

**0731-121: Principles of Urban Planning**  
**Topic 4**

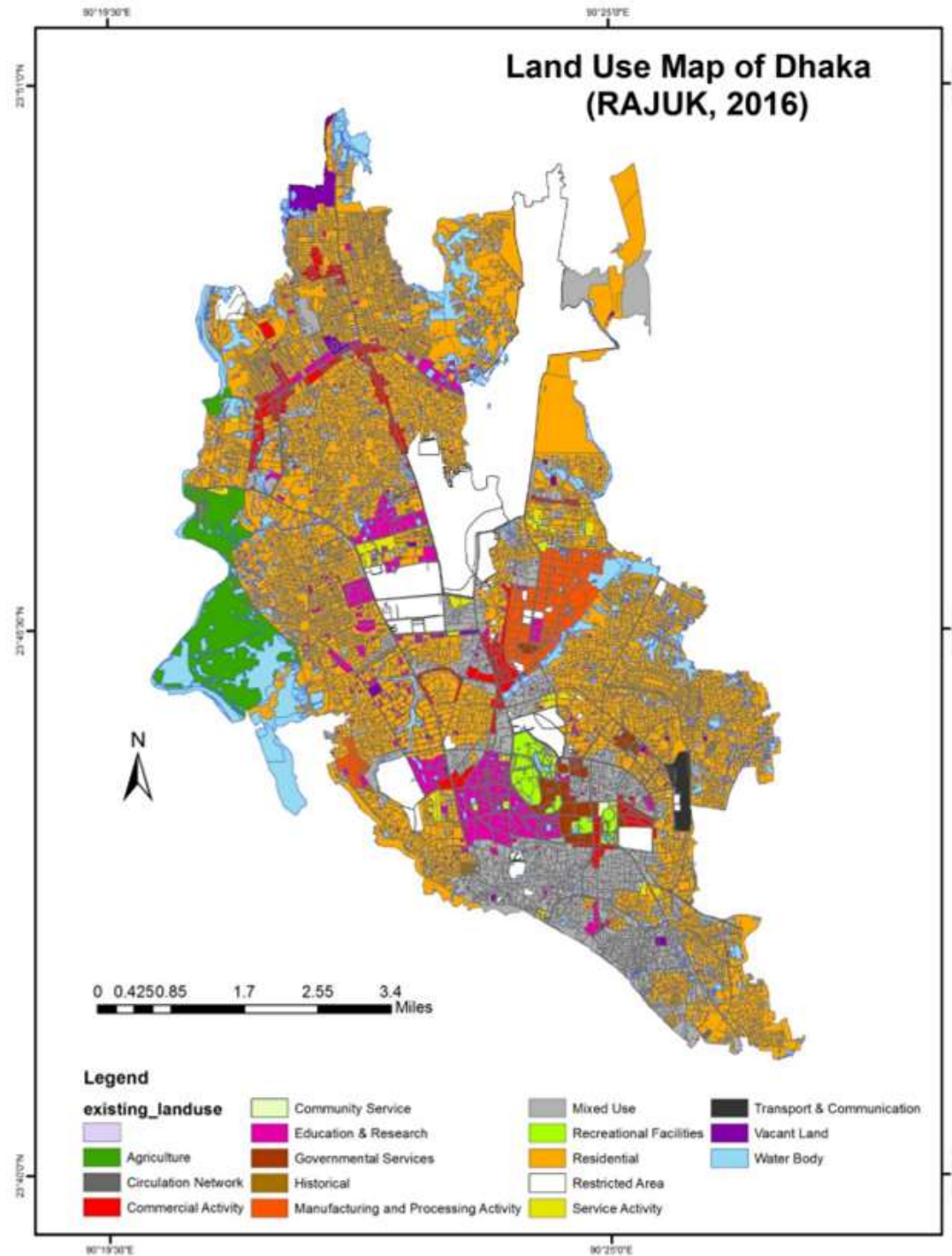
# Land Use Components

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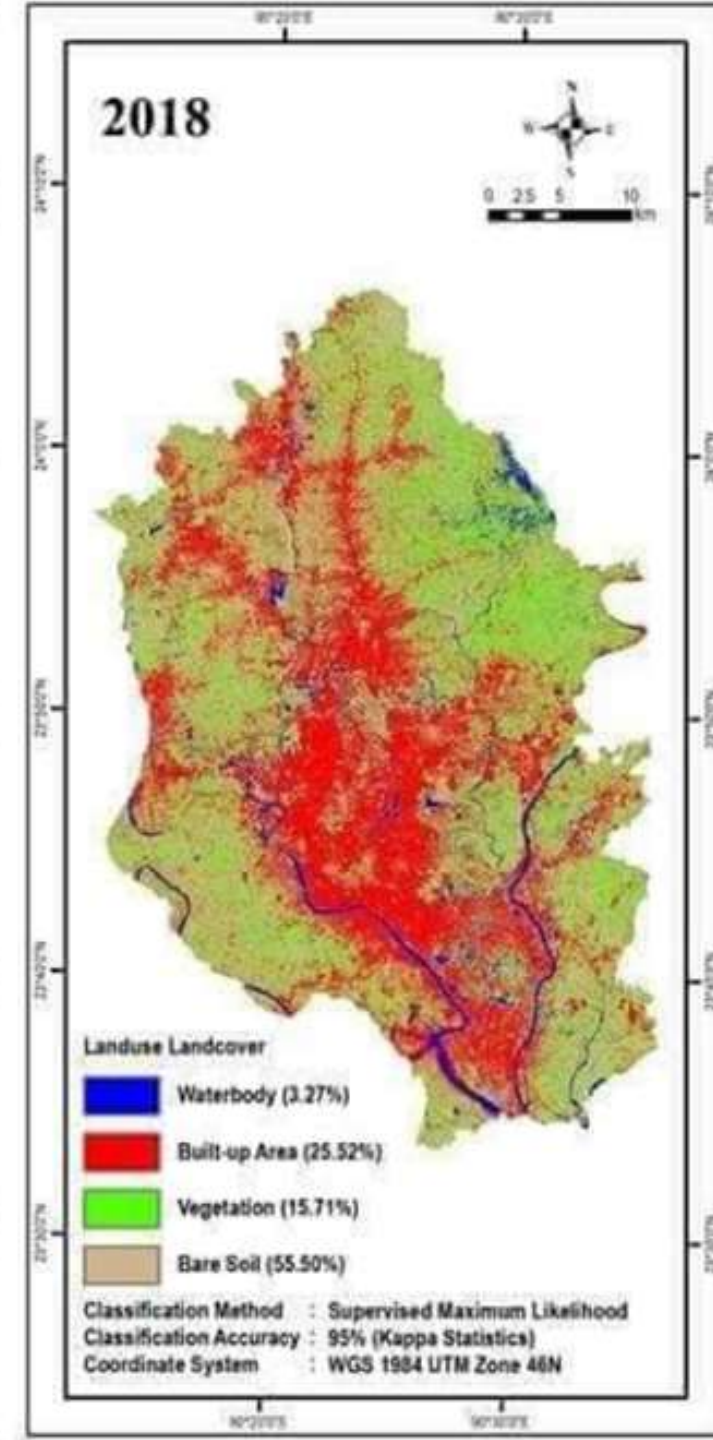
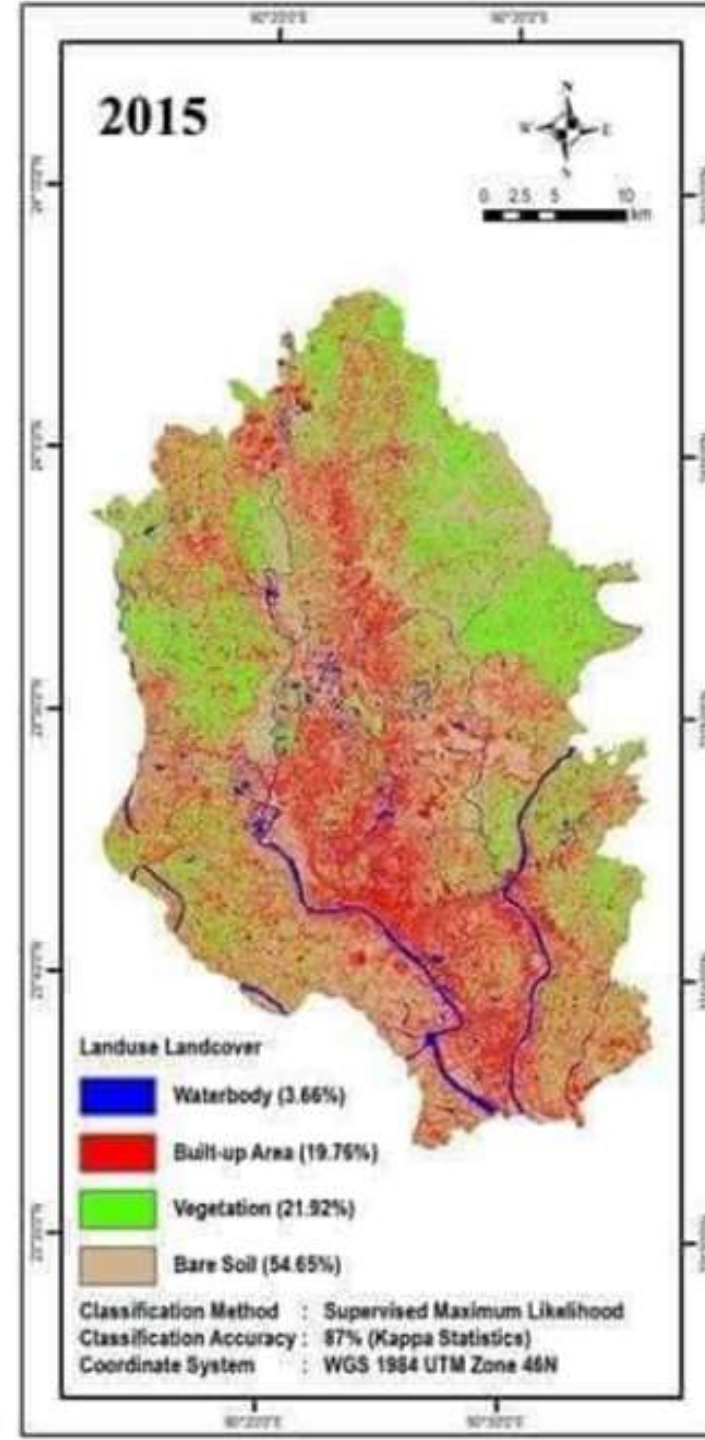
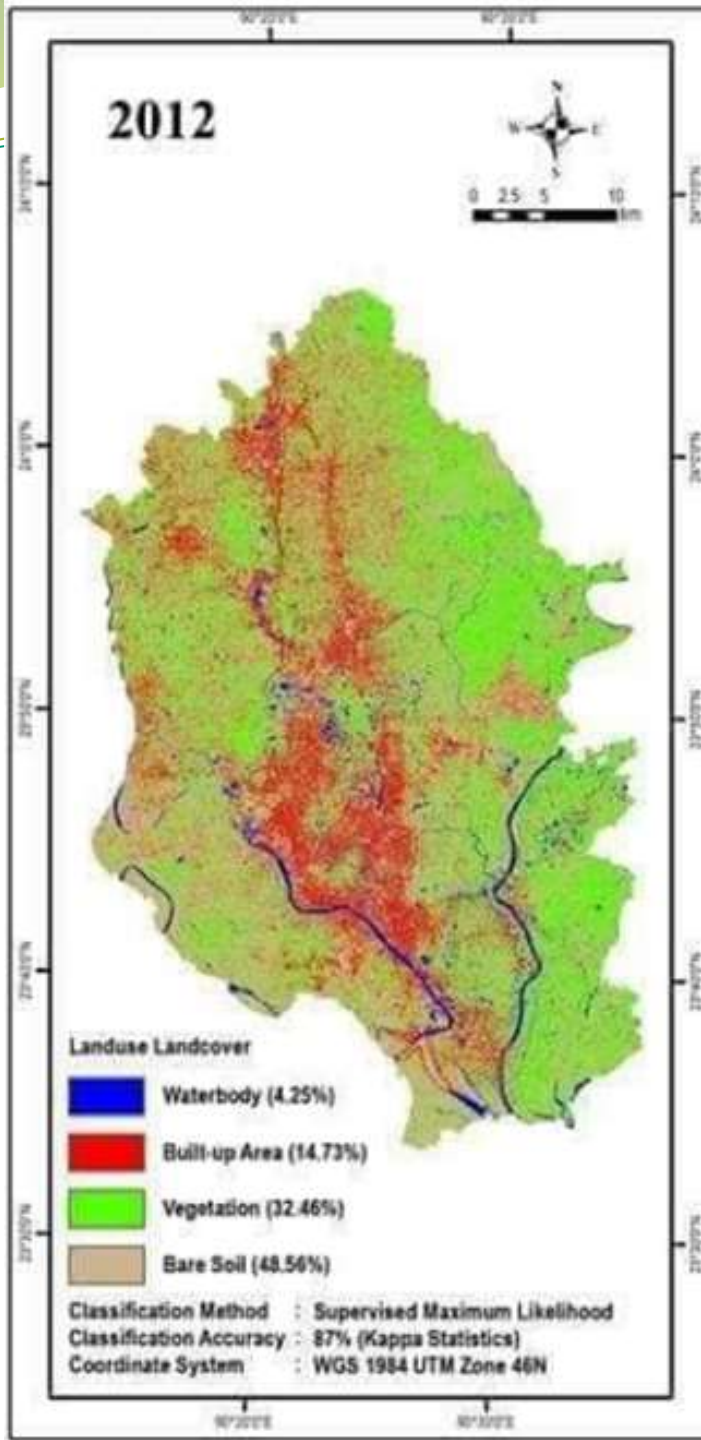
# Land Use vs. Land Cover

- **Land use** is what the land is used for by humans. It is commonly defined as a series of **operations on land, carried out by humans**, to obtain products and/or benefits through using land resources.
- **Land cover** is commonly defined as the vegetation (natural or planted) or man-made constructions (buildings, etc.) **that occur on the earth's surface**. Water, ice, bare rock, sand, and similar surfaces also count as land cover.

# Land Use Map of Dhaka



# Land Cover Map of Dhaka



# Land Use vs. Land Cover

Land Use	Land Cover
A series of operations on land, carried out by humans	The surface cover which occur on the earth surface
Refers to the purpose the land serves, for example, residential, recreational, or agriculture	Refers to the natural or man-made surface cover, e.g. vegetation, water, bare soil, structure, or others
Indicates how people are using the land	Indicates the physical surface cover type

The use of lands may be different for lands with the same cover type. For instance, a land cover type of forest may be used for timber production, wildlife management, or recreation. Again, recreational land use could occur in a forest, grasslands, or on a paved space

# Think of all the types of land use you can find in an urban area

Human Activity	Physical component needed	LU category
Living	House	Residential Use
Work	Administrative office, service	Administrative/ Service/ Office Use
Manufacturing	Industry	Industrial
Shopping	Market	Commercial Use
Education	School, College, Universities	Educational Use
Entertainment	Park, Playground, Cinema Hall, Theatre	Recreational Use
Worship	Masjid, Temple, Church etc.	Religious Use
Movement	Roads, Footpaths, Railways	Transport Use
		<b>Mixed Use</b>

# Major LU Components of an Urban Area

- The city centre
- The residential area
- The industrial area
- Open space
- Urban fringe or town periphery
- Transport system

# The City Centre

- This is the **central activity** area where commerce, entertainment, shopping, political power, etc. are concentrated. Central services of the **highest order** are provided here.
- The city centre includes administrative buildings, offices, banks, large-scale shops, and large-scale public spaces like libraries, museums, theatres, etc.
- The city centre is a focus of the circulation system and should be easily **accessible** through the **public transport network**.
- Occupies about **5%** of the total area of the town
- **Land value** is very high, so **compact, vertical, and mixed-use** development are encouraged



# CBD vs. City Center

- The concept of Central Business District (CBD) revolves solely around **economic and financial** power (e.g. Motijheel), but the 'city centre' also includes historical (e.g. Old Dhaka), political and cultural factors (e.g. Shahbag).
- A city centre is often the **first settled part** of a city, which can make it the most historical part of a city, e.g. Old Dhaka
- CBD is the commercial and business centre of the city. In most of the megacities, there are **multiple CBDs** scattered across the urban area. e.g. Sadarghat and Gulistan (in the past), Motijheel (current), Agargaon, and Banglamotor (emerging).

# CBD of Dhaka City



Fig 1: CBD of Dhaka (Motijheel)

# The Residential Area

- Area in which people live.
- Covers about **30% to 40%** land area of a city
- Main uses are:
  - Dwelling
  - Local shopping
  - Primary schools
  - Local open space (playground, play lot, etc.)
  - Religious centre (mosque, temple, church, etc.)
  - Community facilities
  - A circulation network for pedestrians and bicycles as well as automobiles and public transportation.

# The Residential Area



Fig 2: An American residential area



Fig 3: Residential area in Bangladesh (Aftabnagar)

# The Industrial Area

- Area in which **manufacturing** and the largest service industries are located
- Area may occupy **5-10%** of urban area depending upon industrial function of the town



Fig 4: Industrial area

# Open Space

- The land is **not used for building purposes** and is **left to its natural state**
- Includes all **public and private lands** that are open in character and are used as a place for open-air recreation
- Open space is **not vacant space**. Open spaces are used for a wide range of active and passive **recreational activities**
- About **10%** of urban land should be devoted to open space and should be distributed according to the density of the population in the town
- In Bangladesh, the major challenge is the **encroachment of open spaces** by public and private bodies. Also, **anti-social activities** are predominant in a number of parks or open spaces.

# Open Space



# Urban Fringe

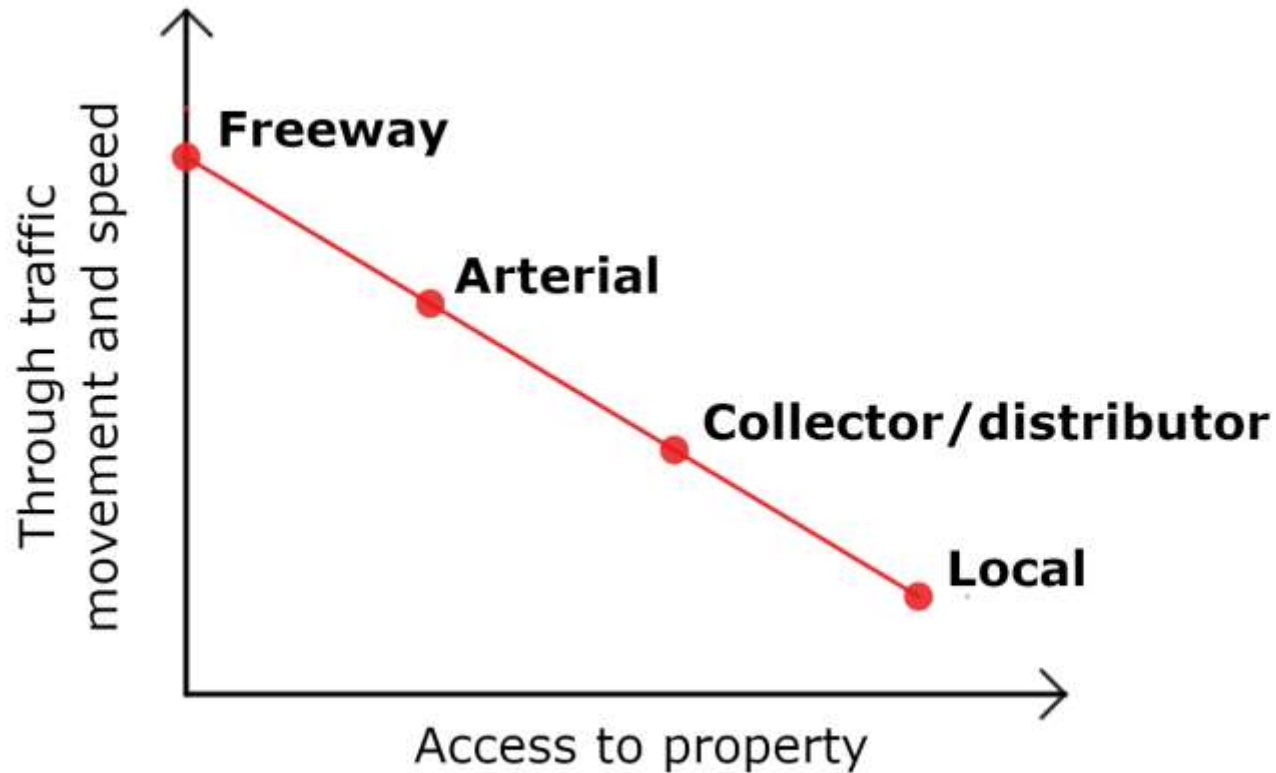
- Includes land surrounding the town
- The **intermediate zone** lies in between the urban and rural areas and shares the characteristics of both
- Uses are:
  - Scattered settlement
  - Agricultural land
  - Dairies and fisheries
  - Water reserves
  - Disposal ground, sewage treatment plant, etc.
- Usually fringe area development are **unguided and uncoordinated**
- Further extension of the city takes place in this area.



# Transport System

- Transportation system is an important part that affects the smooth and efficient movement of people and commodities
- It includes:
  - Surface transport- road, rail
  - Water transport
  - Air transport
- Provides access to every building for vehicles and pedestrians
- A system of road hierarchy is maintained

# Transport System



## **Mobility:**

- The ease of moving
- Mobility is how far you can go in a given amount of time.

## **Accessibility:**

- The ease of reaching a destination.
- Accessibility is how much you can get to in that time.



**THANK YOU!!**

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