ICRA

ICRA's CLIMATE SERIES

Green Housing

Green Housing adoption needs policy push, financial, social measures to take off

SEPTEMBER 2024

CLIMATE CHANGE

The biggest crisis of our time

Overview

Click to see full report

Green Housing adoption necessary to control residential carbon emissions of 4%.

Green Housing may increase cost by 4-12%; however, the energy savings are as high as 25-30%.

- In India, residential buildings account for 4% of the total carbon emissions for the country. Key reasons for residential carbon emissions are over reliance on fossil energy for fuel and electricity. The energy use has increased by 40% and electricity consumption has nearly tripled over the past two decades for the residential sector, exacerbating carbon emissions over the years.
- With the increasing trend of urbanisation (>30% in 2011 from ~18% in 1961), the demand for housing is expected to rise further in the coming years, boosting the usage of energy and electricity.
- To reduce residential emissions from high energy and electricity consumption, it is crucial to adopt greener features, both during construction and throughout the building's lifespan. Green Housing is designed and built to minimise emissions over its lifetime by optimising resource utilisation, improving energy efficiency, and encouraging sustainable practices.

Conventional Building vs. Green Housing:

- Conventional buildings often contribute to climate change due to their reliance on carbon-intensive materials such as steel and cement, wastage of natural resources like water for concrete mixing and curing, wastage created during construction/demolition, which is often not recyclable or biodegradable, lack of energy efficient features and outdated design practices that do not include rainwater harvesting or solar panels. These buildings may not have the structural resilience or adaptive features needed for extreme climate events, leading to more frequent reconstruction and, consequently, higher emissions.
- Green Housing is designed and constructed to minimise carbon emissions released during construction phase and during and beyond the lifecycle of the building.

Cost and energy savings in Green Housing:

- Green Housing often has an initial cost premium of 4-12% depending upon the material used, but the long-term savings can be as high as 25-30% on energy bills.

Source: ICRA Research

Overview

Incentives offered by GoI for Green Housing are not attractive enough at present.

Steps across policy, financial incentives, regulations, and public awareness are needed to boost the adoption of Green Housing.

Policies/schemes by the Government of India (GoI) to support Green Housing:

- The progress of Green Housing in India has been significant over the last two decades, with increasing awareness of sustainability and environmental impact. The GoI has made progress in enabling the promotion through development of new green polices, as well as through revision of existing policies to incorporate green building concepts.
- The GoI has been active in updating the National Building Code with a sustainability chapter, introducing Eco Niwas Samhita Code and amending state policies to inculcate sustainable aspect.
- The GoI has also launched schemes to promote solar power, light-emitting diode (LED) usage in existing and upcoming residential buildings.

Green certification and incentives:

- There are predominantly five green building rating agencies in India, that provide Green certification to aspirant green projects. Each of these rating agencies focuses on promoting sustainability in residential buildings but has distinct guidelines and rating methods
- The GoI offers incentives like additional Floor Area Ratio (FAR) or Floor Space Index (FSI), reduction in duty/taxes, subsidy on certification fees, fast-track approvals on the basis of Green certification by some of these rating agencies. These incentives are provided by Central as well as state-level programmes.
- Few banks/financial institutions (FI) provide reduced interest rates for buyers/developers of Green certified projects. However, the discounts offered by them are not attractive enough to boost the demand.

In a nutshell, although the GoI has introduced incentives to promote Green Housing, its share remains limited compared to conventional buildings. To boost Green Housing in India, the GoI can take several key steps across policy, financial incentives, regulations, and public awareness to promote sustainable construction and energy-efficient housing.

Source: ICRA Research

Analytical Contact Details

Name	Designation	Email	Contact Number
Aditi Nayar	Chief Economist, Head – Research and Outreach	aditin@icraindia.com	0124 - 4545 385
Madhura Nejjur	Assistant Vice-President	madhura.nejjur@icraindia.com	022 - 6114 3417

Business Development/Media Contact Details

Name	Designation	Email	Contact Number
L Shivakumar	Chief Business Officer	shivakumar@icraindia.com	022-61693304
Neha Agarwal	Head – Research Sales	neha.agarwal@icraindia.com	022-61693338
Rohit Gupta	Head Business Development – Infrastructure Sector	rohitg@icraindia.com	0124-4545340
Vivek Bhalla	Head Business Development – Financial Sector	vivek.bhalla@icraindia.com	022-61693372
Vinita Baid	Head Business Development – Corporate Sector - West & East	vinita.baid@icraindia.com	033-71501131
Shivam Bhatia	Head Business Development – Corporate Sector - North & South	shivam.bhatia@icraindia.com	0124-4545803
Naznin Prodhani	Head – Group Corporate Communications & Media Relations	communications@icraindia.com	0124-4545860

ICRA

Thank You!