

**"DEltas, vulnerability and Climate Change: Migration and Adaptation" (DECCMA) Project**  
Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA)

## District Level Stakeholder Workshop

31 August, 2015



Venue : CSS Ava Center, Khulna.

Date : 31 August, 2015

Time : 9.30 AM – 2.30 PM

### Event Details

Project Title

DEltas, Vulnerability and Climate Change:

		Migration and Adaptation (DECCMA) Project
Workshop Title		District level stakeholder workshop
Date of the workshop		31 <sup>st</sup> August, 2015
Duration		One (1) day
Time of the workshop		9.30 am to 2.30 pm
Management and Organized by		Institute of Water and Flood Management (IWFM) of Bangladesh University of Engineering and Technology (BUET), Water Resource Planning Organization (WARPO) and Jagrata Juba Shangha (JJS)
Participants		University Teacher, Media People, NGO Group, Local Community People (Koyra, Dacope, Terokhada)
Program Schedule		
Time	Program/ Activities	
09.30 am-9.55 am	Registration	JJS
9.55 am-10.00 am	Welcome Speech	ATM Zakir Hossain Executive Director Jagrata Juba Shangha (JJS)
10.00 am-10.30am	Introduction to DECCMA Project	Dr Mashfiquis Salehin Professor, Bangladesh University of Engineering and Technology (BUET)
10.30 am-10.45 am	Workshop Objective	Dr Mohammad Shahjahan Mondal Professor, Bangladesh University of Engineering and Technology (BUET)
10.45 am- 11.15 am	Tea Break	
11.15 am- 12.45 pm	Group Discussion	Dr. Mashfiquis Salehin Professor, Bangladesh University of Engineering and Technology (BUET)
12.45 pm- 13.15 pm	Theme 01: Governance- Issues, Gaps and Barriers	Dr Mohammad Shahjahan Mondal Professor, Bangladesh University of Engineering and Technology (BUET)
	Theme 02: Climate Change Adaption	Mohammad Rashed Bhuiyan
	Theme 03: Migration	Md. Ekram Ullah Principle Investigation Officer WARPO
13.15 pm- 13.30 pm	Summary and Closing	Participants
13.30 pm	Lunch	

## Prelude

A “District Level Stakeholder Workshop” has been organized jointly by the Institute of Water and Flood Management (IWFM) of Bangladesh University of Engineering and Technology (BUET), Water Resource Planning Organization (WARPO) and Jagrata Juba Shangha (JJS) on 31<sup>st</sup> August, 2015 at 9:30 am to 2:30 pm at the location of CSS Ava Center, Khulna under ‘DEltas, vulnerability and Climate Change: Migration and Adaptation (DECCMA) Project’. The DECCMA is a consortium project under the Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA) program funded by Canada’s International Research Centre (IDRC) and the UK’s Department for International Development. The Lead Partner Institutes are University of Southampton- UK (Project Lead), Institute of Water and Flood Management (IWFM) of BUET Bangladesh, Jadavpur University - India and University of Ghana- Ghana. Besides, there are a number of other partner institutes associated with the Lead Partners from each Country. The other partner institutes in the Bangladesh component are Refugee and Migratory Movements Research Unit (RMMRU) of University of Dhaka, Center for Environmental and Geographic Information Services (CEGIS), Bangladesh Institute of Development Studies (BIDS), Bangladesh Space Research and Remote Sensing Organization (SPARRSO), Technical Assistance for Rural Advancement (TARA) and Jagrata Juba Shangha (JJS).

The research is aimed at climate change impact and an adaptation issue in two deltas in South Asia (GBM and Mahanadi deltas) and one delta in Africa (Volta Delta). Deltas are vulnerable areas and are considered as hotspots to climate change and sea level rise. The researchers in the DECCMA project will work with the Governments and a wide range of stakeholders of the delta regions to understand how people are adapting to the physical effects of climate change and human interventions, such as sea level rise, alongside socio-economic pressures in the delta regions and implications of different adaptation options to those challenges. There will be a particular focus on assessing migration as an adaptation in deltaic environments (in the context of other adaptation options) under changing climate. The project aims to develop methods to predict how these deltas may evolve over the next 50 to 100 years and provide Governments with the knowledge and tools to ensure future policy can maximize planning services and programs to the benefit of the region’s population.

A total number of 90 people participated in the workshop, including representatives from local government institutions, non-government organizations, media, academics and about 40 community people from two Upazila (Koyra, Dacope) of Khulna. The participants discussed in groups on different issues, including governance and management aspects associated with climate change adaptation and migration, gaps in the governance system, barriers in policy and legal implementation, types of adaptations (both planned and autonomous) being practiced and reasons for their success and failure. They also discussed on the nature of migration from the area and their drivers, migration trends among different livelihood groups and gender dimensions of migration.

## Objective of the workshop

The main objective of the workshop was knowledge sharing through conversation between different stakeholders, such as University teachers, Government officials, News and electronic media, NGOs group and local community people.

## Preparatory Activity

### ✦ Technical sector

- JJS had developed the concept note, content and handout of this orientation.
- All the logistics for this orientation had been developed and managed by JJS.
- Tentative budget and participant category had been developed by JJS and it had been finalized by BUET.
- All the reporting and documentation had been developed by JJS.
- Workshop had been facilitated by BUET representative.

### ✦ Management sector

- JJS had finalized venue, participant, resource person, logistics, food, conveyance through proper communication.
- Need base support had been provided from JJS to the facilitators
- Press release had been ensured by BUET and JJS representative through communicating with journalist.

**Program start time and date: 9.30 am, 31<sup>st</sup> August, 2015**

**Session Start Time: 9:30 am**



### **Registration and Ensured Logistics Support from JJS:**

Registration start from 9:30 am at CSS Ava Centre facilitated by JJS.

### **Participant Category:**

Participants category was fixed by BUET team and communication with the participants was done by JJS.

Figure: Event registration

The participants were

- ✓ University Teacher
- ✓ Government Official representatives
- ✓ Electronic and Print Media representatives
- ✓ NGO representatives
- ✓ Local Community (Koyra, Dacope, Terokhada) Participants



## Orientation for the workshop was divided into three different sessions

1. Inaugural session
2. Main session
  - ✓ Introduction to DECCMA Project
  - ✓ Workshop Objectives
  - ✓ Group Discussion
  - ✓ Group Presentation
3. Summary and Closing session

**Welcome Speech:** Mr ATM Zakir Hossain, Executive Director of JJS expressed his gratitude

to everyone, who came from different Universities (BUET, KUET, DU and KU), Government officials, Print and Electronic Media, NGO group and local participants. In this session, Mr Zakir mentioned that if we want discussion about climate change, then we must go Dacope and Koyra region as those areas flooded in near future. Mr Hossain also presented the comparison between present and past



Figure: Inaugural speech by JJS

scenario of coastal areas to identify the climate change impact. At last, he expressed his gratitude to everyone for coming in the workshop.

**1.0 Inaugural session:** The participants introduced themselves in inaugural session. Then main speaker of the workshop, Professor Dr Mashfiquis Salehin from IWFM, BUET facilitated the session. After the inauguration, he delivered his speech on different aspects of the workshop.

## Introduction to workshop and Objective Described by Professor Dr Mashfiquis Salehin

Professor Salehin started his speech with explanation of the concept of the project. He further described the evolution concept and purposes of this project, then he identified the climate change problem and how this program helps to enhance from this situation. He showed the geographical context of Bangladesh, explained how natural disaster such as salinity, cyclone, flood etc. damages the south west coastal region in his presentation. He identified some major issues in the south west coastal areas, which are

- Concept on adaptation (Climate change, low income capacity)
- Climate change

- Impact of sea level rise
- Problems with deltas
- The climatic problem region in the world respect
- Threatened deltas with sea-level rise and subsidence
- Reason behind to evolution of this project
- Some example about strategy of climate change resist and
- Some migration problems etc.

He presents deltas study site in DECCMA

- ✦ South Asia: GBM and Mahanadi deltas
- ✦ Africa: Volta Delta

#### DECCMA Consortium

- ✦ Northern
- ✦ Bangladesh
- ✦ India
- ✦ Ghana

#### Full Bangladesh Consortium

- ✦ BUET
- ✦ CEGIS
- ✦ BIDS
- ✦ WARPO
- ✦ RMMRU
- ✦ SPARSO
- ✦ TARA
- ✦ JJS



Figure: Keynote presentation by BUET

He also mentioned that DECCMA project aims to

Aims of DECCMA project that mentioned by Professor Dr Mashfiquis Salehin

- ✦ Evaluate the effectiveness of adaptation options in deltas
- ✦ Assess migration as an adaptation in deltaic environment under a changing climate
- ✦ Deliver policy support on sustainable development

In his presentation he also explained the seven (7) DECCMA objectives, its outcomes and impacts. After this, he clarified the basic three (3) themes for group discussion, these are

- Governance: Issues in the context of adaptation and migration, Gaps , needs and barriers
- Climate change adaptation: Identify vulnerable upazila, unions, ward, para/mahallah, Types of adaptation being practiced, implementation of adaptation practice, successful or failure of adaptation
- Migration: situation of migrants, nature of migration, trend of migration, gender dimension of migration

Mr Md. Saddam Hossain, divisional statistics officer, inquired about the aim of the project and whether the project will identify the impact of climate change. Dr Salehin replied, the project will identify climate change issues by structured questionnaire survey (around 30000), these also delineate the impact of climate change in a structured manner. Md. Saddam Hossain further added that, BBS can provide these data as they are preparing a data set based

on this issues. He suggested to engage local data enumerator for data collection process as local people know their condition well.

Mr S.M. Zahid Hassan, Bureau Chief, The Daily Observer, inquired whether the project is emphasizing on adaptation or migration. Dr Salehin replied the project will see both adaptation and migration eventually as these two things are interlinked each other.

### Group formation for discussion

After this discussion section, Dr Mashfiqus Slaehin and ATM Zakir Hossain forms six groups based on three thematic areas. The name of the groups were:

- ✚ Government official Group
- ✚ University teachers Group
- ✚ Media (electronic and print) and NGO Group
- ✚ Dacope community Group
- ✚ Koyra-1 Community Group
- ✚ Koyra-2 Community Group

### Tea Break

After forming this group, around 15 minutes break are provided for tea.

### Group Discussion

After tea break, group discussion started. People sat together group wise and they discussed on three thematic areas based on some pre-defined question.

#### 1) Governance

- What are the important governance issues in the context of adaptation?
- What are the important governance issues in the context of migration?
- What are the gaps in governance systems?
- What are barriers to implementation of policies and laws?



#### 2) Climate Change Adaptation

- Name of Upazila or Union of the district that experienced climate hazards
- Types of adaptation being practiced
  - ✚ Self-initiative
  - ✚ With external help
  - ✚ Change/ trend in livelihood diversification
- Implementers of adaptation practices (Organizations/ Institutions/ Communities and their activities)
- Successful or failed adaptation practices (and why?)
- Problems faced in implementing adaptation options

### 3) Migration

- In what situation do people migrate rather than adopt locally
- Nature of migration from the area (Weights/ reasons – relation to environmental/ climate variability/ hazards)
  - ✚ Seasonal: rural to rural as agriculture or other work such as brick kiln labor
  - ✚ Temporary: rural to urban,
    - e.g. construction or rickshaw pulling
  - ✚ Permanent: rural to urban, e.g. working in the garments etc.
  - ✚ Cross border
  - ✚ International
  - ✚ Forced migration? Location? (e.g. erosion/ cyclonic storm surge)
- Trend of migration
  - ✚ Increase sharply, steadily or not significantly over last 20 years?
  - ✚ Future migration to increase or decrease due to climate stress
  - ✚ Migration status for different livelihood groups
- Any link of migration with unavailability of local jobs
  - ✚ Why local jobs are not available?
  - ✚ Did flood, drought, storm surges, salinity, water logging have any roles?
  - ✚ Demographic, HH poverty or any other reasons behind migration?
- Gender dimension of migration



Based on the above three thematic areas and its issues all the six group discussed among themselves and they wrote it down in sheet. After 75 minutes discussion, the groups then presented their findings.

#### ❖ **Presentation from government officials (Md. Saddam Hossain, Officer, Bangladesh Bureau of Statistics)**

In the presentation, Md. Saddam Hossain and his team presented some issues and pointed out on the three thematic areas.

#### **Governance**

##### **Important issues for governance**

- ✚ River bed management
- ✚ Subsidy for livestock production
- ✚ Micro credit
- ✚ Poverty database preparation
- ✚ Cultivation of vegetables of dikes
- ✚ New crops variety (Short duration and salinity tolerant)
- ✚ Canal re-excavation (TRM, Drainage system improvement)
- ✚ Shrimp aquaculture
- ✚ Fresh water aquaculture
- ✚ Cyclone shelters



### Gaps and barriers of governance

- ✚ Mismanagement
- ✚ Lack of coordination
- ✚ Lack of proper planning
- ✚ Lack of finding
- ✚ Shortage of skilled manpower
- ✚ Inappropriate/ inadequate research
- ✚ Lack of proper monitoring mechanism

### Climate change Adaptation

#### Union wise most vulnerable areas of Koyra and Dacope Upazila

- ✓ Koyra
  - ✚ South Bedkashi
  - ✚ North Bedkashi
  - ✚ Moharajpur
  - ✚ KoyraSadar
  - ✚ Mohessoripur
- ✓ Dacope
  - ✚ Sutarkhali
  - ✚ Tildanga
  - ✚ Kamarkhola
  - ✚ Baniashanta

### Adaptation being practiced

#### ✓ Self-practice

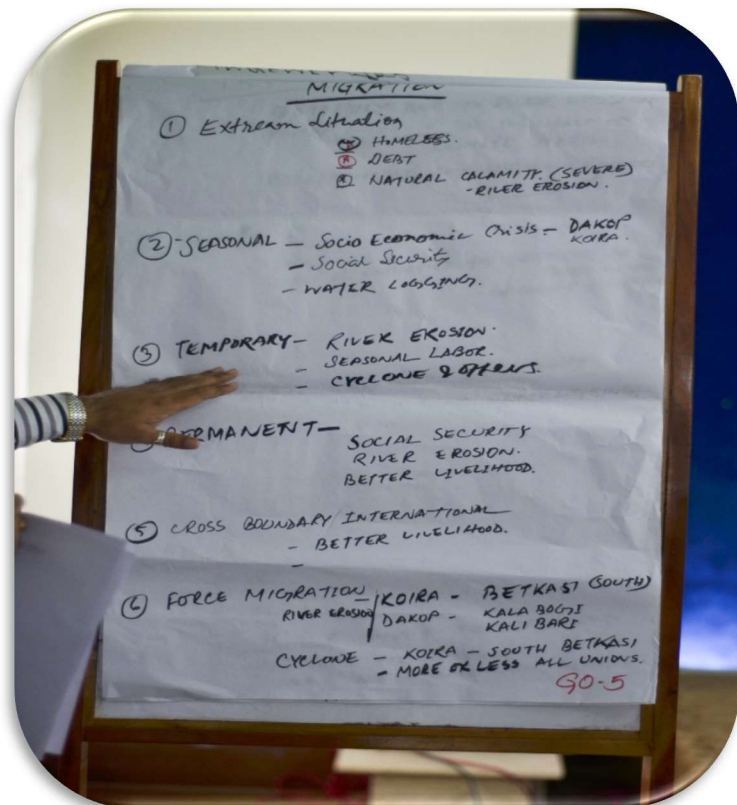
- ✚ Make house more resilient
- ✚ Home stead vegetation
- ✚ Fish culture
- ✚ Backyard livestock production
- ✚ Cultivation of crops on dikes

#### ✓ External practice

- ✚ Awareness and training
- ✚ Micro-credit and subsidy
- ✚ Supply of seeds
- ✚ Rehabilitation and reconstruction
- ✚ Alternative livelihood (Reduce stress on forest)

### Implementation Authority

- BRDB
- Agriculture office
- Fisheries office
- BWDB
- LGIS etc.



## Success or failed Adaptation Practice

### ✓ Success

- Timely impose

### ✓ Failure

- Inadequate production and marketing
- Inadequate pricing
- Communication
- Fund generation and coordination

## Migration

### Situation for migration

- Homeless family
- Debt
- Natural Calamities (flood, storm, river erosion, cyclones etc.)

### Types of migration and its reason

#### ✓ Seasonal

- Socio-economic crisis
- Social security
- Water logging

#### ✓ Temporary

- River erosion
- Seasonal labor
- Cyclone and others disaster

#### ✓ Permanent

- Social security
- River erosion
- Better livelihood

#### ✓ Cross boundary/ international

- Better livelihood

#### ✓ Force migration

- River erosion
- Cyclone

### Trend of Migration

#### ✓ Steadily

- Due to river erosion

#### ✓ May increase

- Due to impact of climatic stress

#### ✓ Permanent

- Day labors
- Farmers

### Link of migration with availability of local jobs

Mr Hossain added that there is a strong link between migration and availability of local jobs. Due to lack of job opportunities in local sector, people are migrated in the urban sector for better livelihood.

### Gender Dimension of Migration

- Females moves to garments sector, because they have better opportunities in this sector

- ✚ Male goes for day labor purposes
- ✚ Male and Female ratio of migration: 70% and 30%

## ❖ Presentation from local community group stakeholder (Razia Begum, Dacope Upazila)

Ms Razia Begum presented the finding on behalf of her team and she pointed out some major issues based on migration and climate change.

### Migration

#### Situation for migration

- ✚ High river erosion
- ✚ Lack of income generating activities
- ✚ Population increase
- ✚ Over flooded
- ✚ Frequent disaster

#### Types of migration and its

##### reason

- ✓ Seasonal
- ✓ Temporary
- ✓ Permanent
- ✓ Legally in foreign country
- ✓ Illegally in foreign country

This group identified some major reasons of migration, which are

- ✚ Climate change
- ✚ Lack of employment opportunities, which is increasing day by day
- ✚ Less income for climate change
- ✚ Decreasing rate of natural resources at the Sundarbans such as fish and other resources
- ✚ Virus in aquaculture
- ✚ High rate of salinity
- ✚ Due to climatic disaster, damage in farm land, aquaculture, livestock etc.

#### Trend of Migration

- ✓ Increasing rapidly
  - ✚ Due to climate change and lack of income generating activities
  - ✚ More man are migrated than women
  - ✚ In future, It will increase more

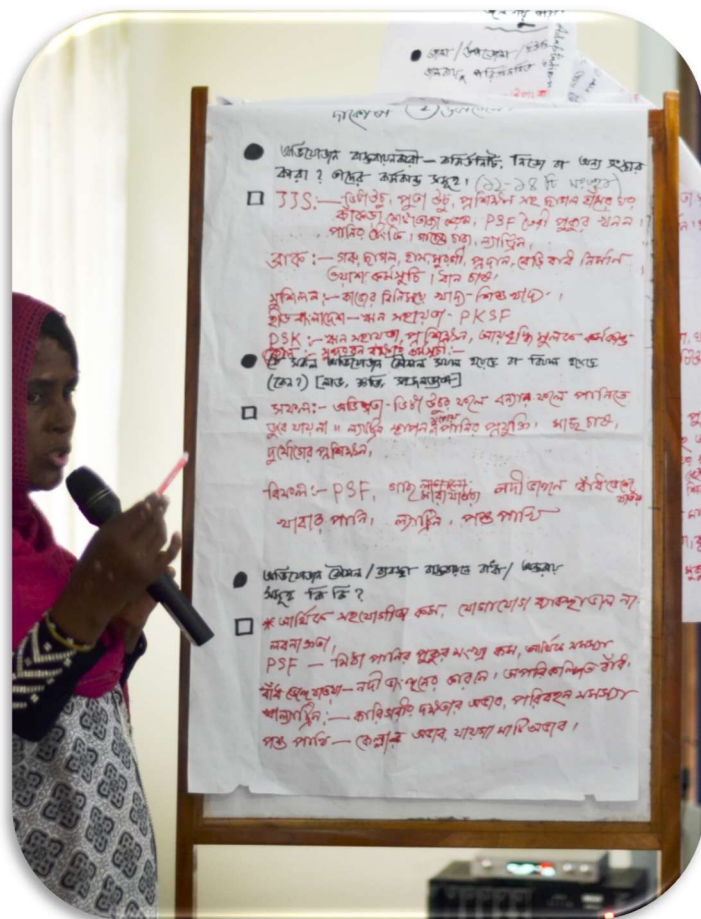
#### Link of migration with availability of local jobs

- Lack of local job opportunity force people to migrate

#### Gender Dimension of Migration

Women don't want to migrate, because they have several opportunities of earning through income generating activities. Among these

- ✚ Small business



- ✚ Livestock
- ✚ Tailoring
- ✚ Vegetable gardening
- ✚ Day labor
- ✚ Fishing
- ✚ Housewife
- ✚ Take care of children

### **Problems of migration**

Ms Begum added most of the cases male people are migrated for earning livelihood. At this time especially female household faces several problems

- ✚ Women pass their life with big trouble
- ✚ Safety problem
- ✚ During disaster, children, pregnant, old age people feel trouble
- ✚ Livestock problem
- ✚ Food, health, water related problem

### **Climate change Adaptation**

#### **Union wise most vulnerable areas of Dacope Upazila**

##### ✓ Dacope

- ✚ Sutarkhali
- ✚ Kamarkhola
- ✚ Koilashganj
- ✚ Baniashanta

### **Climate change impact**

- ✚ Salinity
- ✚ Flood
- ✚ River erosion
- ✚ Heavy rain
- ✚ Drought
- ✚ Cyclone
- ✚ Deforestation
- ✚ Water logging
- ✚ Seasonal variation etc.

### **Adaptation being practiced**

##### ✓ Self-practice

- ✚ Raise homeland
- ✚ Tree plantation
- ✚ Build strong house
- ✚ Raise height of tube-well, latrine, and pond side etc.

##### ✓ External practice (Government and NGO)

- ✚ Road construction
- ✚ Government allowance
- ✚ Education facilities
- ✚ Health facilities
- ✚ Institution building
- ✚ Raise height of different infrastructure such as home, tube-well, pond etc.
- ✚ Training



- ✚ Economic assistance
- ✚ Rain water harvesting
- ✚ Tree plantation

### Implementation Authority

She further added about 12-14 organization work for the betterment of the local people in Dacope. These are:

- ✚ JJS: Household plinth raising, training, PSF, water tank, tree plantation, direct economic assistance etc.
- ✚ BRAC: Livestock, Build beri-badh, wash programme, rice cultivation
- ✚ Shushilon: Food for work, Child food programme
- ✚ Heed Bangladesh: Loan, PSF
- ✚ PKSf: Loan, training, IGA etc.

### Success or failed Adaptation Practice

#### ✓ Success

- ✚ Homeland raising, as a result house don't flooded
- ✚ Latrine
- ✚ Fresh water
- ✚ Aquaculture
- ✚ Training on disaster

#### ✓ Failure

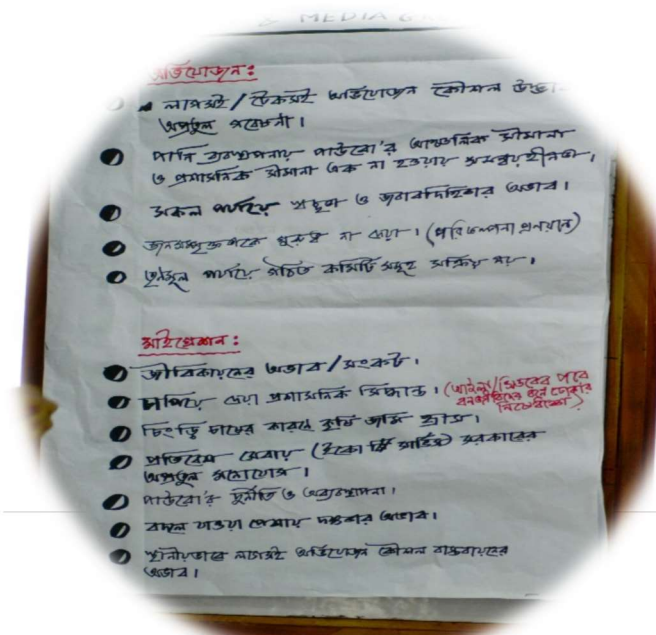
- ✚ PSF
- ✚ Tree Plantation
- ✚ Beri-badh

### Obstacles for adaptation

- ✚ Lack of economic assistance
- ✚ Bad communication system
- ✚ Salinity
- ✚ Non sustainable beri-badh
- ✚ Lack of technical assistance
- ✚ Lack of kella
- ✚ Unplanned beri-badh etc.

### ❖ Presentation from NGO and Media Group (Md. Shahinur Rahman, Asroy Foundation)

Mr Md Shahinur Rahman presented the findings on behalf of his team and he pointed out some major issues based on migration and climate change.



### Climate change Adaptation

- ✓ Lack of research on sustainable adaptation techniques
- ✓ There is no regional and administrative jurisdiction of PAUBO
- ✓ Lack of accountability and transparency

- ✓ Lacking of people participation in planning period
- ✓ Non activeness of local committee

## Migration

- ✓ Lack of livelihood
- ✓ Inappropriate administrative decision
- ✓ Decreasing agricultural land due to shrimp culture
- ✓ Lack of government interest (eco service)
- ✓ Corruption of PAUBO
- ✓ Lack of technical knowledge in a changing situation
- ✓ Lack of locally sustainable strategy on adaptation
- ✓ Political force
- ✓ Human trafficking
- ✓ Lack social bindings

## Governance

### Important issues and gaps of governance

- ✓ Non publication of law and order, that's why people don't know their right
- ✓ Inappropriate intervention of law and orders
- ✓ Out dated law and order
- ✓ Lack of good governance
- ✓ Outlook people right
- ✓ Non accessibility of common people in decision making process
- ✓ Lack of monitoring
- ✓ Lack of coordination
- ✓ Political influence
- ✓ Organizational bindings etc.

## ❖ Presentation from University teacher Group (Prof. Dr Mostafa Saroar, Khulna University)

Prof. Dr Mostafa saroar presented all the issues as a representative of University Teacher Group. Basically he provided some ideas on the all issues. The findings of this presentation are given below:

### Climate change Adaptation

- ✓ Strategic
  - ✚ National level strategy are there but not linked with local context
- ✓ Financing
  - ✚ Donor funds focus on development, they overlook adaptation
- ✓ Implementation
  - ✚ National – local link not established
  - ✚ Empowerment missing
- ✓ Administration



- ✚ Corruption
- ✚ Lack of institutional strength
- ✓ Attitude
- ✚ Resource base, but not process base

#### **Practice adaptation strategy**

- ✚ Rising platform
- ✚ Shift of crop
- ✚ Diversification
- ✚ Saline tolerant cropping
- ✚ Livelihood training
- ✚ Integrated fish farming
- ✚ Seasonal migration
- ✚ Sundarbansbased migration

#### **Failure and problem of adaptation practice**

- ✓ **Failure**
  - ✚ Lack of operating mechanism
  - ✚ Cost effective technology
  - ✚ Commercial approach
- ✓ **Problem**
  - ✚ Techno rather than eco
  - ✚ Lack of mitigation investment for exposure minimization
  - ✚ Short term project and show case good practice

#### **Migration**

- ✓ No strategy on pro or anti migration
- ✓ No safety net for migrants
- ✓ Lack of tenure security
- ✓ Lack of livelihood alternatives
- ✓ Lack of capacity

#### **❖ Presentation from local community group (Koyra) stakeholder (Ms Rebeka Sultana, Koyra Upazila)**

Ms Rebeka sultana presented as a representative of her team and pointed out some major issues based on climate change and migration.

#### **Climate change Adaptation**

##### **Union wise most vulnerable areas of Koyra Upazila**

- ✓ Koyra
  - ✚ Uttar Bedkhashi: Padma pukur, gatihgeri, gazipara, hazotkhali, sakbaria, horihorpur, katkata
  - ✚ DakkhinBedkhashi: Jorsing, ghorilal, angtihara, golkhali
  - ✚ Koyrasadar: 4 and 5 no. koyra, Modinabad, gobra, horinkhola
  - ✚ Moharajpur: Sutirkona, sutirdhar, morolerchok, mothbari, pobnarbadh, Protapsoroni, bauliaghata, loka, doshalia.

##### **Adaptation being practiced**

- ✓ **Self-practice**
  - ✚ Salinity resistant rice, vegetable, fish culture
  - ✚ Tree plantation
  - ✚ Build strong house
  - ✚ Raise height of tube-well, latrine, and pond side etc.
- ✓ **External practice (Government and NGO)**
  - ✚ Raise height of different infrastructure such as home, tube-well, pond etc.

- ✚ Training from NGO and agriculture office
- ✚ Livestock (cow, goat etc.)
- ✚ New farming technology

### Implementation Authority

She added, about 12-14 organization work for the betterment of the local people. These are:

- ✚ JJS
- ✚ CREL
- ✚ Shushilon
- ✚ Prodiapon
- ✚ BRAC
- ✚ SUS
- ✚ Uttaran
- ✚ Islamic Relief
- ✚ Red Crescent
- ✚ GonoMukhi
- ✚ Concern Worldwide
- ✚ Wateraid
- ✚ DPHE
- ✚ Agriculture, Fisheries and forest office

### Success or failed Adaptation Practice

#### ✓ Success

- ✚ Fish culture
- ✚ Pati bona
- ✚ Vegetable
- ✚ Create alternative livelihood (Tailoring)

#### ✓ Failure

- ✚ Beri-badh
- ✚ Livestock

### Obstacles for adaptation

- ✚ Lack of community awareness
- ✚ Economical problem
- ✚ Lack of sincerity
- ✚ Greater intensity of salinity



### Migration

#### Situation for migration

- ✚ Lack of employment for climate change
- ✚ Salinity
- ✚ Health problem
- ✚ Threat of disaster



She claimed that climate change is one of the major reason of migration (cyclone, flood, heavy rain, river erosion etc.)

### Types of migration and its reason

- ✓ Seasonal (Agricultural work, brick making)
- ✓ Temporary (Day labor, sunderban etc.)
- ✓ Permanent (New job, garment etc.)
- ✓ Legally in foreign country (Black)
- ✓ Illegally in foreign country (Develop country)

This group identified some major reason of migration, which is

- ✚ Lack of employment opportunities
- ✚ Lack of food
- ✚ High rate of salinity, that's why there is low agricultural productivity
- ✚ River erosion
- ✚ High disaster threat

### Trend of Migration

- ✓ Increasing sharply
  - ✚ From 2009, due to AILA more people are migrated for earnings
  - ✚ Before 2009, women doesn't go, but recently women also migrate for better livelihood
- ✓ Future Scenario
  - ✚ Due to rapid river erosion it will be increase more
  - ✚ If alternative income opportunity is not possible, then it will be increase

### Link of migration with availability of local jobs

The groupthink there is close link with availability of local job. But there is little opportunities to change their profession.

### Gender Dimension of Migration

Before 2009, only male people are migrated but at present both male and female migrate from this region. They migrate from there because due to several disaster event they suffer very much. As a result for the safety of future generation they migrate from there.

### Major places of migration

Among Bangladesh, they generally migrate to

- ✚ Dhaka
- ✚ Khulna
- ✚ Barisal
- ✚ Madaripur
- ✚ Norail
- ✚ Gopalganj
- ✚ Hilly region etc.

### ❖ Presentation from local community group (Mixed Group: Koyra 2, Terokhada, Dacope) stakeholder (AsmaKhatun)

Asma Khatun presented on behalf of her team and she pointed out some major issues based on climate change and migration.



## Climate change Adaptation

### Union wise most vulnerable areas of Koyra Upazila

- ✓ Koyra
  - ✚ Uttar Bedkhashi
- ✓ Terokhada
  - ✚ Ajhogor
- ✓ Dacope
  - ✚ Sutarkhali
  - ✚ Kamarkhola

### Adaptation being practiced

- ✓ Self-practice
  - ✚ Raise height of beribadh and house
  - ✚ Salinity resistant rice, vegetable, fish culture
  - ✚ Tree plantation
  - ✚ Build strong house
  - ✚ Raise height of tube-well, latrine, and pond side etc.
- ✓ External practice (Government and NGO)
  - ✚ Farmer Field school
  - ✚ Raise height of different infrastructure such as home, tube-well, pond etc.
  - ✚ Training from NGO and agriculture office
  - ✚ Livestock (cow, goat etc.)
  - ✚ New farming technology

## Implementation Authority

She added some organizations are working for the betterment of the local people. These are:

- ✚ JJS
- ✚ CREL
- ✚ Shushilon
- ✚ Prodipon
- ✚ BRAC
- ✚ Agriculture, Fisheries and forest office

### Success or failed Adaptation Practice

- ✓ Success
  - ✚ Fish and vegetable culture
  - ✚ Create alternative livelihood (Tailoring)
- ✓ Failure
  - ✚ Beri-badhm from PAUBO
  - ✚ Livestock


















### Obstacles for adaptation

- ✚ Lack of proper adaptation knowledge

### Governance

- ✚ Lack of proper understanding on government issues
- ✚ Government officer don't go to field, but NGO worker go field visit and know their situation well

Major findings of Group discussion is presented in table format below:

Name of groups	Issues	
	Governance	
	Important issues	Gaps and barriers of governance
Government officials (Md. Saddam Hossain, Officer, Bangladesh Bureau of Statistics)	<ul style="list-style-type: none"> <li> River bed management</li> <li> Subsidy for livestock production</li> <li> Micro credit</li> <li> Poverty database preparation</li> <li> Cultivation of vegetables of dikes</li> <li> New crops variety (Short duration and salinity tolerant)</li> <li> Canal re-excavation (TRM, Drainage system improvement)</li> <li> Shrimp aquaculture</li> <li> Fresh water aquaculture</li> <li> Cyclone shelters</li> </ul>	<ul style="list-style-type: none"> <li> Mismanagement</li> <li> Lack of coordination</li> <li> Lack of proper planning</li> <li> Lack of finding</li> <li> Shortage of skilled manpower</li> <li> Inappropriate/ inadequate research</li> <li> Lack of proper monitoring mechanism</li> </ul>
NGO and Media Group (Md. Shahinur Rahman, Asroy Foundation)	<ul style="list-style-type: none"> <li>• Non publication of law and order, that's why people don't know their right</li> <li>• Inappropriate intervention of law and orders</li> <li>• Out dated law and order</li> <li>• Outlook people right</li> <li>• Organizational bindings.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of monitoring</li> <li>• Lack of coordination</li> <li>• Political influence</li> <li>• Lack of good governance</li> <li>• Non accessibility of common people in decision making process</li> <li>• Non publication of law and order</li> <li>• Inappropriate intervention of law and orders.</li> </ul>
Local community group (Mixed Group: Koyra 2, Terokhada, Dacope) stakeholder (Asma Khatun)		<ul style="list-style-type: none"> <li>• Lack of proper understanding on government issues</li> <li>• Government officer don't go to field, but NGO worker go field visit and know their situation well</li> </ul>
Names of the groups	Climate change impacts	
Local community group stakeholder (Razia Begum,	<ul style="list-style-type: none"> <li>• Salinity</li> <li>• Flood</li> <li>• River erosion</li> <li>• Heavy rain</li> <li>• Drought</li> </ul>	

Dacope Upazila)	<ul style="list-style-type: none"> <li>• Cyclone</li> <li>• Deforestation</li> <li>• Water logging</li> <li>• Seasonal variation etc.</li> </ul>			
Names of the groups	Climate Change Adaptation			
	Union wise most vulnerable areas	Adaptation being practiced		Implementation Authority
		Self-practice	External practice	
government officials (Md. Saddam Hossain, Officer, Bangladesh Bureau of Statistics)	<ul style="list-style-type: none"> <li>• Koyra <ul style="list-style-type: none"> <li>▪ South Bedkashi</li> <li>▪ North Bedkashi</li> <li>▪ Moharajpur</li> <li>▪ KoyraSadar</li> <li>▪ Mohessoripur</li> </ul> </li> <li>✓ Dacope <ul style="list-style-type: none"> <li>▪ Sutarkhali</li> <li>▪ Tildanga</li> <li>▪ Kamarkhola</li> <li>▪ Baniashanta</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>✓ make house more resilient</li> <li>✓ home stead vegetation</li> <li>✓ fish culture</li> <li>✓ backyard livestock production</li> <li>✓ cultivation of crops on dikes</li> </ul>	<ul style="list-style-type: none"> <li>✓ Awareness and training</li> <li>✓ Micro-credit and subsidy</li> <li>✓ Supply of seeds</li> <li>✓ Rehabilitation and reconstruction</li> <li>✓ alternative livelihood (reduce stress on forest)</li> </ul>	<ul style="list-style-type: none"> <li>• BRDB</li> <li>• Agriculture office</li> <li>• Fisheries office</li> <li>• BWDB</li> <li>• LGIS etc</li> </ul>
Local community group stakeholder (Razia Begum, Dacope Upazila)	<ul style="list-style-type: none"> <li>✓ Dacope <ul style="list-style-type: none"> <li>▪ Sutarkhali</li> <li>▪ Kamarkhola</li> <li>▪ Koilashganj</li> <li>▪ Baniashanta</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>✓ Raise homeland</li> <li>✓ Tree plantation</li> <li>✓ Build strong house</li> <li>✓ Raise height of tube-well, latrine, and pond side etc.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Road construction</li> <li>• Government allowance</li> <li>• Education facilities</li> <li>• Health facilities</li> <li>• Institution building</li> <li>• Raise height of different infrastructure such as home, tube-well, pond etc.</li> <li>• Training</li> <li>• Economic assistance</li> </ul>	<ul style="list-style-type: none"> <li>• JJS:Household old plinth raising, training, PSF, water tank, tree plantation, direct economic assistance etc.</li> <li>• BRAC: Livestock, Build beribadh, wash programme, rice cultivation</li> <li>• Shushilon: Food for work, Child food</li> </ul>



			<ul style="list-style-type: none"> <li>• Rain water harvesting</li> <li>• Tree plantation</li> </ul>	<p>programme</p> <ul style="list-style-type: none"> <li>• Heed Bangladesh: Loan, PSF</li> <li>• PKSF: Loan, training, IGA etc.</li> </ul>
Local community group (Koyra) stakeholder (MsRebeka Sultana, Koyra Upazila)	<ul style="list-style-type: none"> <li>✓ Koyra</li> <li>• Uttar Bedkhashi: Padma pukur, gatiirgheri, gazipara, hazotkhali, sakbaria, horihorpur, katkata</li> <li>• Dakkhin Bedkhashi: Jorsing, ghorilal, angtiara, golkhali</li> <li>• Koyrasadar: 4 and 5 no. koyra, Modinabad, gobra, horinkhola</li> <li>• Moharajpur: Sutirkona, sutirdhar, morolerchok, mothbari, pobnarbadh, Protapsoroni, bauliaghata, loka, doshalia.</li> </ul>	<ul style="list-style-type: none"> <li>• Salinity resistant rice, vegetable, fish culture</li> <li>• Tree plantation</li> <li>• Build strong house</li> <li>• Raise height of tube-well, latrine, and pond side etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Raise height of different infrastructure such as home, tube-well, pond etc.</li> <li>• Training from NGO and agriculture office</li> <li>• Livestock (cow, goat etc.)</li> <li>• New farming technology</li> </ul>	<ul style="list-style-type: none"> <li>• JJS</li> <li>• CREL</li> <li>• Shushilon</li> <li>• Prodiapon</li> <li>• BRAC</li> <li>• SUS</li> <li>• Uttaran</li> <li>• Islamic Relief</li> <li>• Red Crescent</li> <li>• GonoMukhi</li> <li>• Concern Worldwide</li> <li>• Wateraid</li> <li>• DPHE</li> <li>• Agriculture, Fisheries and forest office</li> </ul>
Local community group (Mixed Group: Koyra 2, Terokhada, Dacope) stakeholder (AsmaKhatun )	<ul style="list-style-type: none"> <li>✓ Koyra</li> <li>✚ Uttar Bedkhashi</li> <li>✓ Terokhada</li> <li>✚ Ajhogor</li> <li>✓ Dacope</li> <li>✚ Sutarkhali</li> <li>✚ Kamarkhola</li> </ul>	<ul style="list-style-type: none"> <li>• Raise height of beribadh and house</li> <li>• Salinity resistant rice, vegetable, fish culture</li> <li>• Tree</li> </ul>	<ul style="list-style-type: none"> <li>• Farmer field school</li> <li>• Raise height of different infrastructure such as home, tube well, pond etc.</li> <li>• Training from NGO</li> </ul>	<ul style="list-style-type: none"> <li>• JJS</li> <li>• CREL</li> <li>• Shushilon</li> <li>• Prodiapon</li> <li>• BRAC</li> <li>• Agriculture, Fisheries and forest office</li> </ul>

		<ul style="list-style-type: none"> <li>plantation</li> <li>• Build strong house</li> <li>• Raise height of tube-well, latrine, and pond side etc.</li> </ul>	<ul style="list-style-type: none"> <li>and agricultural office</li> <li>• Livestock (Cow, goat etc.)</li> <li>• New farming technology</li> </ul>	
Name of the groups	Success or failure Adaptation Practice			
	Success	Failure	Problems	
Government officials (Md. Saddam Hossain, Officer, Bangladesh Bureau of Statistics)	<ul style="list-style-type: none"> <li>• Timely impose</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate production and marketing</li> <li>• Inadequate pricing</li> <li>• Communication</li> <li>• Fund generation and coordination</li> </ul>		
Local community group stakeholder (Razia Begum, Dacope Upazila)	<ul style="list-style-type: none"> <li>• Homeland raising, as a result house don't flooded</li> <li>• Latrine</li> <li>• Fresh water</li> <li>• Aquaculture</li> <li>• Training on disaster</li> </ul>	<ul style="list-style-type: none"> <li>• PSF</li> <li>• Tree Plantation</li> <li>• Beri-badh</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of economic assistance</li> <li>• Bad communication system</li> <li>• Salinity</li> <li>• Non sustainable beri-badh</li> <li>• Lack of technical assistance</li> <li>• Lack of kella</li> <li>• Unplanned beri-badh etc</li> </ul>	
University teacher Group (Prof.		<ul style="list-style-type: none"> <li>• Lack of operating mechanism</li> </ul>	<ul style="list-style-type: none"> <li>• Techno rather than eco</li> </ul>	

Dr Mostafa Saroar, Khulna University)		<ul style="list-style-type: none"> <li>• Cost effective technology</li> <li>• Commercial approach</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of mitigation investment for exposure minimization</li> <li>• Short term project and show case good practice</li> </ul>
Local community group (Koyra) stakeholder (MsRebeka Sultana, Koyra Upazila)	<ul style="list-style-type: none"> <li>• Fish culture</li> <li>• Pati bona</li> <li>• Vegetable</li> <li>• Create alternative livelihood (Tailoring)</li> </ul>	<ul style="list-style-type: none"> <li>• Beri-badh</li> <li>• Livestock</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of community awareness</li> <li>• Economical problem</li> <li>• Lack of sincerity</li> <li>• Greater intensity of salinity</li> </ul>
Local community group (Mixed Group: Koyra 2, Terokhada, Dacope) stakeholder (AsmaKhatun )	<ul style="list-style-type: none"> <li>• Fish and vegetable culture</li> <li>• Create alternative livelihood (Tailoring)</li> </ul>	<ul style="list-style-type: none"> <li>• Beri-badhm from PAUBO</li> <li>• Livestock</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of proper adaptation knowledge</li> </ul>
Name of the groups	Situation for migration		
Government officials (Md. Saddam Hossain, Officer, Bangladesh Bureau of Statistics)	<ul style="list-style-type: none"> <li>🏠 Homeless family</li> <li>🏠 Debt</li> <li>🏠 Natural Calamities (flood, storm, river erosion, cyclones etc.)</li> </ul>		
Local community group stakeholder (Razia Begum,	<ul style="list-style-type: none"> <li>🏠 High river erosion</li> <li>🏠 Lack of income generating activities</li> <li>🏠 Population increase</li> <li>🏠 Over flooded</li> <li>🏠 Frequent disaster</li> </ul>		

Dacope Upazila)	
Local community group (Koyra) stakeholder (Ms Rebeka Sultana, Koyra Upazila)	<ul style="list-style-type: none"> <li>✚ Lack of employment for climate change</li> <li>✚ Salinity</li> <li>✚ Health problem</li> <li>✚ Threat of disaster</li> </ul>
Types of migration	
Government officials (Md. Saddam Hossain, Officer, Bangladesh Bureau of Statistics)	<ul style="list-style-type: none"> <li>✓ Seasonal <ul style="list-style-type: none"> <li>✚ Socio-economic crisis</li> <li>✚ Social security</li> <li>✚ Water logging</li> </ul> </li> <li>✓ Temporary <ul style="list-style-type: none"> <li>✚ River erosion</li> <li>✚ Seasonal labor</li> <li>✚ Cyclone and others disaster</li> </ul> </li> <li>✓ Permanent <ul style="list-style-type: none"> <li>✚ Social security</li> <li>✚ River erosion</li> <li>✚ Better livelihood</li> </ul> </li> <li>✓ Cross boundary/ international <ul style="list-style-type: none"> <li>✚ Better livelihood</li> </ul> </li> <li>✓ Force migration <ul style="list-style-type: none"> <li>✚ River erosion</li> <li>✚ Cyclone</li> </ul> </li> </ul>
Local community group stakeholder (Razia Begum, Dacope Upazila)	<ul style="list-style-type: none"> <li>✓ Seasonal</li> <li>✓ Temporary</li> <li>✓ Permanent</li> <li>✓ Legally in foreign country</li> <li>✓ Illegally in foreign country</li> </ul>
Local community group (Koyra) stakeholder (Ms Rebeka Sultana,	<ul style="list-style-type: none"> <li>✓ Seasonal (Agricultural work, brick making)</li> <li>✓ Temporary (Day labor, sunderban etc.)</li> <li>✓ Permanent (New job, garment etc.)</li> <li>✓ Legally in foreign country (Black)</li> <li>✓ Illegally in foreign country (Develop country)</li> </ul>

Koyra Upazila)	
Trends of Migration	
Government officials (Md. Saddam Hossain, Officer, Bangladesh Bureau of Statistics)	<ul style="list-style-type: none"> <li>✓ Steadily <ul style="list-style-type: none"> <li>Due to river erosion</li> </ul> </li> <li>✓ May increase <ul style="list-style-type: none"> <li>Due to impact of climatic stress</li> </ul> </li> <li>✓ Permanent <ul style="list-style-type: none"> <li>Day labors</li> <li>Farmers</li> </ul> </li> </ul>
Local community group stakeholder (Razia Begum, Dacope Upazila)	<ul style="list-style-type: none"> <li>Due to climate change and lack of income generating activities</li> <li>More man are migrated than women</li> <li>In future, It will increasing more</li> </ul>
Local community group stakeholder (Koyra) (Ms Rebeka Sultana, Koyra Upazila)	<ul style="list-style-type: none"> <li>✓ Increasing sharply <ul style="list-style-type: none"> <li>From 2009, due to AILA more people are migrated for earnings</li> <li>Before 2009, women doesn't go, but recently women also migrate for better livelihood</li> </ul> </li> <li>✓ Future Scenario <ul style="list-style-type: none"> <li>Due to rapid river erosion it will be increase more</li> <li>If alternative income opportunity is not possible, then it will be increase</li> </ul> </li> </ul>
Link of migration with availability of local jobs	
Government officials (Md. Saddam Hossain, Officer, Bangladesh Bureau of Statistics)	Mr Hossain added that there is a strong link between migration and availability of local jobs. Due to lack of job opportunities in local sector, people are migrated in the urban sector for better livelihood.
Local community group stakeholder (Razia	Lack of local job opportunity force people to migrate



Begum, Dacope Upazila)	
Local community group (Koyra) stakeholder (Ms Rebeka Sultana, Koyra Upazila)	The groupthink there is close link with availability of local job. But there is little opportunities to change their profession.
Gender dimension of migration	
Government officials (Md. Saddam Hossain, Officer, Bangladesh Bureau of Statistics)	<ul style="list-style-type: none"> <li>+ Females moves to garments sector, because they have better opportunities in this sector</li> <li>+ Male goes for day labor purposes</li> <li>+ Male and Female ratio of migration: 70% and 30%</li> </ul>
Local community group stakeholder (Razia Begum, Dacope Upazila)	<p>Women don't want to migrate, because they have several opportunities of earning through income generating activities. Among these</p> <ul style="list-style-type: none"> <li>+ Small business</li> <li>+ Livestock</li> <li>+ Tailoring</li> <li>+ Vegetable gardening</li> <li>+ Day labor</li> <li>+ Fishing</li> <li>+ Housewife</li> <li>+ Take care of children</li> </ul>
Local community group (Koyra) stakeholder (Ms Rebeka Sultana, Koyra	Before 2009, only male people are migrated but at present both male and female migrate from this region. They migrate from there because due to several disaster event they suffer very much. As a result for the safety of future generation they migrate from there.

## Closing

After a long discussion and presentation event, Prof. Dr Mashfiquis Salehin from BUET expressed his gratitude to all and he added he is totally astonished to see this information. He also added that the information gained from the workshop



exceeds his expectations. At last Prof. Mashfiquis Salehin offer flower to Mr ATM Zakir Hossain, Executive Director of JJS and they thanked everyone for attending at the workshop and making it a success.

## **Annex**



## Climate change workshop held

A daylong workshop titled 'Deltas, vulnerability and climate change: Migration and Adaptation' was held at the conference room of CSS Ava Center of Khulna city yesterday.

A Khulna based non-government organisation 'Jagrata Juba Shangha (JJS)' organised the workshop in cooperation with University of Southampton-UK, Institute of Water and Flood Management of Bangladesh University of Engineering and Technology (BUET), funded by International Development Research Centre of Canada and Department for International Development (DFID) of UK.

Mashfiqus Salehin and Md Shahjahan Mondal, professors of BUET, Mohammad Rashed Bhuiyan of Dhaka University, Md Ekram Ullah of Water Resource Management, project coordinator Md Anisur Rahman, Deputy Director of Department of Agricultural Extension (DAE), Khulna Md Abdul Latif, spoke on the occasion.

INDEPENDENT NEWS/AGENCY

The Daily Tribune-2

## The Daily Tribune

Khulna: Tuesday, Sep 01, 2015

## Workshop on DECCMA project held in Khulna

II Staff Reporter II

A district level workshop on the Deltas, vulnerability and climate change: migration and adaptation (DECCMA) Project was held at CSS Ava Center in Khulna city today (Monday).

It was jointly organized by the Institute of Water and Flood Management (IWFM) of Bangladesh University of Engineering and Technology (BUET), Water Resources Planning Organization (WARPO) and Jagrata Juba Shangha (JJS). The "Deltas, vulnerability and Climate Change: Migration and Adaptation (DECCMA)" is a consortium project under the Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA) program funded by Canada's International Development Research Centre (IDRC) and the UK's Department for International Development (DFID).

Presided over by Professor Mushfiqus Salehin of the Institute of Water and Flood Management (IWFM) of Bangladesh University of Engineering and Technology (BUET), the workshop was addressed by Md. Ekramullah of the Water

Resources Planning Organisation (WARPO), Executive Director of NGO Jagrata Juba Shangha (JJS) A. T. M. Zakir Hossain and Director General of WARPO Abdur Rob Mian.

Professor Mushfiqus Salehin while addressing the workshop said that the research is aimed at climate change impact and adaptation issues in two deltas in South Asia and one delta in Africa. Deltas are vulnerable areas and are considered as hotspots to climate change and sea-level rise.

The researchers in the DECCMA Project will work with the governments and a wide range of stakeholders of the delta regions to understand how people are adapting to the physical effects of climate change and human interventions such as sea level rise, alongside socio-economic pressures in delta regions and implications of different adaptation options to those challenges. There will be a particular focus on assessing migration as an adaptation in deltaic environments under a changing climate. The project aims to develop methods to predict how

these deltas may evolve over the next 50 to 100 years and provide governments with the knowledge and tools to ensure future policy and can maximize planning services and programmes to the benefit of the region's population. A total of 70 people participated in the workshop. They included representatives from local government institutions, non-government organizations, media, academics, and about 40 community people from Koyra, Dacope and Terokhada upazilas of Khulna district.

The participants discussed in groups on different issues, including governance and management aspects associated with climate change adaptation and migration, gaps in the governance system, barriers in policy and legal implementation, types of adaptations, both planned and autonomous, being practiced and reasons for their success and failure. Nature of migration from the area and their drivers, migration trends among different livelihood groups, and gender dimensions of migration also came under discussions in the workshop.

## দৈনিক পূর্বাবল

খুলনা ৪ মঙ্গলবার ১ সেপ্টেম্বর ২০১৫

## জলবায়ু পরিবর্তনজনিত অভিবাসন ও অভিযোজন বিষয়ক কর্মশালা

স্টাফ রিপোর্টার ৪ জলবায়ু পরিবর্তনজনিত কারণে উপকূলীয় অঞ্চলের অধিবাসীদের অভিবাসন ও অভিযোজন বিষয়ক জেলা পর্যায়ের অংশিদারিত্বমূলক কর্মশালা গতকাল সোমবার নগরীর সিএসএস আভা সেন্টারে অনুষ্ঠিত হয়।

পানি ও বন্যা ব্যবস্থাপনা ইনস্টিটিউট, বাংলাদেশ প্রকৌশল ও প্রযুক্তি বিশ্ববিদ্যালয়(বুয়েট) এবং উন্নয়ন সংস্থা জাহাজ যুব সংঘের(জেকেএস) যৌথ উদ্যোগে এ কর্মশালায় সরকারী বেসরকারী সংস্থার প্রতিনিধি শিক্ষাবিদ, মিডিয়া কর্মী এবং কয়রা, দাকোপ ও তেরখাদা এলাকার অংশিদার জনগোষ্ঠী অংশগ্রহণ করেন।

কর্মশালায় সাগর বজ্রতা, করোন, জেকেএসএর নির্বাহী পরিচালক এটিএম জাবির হোসেন, রবার্ট বুকি এবং জলবায়ু পরিবর্তন : অভিবাসন এবং অভিযোজন বিষয়ক গবেষণা প্রকল্প সম্পর্কে ধারণা দেন বুয়েটের প্রফেসর মুশফিকুল সালাহীন। অন্যান্যদের মধ্যে রক্ততা করেন প্রফেসর মোহাম্মদ শাহজাহান মন্ডল, মোহাম্মদ রাশেদ ভূইয়া, মোঃ একরাম উল্লাহ প্রমুখ।

কানাদার ইন্টারন্যাশনাল ডেভেলপমেন্ট রিসার্চ সেন্টার (আইডিআরসি) এবং যুক্তরাজ্যের ডিপার্টমেন্ট ফর ইন্টারন্যাশনাল ডেভেলপমেন্ট (ডিএফআইডি)র অর্থায়নে গত বছর জেজয়্যারী মাস থেকে দেশের ১৯টি জেলায় এ গবেষণা কার্যক্রম শুরু হয়েছে। যা চলবে ২০১৮ সালের নভেম্বর মাস পর্যন্ত। এ গবেষণার অংশ হিসেবে অংশিদারিত্বমূলক এ কর্মশালা গতকাল অনুষ্ঠিত হয়।

কর্মশালায় জলবায়ু পরিবর্তনের ফলে উপকূলীয় অঞ্চলের মানুষের দুর্ভোগ-দুশচার নানা চিত্র ফুটে ওঠে। বর্তমান এ কর্মশালায় অংশগ্রহণ করেন।





Community

Time :

[illegible]



### Attendance sheet

Venue:

Time :

[illegible]

**Deltas, Vulnerability and Climate Change, Migration and Adaptation  
(DECCMA) Project ,IWFM,BUET,Dhaka**

COMMUNITY

**Attendance sheet**

DECCMA District level Stakeholder Workshop-Khulna

Date : 31.08.2015

Venue:

Time :

Sl No.	Name	Organization	Mobile #	E-mail	Signature
16	শাহেদ	ড. হুমায়ুন	01915976445		শাহেদ
17	নাজিম	ড. হুমায়ুন	01952981023		নাজিম
18	ইব্রাহিমুল আলম	কম্বা ডি. (বঙ্গবন্ধু)	01950619460		ইব্রাহিম
19	মহিউর রায়	কম্বা	01911029420		মহিউর
20	মিস ফাহিমাতুল জুলজনা নাসি	জাফিয়া	01963696950		ফাহিমাতুল,
21	শাহেদ	কম্বা	01924515835		শাহেদ
22	জাহান্না	মহাশক্তি	01938-609290		জাহান্না
23	ফাহিম	কম্বা	01911-423310		ফাহিম
24	মমতাজ	ড. হুমায়ুন	01947391952		মমতাজ
25	মাহমুদ	ড. হুমায়ুন	019523410912		মাহমুদ
26	ফাহিম	মহাশক্তি	01929662432		ফাহিম
27	দুর্গা দেবী মাহমুদী	মহাশক্তি	01938-609303		দুর্গা দেবী
28	মিস ফাহিমাতুল	মহাশক্তি	01925214919		ফাহিমাতুল
29	মিসা জুলজনা	জাফিয়া	01946-569020		মিসা
30	মোহাম্মদ আলী	কম্বা	01911-725351	hammadalali@gmail.com	মোহাম্মদ

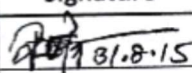
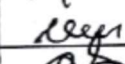
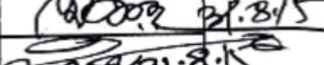
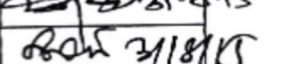
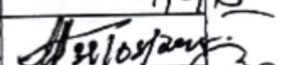
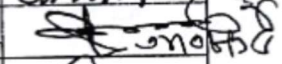
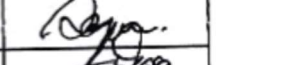
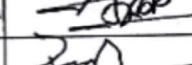
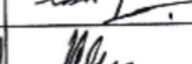
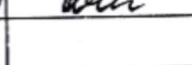
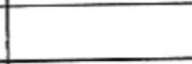
**Deltas, Vulnerability and Climate Change, Migration and Adaptation  
(DECCMA) Project, IWFM, BUET, Dhaka**  
**Attendance sheet**

DECCMA District level Stakeholder Workshop-Khulna

Date : 31.08.2015

Venue:

Time :

Sl No.	Name	Organization	Mobile #	E-mail	Signature
01	Md. Ekram Ullah	WARPO	01715064922	bd. ekram@gmail.com	
02	MUNIR AHMED	TAQA	01703230818	munir.taha@gmail.com	
03	A.K.M. MANDAN	D.R.R.O	01711-405714	akm.mandan@gmail.com	
4	M. A. Motahid	WDP	0172-979053	-	
5	Mohammed Laddan Hossain Khan	Divisional Statistics Office	01816024681	saddam.khan@yafco.com	
6	AZIZUL HAQUE JOARDER	DDM	01222-439240	joarder62@gmail.com	
7	ENGR. CHANCHAL KUMAR MISTRY	BADC	01711240961	zen-badc_khulna@yahoo.com	
8	Syed Abdul Quayum	DOE	01720-45722	quayum@doe.gov.bd	
9	MD. RAFIQUL ISLAM	BRDB	01918611677	rafiqul.islam731@gmail.com	
10	Md. Abdul Latif	DAE	01922-629564	ddaekm@yahoo.com	
11	Md. Habibur Rahmun	JTS	01718 610466	habibur.jamshed@gmail.com	



**Deltas, Vulnerability and Climate Change, Migration and Adaptation  
(DECCMA) Project ,IWFM,BUET,Dhaka**

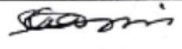
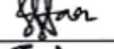
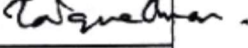
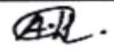
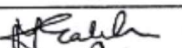





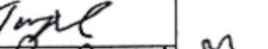

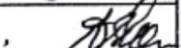
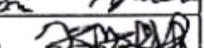
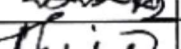
**Attendance sheet**

DECCMA District level Stakeholder Workshop-Khulna

Date : 31.08.2015

Venue:

Time :

Sl No.	Name	Organization	Mobile #	E-mail	Signature
1	Shahjahan Mondal	IWFM	01717057624	mshahjahanmondal@iwfm.buet.ac.bd	
2	MD. RAZUL HAQ	IWFM	01717656198	iza2023@gmail.com	
3	Meer Ahmed Tanigul Omar	IWFM	01552-409278	anjolizbd@yahoo.com	
4	Dr. Aminul Hossain	WARPO	01818172149	aminulose@yahoo.com	
5	Mashfiqus Salehin	IWFM, BUET	01937164753	mashfiqusalehin@iwfm.buet.ac.bd	
6	Mohammad Alamgir	WARPO	01556555684	alamgirforester@yahoo.com	
7	Dr. Md. Nazmus Sadath	KU	01774779682	mnsadath@yahoo.com	
8	Saima Rahman	KUET, (URP)	01723328591	rahman.saima@yahoo.com	
9	Prof. Dr. Md. Atikur Rahman	KU	01730004151	atikku_ras@yahoo.com	
10	Dr. Tanjil Sowgat	KU	0171932073	tsowgat@yahoo.com	
11	Mohammad Rashed Alam Bhuiyan	RMMRU, UNIVERSITY OF DHAKA	01711151586	rashedgreen@yahoo.com	
12	Abroza Islam	Banophul	01759179150	banophul79@yahoo.com	
13	S M Habib	ATN Bangla	01214023023	habilatn@gmail.com	
14	Md. Atiqul Islam	KUET	0173341341	atiqulcivil@yahoo.com	
15	Quazi Zahangir Hossain	KU	01914067504	zahangirku@yahoo.com	

557

Date : 31.08.2015

Time :

e



**Deltas, Vulnerability and Climate Change, Migration and Adaptation  
(DECCMA) Project, IWFM, BUET, Dhaka**

**Attendance sheet**

DECCMA District level Stakeholder Workshop-Khulna

Date : 31.08.2015

Venue:

Time :

Sl No.	Name	Organization	Mobile #	E-mail	Signature
1	Md. Shahinur Islam	Ashroy Foundation	01212-562499	shahin@ashroyfoundation.org	
2	Anwar Ahmed	ii	01710240212	anwar.ahmed@icloud.com	
3	Md. Mustafizur Rahman	U.R.P KU	01725-682272	planner.sujat@gmail.com	
4	Md. Shojib Ali	JJS	01738-407769	shojiburp19@gmail.com	
5	Syed Muktadernul Islam	ES/KU	01217-996018	syed.islam@live.com	
6	MOQBUL HOSSAIN MINTU	Khulna Press Club	01711-398718	mintu.khan@gmail.com	
7	Gazi Moniruzzaman	Daily Independent	01711-121683	gazi.monir@live.com	
8	MD A R HASWADAL	IWFM			
9	G. K. M. Sulfar Rahin	NGO Forum	01611-131152	nsor@khulna@yahoo.com	
10	S. M. Zahid Hossain	BSS & OBSERVER	0171-6241755	Zahid_observer@yahoo.com	
11	Amanullah	New Age	01717-127176		
12	H M Abuddin	Purbanchal	01715-855044	abuddin.purbanchal@gmail.com	
13	Nazmul Huda	JJS	01712-862115	naemulh@icloud.com	
14	Md. Riad Hossain	JJS	01726740577	riad_toua@yahoo.com	
15	Shahina Akter	JJS	01876572127		

**Deltas, Vulnerability and Climate Change, Migration and Adaptation  
(DECCMA) Project ,IWFM,BUET,Dhaka**

---

**Attendance sheet**

DECCMA District level Stakeholder Workshop-Khulna

Date : 31.08.2015

Venue:

Time :

[illegible]



Support/A

Date : 31.08.2015

**Venue:**

Time :

[illegible]