



Strategies for Effective Spatial Planning in Bangladesh

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Outline

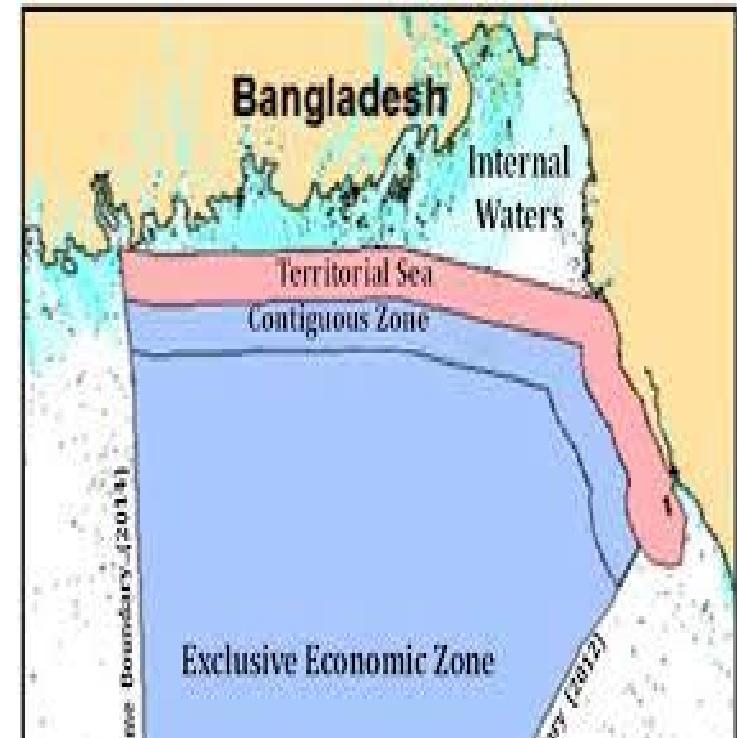
- ❖ Introduction
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- ❖ Spatial Planning Ordinance
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- ❖ Examples of best practices like Dhaka, Coxbazar, Chottogram, Khulna following SP Planning, DAP
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- ❖ Challenges to implement spatial plan to achieve SDG goal-11 in Bangladesh.
- ❖ Conclusion.





Introduction

- Spatial Planning is a **legal** and **institutional** planning system that guides **planned** land use, urban growth, infrastructure development, environmental protection, and climate resilience across Bangladesh.





Urbanization of Bangladesh

Urbanization Snapshot

- 38% urban population;
- projected >50% by 2040
- Dhaka among fastest-growing megacities
- Pressure on land, housing, transport
- High climate vulnerability

Urbanization Challenges

- Rapid urbanization exceeds infrastructure capacity
- Housing shortages
- Weak land-use regulation
- Limited basic services



Spatial Planning Framework in Bangladesh

- National: Perspective Plan 2041, Delta Plan 2100, Five-Year Plans
- Regional: Structure Plans
- Local: Detailed Area Plans (DAPs)/Action Plan
- Project Level: Housing, transport, industrial zones



Weakness and Core Priorities of the System

Weakness:

- Implementation gaps
- Institutional fragmentation
- Weak zoning enforcement
- Limited local resources
- Climate impacts

- **Core Priorities**
 - Strengthen regional bodies
 - Integrate climate & risk data
 - Enhance local capacity
 - Enforce land-use rules
 - adequate housing
 - land optimization
 - Enhances resilience and basic services



Special Notions in Spatial Planning Project:

- Used 4-bands 3-Dimensional satellite Image
- Digital Elevation Model for generating real time surface
- Generating the real-time drainage system in the project area
- Using Participatory Rapid Appraisal (PRA) approach for collecting primary data
- Ensuring participation from woman and children in the project area
- Delineating the social spaces within the Municipality area
- Generating Geo-Physical information through bore-hole survey up to 30m depth
- Conducting socio-economic questions survey in urban & rural area
- Conducting transportation survey for 9 locations



Peoples Participation

Participatory
Rapid Appraisal
(PRA)

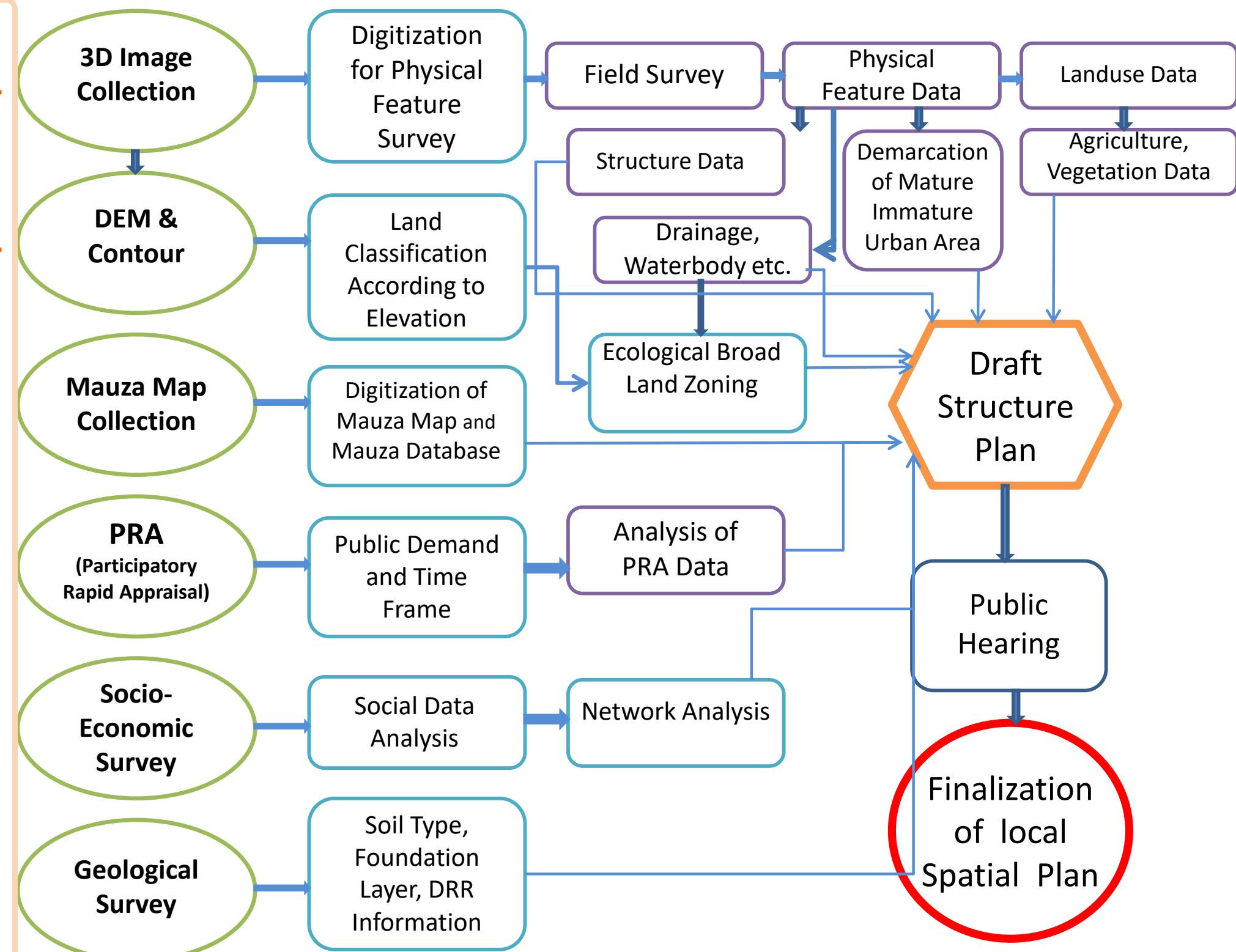
Paurashava
&
10 Union

PRA Sessions with
Different
Personnel

Mayor, Councillor,
Chamber of
Commerce, Civil
Society, Journalists,
Bus Driver, Slum
People, Minority
Community.

Participant from
all stakeholder

Total Structure Plan Procedure for local level Spatial Plan



Steps of Local Spatial Plan Preparation

1	Image Collection
2	Digitize & Field Check
3	DEM
4	Other Survey (Physical feature, Transport, Social, Drainage etc.)
5	Mauza Map collection and Digitization
6	PRA
7	Agricultural Map
8	Geological Map
9	Soil Map
10	Tree
11	Urban Road
12	Eco Sensitive Land
13	Strategic Environmental Assessment
14	Network Analysis
15	Drainage Map
16	Fire Map
17	Crime Map
18	Ecological Sensitive Map
19	Regional Road Network
20	Regional Growth Center
21	Draft Structure Plan



Spatial Planning Efforts of Bangladesh

- 1. Housing and Slum Upgrading (SDG 11.1):** New town projects (e.g., Purbachal), land-use regulations, and DAP measures aim to reduce informal settlement pressure and improve access to serviced land.
- 2. Sustainable Transport (SDG 11.2):** Mass transit systems (MRT/BRT), identified road hierarchies, and transit-oriented development (TOD) principles in structure plans support accessible and low-emission mobility.
- 3. Urban Resilience and Disaster Risk Reduction (SDG 11.b):** Integration of flood risk, sea-level rise, and drainage considerations, particularly through the Delta Plan and climate-responsive spatial Plans.
- 4. Inclusive Public Spaces (SDG 11.7):** Structure Plans designate open spaces, community facilities, and pedestrian environments to enhance urban livability.

Baseline for Spatial Plan

- It is implemented under:
- **Town Improvement Act, 1953**
- **DAP Guidelines (2022)**
- **Structure Plan, Urban Area Plan (UAP), Detailed Area Plan (DAP)**
- Linked with **National Development Plans & SDGs**



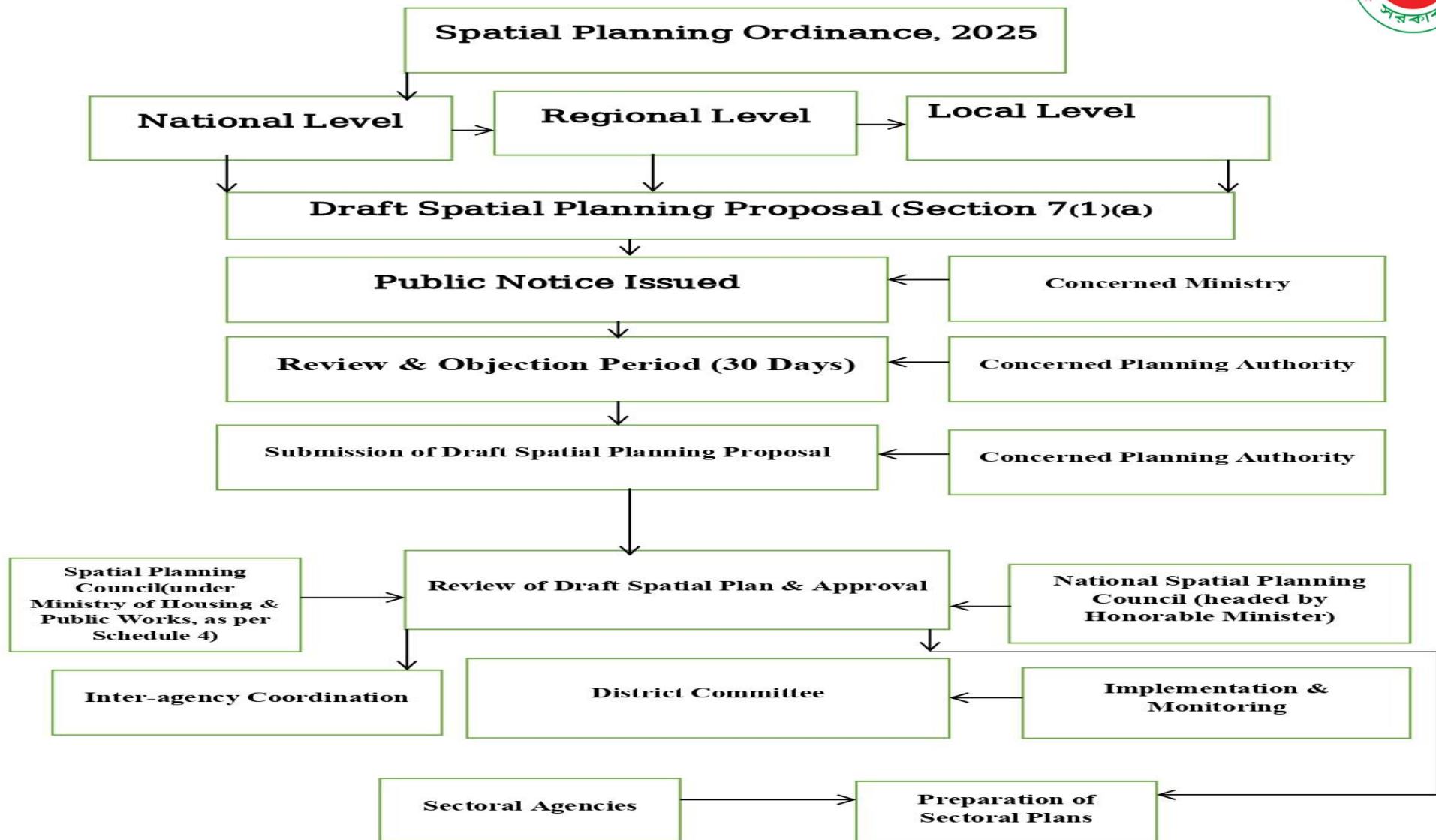


- **Objectives of Spatial Planning Ordinance:**
- Ensure **planned urban and regional development**
- Control **unplanned construction and land-use change**
- Protect **water bodies, wetlands, flood flow zones**
- Support **climate-resilient and sustainable cities**
- Align local plans with **SDGs and national priorities**

- **Key Planning Levels in Bangladesh**
- National Level
- Regional Level
- City / Metropolitan Level
- Local / Ward Level (DAP)



Flow chart on SP Planning of Bangladesh



Alignment of Spatial Plan with SDG-11

- **SDG-11: Make cities inclusive, safe, resilient, and sustainable** is directly linked to spatial planning through the following targets:
- **Sustainable urbanization & planning:** The Cox's Bazar master plan emphasizes planned land use, infrastructure, and services that aim to reduce unplanned development.
- **Resilience to disasters:** Incorporating disaster risk management in coastal urban planning supports SDG-11's resilience focus.



- **Environmental protection & waste management:** Coastal conservation and waste/drainage systems support healthy urban environments.
- **Access to public services:** Planned transport and utilities contribute toward safe, accessible, and sustainable cities.
- Thus, spatial planning serves as an institutional mechanism to mainstream SDG-11 within local and regional development frameworks.



Role of Spatial Planning in Achieving SDGs



SDG	Contribution through Spatial Planning
SDG 11	Planned cities, housing, transport, public space
SDG 13	Climate resilience, flood & coastal zoning
SDG 6	Protection of rivers, canals, wetlands
SDG 9	Integrated infrastructure & economic zones
SDG 15	Conservation of green areas & ecosystems
SDG 8	Planned industrial, tourism & economic growth



Plan-wise SDG Alignment

- **Perspective Plan & Five Year Plan**
→ National SDG framework
- **Structure Plan**
→ Long-term sustainable land use & growth
- **Urban Area Plan (UAP)**
→ Infrastructure, transport, environment
- **DAP**
→ Plot-level control, zoning, livability



Implementing Agencies

- RAJUK
- CDA (Chattogram Development Authority)
- KDA (Khulna Development Authority)
- Cox's Bazar Development Authority (CBDA)



Dhaka (RAJUK Area)

- **DAP 2022–2035**
- Flood Flow Zone protection
- TOD-based land use planning
- Mixed-use zoning & density control
- Strong alignment with **SDG 11 & SDG 13**



Cox's Bazar

- Tourism-based spatial zoning
- Coastal and disaster risk-sensitive planning
- Environmental conservation of beach & hills
- Integration of refugee-affected areas



Chattogram

- Port-oriented spatial planning
- Industrial and logistics zoning
- Hill cutting regulation
- Transport corridor-based development



Khulna

- Climate-resilient spatial planning
- Waterlogging and drainage-based zoning
- Wetland and river protection
- Alignment with **Bangladesh Delta Plan 2100**



Key Challenges in Implementing Spatial Plans for Achieving SDG-11

- **Rapid Urbanization and Informal Growth:** Urban expansion outpaces the supply of planned, serviced land—fueling informal settlements and unregulated land conversion.
- **Institutional Fragmentation:** Overlapping mandates among agencies (RAJUK, City Corporations, LGD, Planning Commission, MoWR, MoHPW) weaken coordinated implementation.
- **Land Governance Issues:** Disputed tenure, unclear land records, and slow land acquisition complicate planned development.
- **Financing Constraints:** Municipalities lack adequate revenue and financing tools (e.g., land value capture, municipal bonds) to deliver large-scale infrastructure.



Key Challenges in Implementing Spatial Plans for Achieving SDG-11

- **Climate and Hazard Exposure:** Floodplains, low-lying coasts, and cyclone-prone regions face high vulnerability, making poorly sited development risky and expensive to retrofit.
- **Data and Monitoring Limitations:** Insufficient geospatial integration, outdated cadastral data, and weak SDG-11 indicator tracking hinder adaptive planning.
- **Local Government Capacity Gaps:** Many local authorities lack trained personnel and resources to translate structure plans into implementable local regulations and projects.



Conclusion

- Spatial Planning Ordinance ensures **planned, sustainable, and climate-resilient development**
- DAP is the key implementation tool at local level
- Strong linkage with SDGs, Delta Plan 2100, and national policies
- Cities like Dhaka, Cox's Bazar, Chattogram, and Khulna demonstrate good practices
- Scaling up SP Planning is essential for **Smart & Sustainable Bangladesh**



Thanks All