#### Government of the People's Republic of Bangladesh

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Minutes of the 1st meeting of the Technical Advisory Committee (TAC) for Policy Research on Agricultural Mechanization in Bangladesh.

The undersigned is directed to attach herewith the minutes of the "1st meeting of the Technical Advisory Committee (TAC) for Policy Research on Agricultural Mechanization in Bangladesh" held on 28 February 2024 for kind information and necessary actions.

Attachment: As stated (04 pages).

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#### Distribution (Not according to seniority):

- 01. Joint Secretary (PPC), Ministry of Agriculture, Bangladesh Secretariat, Dhaka
- 02. Joint Secretary (Extension), Ministry of Agriculture, Bangladesh Secretariat, Dhaka
- 03. Dr. Md. Ashraful Alam, Principal Scientific Officer, Bangladesh Agricultural Research Council, Farmgate, Dhaka
- 04. Dr. Md. Anwar Hossen, Principal Scientific Officer, FMPHT Division, Bangladesh Rice Research Institute, Joydebpur, Gazipur
- 05. Mr. Md. Shofiqul Islam Sheikh, Deputy Project Director, Farm Mechanization Through Integrated Management Project, Department of Agricultural Extension, Dhaka
- 06. Dr. Muhammad Arshadul Haque, Senior Scientific Officer, Bangladesh Agricultural Research Institute, Joydebpur, Gazipur
- 07. Research Director, Agricultural Policy Support Unit (APSU), Sech Bhaban, Manikmia Avenue, Dhaka (Requested to nominate an appropriate representive)
- 08. Dr. Timothy J. Krupnik, Regional Director, Sustainable Agrifood Systems Program, Asia, CGIAR Country Convener, and CIMMYT Country Representative for Bangladesh
- 09. President, Bangladesh Agricultural Mechanization Association, AMMA-B, G-E Rainbow valley, Fashertek, West Vatara, Dhaka-1212
- 10. Deputy Secretary, International Cooperation-2 Branch, MoA

### Distribution (IFPRI, CGIAR) (Not according to seniority):

- 01. Dr. Ben Belton, Research Fellow, IFPRI, House no: 10A, Road no: 35, Gulshan-2, Dhaka-1212
- 02. Mr. Razin Iqbal Kabir, Deputy Chief of Party and Senior Program Manager, IFPRI, House no: 10A, Road no: 35, Gulshan-2, Dhaka-1212
- 03. Mr. Md. Shafiqul Karin, Media and Communications Consultant, House no: 10A, Road no: 35, Gulshan-2, Dhaka-1212
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### Government of the People's Republic of Bangladesh Ministry of Agriculture International Cooperation-2 Branch

### Minutes of the 1<sup>st</sup> Meeting of the Technical Advisory Committee (TAC) for Policy Research on Agricultural Mechanization in Bangladesh

Chair: Dr. Md. Mahmudur Rahman, Joint Secretary (PPC Wing), Ministry of Agriculture, Government of the People's Republic of Bangladesh

Venue: Room 517, Building 04, Bangladesh Secretariat

Date: 28 February 2024

Participants: Annex-1.

In the opening remarks, Dr. Md. Mahmudur Rahman, Joint Secretary (PPC Wing) of the Ministry of Agriculture, welcomed all participants and emphasized the importance of mechanization in enhancing agricultural productivity and sustainability in Bangladesh. He also thanked IFPRI for taking the timely initiative of focusing on mechanization research, in the context of the pivotal role of mechanization in Bangladesh's agricultural sector.

Following his remarks, Dr. Akhter Ahmed, Country Representative of IFPRI Bangladesh, introduced the session, emphasizing the importance of the research on agricultural mechanization. He provided an overview of the impact IFPRI has had in the research arena of Bangladesh in the last few decades. The main presentation on agricultural mechanization research was delivered by Dr. Mehrab Bakhtiar and Dr. Ben Belton, Research Fellows at IFPRI, who outlined the study objectives, approach/methods, progress, and sought technical feedback from the members of TAC.

The meeting highlighted the ongoing collaboration between IFPRI and the Ministry of Agriculture to conduct policy research on agricultural mechanization in Bangladesh. The research aims to assess the impact of mechanization on productivity, income, and labor allocation among farmers, with a focus on the "Farm Mechanization through Integrated Management" program. The research plan includes nationwide surveys, key informant interviews, and policy reviews to provide comprehensive insights into mechanization dynamics and inform evidence-based policymaking. IFPRI emphasized the importance of cooperation with the Technical Advisory Committee to facilitate access to data and support the research process, aiming to contribute to sustainable agricultural development in Bangladesh.

1. Key remarks made by the TAC members are highlighted below:



### 1.1. Dr. Md. Anwar Hossen, Principal Scientific Officer, FMPHT Division, Bangladesh Rice Research Institute (BRRI)

- The number of different kinds of machines allocated for incentives needs to be decided on actual data of demand for these machines.
- The repair and maintenance of approach roads to farms need to be taken into consideration for farmers to be able to operate machinery effectively.
- A statistically significant sample size based on area and type of technology, needs to be selected for the survey (approximately five thousand farmers).
- Appropriate size of the machinery needs to be considered in view of the land size/farm size/affordability to increase the efficiency derived from the machinery.

### 1.2. Dr. Muhammad Arshadul Haque, Senior Scientific Officer, Bangladesh Agricultural Research Institute (BARI)

- Due to institutional ban and limited access to finance, skilled manpower has not been developed as per the demand. Data can be collected on how the Government plans to integrate education on mechanization and manufacturing processes to youth.
- Comparative analysis of the number and efficacy of machines imported vs. machines manufactured can give a clearer picture of the market operation.
- Specific recommendations on how local machinery sales can be boosted will be helpful.
- The capacity of the extension services needs to be better developed.

### 1.3. Mohammad Mosihur Rahman, Research Director, Agricultural Policy Support Unit (APSU), Ministry of Agriculture

- Better training facilities need to be there for the machine operators.
- Spare parts need to be available and accessible at the grassroots level.

# 1.4. Md. Shofiqul Islam Sheikh, Deputy Project Director, Farm Mechanization Through Integrated Management Project, Department of Agricultural Extension (DAE)

- After-sales operations need to be examined.
- Comparison of machines used in 2 Agro Ecological Zones (AEZs), coastal vs. non-coastal should be made.



# 1.5. Dr. Timothy J. Krupnik, Regional Director, Sustainable Agrifood Systems Program, Asia, CGIAR Country Convener and CIMMYT Country Representative

- Adoption is followed by dis-adoption, so looking at adoption characteristics is crucial.
- CGIAR can work around to help find optimal number, size and technology of machines for Bangladesh.

## 1.6. Alimul Ahsan Chowdhury, President, Bangladesh Agricultural Mechanization Association (AMMA-B)

- The specifications listed for machinery purchase under the subsidy program are done based on the imported machinery. This causes problems for the sales of the local machinery. The specifications for the machinery sales need to be expanded based on the locally produced machinery as well.
- The policy facilities should provide support in terms of protection for the machinery manufacturers, to encourage locally made machinery. The tax on raw materials is quite high, which discourages local manufacturers from production.

## 1.7. Observations from the Chair, Dr. Md. Mahmudur Rahman, Joint Secretary (PPC Wing), Ministry of Agriculture

- The Chair Dr. Md. Mahmudur Rahman made note of the key highlights of the discussion.
- He noted the issue of an adequate sample size and appropriate sampling methods (whether cluster/stratified sampling) for the study, and the importance of being able to collect disaggregated data.
- For the machinery service providers survey, he highlighted that it would be prudent to capture information on operators, manufacturers, their capacities, as well as machinery suppliers and technicians.
- He noted that the current research appeared to be focused on cereal crops, but other horticulture crops could also be considered where relevant.
- The Chair requested that relevant agencies and projects to provide data to the research team and welcomed the DAE's willingness to do so.
- The Chair suggested co-opting representatives from the Ministry of Commerce and the Ministry of Industries in future TAC meetings. Representatives from the Bangladesh Bank and the National Board of Revenue (NBR) could also be invited to future meetings. Dr. Timothy



Krupnik further noted that representatives from the International Rice Research Institute (IRRI) would be suitable participants in future meetings.

#### 2. Decisions/Recommendations:

- 2.1. The sampling method should ensure statistically representative outcomes and reflect the different agroecological zones to account for spatial heterogeneity in farming systems and machine adoption trends. Stratified cluster sampling may be considered while making the sampling frame statistically representative. The questionnaire/instrument could also be revised having adequate focus on various aspects/issues of mechanization (e.g. crop and season, geography, production stages, services provisions, etc.).
- **2.2.** The survey for machine service providers (MSPs) can include machine operators, manufacturers, and machine suppliers/importers and technicians who are involved in machinery repair and maintenance work.
- **2.3.** Instead of investigating just rice crops, the researchers may consider collecting data on machine usage and adoption in other cash crops (including horticulture crops) as well.
- **2.4.** The meeting requested to incorporate the following additions to the TAC: Representatives from the Ministry of Industries, Ministry of Commerce, Bangladesh Bank, the National Board of Revenue (NBR), and the International Rice Research Institute (IRRI).
- 2.5. In order to facilitate IFPRI's research, access to any data needed from the DAE and private sector during current and previous support periods has been granted. A letter will be sent to DAE/others asking them to provide relevant data/information to the IFPRI research team. The Team shall maintain confidentiality of data as per ethical norms.

3. The Chair thanked all for their active participation and concluded the meeting.

(Dr. Md. Mahmudur Rahman) Joint Secretary (PPC)