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

COMPNENT-A

Strengthening Meteorological Information Services and Early Warning Systems

Bangladesh Mateorological Department (BMD)

COMPNENT-B

Strengthening Hydrological Information Services and Early Warning Systems

Bangladesh Water Development Board (BWDB)

COMPNENT-C

Agro-Meteorological Information Systems Development

Department of Agricultural Extension (DAE)

POLICIES

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'

POLICIES

SDG

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

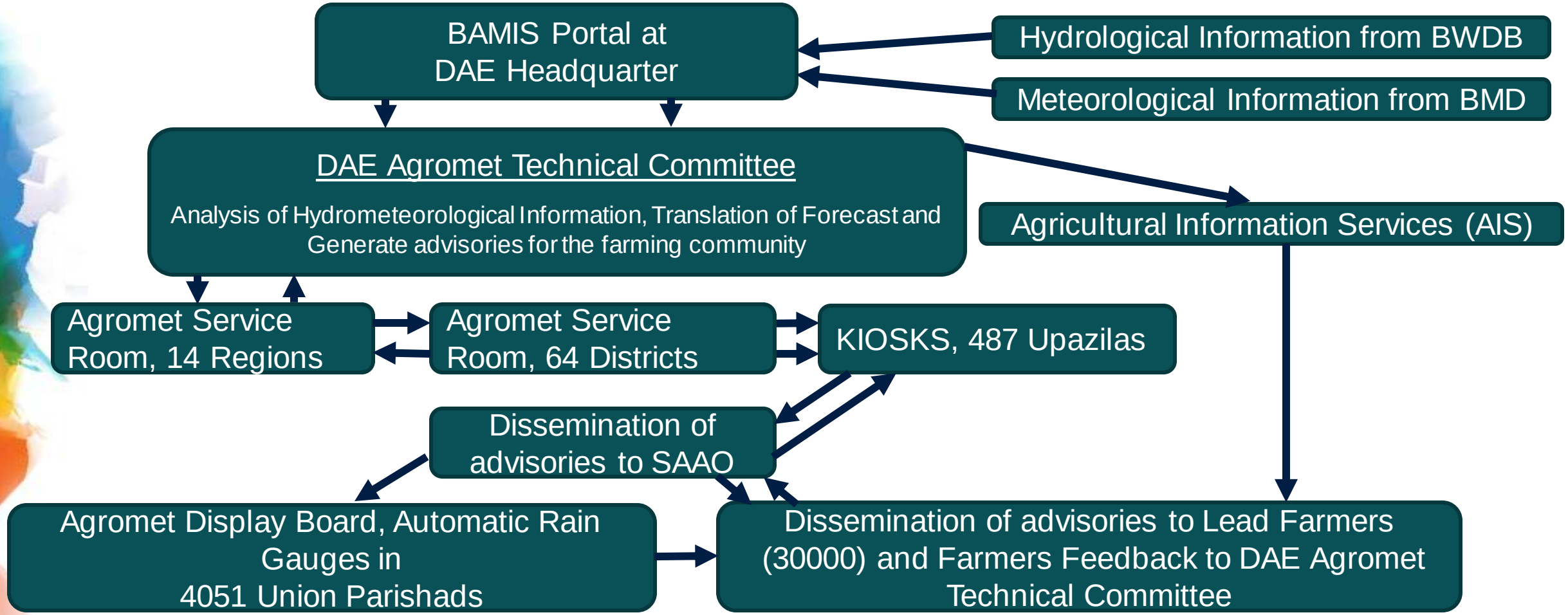
'Integration of climate change adaptation in a more strategic, knowledge-based and consistent way, making efficient use of limited natural and economic resources in Bangladesh'

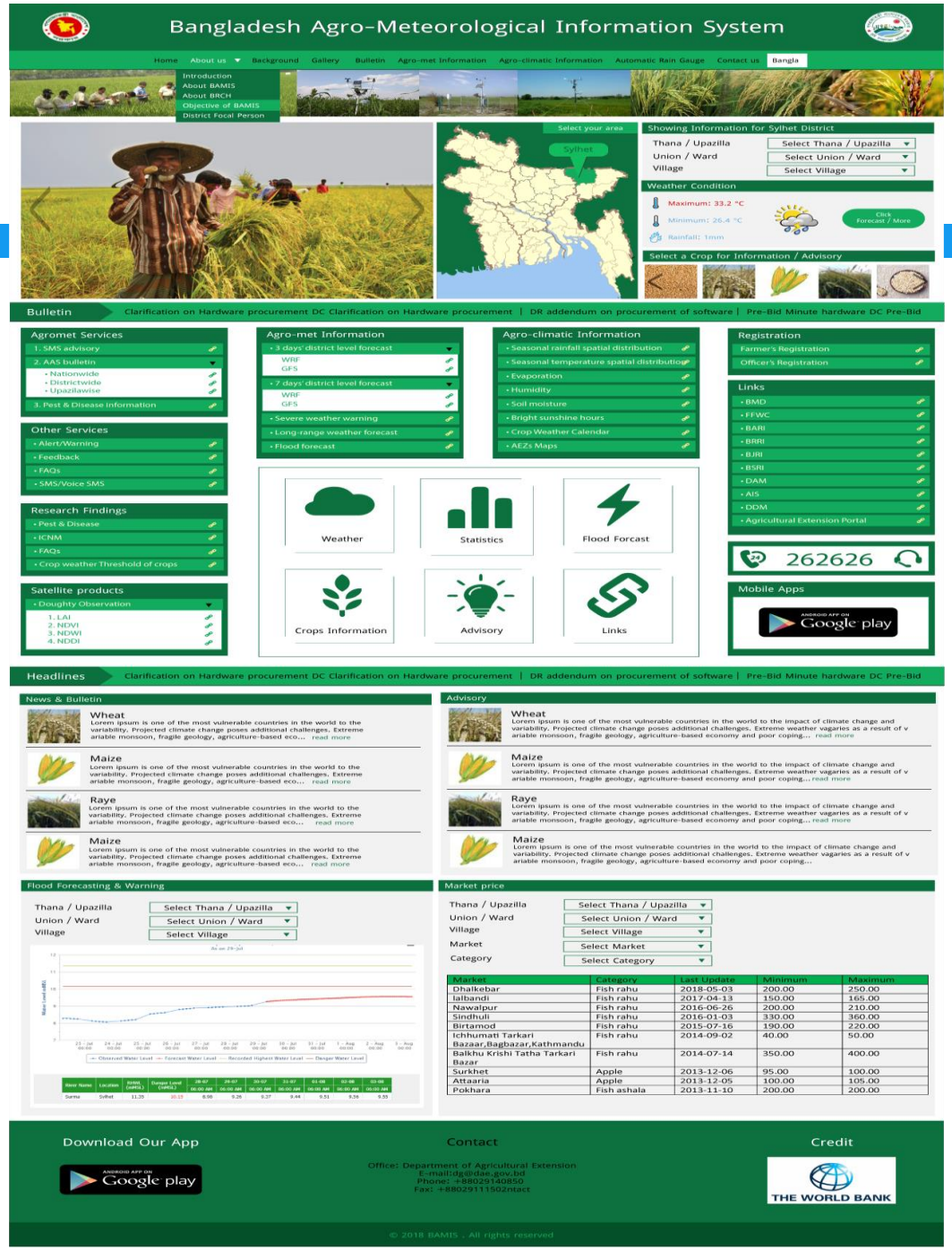
COMMUNICATION AND ABSORPTION OF ADVISORIES AND SERVICES, LAST- MILE CONNECTIVITY (PRESENT STATUS)

- 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





Proposed BAMIS Portal Interface

DAE, MoA, Bangladesh

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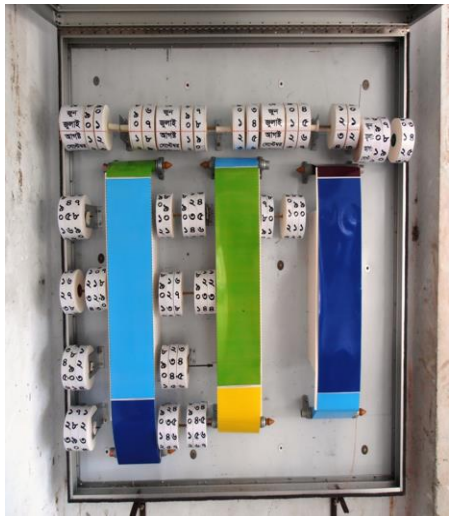
CHALLENGES AND LESSONS LEARNED

- 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

DAE, MoA, Bangladesh

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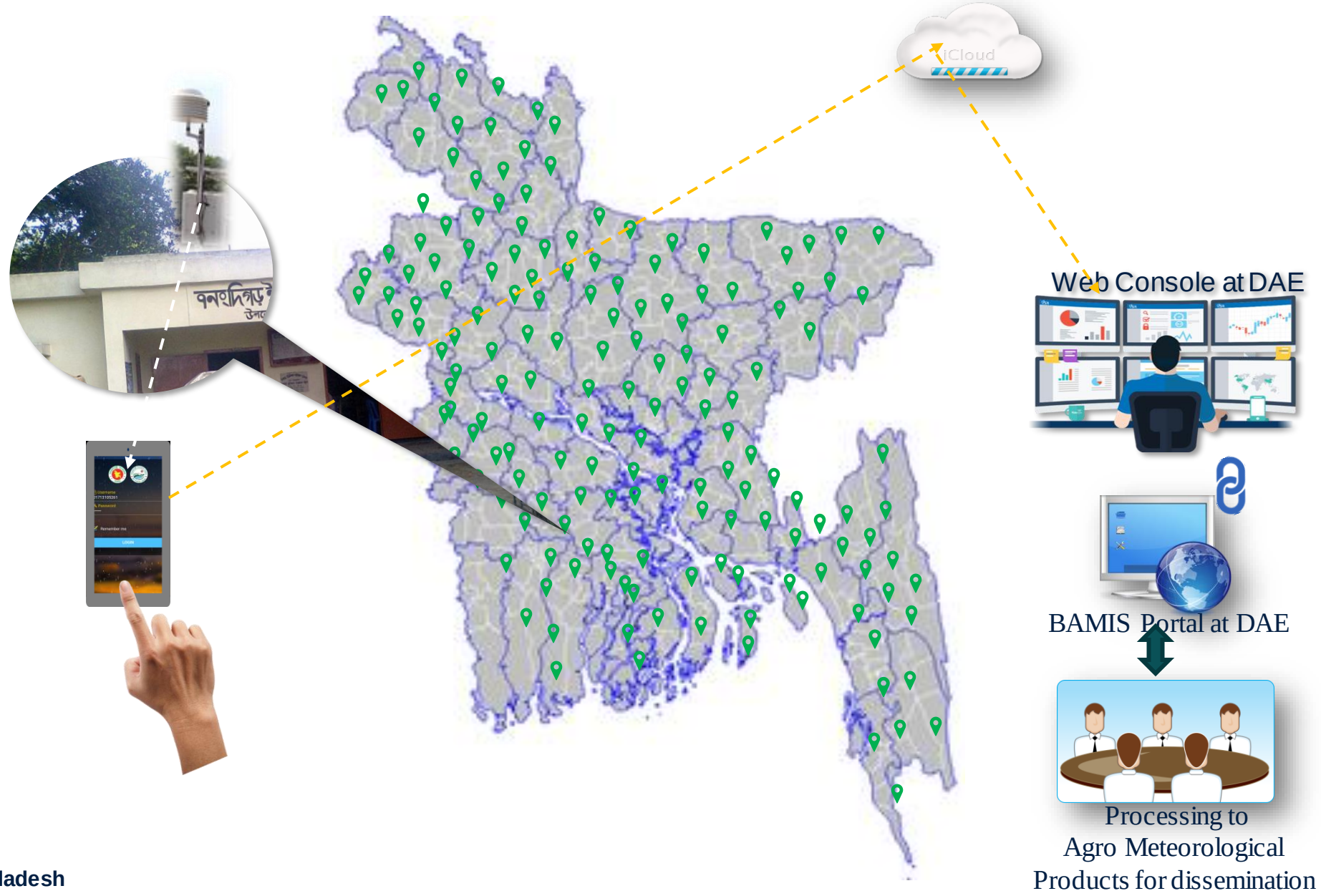
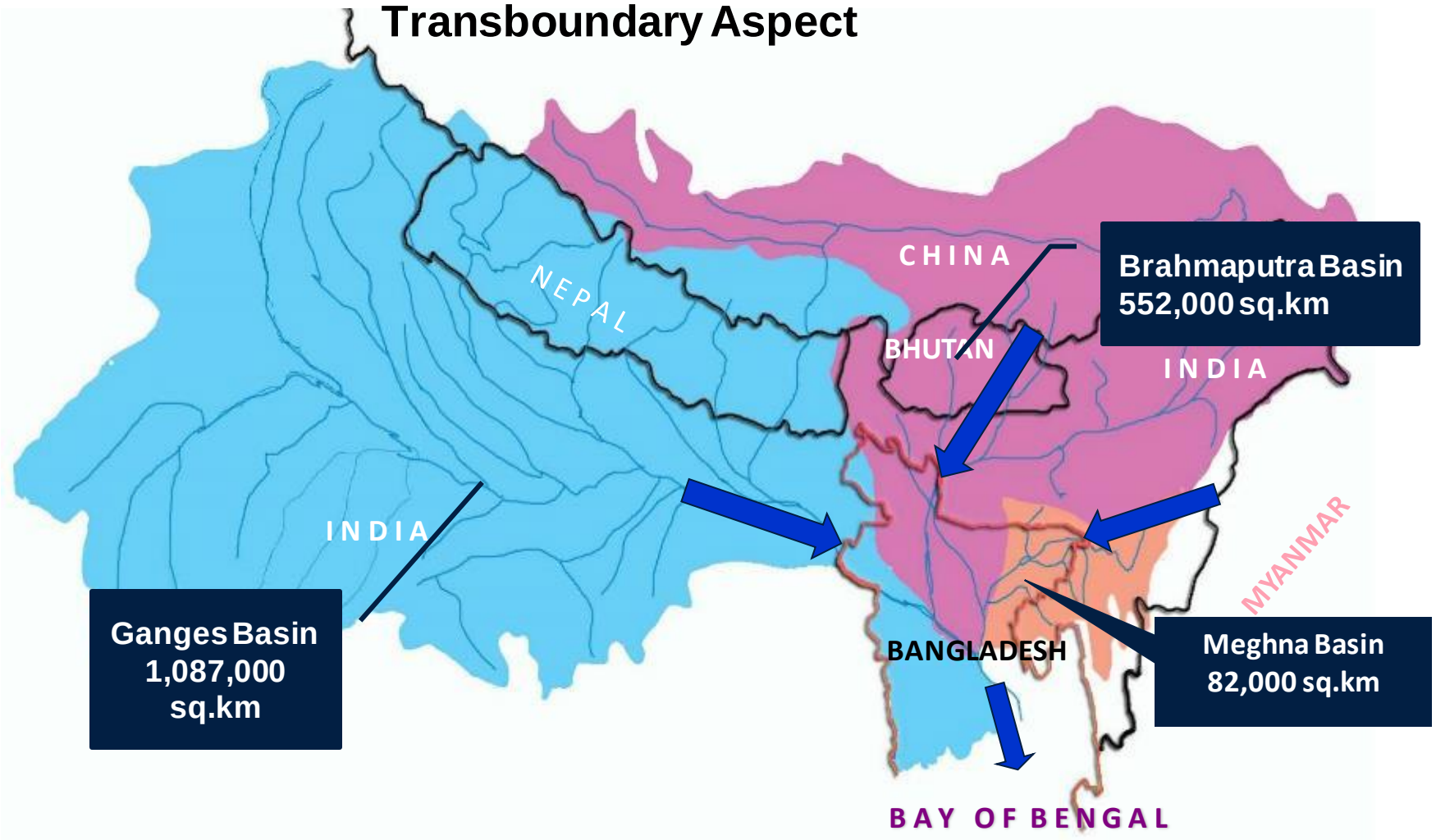
Mobile app for rain fall and hailstorm data collection process



OPPORTUNITIES FOR REGIONAL COLLABORATION

Transboundary Aspect



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

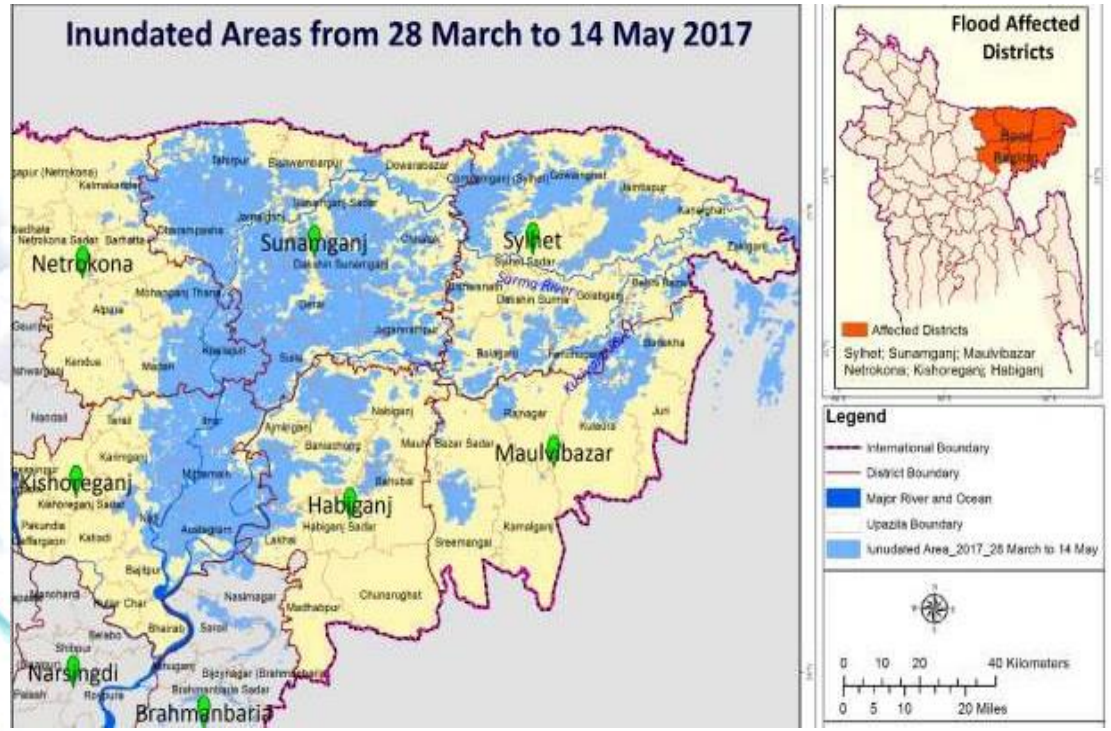
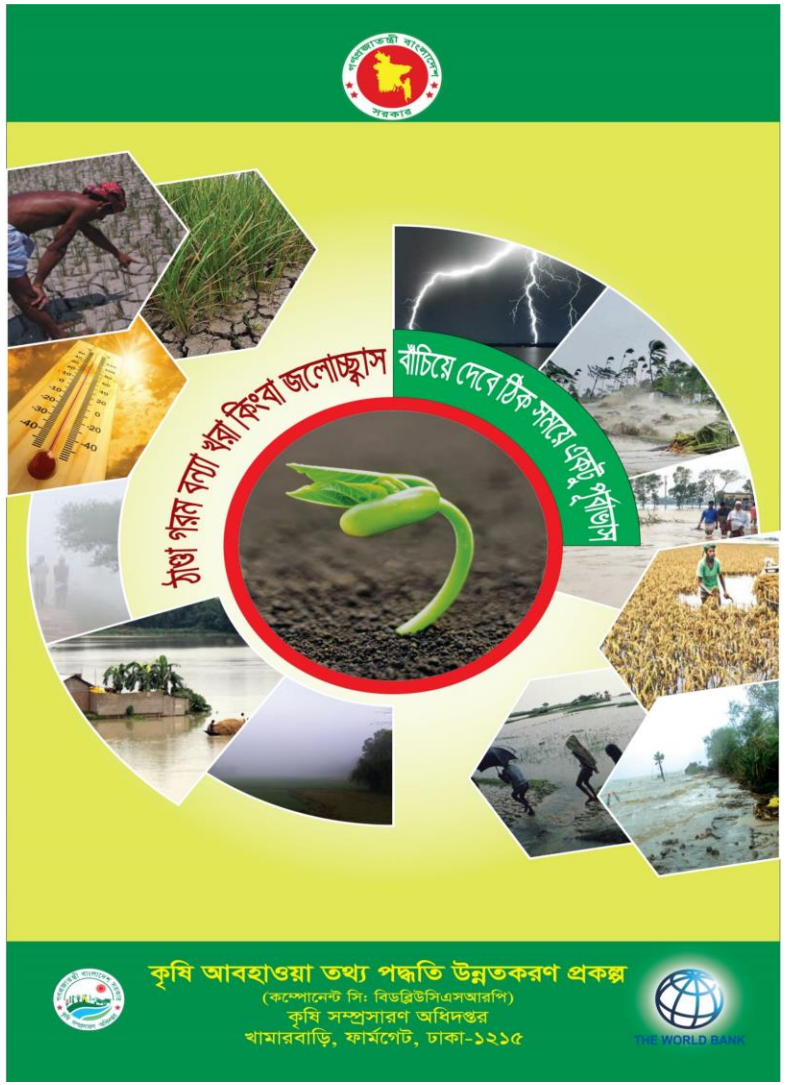


Fig: Inundated areas of Haor region from 28 March to 14 May 2017

Fig: Harvesting inundated crop during the flash flood



THANKS

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