Welcome!

Come in and feel free to share something about you in the chat

This meeting will be recorded

If you connection allows, you are welcome to leave your camera on.

SECTOR NETWORK TUEWAS
Transport, Environment, Energy, Water in Asia

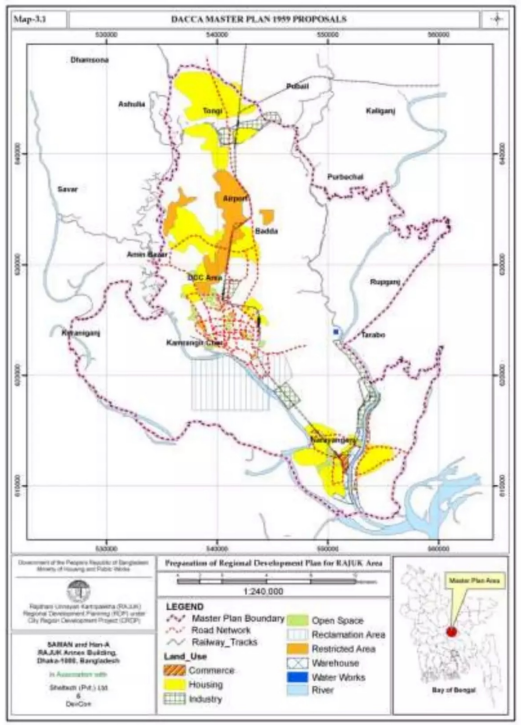
SECTOR NETWORK SNGA
Good Governance in Asia

Transformation - Urban Opportunities - Climate Change (TUrbOCliC)

Cross-sectoral group of the TUEWAS and SNGA network of GIZ

Webinar #2
Climate resilient inclusive urban master plan (CRIUMP) – Experiences from Bangladesh

05th of September 2023, 11:00 – 12:00 CEST



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Programme

- **Sebastian Markart** and **Mohammad Ishtiuq Hossain -** Joint Speakers of TUrbOCliC
- Check-in – **Luciana Maia**, TUrbOCliC consultant
- Climate resilient inclusive urban master plan – Experiences from Bangladesh: **Hamidul Chowdhury** (Rony) - Head of CRISC and **Enamul Haq** – Senior Advisor CRISC
- Q&A and closing

TUrbOCliC

networking, knowledge management, including peer-learning among programs, regional and technical exchange with national and international partners, strengthening the technical and advisory capacities of GIZ staff and partner experts, and work on developing innovative products.

SNGA

Mohammad Ishtiuq Hossain
(Saidabad DW, Bangladesh)
WG Speaker

Phillip Reviere
(Division Governance and Conflict)
Tandem-partner

TUEWAS

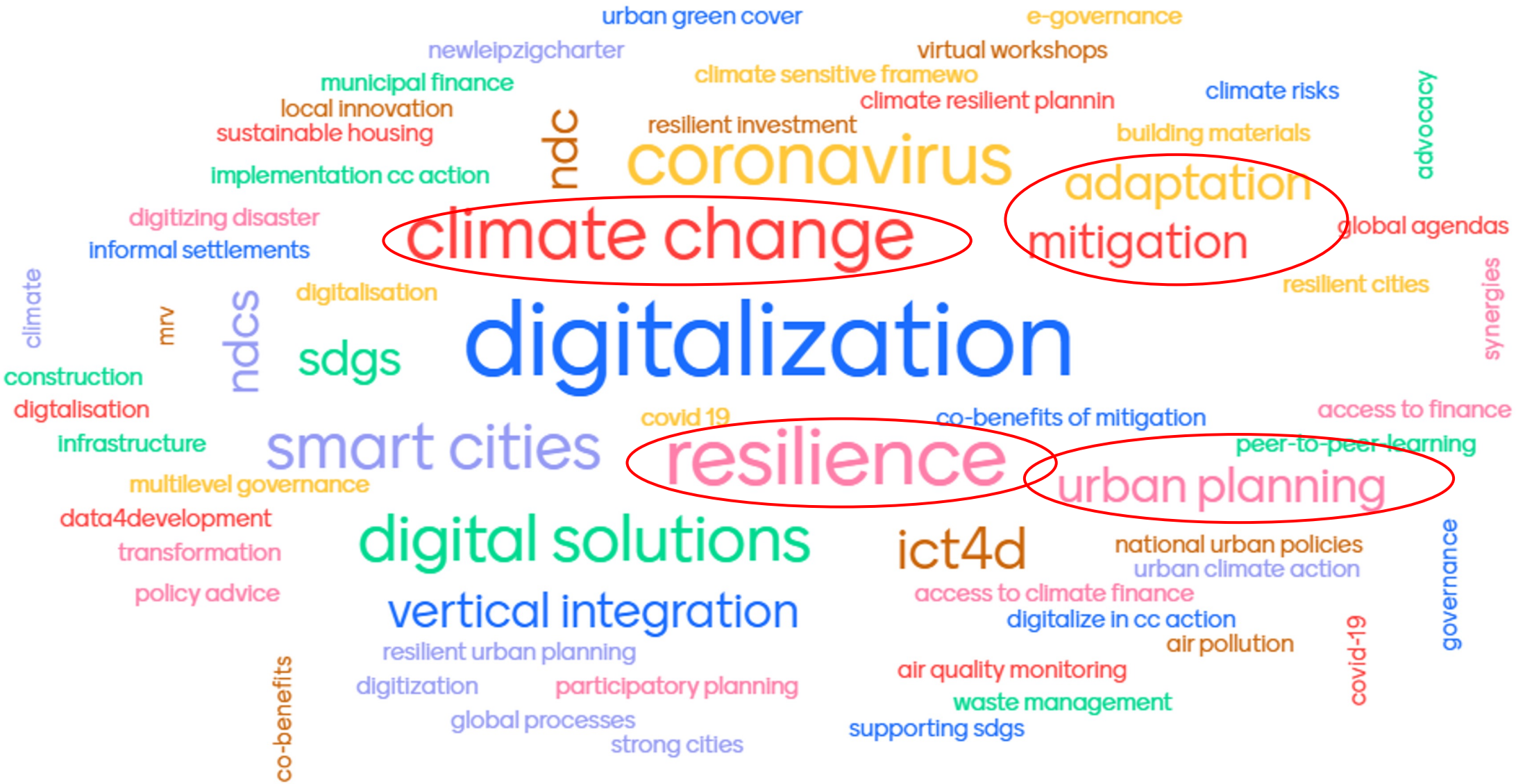
Sebastian Markart (CSC, India)
WG Speaker

Dr. Sandra Schuster
(Division Climate, Rural Development and Infrastructure)
Tandem-partner

Luciana Maia

Knowledge & community management

Topics


urban green cover
e-governance
newleipzigcharter
virtual workshops
municipal finance
climate sensitive framewo
local innovation
climate resilient plannin
climate risks
sustainable housing
resilient investment
building materials
advocacy
ndc
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adaptation
implementation cc action
mitigation
digitizing disaster
climate change
global agendas
informal settlements
resilient cities
synergies
climate
digitalisation
mrv
ndcs
digitalization
sdgs
construction
digtalisation
covid 19
co-benefits of mitigation
access to finance
infrastructure
smart cities
resilience
peer-to-peer learning
urban planning
multilevel governance
data4development
digital solutions
ict4d
national urban policies
transformation
urban climate action
policy advice
access to climate finance
vertical integration
digitalize in cc action
air pollution
governance
resilient urban planning
covid-19
co-benefits
digitization
participatory planning
air quality monitoring
waste management
global processes
supporting sdgs
strong cities

Programme

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- Q&A and closing

Heartly welcome and thanks to….

- **Hamidul Chowdhury** (Rony) - Head of CRISC
- **Enamul Haq** – Senior Advisor CRISC

Check-in | Mentimeter activation

- „Climate resilient inclusive urban master plan”, what comes to your mind?
- How do you think are master planning and climate change issues interrelated?

Instructions

Go to

www.menti.com

Enter the code

7373 2595

Or use QR code

„Climate resilient inclusive urban master plan", what comes to your mind?

47 responses

How do you think are urban planning and climate change issues interrelated?

15 responses

Urban spaces as enabler for well-being

Urban adaptation

climate change issues happen in the urban space

This two concepts bring about sustainable cities

Urban planning as cause and consequence of climate risk

Vulnerable Capacity Assessment (VCA)

Vulnerable Capacity Assessment (VCA)

Cities and citizens will have to adapt to future scenarios

urban areas can become safe places

preserving urban space for the future

Urban devt is key to climate action!

Cascading impacts if critical infrastructures fail

catalyst to solving climate issues

smart urban planning can safe human mankind

without integrated, forsighted planning responding to climate change remains only puncutal and cant be long-term and sustainable

Programme

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Climate resilient inclusive urban master plan – Experiences from Bangladesh

Enamul Haq – Senior Advisor, CRISC
Mohammad Hamidul Chowdhury (Rony) - Head of CRISC

CRISC | 16.11.2022

german cooperation
DEUTSCHE ZUSAMMENARBEIT

Implemented by:
giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Overview

Objective:
Urban development, including corresponding investment projects in selected cities, takes into account local needs for adaptation to the consequences of climate change.

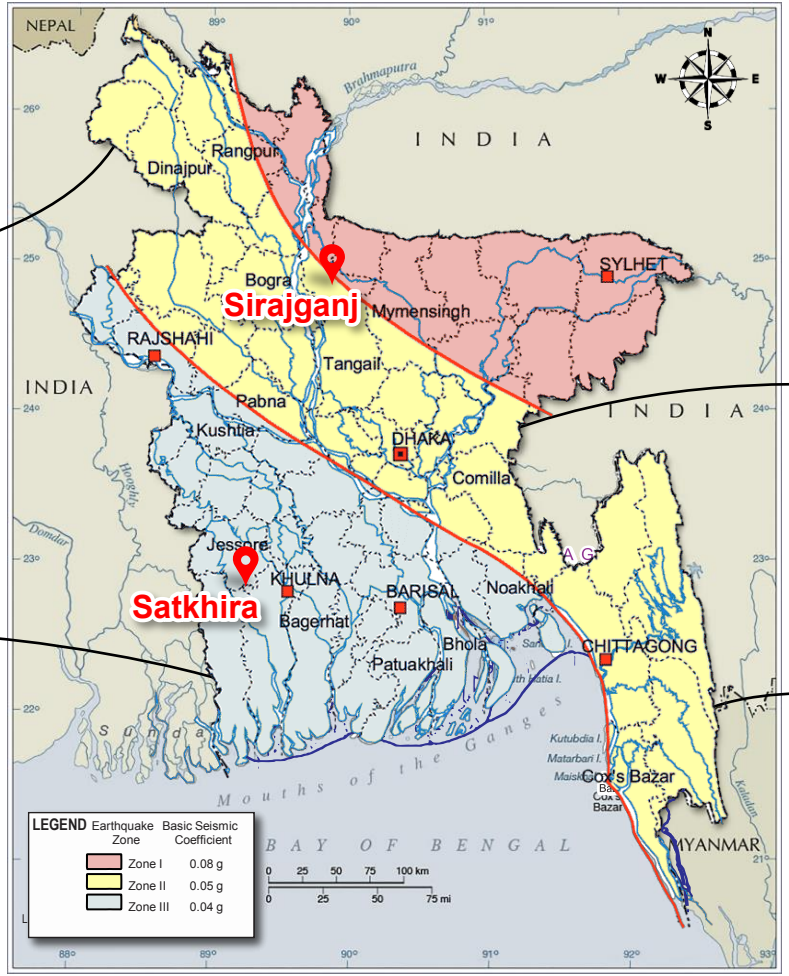
GoB Partner:
The Local Government Engineering Department (LGED) under the Ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C)

Partner Cities:
Satkhira, Sirajganj as pilot cities & Khulna, Rajshahi

Target Group:
Urban planners on national and local level, and technical experts of city administrations; representatives from civil society, academia and the private sector – and the urban population of selected cities

Natural Hazard areas in Bangladesh

High drought risk are concentrated in northwest Bangladesh, an important agricultural hub of the country



A huge portion of Bangladesh's land area experiences frequent flooding, especially flash floods along with river erosion

Southern coastal areas are vulnerable to storm surges and sea level rise

Some areas are susceptible to both drought and flooding

Source: Adapted from GSB
https://www.thebangladesh.net/disaster-prone-areas-of-bangladesh.html

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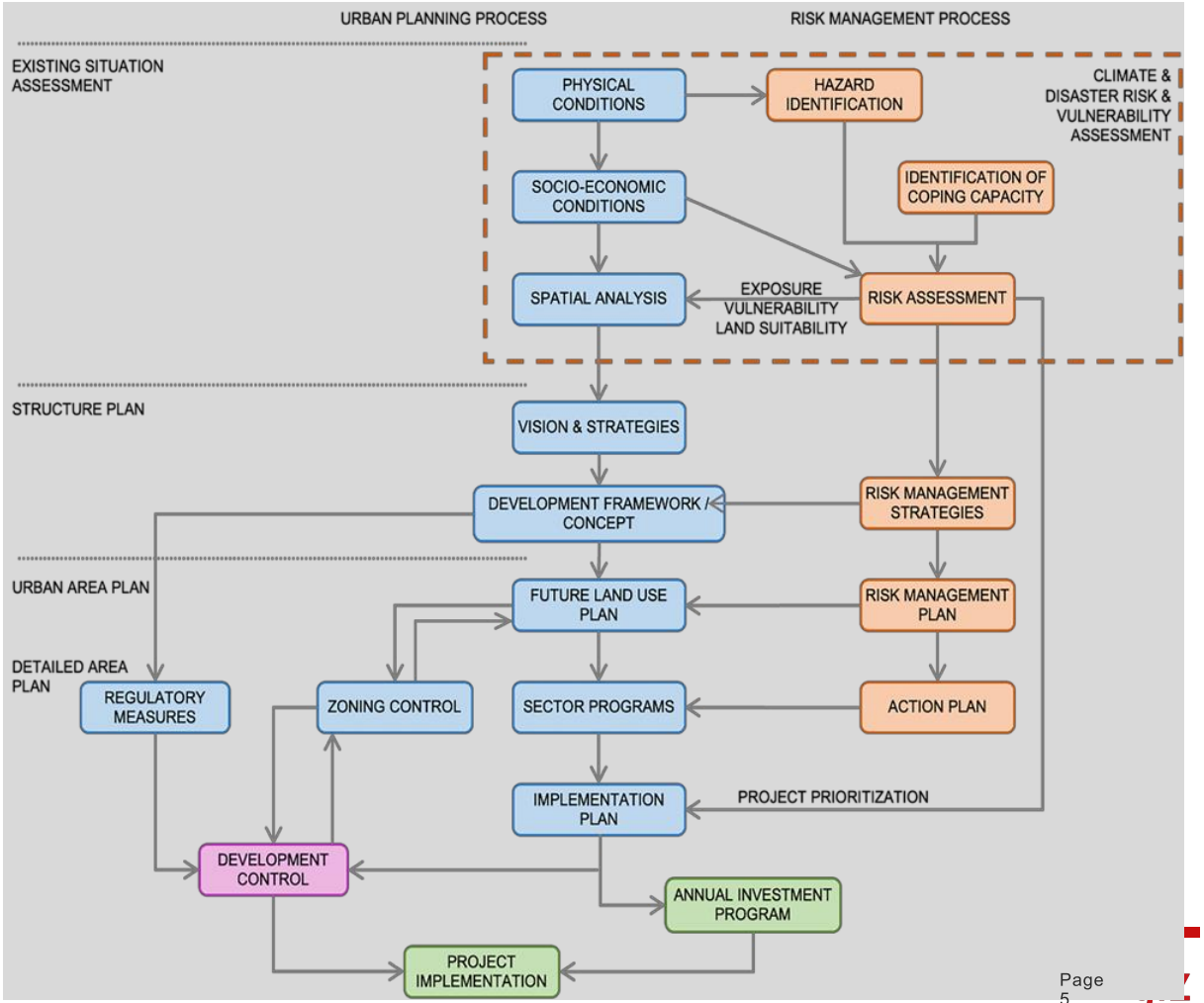
Development of the Urban Master Plan: Integration of Climate Risks, gender and inclusiveness aspects

A central element of the project is the development of model master plans termed as "Climate Resilient Inclusive Urban Master Plan" (CRIUMP).

CRIUMP is based on a methodology developed by CRISC and tested in the pilot cities of Sirajganj and Satkhira.

It is based on various surveys, investigations, and assessments of natural, urban amenities, municipal services, and socioeconomic conditions.

Comparison to traditional and CRIUMP approach



CRIUMP: a 17-step approach

We will be happy to share the methodology with you once approved by the Bangladesh Government

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Working approaches

Sectoral Assessment and Review	Stakeholder and Community Consultation	Master Plan Package
Activity Review and Capacity Assessment of Institutions Transportation Hydrology Socio-Economic Aspects Development and Natural Settings	All City Level Stakeholders were consulted at different stages of the Project Implementation *(Stakeholders included TLCC, Municipal Council, Agencies working in the Municipality, Women, Youth, Children and Communities)*	Three tire Planning Approach will be Adopted - Structure Plan - Urban Area Plan - Detailed Area Plan/ Action Plan

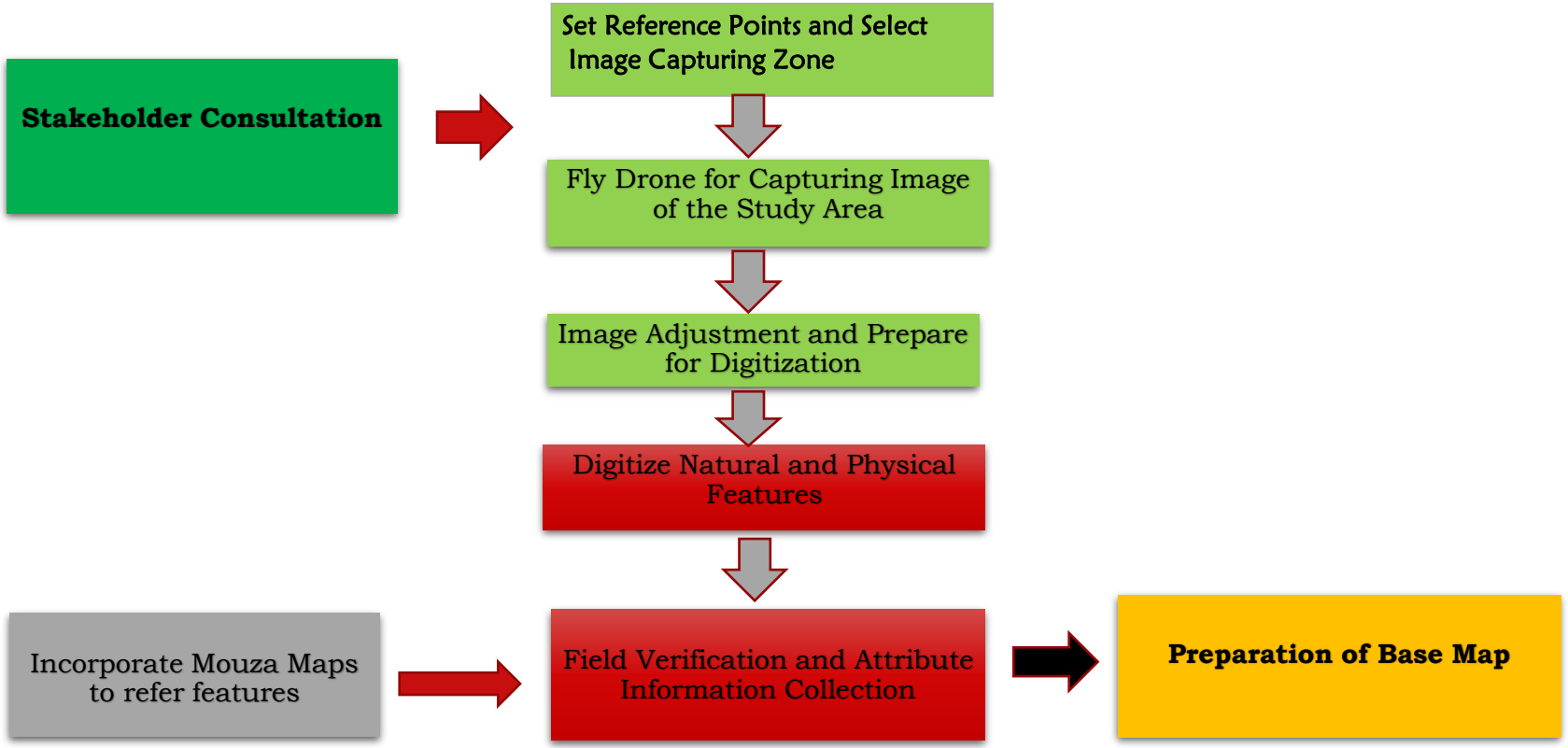
Survey & Studies

- Topography
- Physical Feature
- Transport
- Socio Economic
- Hydrology
- Geology
- Climate & Environment

Survey and Data Requirements for Preparation and Revision of Master Plans for Satkhira and Sirajganj Municipality

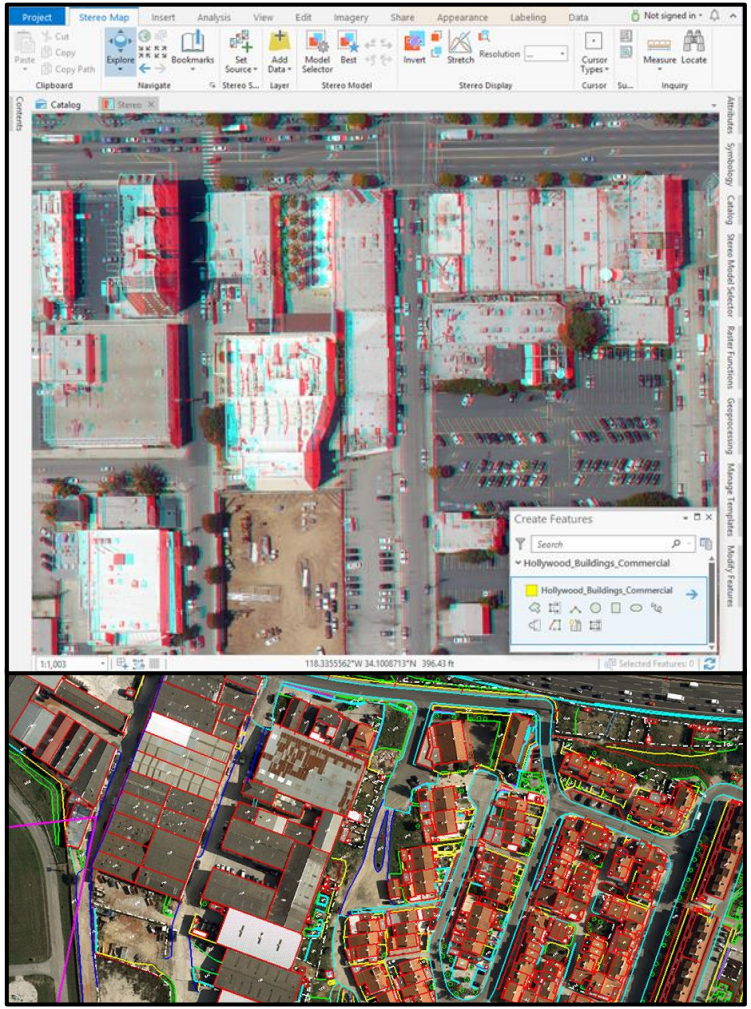
Natural and Development Settings	Traffic and Transportation	Climate & Environment	Hydrology Related Issues	Socio-Economy and Housing	Support Data and Information
Topography	Road Traffic & Transport	Temperature Screening	River/Canal Cross Section	Socio-Economic Status Survey	Demographic Data
Building and Infrastructure	Rail Traffic & Transport	Air, Noise & Water Pollution Screening	River/Canal Bed identification	Livelihood Pattern Identification	Statistics and Maps of Geology/Sub-Surface Infrastructure
Road and Drainage Network	River Traffic & Transport	Flood & Water Logging Inventory	Embankment Survey	Housing Pattern and Occupancy	Land Ownership Maps and Information
Power Supply Network	Passenger Interview	Flood, River Erosion, Cyclone damage Inventory	Flood Gate Survey	Economic Activity Screening	Commercial and Industrial Activities
Tele Communication Network		Industrial Pollution Discharge/dumping Inventory	Switch Gate Survey	Inter-Regional/City Migration	Institutional Arrangements and Activities
Land Use and Building Occupancy					Natural & Man-made Hazard Incidents
Key Point Installation (KPI)					Environmental data and Information
					Agriculture Data and Information

Process for Capturing Natural and Development Settings



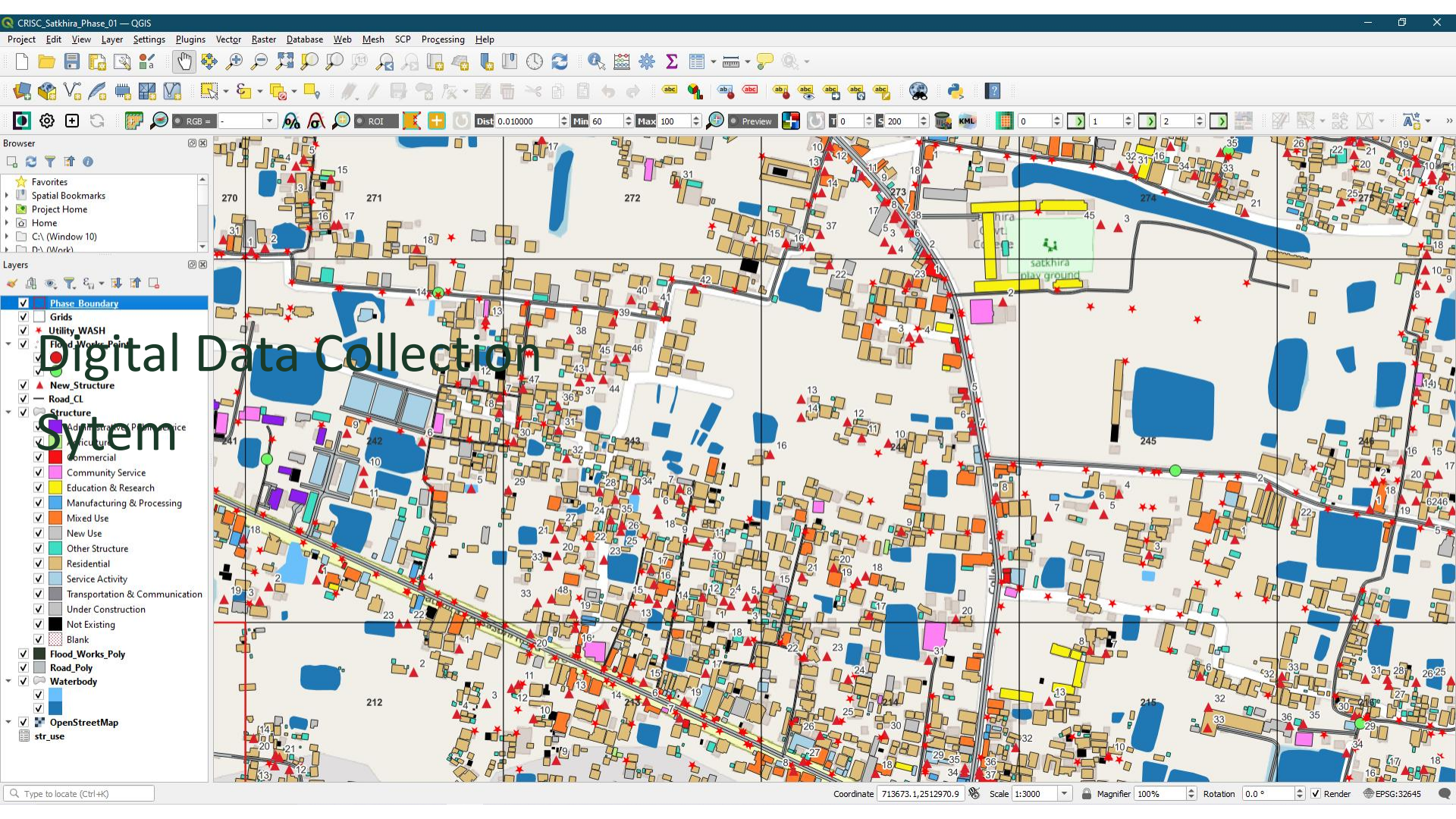
Drone Based Physical Feature Survey

Drone Flying and Image Capturing



A 3D map showing selected physical features

Physical Feature Survey


CRISC_Satkhira_Phase_01 — QGIS
Project Edit View Layer Settings Plugins Vector Raster Database Web Mesh SCP Processing Help
Browser
Favorites
Spatial Bookmarks
Project Home
Home
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Layers
Phase Boundary
Grids
Utility_WASH
New_Structure
Road_CL
Structure
Commercial
Community Service
Education & Research
Manufacturing & Processing
Mixed Use
New Use
Other Structure
Residential
Service Activity
Transportation & Communication
Under Construction
Not Existing
Blank
Flood_Works_Poly
Road_Poly
Waterbody
OpenStreetMap
str_use
Digital Data Collection
Sytem
Satkhira
play ground
Coordinate 713673.1,2512970.9
Scale 1:3000
Magnifier 100%
Rotation 0.0 °
Render
EPSG:32645

Transportaion Survey

Traffic Count Survey Equipments

HAC-HFW1200D

2MP HDCVI IR Bullet Camera

* The parameters and datasheets below can only be applied to 1200-S5 series

> Max 30fps@1080P

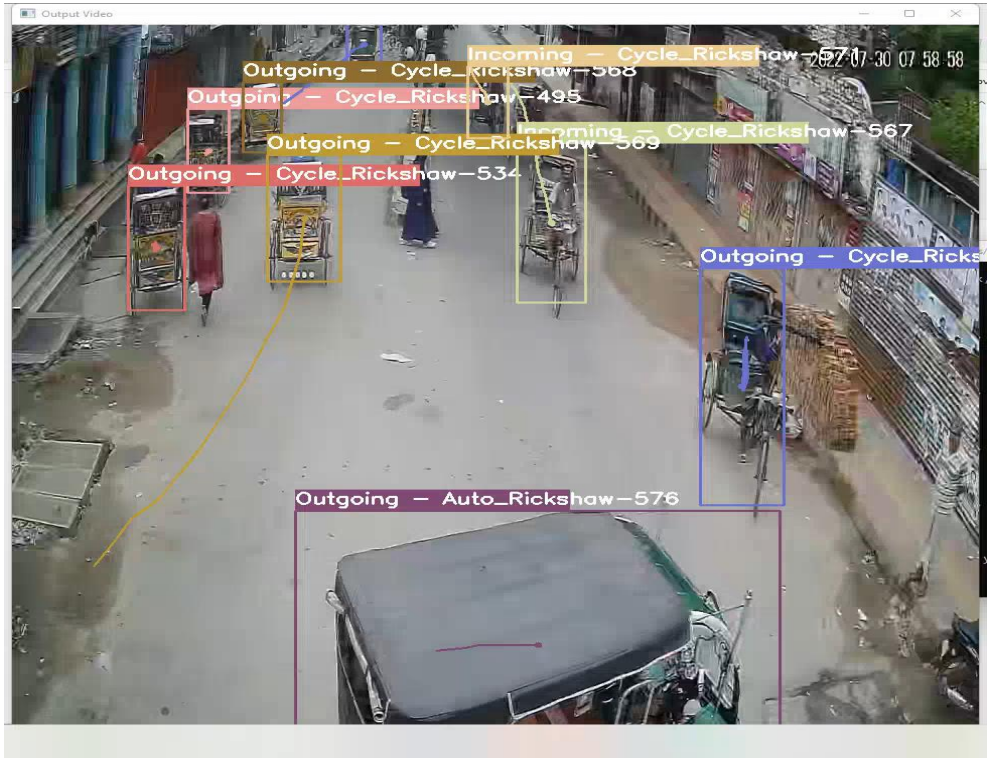
> CVI/CVBS/AHD/TVI switchable

> 3.6mm fixed lens (6mm, 8mm optional)

> Max. IR length 80m, Smart IR

> IP67, DC12V

Automated Traffic Volume Count Survey (Using Artificial Intelligence)



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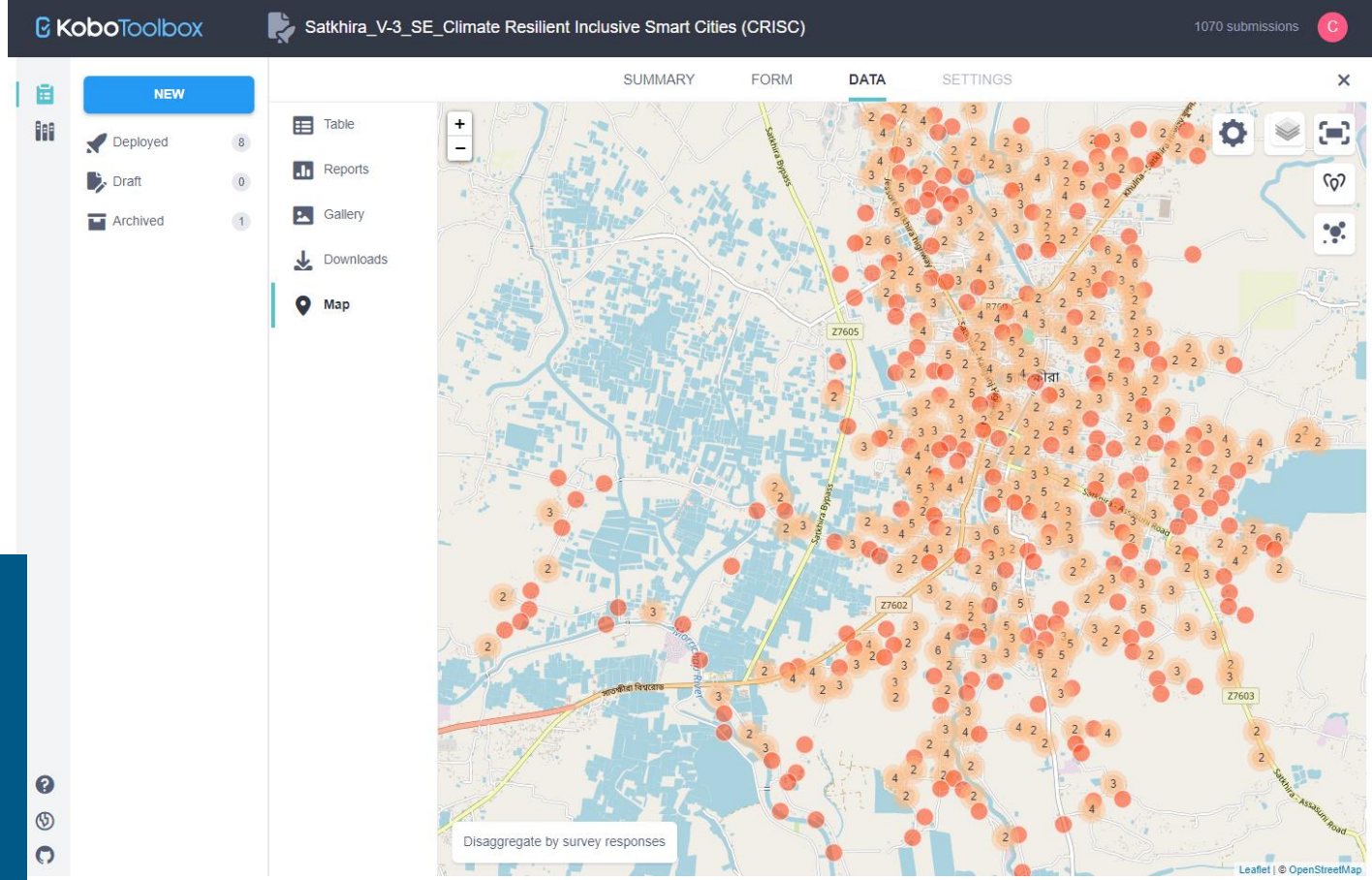
Socio-Economic Survey

Using KoboToolbox not only enabled to overcome these challenges, but also helped to conclude the entire socio-economic survey and report much faster than doing it manually, even with a higher sampling size.

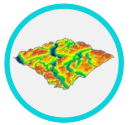
Kobo Toolbox
Map View



Survey Output

Physical Feature Map

All kinds of feature including building, road, waterbodies, utilities etc.



Elevation Model

Digital Elevation Model will represent the terrain of the area.

Landuse Map

Broad category landuse of the city.

Socio-Economic Profile

Demography, Income-Expenditure, Housing, Employment, Disaster etc.

Stakeholder Mapping

All kinds of actors who have interest & influence.

Economic Analysis

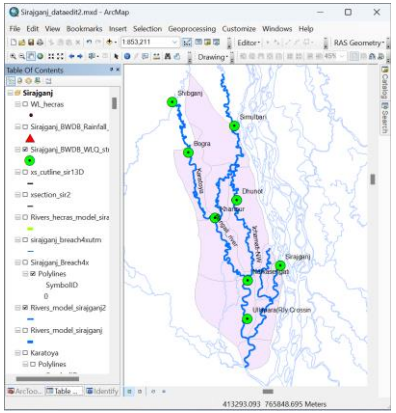
Economic Base of the city & Sectoral contribution.

3D Map of Sirajganj Municipality

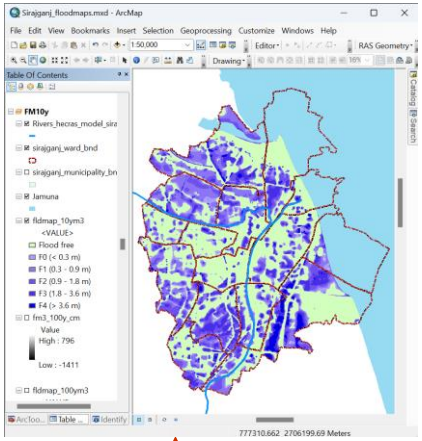
Hydrological Analysis, Flood and Salinity intrusion modelling

Flood assessment: Materials and methods

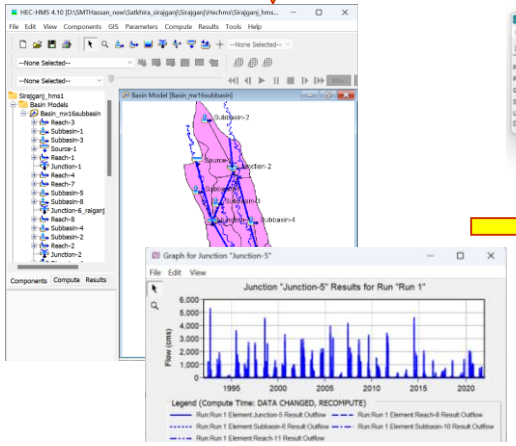
Pre-processing Arc GIS
Input Data
DEM



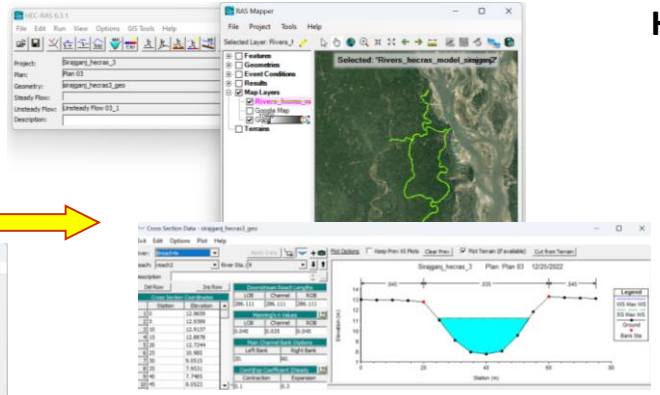
Post-processing
Arc GIS
Flood Inundation
Maps



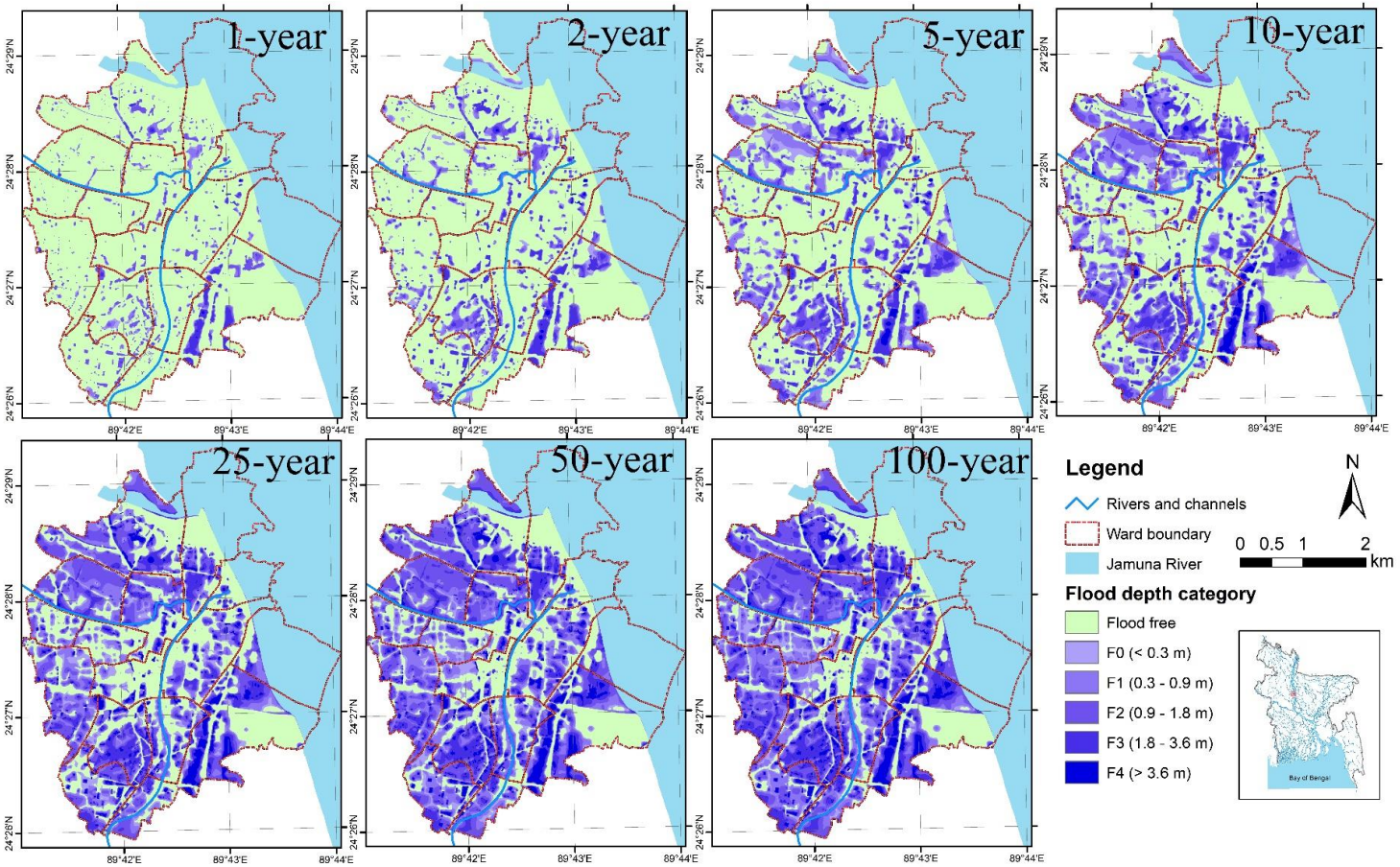
HEC-HMS
Flood
discharge



HEC-RAS
Water
surface
profiles



Flood assessment: Results and discussion



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Thank you