

Issues and Needs – SA Group

Members: Sri Lanka, Bangladesh,
India, Pakistan, Bhutan, Nepal

Issues related to climate system, water cycle, water use

- Change in climate resulting
 - intense rainfall causing ,frequent floods, urban floods,flash floods, landslides, increased erosion
 - temperature rise causing GLOF risk increasing
 - prolong dry spells and more droughts, deteriorating water quality
 - changes to the seasonal climatic pattern
 - depletion of ground water
- Insufficient understanding of impact of climate change on water resources
 - little research on climatic change impacts,
 - lack of comprehensive inventory of water resources
 - Infrastructure planning, management of WR under climate change

Issues related to Water Nexus

- Water scarcity - lack of water for irrigation, water supply etc.
- Lack of hydraulic infrastructure (reservoirs, canals)
- Crop failures due to change of rainfall patterns
- Lack of proper management of water for different sector uses, hydropower, irrigation, water supply –
- Poor water quality in urban areas due to concentration population in urban areas, poor sanitary sewage systems
- Salinity intrusion in coastal areas – biodiversity decreasing, mangrove/forestry deteriorating;
- GW pollution due to agriculture practices – pesticides
- Changes in ecosystems in rivers due to different flow patterns, water diversions
- Malaria and dengue and water bone diseases on rise again due to dry spells.
- Long term GW depletion in urban areas due to unplanned pumping
- Increasing municipal water demand due to migration of population
- Decrease of flood plains due to urbanization
- Inefficient municipal water use due to low tariff, etc.
- Competition among various sectors of water use
- Not having environmental flows due to upstream diversions
- Conflict due to unplanned conjunctive use of water resources
- Conflict between upstream and downstream water users

WCI functions/tools

- Need to improve
 - In-situ observation network (telemetric stations)
 - Ability to use satellite based information
- Need to improve flood warning systems
- Need of advanced models
- Need of networks for data and knowledge sharing
 - widely accessible
- Need for Capacity building

Need – coordination at national level

- Need of effective sharing of information and data among involved institutions
- Independent apex body at national level for making policy recommendations