



Green Affordable Housing

THE CHALLENGE TODAY



1.3
billion+
people in India



More than
30%
urban population



96%
shortage
of affordable homes

11 million new homes required*

**Government of India estimate (May 2018)*

If the 11 million homes are non-green:



WATER CONSUMPTION¹
will increase by
2.4 x 10⁶ million
litres per year

=

Twice Delhi's annual water
consumption



ENERGY CONSUMPTION²
will increase by
21,000 million
units per year

=

Over half Delhi's annual
energy consumption



CO₂ EMISSIONS³
will increase by
17 million
tons per year

=

Half of Delhi's annual
CO₂ emission

Unit sizes: 30 sqm (EWS), 60 sqm (LIG); Average occupancy: 4.5

¹ Water requirements: 135 litres per capita per day (IS 1172)

² Energy requirements: 36 kWh/sqm/year (EWS), 45 kWh/sqm/year (LIG)

³ 0.82 tons of CO₂ are emitted per MWh of energy consumed (MoP estimate)

SOLUTION

Green Affordable Homes⁴

Green affordable homes save energy and water by use of efficient materials and technologies and provide better indoor air quality.

⁴ Such projects are certified by third party rating systems (e.g. EDGE, IGBC, GRIHA or LEED)

Even if 20% of the 11 million homes are green⁵:



0.5 million
additional homes can
be supplied with the
water saved



₹280 crore⁶
can be saved in annual
healthcare cost due to
reduced CO₂ emissions

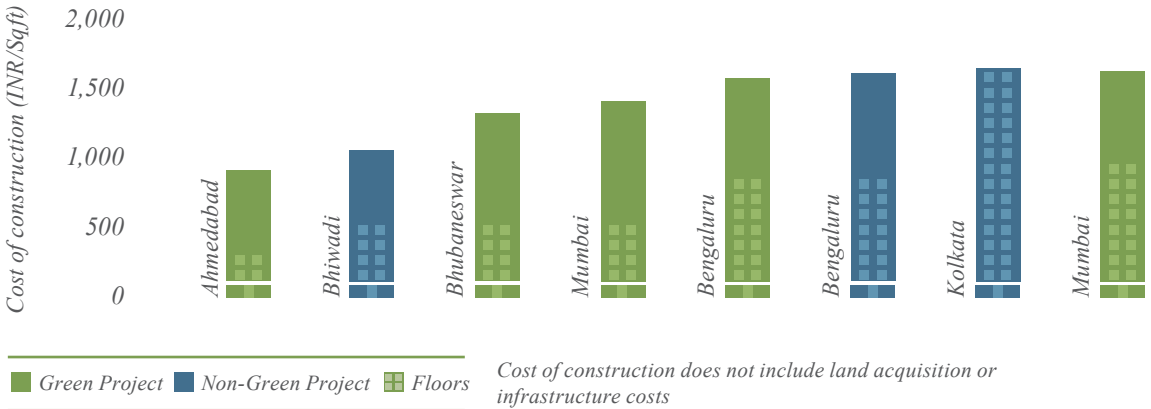


0.4 million
additional homes can
be lit up with the
energy saved

⁵ Assuming a minimum of 20% savings by going green

⁶ Healthcare cost per ton of CO₂ emitted: INR 4,063 (5th Assessment Report, IPCC, 2014)

Green does not cost more!



Features & benefits of Green Affordable Housing



ENERGY EFFICIENCY

The use of thermally-efficient materials for roofs and walls, as well as the use of energy-efficient lights leads to reduced energy consumption, and therefore, savings on electricity bills



WATER EFFICIENCY

The use of low-flow water fixtures and best practices like rainwater harvesting and water recycling reduces water requirements, and therefore lead to savings on water bills



BETTER INDOOR ENVIRONMENT

Using thermally-efficient materials for roofs, walls and windows makes better use of sunlight and natural ventilation. This improves indoor thermal comfort and air quality

IFC's South Asia Strategy for Green Affordable Housing

To support private sector participation in the low-cost, commercially viable and 'green' housing industry, which will complement public efforts in the affordable housing space.



IFC has convened a voluntary collaborative effort with leading Indian housing sector companies (Godrej Properties, Mahindra Lifespace Developers, Shapoorji Pallonji Real Estate, Tata Housing Development Company, and

VBHC Value Homes) to form an industry-led Sustainable Housing Leadership Consortium (SHLC).

The SHLC members have committed to make 100 percent of their own housing portfolios sustainable through appropriate green-building certifications and also provide leadership and advocacy for broader industry and government policy actions to make 20 percent of India's new housing construction sustainable by 2022.

Support financing models offering scale-up and high reliability for private sector developers in affordable and quality housing segment.

Explore solutions for affordable housing that would provide economic benefits as well as positive environmental impacts and also promote IFC's green building standards.

Provide long-term funding and required environmental, social and governance standards to FIs with specialization in affordable housing development.

An innovation by IFC, EDGE (Excellence in Design for Greater Efficiencies) is an online green building tool which can be used to choose the most cost-effective options for a resource-efficient design with a goal of achieving a minimum of 20% less energy, water and embodied energy in materials.



About Eco-Cities India program

Eco-Cities India is a multi-year technical advisory program under the EU-India Cooperation on Clean Energy and Energy Efficiency. This climate-change focused program is structured around five cities - Bengaluru, Bhubaneswar, Chennai, Mumbai Metropolitan Region, and Pune Metropolitan Region.

About IFC

IFC (International Finance Corporation), a member of the World Bank Group, is the largest global development institution focused on the private sector in emerging markets. Working with more than 2,000 businesses worldwide, we use our capital, expertise, and influence to create markets and opportunities in the toughest areas of the world. In FY17, we delivered a record \$19.3 billion in long-term financing for developing countries, leveraging the power of the private sector to help end poverty and boost shared prosperity.

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