

Challenges & Opportunities for Mitigation in Agricultural Sector

Bangladesh

Challenges

- **Critical role of agriculture for food security**
- **Agriculture has 4 sub-sectors, but emphasis here only on crop sub-sector**
- **Physical adverse impacts such as prolonged drought gets adaptation & mitigation intertwined**
- **Severe or prolonged drought means rising demand for irrigation ==> more energy use for running pumps**
- **Bangladesh depends heavily on dry period irrigation - energy intensive agriculture, 53% of rice output from dry period crop; more drier spells will raise energy use and costs of production**

Challenges

- **Major R&D efforts, best agronomic practices, screening of varieties based on water use, etc needed**
- **All will need additional resources, technology development and transfer, strengthening of national research & extension capacity**

Challenges

- **Mitigation without adaptation will threaten food security**
- **Adaptation without mitigation will raise cost of production and food will be costlier**
- **Mitigation & adaptation get intertwined and must be addressed in this situation simultaneously**
- **Both require that water use be economized through choice of crops, new agronomic practices, development of drought-tolerant or escaping varieties, etc so that while energy use is lowered food production does not fall**

Opportunities

- **New research, variety screening, new agronomic practices to lower water & energy use, stabilize food production and lower food costs, thereby helping poor**
- **Bangladesh National Climate Change Strategy & Action Plan recognizes these issues. Some progress in developing drought-resistant and shorter maturity varieties which can be harvested before dry spell begins avoiding irrigation, lowering costs & smoothing seasonality in production**
- **Upgradation of research and extension systems through North-South as well as South-South cooperation are essential to exploit such opportunities**