

## 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