	Darshini Nijavalli Ravindranath	IWMI
45	Deepak Varshney	IWMI
46	Aariz Raza	IWMI
47	Nirmal Sigtia	IWMI
48	Tripti Agarwal	IWMI
49	Anurag Banerjee	IWMI
50	Manikanta Papashastry Radhakrishna	IWMI
51	Shibani Chattopadhyay	IWMI
52	Mohammad Faiz Alam	IWMI
53	Syed Mizan	IWMI
54	Shreya Chakraborty	IWMI
55	Angel Konthoujam	IWMI
56	Archisman Mitra	IWMI
57	Smaranika Mahapatra	IWMI
58	Alok Sikka	IWMI
59	Marie-Charlotte Suzanne Lyliane Buisson	IWMI
60	Md. Ahasan Habib	NGO Forum
61	Mr. SMA Rashid	NGO Forum
62	Tanmoy Saha	NGO Forum
63	Eng. Toriqul Islam	NGO Forum
64	Saiful Islam Sarker	NGO Forum
65	Waresul Haque	NGO Forum
66	Jebunnesa Chowdhuri	NGO Forum

Contact

Dhaka office

C/o IRRI House 103,
Road 1, Block F, Banani,
Dhaka - 1213, Bangladesh

Delhi office

2nd Floor, CG Block C, NASC Complex,
DPS Marg, Pusa, Opp Todapur,
New Delhi 110 012, India

Tel: +91 11 25840811
iwmi-delhi@cgiar.org

Global headquarters

127 Sunil Mawatha, Pelawatta
Battaramulla, Sri Lanka
Mailing address: P. O. Box 2075,
Colombo, Sri Lanka

Tel: +94 11 2880000
Fax: +94 11 2786854
iwmi@cgiar.org
www.iwmi.org



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