



Geodata for Agriculture and Water (G4AW) Matchmaking and Information Event 12 May, 2014 Long Beach Suites

Quick Scan Highlights



Netherlands

Development

Organisation



Constraints in Agriculture

Constraints	Description
Vulnerable to climate variability	According to a study, farmers lost around 12 percent of their harvest, on average, to some kind of climate shock, with about half of that attributable to flooding-related issues
Manual Information Gathering and Estimation of Food Data	Subject to large non-sampling bias; lag time in getting results and drafting plan of action
Declining and Degrading Land Resources	Lack of control over resources and non-sustainable land management practices
Decreasing Water resources	over exploitation of groundwater, increase of boro rice cultivation, excess water use in irrigation, depletion of surface water, reduction in rainfall



Constraints in Agriculture (contd.)

Arsenic Contamination	Not only is groundwater unsafe for drinking it can also affect irrigation of crops. Arsenic in irrigation water can result in soil pollution that in turn affects crop production and food safety
Salinization of Coastal Areas	increasing degree of salinity and expansion of affected areas normal agricultural land use practices become more restricted



User Problems

- Water distribution
- Drought on several places in Bangladesh near India and East of Bangladesh
- River morphology, braided river system (food security) is dynamic and has direct impact on agriculture activity on the shore regions of rivers and on the temporary populated islands in the rivers (chars)
- Blue Gold project, water quantity and quality (polder systems are affected by seawater & salt intrusion), effect on production system
- Shrimp farms and impacts from coastal storms and sea water flooding (surges)
- Cyclones (storm surges)



User Problems

- High water (flood depth, duration and flood extent) in regular and extreme flood situations and their impact on agriculture cropping systems
- Transport and logistics during high water or extreme floods for evacuation or minimizing harvest losses or effective routing to storage facilities to safeguard local harvest
- Fish Pond or permanent lakes or beels, dry season shortage of animal protein
- Natural Arsenic in groundwater threatens daily use but also irrigation of crops (Sweet water solution is needed, monitoring water), effect on crops can not be seen from sat but water balance and distribution indirectly prevents from using the wrong ground water reservoirs



Some G4AW related projects in Bangladesh

Bangladesh Delta Plan- Consortium with Dutch and Bangladeshi partners

Challenge Program

Strengthening Disaster Risk Management in the Agricultural Sector in Bangladesh (FAO)

Development of Soil and Land Resource Information System (Soil Research Development Institute)

Climate Change Impacts Vulnerability and Adaptation: Sustaining Rice Production in Bangladesh (Norwegian Ministry of Foreign Affairs)

Weather Index Based Crop Insurance

Impacts of Sea Level Rise (SLR) on Land use Suitability and Adaptation Options in Khulna, Bagerhat and Satkhira districts of southwest region of Bangladesh (Ministry of Environment and Forest)

Setting up GIS Facilities in Agriculture Division of the Planning Commission and e-Government Survey under Support to ICT Task Force Programme Project (Agriculture Division of Planning Commission)

Impacts of Sea Level Rise (SLR) on Land use Suitability and Adaptation Options in Khulna, Bagerhat and Satkhira districts of southwest region of Bangladesh (UNDP)