

Through innovative financing models, public institutions can nudge the private players to fund the much-needed low-carbon housing sector. Explain (200 words)

### Low-carbon housing sector

It is a type of housing designed to be environmentally friendly and sustainable.

Low-carbon housing focuses on efficient use of energy, water and building materials in order to reduce the carbon emissions.

### Significance of low-carbon housing sector

→ Housing Sector is a major greenhouse gas (GHG) emitter. → emits 20% of total GHG. → consumes 24% of country's electricity.

→ Energy consumption will be further accelerated as the housing demand increases day by day.

→ It needs much focus during the phase of India's green transition targets.

→ The climate change induced heat waves increase the usage of Heating, ventilation, air conditioning - HVAC appliances & Refrigerators.

## Methods of energy consumption in Housing construction

- 1) Use of low-carbon materials such as:  
compacted fly ash blocks, Blended cements instead of using heavy concrete.
- 2) recycling building materials e.g.) Recycled metals.
- 3) Sustainable construction process.
- 4) Retrofitting roofs, windows, and doors can reduce heating and cooling demands by up to 40%.
- 5) Replacing incandescent lights with LEDs reduces energy consumption by 80%.

## constraints in financing green housing

- 1) No incentives for commercial banks to provide credits.  $\Rightarrow$  They wish to decrease the loan to house value/ratio.
- 2) lack of capital for retrofitting process, when borrowers do not wish to provide house as collateral.
- 3) lack of premium price for Green houses in the market.
- 4) Buyers have less motivation to pay more for Green houses, when it is rented out.

Innovating financing models by public institutions needed for nudging the private players to fund the low carbon housing sector. Some of them are:

### 1) Credit enhancement mechanism

A subordinate loan can be funded by banks to cover only the incremental cost of construction and design of energy-efficient homes.

2) Offering partial credit guarantees on energy-efficient homes  $\Rightarrow$  If borrower fails to pay the loan.

3) Promoting a "green price premium" that can be obtained from the resale of such properties.  
 $\Rightarrow$  addition cost over conventional house resale.

4) preferences to green home mortgage at a premium by banks. e.g) China.

5) preferences to green rated properties over conventional ones e.g) Singapore-Green Mark.

### Conclusion

There are steps taken by government in order to promote green housing such as GRIHA, SUDER Green housing programme of NHB. Through effective utilisation of innovative financing models, India can achieve the global targets of energy transition.