Food, pure water, medicine need of the moment

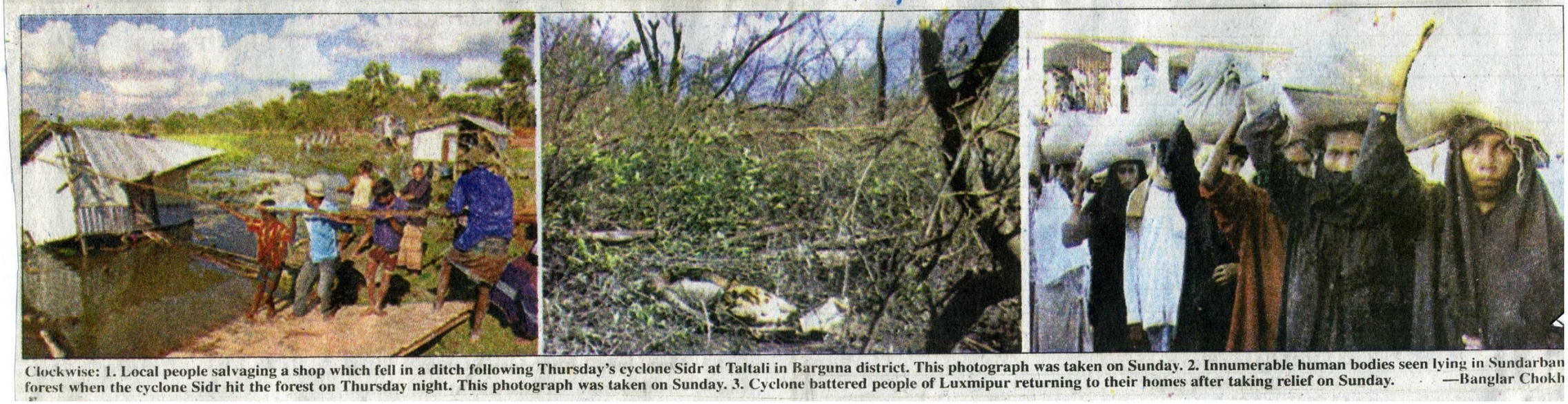
Staff Correspondent

Dispatching dry food, drinking water, medicines and house building materials on emergency basis to the worst ever cyclone affected South and South Eastern Bangladesh have become urgent need of the hour to save the suffering humanity, according to information received from our local correspondents..

Along with the pains of the loss of near and dear ones and hard-earned property, the pangs of hunger have now become unbearable for the millions of hungry mouths in the battered coastal areas.

The miseries and agonies of the afflicted people in the coastal belt, small islands and isolated char areas are mounting every moment as three clear days have passed since the cyclone Sidr cut a swathe

(See Page 15 Col. 2)



Clockwise: 1. Local people salvaging a shop which fell in a ditch following Thursday's cyclone Sidr at Taltali in Barguna district. This photograph was taken on Sunday. 2. Innumerable human bodies seen lying in Sundarban forest when the cyclone Sidr hit the forest on Thursday night. This photograph was taken on Sunday. 3. Cyclone battered people of Luxmipur returning to their homes after taking relief on Sunday. —Banglar Chokh

PRESENTATION ON

LOSS & DAMAGE IN COASTAL BANGLADESH

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GOBESHONA CONFERENCE ON CLIMATE CHANGE IN BANGLADESH

Date: 8-11 January 2015

VENUE: IUB, DHAKA

Overview of the Presentation

- Study Background
  - Conceptual framework (Loss & damage, direct & indirect, economic & non-economic L&D)
  - Methods and steps (Quantitative and qualitative aspects; insight from and the voice of the vulnerable communities)
  - Study Sites (Geo-physical and climate disasters)
- Study Findings:
- Socio-economic Conditions and Natural Resources base
- Climate Variability, Slow onset and Extremes
- Loss and Damages
  - Economic L&D
  - Non-economic L&D
- Adaptation needs and priorities
- Compensation and financial supports

Background of the Study

- **Bangladesh has made some progress in Policy/Strategies**
  - NAPA, BCCSAP, BCCTF &RF
  - Promoting Adaptation and Mitigation
  - Integration of CCA into DRR and sectoral development
  - Govt., NGOs and Communities are working collectively
  - **But the efforts are extremely inadequate considering the impacts, damage and needs of the vulnerable communities**
- **Huge L&D occur in all climate affected zones**
  - Floodplain, Riverine Chars & Haor Basin
  - Drought prone Upland and Hilly area; & Coastal Zones
- **Coastal Area are badly affected by all climate Stresses:** Variability, slow onset (salinity & SRL) and Climatic extremes (two mega cyclones – Sidr, 2007 and Aila, 2009)
- **L&D are enormous in the areas of:**
  - Agriculture, Water and Health, Infrastructure, NRs and assets, employment, income and livelihoods
  - Non-Economic L&D

Issues of L&D in Climate Negotiation

- **L&D received much attention in the recent years**
  - **UNFCCC has established a work programme to enhance understanding on L&D at COP-16 in Cancun, 2010**
  - **3 working groups were set on:**
    - **Assessing the risks of L&D**
    - **Approach to address L&D & implementation**
    - **Role of the convention and the parties**
- CoP-17 decided to set up and institutional mechanism
- CoP-18 acknowledged the necessity of institutional capacity
- **Bangladesh made the case of L&D in the COPs**
- **But there is greater need for raising awareness on the issues and preparation of a strong position to put forward the demands of the vulnerable communities in the upcoming COPs**
- Research organizations and Civil Society Groups support the government's initiatives
  - **BCAS with CAid conducted a study on L&D in Southwest coastal BD in 2014 in the backdrop of COP-20**

What is L&D and the Approach of the Study

- Loss and damage refers to the adverse effects of climate change that cannot be prevented by global mitigation and local adaptation
- L&D would be less if the developed countries took adequate mitigation measures, but unfortunately mitigation actions are awfully inadequate
- Measurement of L&D is complex:
  - Direct L&D; Loss of lives and property and loss of productivity and income immediately and in the long run
  - Economic and non-economic loss and damage
- The study followed the principles and guidelines of Cancun work programme with focus on Socio-economic, demographic, social vulnerability and adaptive capacity aspects

Conceptual framework

- **The study followed the UK Climate Change Risk Assessment (CCRA) framework**
- **It combined both DRR and CCA lens and focused mainly on people, livelihoods and social vulnerability**
  - **The study assessed the types and nature of L&D of the last 10 yeas at HH levels considering the impacts of cyclones Sidr and Aila;**
  - **It also considered the effect of increasing salinity and water logging**
- **Economic and non-economic loss and damage were assessed using both quantitative and qualitative tools**
  - **Economic losses are the direct effects of CC on the properties, goods and services; productivity, income and livelihoods**
  - **Non-economic loss includes the negative effects of CC on food and nutrition, water and health, community links and family ties, human displacement, cultural aspects, indigenous knowledge and practices, NR, biodiversity and ESS**
  - **It is very difficult to make clear distinction between the two types;**
  - **Further L&D in the non-economic areas can ultimately enhance L&D in the economic fields**

Methods and steps

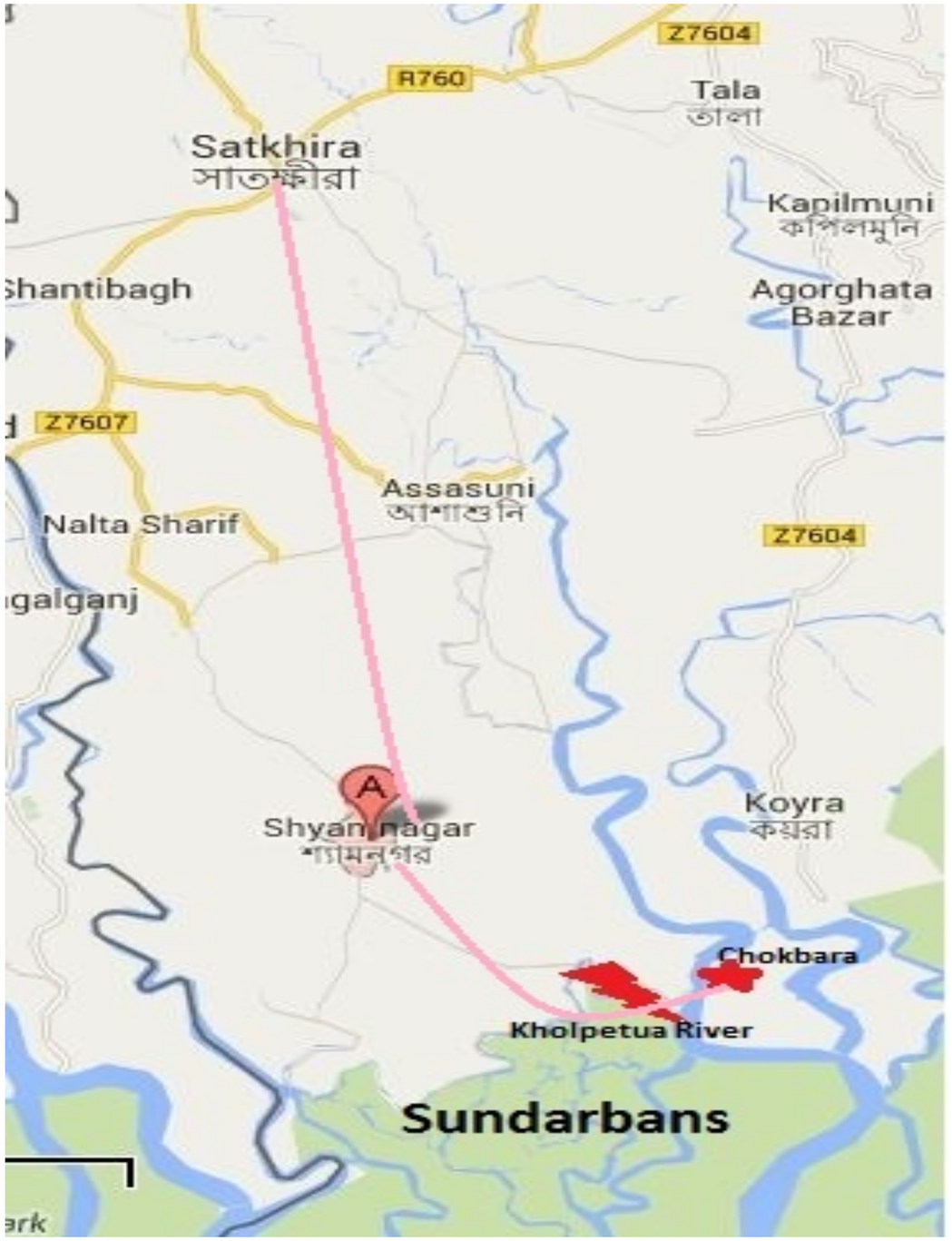
- Participatory and multi-disciplinary approach
  - Participatory village and climate hazard mapping
  - Household survey following a semi-structured questionnaire
  - Key Informant & In-depth Interviews (KIIs)
  - Focused Group Discussion (FGDs); &
  - Case Studies
- 300 households in 3 villages of 3 vulnerable coastal districts (Satkhira, Khulna and Bagerhat) were surveyed
- The study used multistage Random sampling
- It integrated and triangulated the Q&Q information as well as geophysical, climatic and social and economic data

3 Representative Villages

District	Upazila	Union	Village
Satkhira	Shamnagor	Gabura	Chokbara
Khulna	Dacope	Kamarkhola	Jaliakhali
Bagerhat	Shwarankhola	Rayenda	Rajeshwar

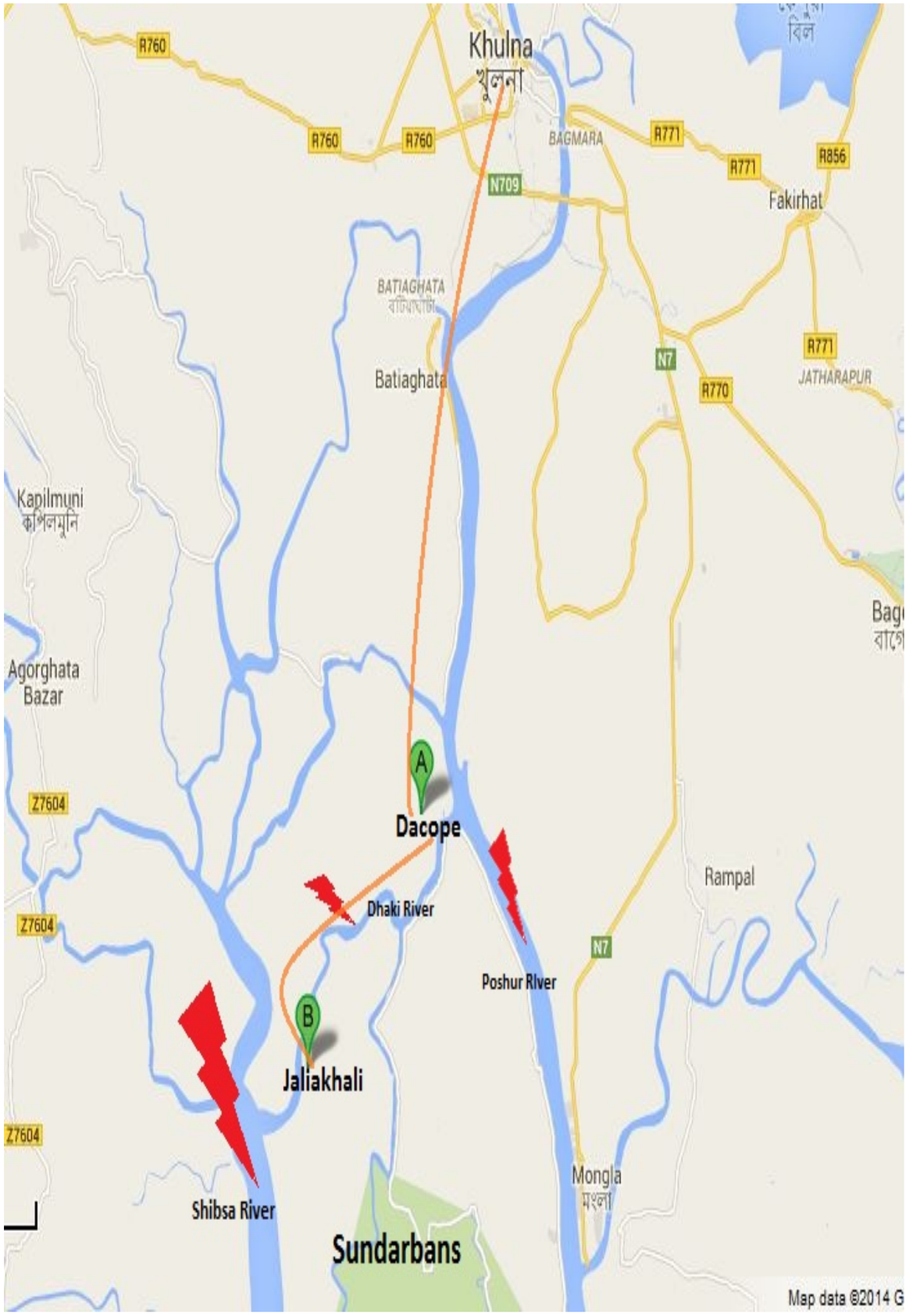
Chokbara, Satkhira

- Very close to the Sundarbans
- Surrounded by ferocious rivers Kholpetua and Kopotakkho from all sides
- A bit lower plain land in active tidal zone: Shrimp farming and fishing are main occupations
- Climatic disasters: High salinity, cyclones (Aila) & tidal surge, water logging, river erosion, erratic rainfall, drought as well as heat and cold waves



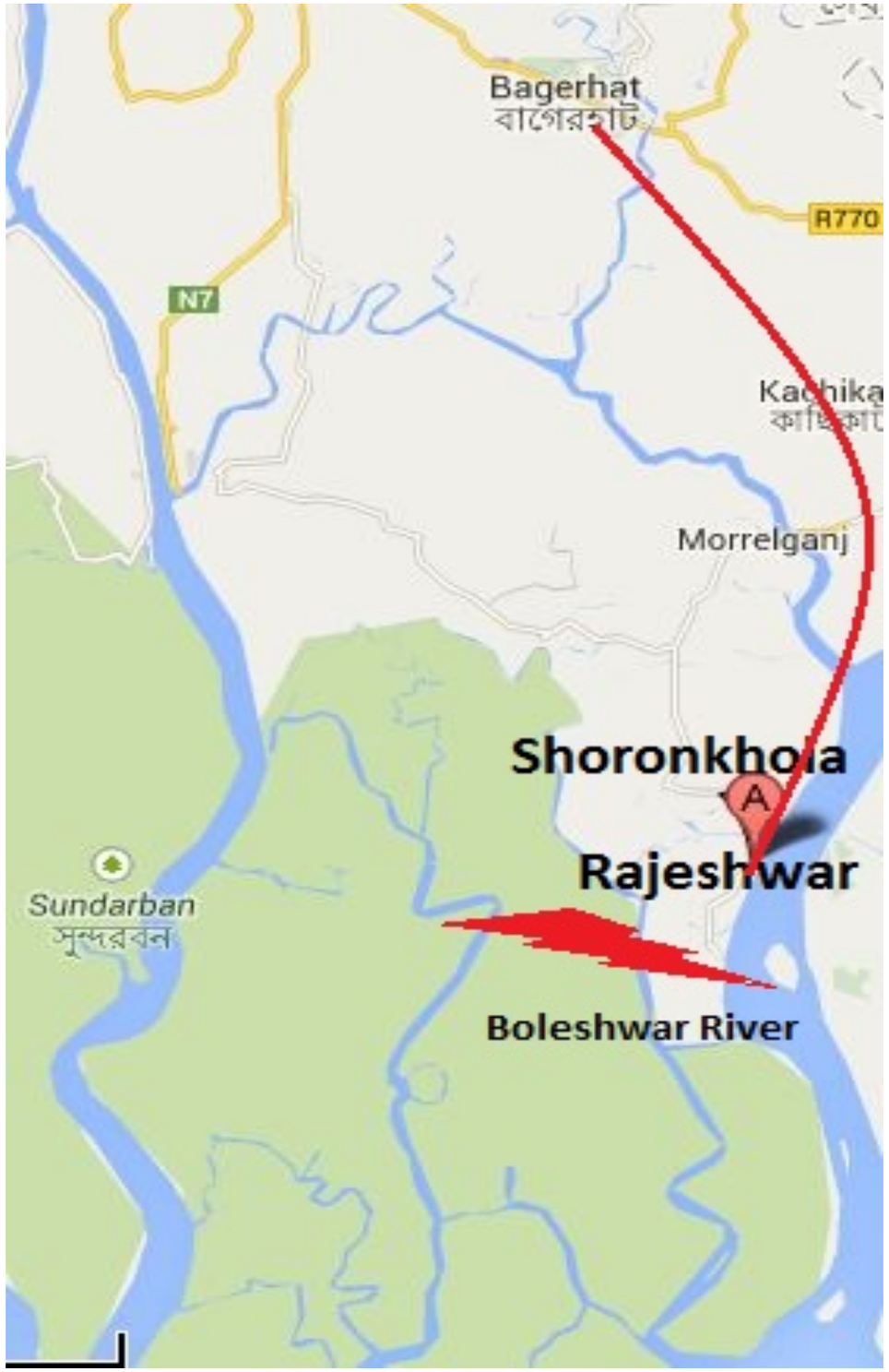
Jaliakhali, Khulna

- Situated near the Sundarbans
- Surrounded by river Dhaki from three sides except south. But river Shibsa and Vodra flow in the south
- Lower plain land with embankment: Agriculture is the main occupation
- Climatic disasters: high salinity, heat wave, cyclones (Aila & Sidr), tidal surge, river erosion & erratic rainfall affecting agriculture



Rajeshwar, Bagerhat

- Furious Boleshwar River flows through the east and Sundarbans is around 10 km in the south
- A bit lower plain land; Soil is clay, loamy and sandy: Main livelihoods are agriculture, wage earning, fisheries and others
- Climatic disasters: cyclones (Sidr), tidal surge, heat wave, river erosion, erratic rainfall, and cold wave have severe impacts on all livelihood sectors. But the impact of salinity is comparatively low



Key Findings: Socio-economic Conditions

- **Average Age of the hh Heads: 43.2 years (Highest-80 and lowest-18 years)**
- **Literacy rate: 65.3% (Illiterate -11.7% and can sign only 23%)**
  - **Literacy rate has been comparatively high in high (70%) in Jaliakhali**
- **Main Occupation has been wage earning (Agri and non-agri labour) in the 3 villages: 27 % followed by agriculture (25%)**
  - **Agricultural activities are high in Jaliakhali (44%) and in Rajessor (23%), but very low in Chakbora, Satkhira (only 9%)**
- **Shrimp cultivation and fishing are the main occupation in Chakbora (37%) in Shyamnagar**
- **About 89% of the hhs has land (homestead and farming land)**
  - **About 85% hhhs have homestead land and 38% have agricultural land**
- **About 28% hhs have cows (2.5 cattles); 23% hhs have goats (2.7 goats on an average); and only 16% hhs have sheep (3 on an average)**
- **HH Average annual Income of the last year: TK. 85,220**

  Agriculture: Tk. 26,466; Shrimp and fish: Tk. 22,922 and

  Wage earning Tk. 19,893

Climate Factors and Key Areas of L&D

Climate Factors	Agriculture	Fisheries	Water	Health	Infrastructure	Forest and biodiversity	Family and community
Extremes: Cyclones, tidal surges and floods	++++	++++	++	+++	+++++	+++	++++++
Slow onset: Salinity, drought, High tide, water logging and SLR	++	++	++	++	+	+	++
Variability: Temperature, erratic rainfall	+	+	+	++	-	++	+

Perception about Loss and Damages:

% of HHs experienced L&D

Climate Factors	Climate Stresses	Impacts	Coping and Adaptation	L&D
Cyclones and tidal surges: Sidr & Aila	100	100	67	100
Salinity	80	78	64	80
High tide and Water logging	54	46	23	51
Erosion and breaching embankment	38	35	16	33
Temp, Heat and erratic rainfall	95	91	61	90

Key Areas of Economic Loss and Damage

- **Agriculture and all livelihood assets and activities were been affected**
- **People *lost their* houses, lands, crops, livestock, fisheries resources**
- **Water, sanitation systems and health were badly affected; and**
- **All people were affected, but the poor and women were worst sufferers**

Contd.

Areas and Types of Non-economic L&D

- Cyclones had Impacts on lives of people and social, cultural & religious practices
- Breakdown of social nexus and relationship
- Human displacement & migration to towns/cities
- NRs (forest and water bodies) and biodiversity (fishes and tree species) were affected by cyclones and salinity
- Los of biomass and fuel
- Growing food insecurity and malnutrition

Contd.

- Social insecurity of women has increased as they have to go outside for work
- Peace and happiness in family reduced as parents are not able to provide necessary things to their children due to financial crisis. It resulted in children's disobedience to their parents.
- Education of children has been hampered due to the damage of schools and communication system. Boys and girls are involved in earning activities to assist their families too.

Contd.

- Rich people become poor and their social status deteriorated. They cannot arrange marriage for their sons and daughters with the families belong to their previous social status
- Families living on embankment cannot arrange marriage for their sons and daughters. No one comes with marriage proposals due to the destitution
- Livestock population has decreased in the study areas, milk is not available there like before
- Due to loss of ecosystems and biodiversity poor people cannot collect natural foods and they are deprived from nutrition and vitamins.

Contd.

- Poor people are suffering from malnutrition and different types of diseases related malnutrition, Specially poor women are suffering from anemia
- Pregnant women suffers from drinking of saline water. They are worried that the upcoming babies would be adversely affected by saline water.
- People have become relief dependent, which reduced their hard working resolve

Household L&D in TK. (mainly from the effects of Cyclones Sidr, Aila & Salinity)

Affected Sectors	Average Amount of Loss in Taka for Sidor and Aila			
	Chakbora	Jaliakhali	Rajeshwor	HH 300
Agriculture and Vegetables (1st)	63274	188376	91000	138,030
	-	14500	4471	6700
Fisheries (3rd)	81127	83723	44387	67,929
Livestock	30261	47923	36015	38071
Homestead gardening	2568	4030	2013	2889
Wage labor (2nd)	57500	74909	50380	71,468
Water and sanitation	7357	7800	5699	6932
Health sector	11980	13528	7726	11081
Houses and small infrastructure 4th)	68255	69852	61429	66,512
Trees and plants	21421	21768	39538	27411
Other income	77188	44212	64613	66233
Average per HH	259,344	411,914	268,294	**313,184**

Adaptation Needs and Demands

- Strong and high embankment to prevent erosion, inundation and SLR
- Building strong houses and planed human settlement for the displaced
- Creating work opportunities
- Providing lands to the landless people
- Saline resistant paddy and vegetable seeds
  - Irrigation management and change in farming practices
- Fresh water pond and RWHS

- Equipments of agriculture and training on climate resilient farming systems
- Financial assistance and training for women in sewing, farming and tailor work
- Financial capital for small business, and rickshaw/van driving
- Fishing nets and boat for the fishermen
- Adequate cyclone shelter for human and livestock in each village

Demands from the government

- Build cyclone shelter, road and embankment
- Social safety-net; food and water security
- Health support and medical facilities
- Agricultural development with new seeds, fertilizer and irrigation management
- Financial support and job creation
- Rehabilitation of the climate displaced/refugees
- Tree plantation and protection of the Sundarbans
- Improved DRR and early warning systems

Demands from the Development Partners

- Water supply and sanitation
- Promote climate resilient agriculture
- Relief and rehabilitation
- Construction of multi-purpose cyclone shelters; roads and communication
- Training and financial supports
- Social protection, empowerment and poverty alleviation
- Promotion of rights and climate justice

Financial Support for the HHs to address L&D

Different Sectors	Average Amount of Financial Demand per HH (Taka)			
	Chakbora (hhs 100)	Jaliakhali (hhs 100)	Rajeshwor (hs100)	HHs 300
Agriculture	66316	33502	34511	**41341**
Vegetables	8887	13590	4259	9017
Trees	3594	4936	3743	4069
Livestock	18097	16712	30932	**22312**
Fish and shrimp culture	22028	13484	32780	**23971**
Other income	38880	16961	48380	**37861**
Water and sanitation	17349	21253	24101	**20908**
Health sector	8710	7698	9250	8125
Houses and furniture	67682	63213	104191	**79122**
Roads and communication	18947	13182	10824	14659
Fuel	10808	5429	11453	9335
Children education	11156	11292	11500	11262
Average in Tk	**177,801**	**159,511**	**230,546**	**190,040**

Financial support for the 3 affected village communities for the next five years: Tk.15 Crore

Thanks!