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UNEVEN SUPPLY OF HOUSING FOR THE LOW-INCOME COMMUNITY IRRESPECTIVE OF THE DEMAND



FLOODING AND INCREASE IN RUN-OFF VOLUMES BECAUSE OF THE INCREASED BUILT-UP AREA

A Report on

# EXPANSION OF GREEN AFFORDABLE HOUSING

Pune | November 18<sup>th</sup>, 2022

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# EXPANSION OF GREEN AFFORDABLE HOUSING

Maharashtra has been tops the list of states having the largest number of green buildings. Of these 107 projects are in Pune district which comes under the Pune Municipal Corporation (PMC). Area wise it is also the second largest district in Maharashtra terms of area. This factsheet addresses an overall aspect of the status of population demographics, urbanization, need for green affordable housing, climate resilient housing with respect to vernacular architecture and the existing green housing policies in Pune. The report discusses and highlights the following key pointers:

- Pune is ranked second-best city to live in India as per Ease of Living Index (EoLI) by the Ministry of Housing and Urban Affairs. The city witnesses cultural diversity, growth in IT sector, and environmentally conscious policies set by the Pune Municipal Corporation.
- As per 2011 census, 22% of the Pune city population lives in informal settlement such as slums with limited access to basic services.
- The Cushman Wakefield report states that in between 2016-22, the low-income groups have a housing demand of 75% but only 4% of the supply is provided to those communities.
- Government of Maharashtra is a pioneer state in India for releasing the first Climate Action Plan (MCAP) in the month of March 2022 to achieve net zero emissions by 2050.

The above-mentioned points give a greater understanding in terms of socioeconomic status and the supply of affordable housing, climate action plans to adapt to the climate extreme events in the state of Maharashtra and resilient measures to protect the homes from the climate change events.



**84**  
Participants



**44**  
Developers



**7**  
Experts

## GREEN MASTERS



### Jaiprakash Shroff

Chairman, IGBC Pune Chapter & Managing Director & Chairman, ShroffGroup



### Dr. Poorva Keskar

Director  
VK:environmental



### Ar. Ashok B Lall

Principal,  
A B Lall Architects



### Monu Ratra

ED & CEO,  
IIFL Home Finance Ltd



### Priya Sunder

Senior Investment Officer,  
Asian Development Bank



### Neha Kumar

India Programme Manager, Climate Bonds Initiative



### Vismaya Paralkar

Green Value Partner - Deputy Manager,  
IIFL HFL



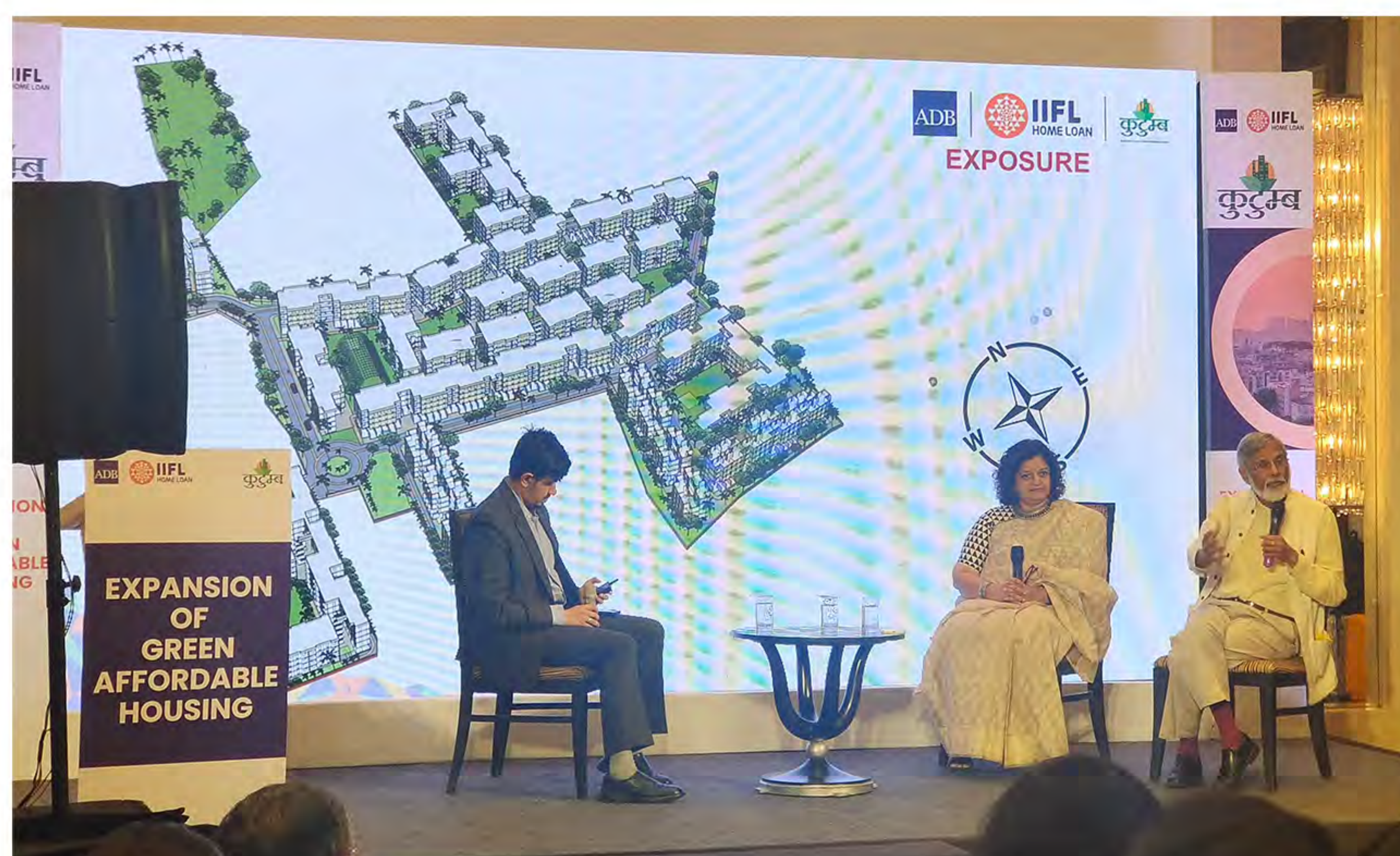
### Rupesh Agarwal

Managing Director,  
SARA Group

# SESSION 1: DESIGNING CLIMATE RESILIENT AFFORDABLE HOUSING

The session focused on the importance of climate-based housing design. It also emphasized on the significance of incorporating climate resilient and sustainable strategies at the early stages of building design.

The first panel was moderated by Mr. Santhosh Ramkumar, Green Value Partner Lead, featuring the expert insights of Ar. Ashok B Lall, Principal, A B Lall Architects and Dr. Poorva Keskar, Director, VK:e environmental.



Climate change is clearly visible in all parts of the world and one of the serious consequences of it is the temperature increase of the Earth's surface. This is mainly because greenhouse gases like CO<sub>2</sub> are being trapped in the atmosphere, which in turn capture the heat across the surface and increase the overall temperature. The other phenomena that increase the surface temperature is the heat island effect, caused by the concrete and steel-built environment. With rise in density of the buildings, the urban population experience higher temperature than outlying areas. To tackle this, people need to start demanding the developer for the homes with not only comfortable indoor environment but also that cause less harm to environment. Similarly, it is time for the developers to adhere to the climate resilient building design, so that many environmental problems can be tackled.

The key factors one should consider while designing the climate resilient buildings are roof, walls & windows. West facing wall and roof of the buildings should be insulated to reduce heat gain. Windows should be properly sized to reduce the unwanted glare and heat rays coming into building. One of the low hanging fruits for the developers with no or low-cost measures is to plan the buildings with proper orientation as per the climate of the location. Other measures like use of AAC Blocks, high SRI paints for roof, shading with trees & low flow fixtures can be used to build a climate resilient building with minimum cost impact. The ideal time to incorporate the sustainable and climate resilient strategies is at the conceptual stage of the project to reduce the incremental cost. The session expert also stated that low rise building with 4-5 stories are ideal for affordable housing as the high rise building with more stories results in the increase in the cost as the construction requires more materials cost and more maintenance cost which eventually result in increase in the price of the dwelling units.

The taskforce at Ministry of finance in India is defining sustainable terminology for different sectors and the exact definitions will be framed for building sector in order to create transparency, required for green bonds. As construction industry is the third most emitting sector in India, future financing will be linked green and sustainability in the ecosystem. Hence, the business models should be realigned to attract the future finance options for the sake of better scale and visibility.



## Ar. Ashok B Lall

**Principal Architect, Ashok B. Lall Architects**

Being committed to an architectural practice based on the principles of environmental sustainability and social responsibility, Ashok B Lall has been engaged in architectural education since 1990 and has developed curricula and teaching methods to address environmental issues. His current interest is in developing strategies for sustainable urban development in the context of rapid urbanization.



## Dr. Poorva Keskar

**Director, VK:e environmental**

An architect, environmental designer, educator and author of articles and research papers on the practice of Environmental Design and Management, Dr. Poorva has an extensive professional experience of 22 years, working on diverse projects of varying scales and complexities. She spearheaded the structuring of syllabus for Masters program in Environment Architecture, University of Pune and also headed this Masters Program at BNCA till 2012.



## Santhosh Ramkumar

**GVP Lead, IIFL Home Finance Ltd.**

Santhosh Ramkumar is the Lead Green Value Partner at IIFL HFL. Prior to joining IIFL HFL he was a key member in the development of the Affordable Housing, Existing Buildings and V.2019 rating variants of GRIHA. His forte is in leveraging partnerships with various multilateral & bilateral organisations, academic institutions, Central & State Government regulatory bodies for time bound delivery of projects to create impact in the sustainable development sector.



The 3 key no cost factors a developer should consider to build a climate resilient structure are "INSULATE, VENTILATE & SHADE.

**Ar. Ashok B Lall**



In climate resilient buildings, green and sustainable measures have to be adopted at the right time to avoid over costing at the later stage.

**Poorva Keskar**



Complying with the building codes gives the developer 80-90% chances of meeting the green building requirements.

**Santhosh Ramkumar**

# SESSION II: FINANCING GREEN AFFORDABLE HOUSING

The session emphasized on the current and future benefits of green buildings in finance ecosystem through green finance and green bonds. It also imparted knowledge on concessional developer loan and retail loan along with on the climate bonds that are available in the market.

Moderated by Mr. Monu Ratra, Executive Director and CEO, IIFL Home Finance Ltd., the second panel featured the expert insights of Ms. Priya Sunder, Senior Investment Officer, Asian Development Bank. and Ms. Neha Kumar, India Programme Manager, Climate Bonds Initiatives.

Asian Development Bank provides lending to banks and private financial institutions in order to meet the larger sustainable development goals like financial inclusion, climate change and sustainability in south Asian countries. Women empowerment lending is also one of the key aspects. After Paris agreement, ADB's framework is developed to emphasize on climate change through lending to lower income groups like EWS, LIG indirectly through financial institution like IIFL. Around the 12-14% of the total 100 billion funds are to be lent in India to promote green and sustainable development. The time is not far when green will become a pre-requisite in getting funding from foreign investors. Therefore, development finance institutes like ADB also provide technical assistance through grant money to educate the stakeholders of building industries about the sustainable and green measures and relevant policy benefits provided by the government. IIFL is doing one of the technical assistance programs with ADB in collaboration with CEPT university.



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## Monu Ratra

**ED & CEO, IIFL Home Finance Ltd.**

An architect (BArch) and a post graduate in management, Monu has over 22 years of experience in leading business growth across leading banks and NBFCs such as HDFC Ltd., ICICI Bank and India Bulls Housing Finance. He aims to build IIFL Home Finance into a fintech, green affordable housing finance company that believes in impact creation, financially and socially.



## Neha Kumar

**India Programme Manager, Climate Bonds Initiative**

With over 15 years of experience public policy and industry action in India on non financial risks, sustainability and responsible financing, Neha drives policy, strategy and partner programmes in the country to scale up the green bonds market and green financial ecosystem.



## Priya Sunder

**Senior Investment Officer, ADB**

With over 15 years of experience in the financial services industry, Priya is currently working as a Senior Investment Officer with the Asian Development Bank's private sector operations division. She is responsible for originating and structuring debt and equity transactions in the financial institutions sector across South Asia. Prior to joining ADB, she has worked with various organizations including India Ratings (Fitch Group), CRISIL (GR&A) and Avendus Securities.



Sustainable living is the most important part to improve the livability of the people through betterment of society as well as environment.

**Priya Sunder**



Policy and market work together, for better policies engage on sustainable and green building related issues and I think we will land at a better place.

**Neha Kumar**



Affordable housing will be more profitable in future through better finance churning process.

**Monu Ratra**

## SESSION III: IN CONVERSATION WITH SARA GROUP

The session was an interactive discussion between Ms. Vismaya Paralkar, Central Green Value Partner, IIFL and SARA group developer. It focused on the developer's viewpoint of the importance of incorporating green building measures and feasibility of taking up green certification for affordable housing projects.

The third panel featured the expert insights of Mr. Rupesh Agarwal, Managing Director, SARA Group on the various methods of implementing sustainability measures in affordable housing and the challenges related to it. It also focused on the incentives that the developers may avail if the project is green certified.

**Vismaya Paralkar:** What was the role of IIFL in the pre-certification of SARA Kasturi Project?

**Rupesh Agarwal:** The project SARA Kasturi got pre-certified gold rating under IGBC due to the efforts of IIFL's Green value partner team. The myth that green certification might bring high additional cost was broken. The initial assessment of the project helped us understand that the project was able to achieve gold rating with minimal additions in construction cost. As most of the measures of IGBC are in line with regulatory norms, merely a small additional amount has to be put in to get the green certification.

**Vismaya Paralkar:** Can you tell us about some of the green design features adopted in the project?

**Rupesh Agarwal:** Most of the measures are considered at the design phase of the project. In this project, 75% of the houses have cross-ventilation, 92% of the habitable spaces get adequate daylight. We have used AAC blocks which eventually results in the lesser use of the cement mortar. The project will incorporate low-flow and flush fixtures and LED lights. A few more measures that are adhered in the projects are high SRI paints to roof, proper glazing, amenities like gym for occupants, etc.

**Vismaya Paralkar:** What is your take on the 0.2% discounted Rate of interest for retail buyers?

**Rupesh Agarwal:** This discounted Rate Of interest will increase the sales of the projects because 0.2% will be a huge saving for the home buyers in the long run. This will be a benefit for both buyers due to reduced interest amount and for the developers due to boost in sales of dwelling units.



Tomorrow if you need funding, why not start investing today!

Rupesh Agarwal

Know More About the  
Green Value Program

# OTHER INITIATIVES, IN COLLABORATION WITH ASIAN DEVELOPMENT BANK

## KUTUMB; GREEN BUILDING ECOSYSTEM

**PATHWAY TO CLIMATE ADAPTIVE DESIGN**

Understanding the four C's of green affordable housing

Of the 6 KUTUMBs (950+ participants) organised, as a part of IIFL HFL and ADB collaboration, 'PATHWAY TO CLIMATE ADAPTIVE DESIGN'; was a two-day workshop which brought together IIFL HFLs two select affordable housing projects, from two different climatic zones and varying scales of project development. The event was conceptualised as 'National Kutumb' to validate the practical viability of the green solutions by bringing together live affordable housing projects and other stakeholders of the ecosystem. The workshops were mentored by the renowned architect Ashok B Lall.

### White Paper



## DISHA; SUSTAINABLE LIVING WORKSHOPS AT RWAs



DISHA	PARTICIPANTS	WOMEN	SAPLINGS
20	1157	350	1698

## CAPACITY BUILDING PROGRAMS



### 4 trainings on:

- Design for Sustainable Affordable Housing
- Policy Landscape for Green Affordable Housing for Women
- Project Formulation and Appraisal for Green Affordable Housing
- Locations: Pune, Hyderabad, Ahemdabad,, Delhi





An ESG Initiative Towards Green Affordable Housing



Sustainability Report 2021 - 2022



IIFL HFL's Guide to Sustainable Affordable Housing

[iiflhomeloans.com/kutumb](https://iiflhomeloans.com/kutumb)

Register Now



Watch Susan Olsen, Unit Head, Private Sector Financial Institutions, Mekong Region, Asian Development Bank

*"We chose IIFL Home Finance to work with in the sector as they have been a pioneer of green affordable housing in the country"*



Watch: Okju Jeong, Urban Planning & Climate Change Specialist, Asian Development Bank

*"Asian Development Bank is delighted to have supported IIFL HFL through the joint initiative for green affordable housing for women in India"*

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