Fact Sheet -II

Green Building in West Bengal

- **What it Green Building?**
  - Clause 31A, Rule 2 of *Kolkata Municipal Corporation Building (Rules), 2009* defines Green Building as a structure created by using process that is environmentally responsible and resource-efficient throughout a building’s life-cycle, i.e., from design, construction, operation, maintenance, renovation and demolition. The same should be certified by the designated authorities or agencies notified by designated Municipal Affairs Department, Government of West Bengal.

- **Criteria of a Green Building**
  - Buildings should have low embodied energy
  - Considerable amount of building materials should be recyclable
  - Use renewable energy instead of non-renewable energy
  - Locally or regionally produced
  - Energy efficient
  - Low environmental impact
  - Durable
  - Minimize waste
  - Positive social impact
  - Affordable

- **Advantages of Green Building**
  - Cost effective
  - Efficiency (water, energy & material efficiency)
  - Preserving infrastructure
  - High Return on Investment rates

- **Disadvantages of Green Building**
  - Location
  - Unavailability of building materials
  - Lack of air cooling features

**Regulatory Framework in Central Level**

Energy Conservation and Building Code (ECBC), Bureau of Energy Efficiency

- **What it says?**
  - ECBC encourages energy efficient design of buildings
  - Encourages use of environment friendly green technologies
  - Supported by 4 ministries:
    - Ministry of Power
    - Ministry of Urban Development
    - Ministry of New & Renewable Energy
    - Ministry of Environment & Forestry
**Why comply with ECBC?**
- Legal framework - presently optional but likely to mandatory in future
- Energy savings of the projects to reflect directly upon electricity bills
- Other utility scale long-term benefits

**Challenges & Opportunities**
- Increase in project cost to meet the specifications of ECBC
- Industrial and agricultural sectors are exempted from the purview of ECBC
- ECBC is not mandatory
- Opportunity for private players in implementation of green buildings and ancillary activities

**Present Status of ECBC**
- 170 applications have been received under day use office building category
- 104 buildings have been found eligible for issue of a star label under this scheme (RBI, SBI, ABD, CPWD, Railways, Kalptaru)
- 17 BPO buildings found eligible

**Regulatory Framework in State Level**

**Kolkata Municipal Corporation (Building) Rules, 2009**

- **What it says**
  - Green Building to be environmentally responsible and resource efficient through its life cycle
  - Lays down the criteria for certification of Green Building

  **Challenges & Opportunities**
  - Lack of effective implementation and monitoring mechanisms
  - High cost perception compared to conventional buildings
  - Only a few states including West Bengal provide monetary incentives for green building
  - Potential of green buildings should be realised by creating awareness among the masses
  - Monetary incentives by Government and financial institutions can improve the present scenario
  - Green building should be promoted in the light of energy efficiency and environmental impact
  - Opens up new investment opportunities for private sector

**State Level Initiatives**

Government of West Bengal FAR (Floor Area Ratio) Notification

- Incentives from Government by providing additional FAR through different rating mechanisms

**2 Green Building Rating Agencies in West Bengal (by Govt. order)**
- GRIHA developed by The Energy Research Institute
- Indian Green Building Code- LEED