

# Workshop on Promotion of Improved Design Irrigation Pump

Date: Saturday, June 22, 2013, Bogra, Bangladesh



Waste Concern Consultants (WCC), in partnership with Katalyst, Bangladesh Industrial Technical Assistance Centre (BITAC), and Bangladesh Agricultural Machinery Merchant Association (BAMMA), organized a day long workshop regarding Promotion of Improved Design Irrigation Pump. This workshop was held in Bogra on June 22, 2013 in the Conference Centre at Hotel Naz Garden, Sillimpur, Bogra - 5800, Bangladesh.

More than 35 participants attended this workshop. Attendees included representatives from BITAC, BAMMA, Katalyst and WCC. The main objective of the study was to share the findings of a study conducted by WCC. The main focus of the study was to assess the economic and environmental impacts of improved designed diesel run shallow irrigation pumps being operated in different parts of Bangladesh. During this opening session, a video documentary on the improved design irrigation pump was shared with the participants during the workshop.

Mr. A.H.Md. Maqsood Sinha, Managing Partner of WCC, and Tashfiq Ahsan of Katalyst, welcomed the audience on behalf of the respective organizations. The chief guest was Mr. Md. Abdul Matin ndc, Director General of BITAC. Other distinguished guests included Mr. Md. Sarkar Badol, President of BAMMA, Md. Shafiqur Rahman , Director , BITAC. The Director General of BITAC in his speech mentioned about BITAC's commitment towards the promotion of improved design irrigation pumps; he also thanked BAMMA, Katalyst and

WCC for their steps towards supporting this initiative. On behalf of BAMMA, Mr. Sarkar Badol thanked the organizers of the workshop and assured the audience of his full commitment towards promoting this initiative.



Mr. Iftekhar Enayetullah, Co-founder & Managing Partner of WCC, delivered a presentation on 'Economic and Environmental Impact of Improved Pumps'. This presentation was based on actual field results conducted by WCC. Mr. Enayetullah conveyed to the audience that the improved pump design, if implemented properly, consumes less diesel yet pumps more water compared to the diesel run shallow irrigation pumps

available in the market. He went on to explain that replication of improved pump design can have a national impact in terms of savings of fuel (diesel) cost for the users as well as for the Government. Moreover, it has the potential for substantially reducing greenhouse gas (GHG) emissions. Findings from the survey revealed that farmers generally operate pumps on average for 8 hours a day for 140 days annually. Total savings in litre per year by using improved pump is 51.8 litres as reported from the field measurement. Emission factor of diesel is 2.8 kg of carbon dioxide per litre of diesel used. As such, the emissions reduced by a single improved pump are 145 kg or 0.145 tons of carbon dioxide per year. Theoretically, improved pumps can be used in 1,387,930 shallow pumps, which can save 72 million liters of diesel per year, resulting in cost savings of Taka 438.53 crore.

BITAC's Executive Engineer, Fazlur Karim, later delivered a presentation on 'Improved Design of Pump'. During this presentation, he introduced the different components of an improved diesel run shallow designed irrigation pump of 4 Horse Power capacity designed by BITAC. He also showed why the improved irrigation pump is more efficient compared to a normal one. He also practically demonstrated the different parts of the improved and normal pumps. He also shared a comparative performance analysis between an improved and normal irrigation pump.



During the workshop, all the manufacturers showed high interest and a willingness to improve their pumps using BITAC's design. Requests were made to Katalyst and WCC to help BAMMA with more technical support. Pump manufacturers in particular found the workshop to be very useful, specifically in terms of gaining technical knowledge regarding their products.