SOUTH ASIA HYDROMET FORUM
SESSION 5: LINKING COMMUNITIES TO WEATHER AND CLIMATE SERVICE

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USE OF HYDROMET AND OTHER RISK MITIGATION DATA AND TOOLS FOR DECISION MAKING

- Cultivars Selection
- Choosing windows for Sowing/harvesting operations
- Irrigation scheduling – optimal water use
- Mitigation from adverse weather events such as heat wave, low temperature, heavy rainfall – at critical crop stages
- Nutrient Management: Fertilizer application
- Plant Protection: Pesticide/fungicide spraying schedules
ROLE OF PRIVATE SECTOR AND/OR NON-GOVERNMENTAL ENTITIES

- Private Sectors like Practical Action, m-Power, Geo-Potato, CSRD (CIMMYT) etc. are working on Pilot basis
- BAMIS Portal of the project will create an opportunity for the Private Sector
- BAMIS Portal services will be free for all
SUCCESS FACTORS: INTER-AGENCY COORDINATION AND OTHER INSTITUTIONAL FACTORS

Bangladesh Weather and Climate Services Regional Project

COMPONENT-A
Strengthening Meteorological Information Services and Early Warning Systems
Bangladesh Meteorological Department (BMD)

COMPONENT-B
Strengthening Hydrological Information Services and Early Warning Systems
Bangladesh Water Development Board (BWDB)

COMPONENT-C
Agro-Meteorological Information Systems Development
Department of Agricultural Extension (DAE)
National Agriculture Policy 2018

3.3.8.1 (Research on Natural Resource Management- Crop Modeling), 4.5.1 (Disaster Management), 8.3.1-3 (Early Warning and Forecasting), 9.1.1 / 9.2.1/ 9.6.1/ 9.6.2 / 9.7/ 9.9 (Special Regional Agriculture), 17 (ICT)

National Agriculture Extension Policy (NAEP) 2018 (Draft)

Strategies and contents: 8.10 (e-Agriculture), 8.15 (Extension-Research Linkage), 9.12 (Disaster Management and Climate Change Adaptation, 9.13 (Specialized Extension services in adverse weather situation), 9.18 (one stop extension service through FIAC and other farmers groups)

7th Five Year Plan

The project fully conforms to 7th Five Year Plan- 4.3.1. ‘Plan Policies and strategies for Crop Sub-Sector: Technology based weather prediction and forecasting’
The project is aligned with;
SDG-2 (End hunger, achieve food security and improved nutrition and promote sustainable agriculture),
SDG-13 (Take urgent action to combat Climate Change and its impact) and
SDG-15 (Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reserve land degradation and halt biodiversity loss)

Delta Plan 2100
‘Integration of climate change adaptation in a more strategic, knowledge-based and consistent way, making efficient use of limited natural and economic resources in Bangladesh’
BMD provides observed and forecasts of weather condition through Web site and e-mail

FFWC of BWDB provides observed and forecasts river situation through Web site and e-mail

DAE is collecting rainfall data from Sub-district level

Structural advisory services not yet been developed
COMMUNICATION AND ABSORPTION OF ADVISORIES AND SERVICES, LAST-MILE CONNECTIVITY (PLANNED)

**BAMIS Flow Chart**

- **BAMIS Portal at DAE Headquarter**
- **DAE Agromet Technical Committee**
  - Analysis of Hydrometeorological Information, Translation of Forecast and Generate advisories for the farming community
- **Agromet Service Room, 14 Regions**
- **Agromet Service Room, 64 Districts**
- **KIOSKS, 487 Upazilas**
- **Dissemination of advisories to SAAO**
- **Dissemination of advisories to Lead Farmers (30000) and Farmers Feedback to DAE Agromet Technical Committee**

**Information Sources**
- Hydrological Information from BWDB
- Meteorological Information from BMD
- Agricultural Information Services (AIS)
Proposed BAMIS Portal Interface
CHALLENGES AND LESSONS LEARNED

- Lack of sufficient network to draw weather data
- Absence of agroclimatic zone wise advisory service
- Absence of sufficient location specific research data
- Issues in dissemination
- Technical problems of forecast
INNOVATIVE APPROACHES: TECHNICAL AND INSTITUTIONAL (CURRENT AND PLANNED)

- JTWG and DAE Agromet Technical Committee
- Handheld Automatic Rain gauges
- Weather Display Board
- Voice and Text Messages for Farming Community and Extension Workers including message tone alert
- Crop Modeling
- Climate Risk Map
Mobile app for rain fall and hailstorm data collection process

BAMIS Portal at DAE

Web Console at DAE

Processing to Agro Meteorological Products for dissemination

DAE, MoA, Bangladesh
Rivers of Bangladesh receive runoff from a catchment of 1.72 million sq-km and around 7% of which lies in Bangladesh.

OPPORTUNITIES FOR REGIONAL COLLABORATION

Transboundary Aspect

Brahmaputra Basin
552,000 sq.km

Meghna Basin
82,000 sq.km

Ganges Basin
1,087,000 sq.km

Rivers of Bangladesh receive runoff from a catchment of 1.72 million sq-km and around 7% of which lies in Bangladesh.
Fig: Inundated areas of Haor region from 28 March to 14 May 2017

Fig: Harvesting inundated crop during the flash flood
THANKS

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