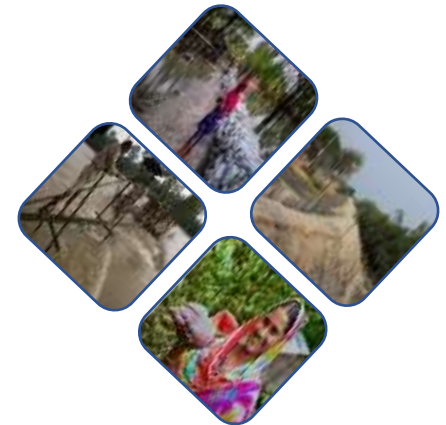




Regional Dialogue - Khulna

# Climate Change Impacts and Adaptation Requirements in the South-west Coastal region of Bangladesh



# Background



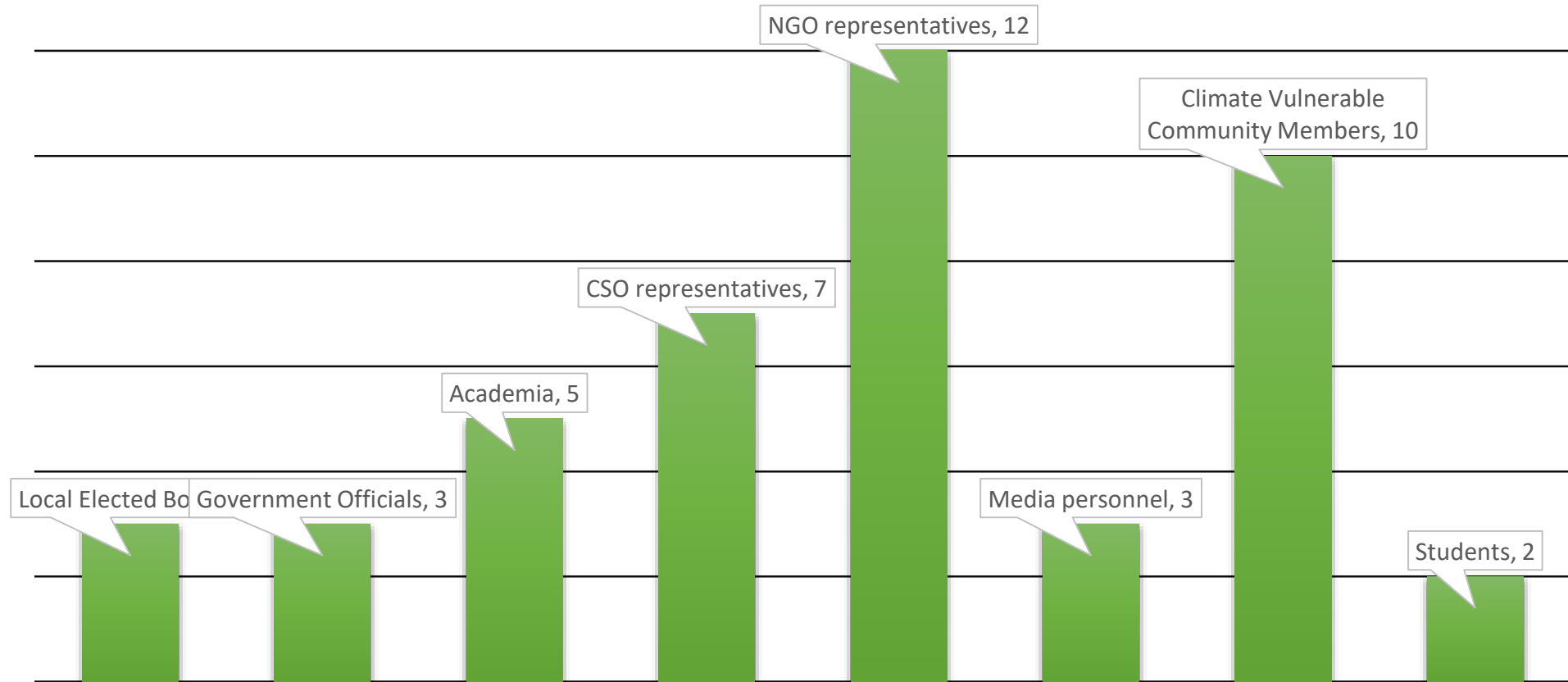
- Bangladesh has initiated the process of formulation of National Adaptation Plan (NAP)
- The NAP is essential to identify country-specific adaptation needs and develop and implement strategies to adapt.
- **Multi-sectoral cooperation** among government agencies, civil society, academics and vulnerable communities is required to formulate NAP.
- CPRD and AOSED jointly organized a regional dialogue in Khulna on 9<sup>th</sup> December 2021 to identify the **Vulnerability** of Climate Change and find **Adaptation Solution** from the stakeholders of the **Southwest Coastal Region** of Bangladesh

# Characteristics of the coastal region

- It covers 3 distinct zones in 19 districts, 47,201 sq. km.; 32% of the country- with 35 million people.
- The low-lying SW coast is mostly tidal plain/ wetlands, marshes and swamp; only about 1 m above MSL.
- Affected by a multiplicity of disasters including cyclones, surges, coastal flooding, salinity intrusion etc.
- Natural resources' dependent livelihood and high incidence of poverty.
- World's single largest tract of mangrove forest Sundarbans is located in SW coast ; rich in biodiversity and highly productive ecosystem.



# The Workshop: Composition of Participants



## Number of Districts

3 – Khulna, Sathkhira and Bagerhat

## Number of Upazilla

6 Upazillas including Khulna City Corporation

## Group work topics

Participants in the dialogue worked in 5 groups to identify sectoral problems and solutions on the following topics

**WATER RESOURCES**

**AGRICULTURE**

**HEALTH**

**WOMEN VULNERABILITIES**

**NON-CLIMATIC FACTORS**

# Perceived vulnerability

## Water Sector

- Increased salinity and Prolonged waterlogging
- Reduction of natural water resources
- Massive land use transformation
- Water trapping inside polders and unplanned shrimp/fish culture
- Increased frequency of cyclonic surges
- Reduced flows of upstream water and siltation on river bed
- Encroachment of natural drainage/canals/river
- Pollution load from inland
- River bank erosion
- Unplanned embankment/ road network
- Bio-accumulation and bio-magnification of water pollutants
- Over extraction of ground water



# Adaptation Requirements Water Sector

- Afforestation
- River dredging
- Establishment of water authority
- Rain water harvesting
- Creation of fresh water reservoir
- Participatory and effective water management system
- Recycling and reuse of used water
- Awareness building program
- Technically sound, socially acceptable and economically efficient tidal river management (TRM)
- Implementation of effective Integrated Water Resource Management



# Perceived vulnerability

## Agriculture

- Change in seasonal pattern
- Prolonged flood and drought
- Waterlogging
- Increased salinity
- Lack of nutrient in soil (soil infertility)
- Rivers and canals are filling up
- Source of irrigation water are shrinking
- Increased use of chemical fertilizers and pesticides
- Occupational migration
- Increased social conflict between farmers and fishers
- Agro-lands are being used for non-agricultural activities





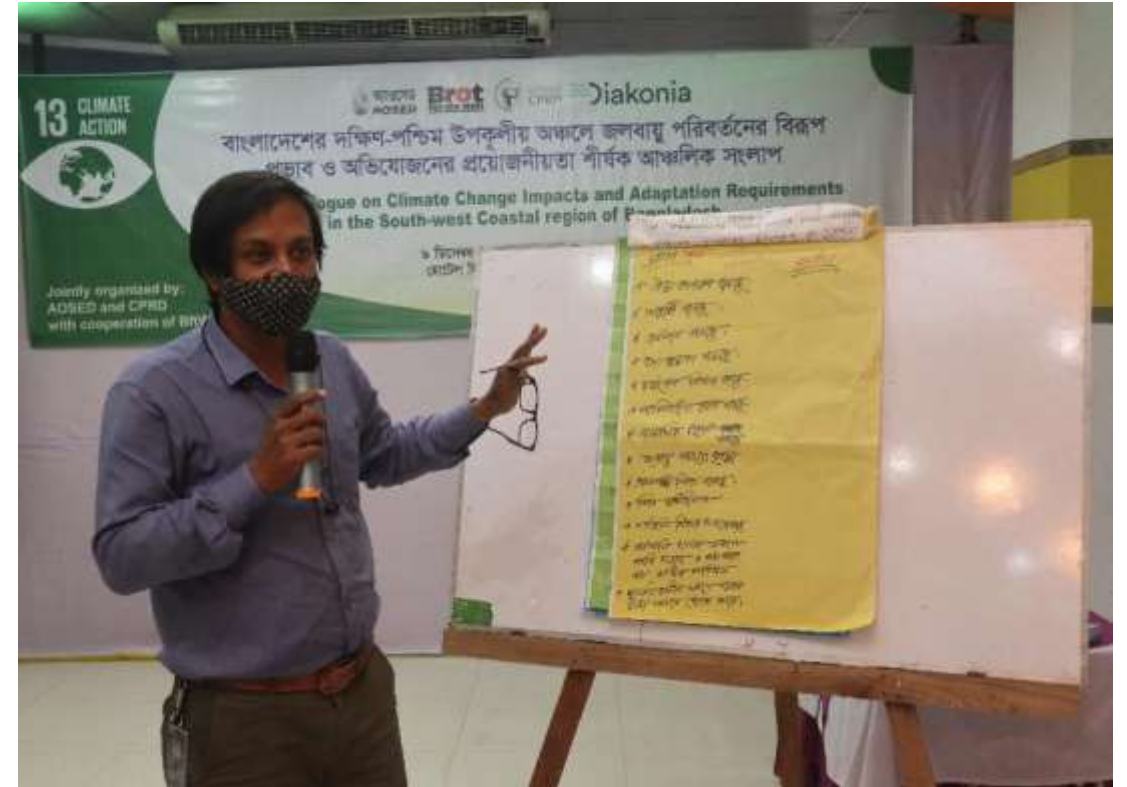
# Adaptation Requirements Agriculture

- Re-excavation of surface water bodies like ponds / canals.
- Cancelled all kinds of settlements/lease.
- Practice Salinity tolerant crop varieties.
- Use of green manure to increase and conserve soil fertility
- Strengthening Sluiceway management
- Conservation of sanctuaries and native species of fish.
- Constructing sustainable embankments
- Awareness raising of crop and fish farming by creating enclosures in waterlogged areas
- Creating enabling business environment for Agriculture (crops, livestock and fisheries)



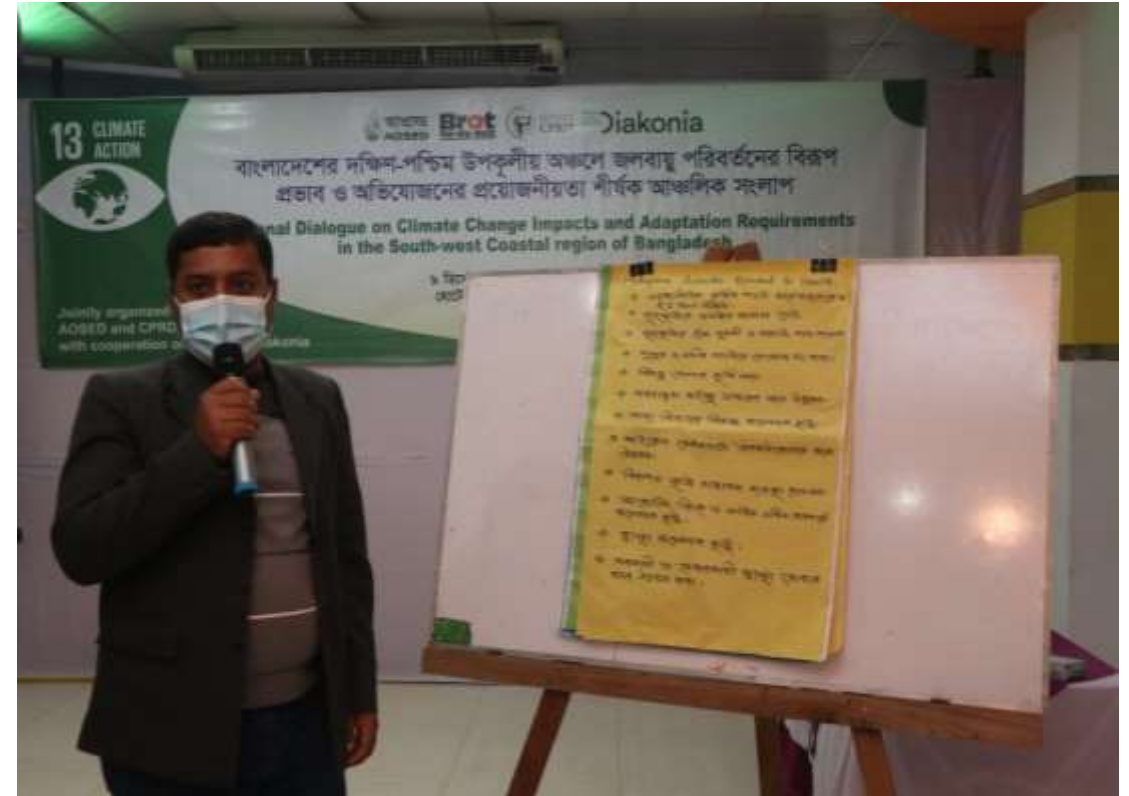
# Perceived vulnerability Health

- Malnutrition
- Salinity intensifies high blood pressure & miscarriage
- Increased water borne diseases
- Increased psychological stress/mental illness
- Increased of uterine problems
- Children with disabilities are one the rise
- Sanitation systems are collapsing during disasters



# Adaptation Requirements Health

- Construction of community based rain water reservoir and RO plants
- Promoting homestead vegetation, poultry and cattle rearing practice to meet the demand of nutrition
- Promoting safe food production through organic farming practice
- Cultivation of saline tolerant rice variety needs
- Creation of alternative livelihood options considering the increasing poverty context
- Overall improvement of the quality of public and private health services
- Increase access to basic healthcare services for free of charge



# Perceived vulnerability Women

- Reproductive health is getting affected
- Infertility and miscarriage
- Malnutrition
- Skin and waterborne diseases increasing
- Child mortality is increasing
- Scope of women IGA is decreasing
- Security concern among women is increasing
- Decreasing freshwater resources costs more time and labor for collecting drinking water
- Less knowledge regarding adolescent health care



# Adaptation Requirements Women Sector

- Ensuring safe drinking water, sanitation, hygiene services and nutrition for women
- Awareness raising for reproductive health
- Encouraging women for homestead vegetation, poultry rearing, fishing as IGA
- Provide IGA related trainings
- Setting-up area-based counseling centers and ensuring availability of hygiene kits and menstrual hygiene



## Perceived vulnerability Non-climatic factors

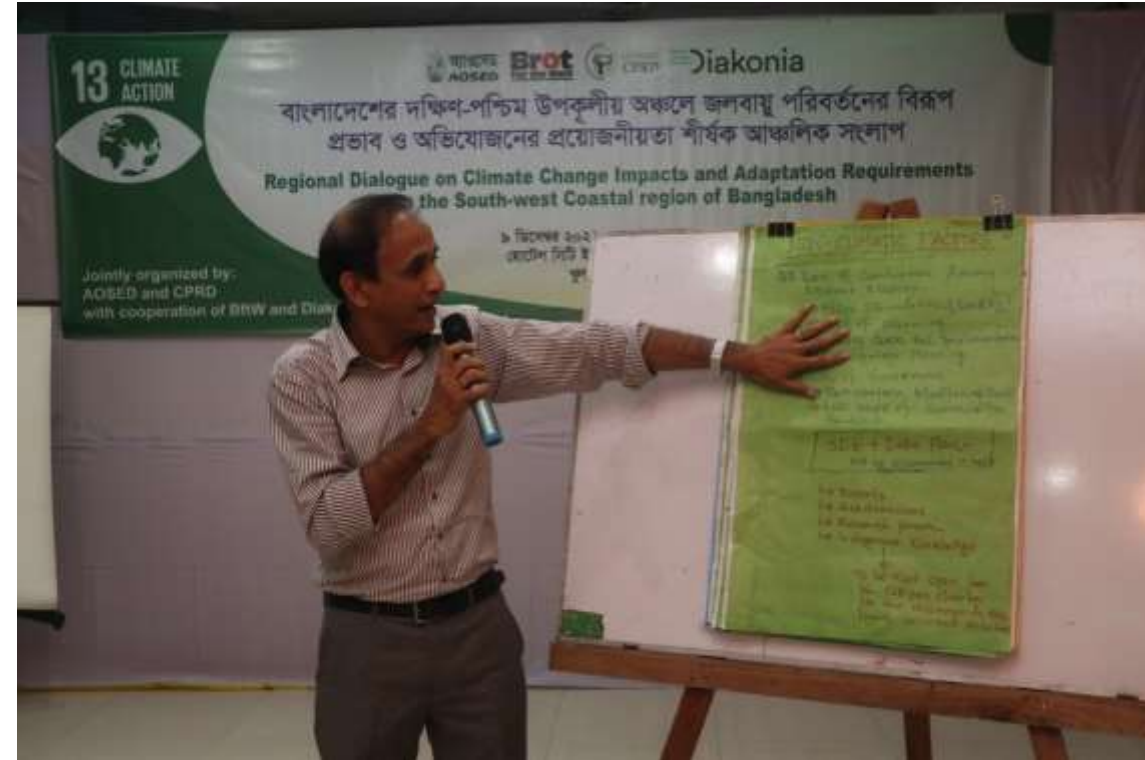
- Lack of effective policy formulation and planning for adaptation
- Absence of participatory planning is slowing down the implementation process of development activities
- Grassroots voice is not being heard in policymaking level
- Lack of participatory monitoring process and follow-up mechanism



# Adaptation Requirements

## Non-climatic factors

- Incorporate indigenous knowledge along with the experts, academia and research persons
- Government's interventions and initiatives regarding the climate change adaptation need to keep open in citizen charter
- Comprehensive Planning and policy development
- Coordinated and participatory execution SIA/EIA
- Ensuring participatory monitoring and follow up mechanism
- Capacity Building of the relevant institutions
- Technology transfer to the vulnerable community people, local government and climate activists in rural areas



# Way Forward

- Advocacy in Sub-National and National level
- Capacity development of local government, community and civil society
- Network and linkage building for transferring resources, knowledge and technology
- Engagement of young people and women's organizations in local level climate change intervention processes.
- Local resources mobilization
- Accountability and transparency in climate fund management
- Ensure good governance in climate finance



**Thank you....**