

E-Newsletter-Vol - XXV

LIGHT HOUSE PROJECTS

February 28, 2023, New Delhi



“ इस वर्ष के बजट में हमने गरीबों के घर के लिए करीब 80 हजार करोड़ रुपए रखे हैं। हमें हाउसिंग फॉर आल की मुहिम को तेजी से आगे बढ़ाना होगा। हाउसिंग को टेक्नोलॉजी से कैसे जोड़ें, कम खर्च में ज्यादा टिकाऊ और मजबूत घर कैसे बने? ग्रीन एनर्जी, जैसे सोलर पावर का फायदा कैसे हो? ग्रुप हाउसिंग के नए मॉडल, गांव और शहरों में भी स्वीकार्य हों, ये क्या हो सकते हैं? इस पर ठोस चर्चा की ज़रूरत है। आपके अनुभव का निचोड़ उसमें निकलना चाहिए। ”

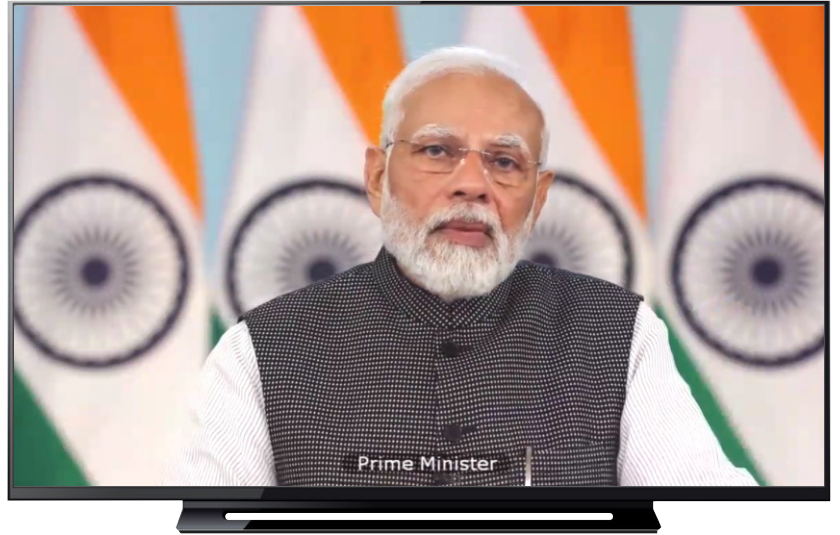
- माननीय प्रधानमंत्री
पोस्ट बजट वेबिनार, 27 फरवरी 2023

Hon'ble Prime Minister addresses Post-Budget Webinar on 'Reaching the Last Mile'

On 27th February 2023, Hon'ble Prime Minister Shri Narendra Modi addressed the inaugural session of Post-Budget Webinar on 'Reaching The Last Mile/Leaving No Citizen Behind'. These webinars are being organised by various Ministries to discuss ways for effective implementation of initiatives outlined in the Union Budget 2023-24. It brings together experts from urban and rural housing sectors, public and private sectors, practitioners, consultants, academicians and wide range of stakeholders on a common platform, wherein discussions and deliberations are made on strategies of Budget implementation roadmap and its action plan.

In his speech, Hon'ble Prime Minister asked the stakeholders to discuss ways of linking housing with technology for finding ways of making strong but affordable houses, finding easy ways of benefiting from solar power and group housing models acceptable in both urban and rural areas. Hon'ble Prime Minister said that this year's Budget has kept Rs 80,000 crore for housing for the poor.

As part of the webinar, a break-out session on Pradhan



Mantri Awas Yojana was held, where experts from rural and urban housing sectors shared their insights on different topics related to housing, including 'Role of construction technologies in achieving Housing for All'. During this segment, a brief on Light House Projects (LHPs), its advantages, the technologies being used and how there is a wide scope for replication of LHP technologies in other projects was discussed. Recommendations were made on how shifting construction activity from the site to the factory will enhance pace of construction of project and delivery, how these technologies can be adopted for affordable housing to customize the product with an objective to encourage thermal comfort within the buildings, among others.



Message from JS&MD (HFA) Shri Kuldeep Narayan

In the month of February, we had the opportunity to host the Post Budget Webinar which was inaugurated by Hon'ble Prime Minister and brought together housing experts on a single platform to discuss and share their valuable ideas on implementation and progress of Pradhan Mantri Awas Yojana. I must express my gratitude to the speakers who shared their recommendations, as they would indeed help us in the road ahead.

The Light House Projects was also discussed in detail during the webinar and how the LHP technologies help in fast-tracking construction of housing projects in a durable & timely manner. The experts were of the opinion that replication of LHP technologies should be done - something which we strongly believe in since the inception of LHPs.

I visited LHP Chennai a few days ago and met the beneficiaries staying happily in their homes & the smiles on their faces said it all! The project has been well executed and it will set an example for other housing projects too. The affordable rates at which flats at LHPs have been made available to families has also led the way in affordable housing projects. I wish to see such projects in the future and I'm sure, once it takes shape, it will redefine the construction sector.

Two of our LHPs have already been inaugurated and in the other four, there has been encouraging progress. Very soon, the upcoming LHPs will also be inaugurated, and the housing dreams of more and more families will be fulfilled.

We are definitely bringing a change & let's give our 100% in becoming the gamechangers.

Shri Kuldeep Narayan, JS&MD, Housing for All, takes tour of Light House Project, Chennai



Shri Kuldeep Narayan, Joint Secretary & Mission Director, Housing For All, MoHUA, visited Light House Project Chennai on 24th February and reviewed the functioning of various amenities provided to the beneficiaries. LHP Chennai was inaugurated in May 2022 by Hon'ble Prime Minister. It is home to over 1,000 families who once lived in kutcha houses or small rented accommodations. Shri Narayan also met the beneficiaries of LHP Chennai to know their experiences of living in the society. JS&MD said that the project has been executed well and appreciated the efforts



taken by beneficiaries in maintaining the site. He expressed that such projects need to be developed in future and further appreciated the efforts of the construction agency in fulfilling the housing dreams of people at fast pace.

LHP Chennai was the first one to be inaugurated among the other six LHPs. It has all basic infrastructure such as internal water supply, sewer lines, internal electrification, internal roads, lifts, LED Street lights, solar streetlight system, sewerage treatment plant, rainwater harvesting, etc., in place. It also comprises of anganwadi, shops, milk booth and library for the ease of families living inside the premises.

Shri Durga Shanker Mishra, Chief Secretary, Government of Uttar Pradesh reviews progress of Light House Project, Lucknow

On 13th February, Shri Durga Shanker Mishra, Chief Secretary, Government of Uttar Pradesh, visited Light House Project Lucknow to monitor work progress. Shri Amrit Abhijat, Principal Secretary, Government of Uttar Pradesh, Shri RK Gautam, Director, Housing For All, MoHUA, along with other State Government officials were also present during the site inspection.

A detailed review of the housing project was taken up by Shri Mishra as he toured the site and visited the sample flat along with the officials and construction agency officers. During his visit, Shri Mishra shared his insightful experiences about planning and execution of LHPs and how the housing project has brought technology and innovation closer to people. He said that LHP is an important project for the purpose of providing affordable housing to the economically weaker section.

In LHP Lucknow, 1,040 houses are being built with 'Stay In Place PVC Formwork with Pre-Engineered Steel Structural System' technology from Canada. These flats, spread in 13 floors and 5 towers, are equipped with all basic and modern amenities inside a gated premises.



Shri Kuldeep Narayan, JS&MD, HFA chairs Project Monitoring Committee meeting

A meeting to review progress of Light House Projects (LHPs) was held on 7th February under the chairmanship of Shri Kuldeep Narayan, JS&MD, Housing For All. Shri RK Gautam, Director, Housing for All, along with other Ministry and Building Materials and Technology Promotion Council (BMTPC) officials were also present at the meeting, along with representatives of LHP construction agencies.

A presentation on the ongoing construction activities at four LHP sites, namely, Indore (Madhya Pradesh), Lucknow (Uttar Pradesh), Ranchi (Jharkhand) and Agartala (Tripura) was made, after which the review was taken state-wise.

Monitoring of work progress is done constantly by the Ministry through review meetings, live feeds, site visits and daily progress report sent by the respective teams.



Shri R.K. Gautam, Director, HFA visits Light House Project, Lucknow

On 12th February, Shri RK Gautam, Director, Housing For All, visited Light House Project Lucknow to inspect the progress of work at site. A meeting with construction agency officials was also chaired by Shri Gautam during which he directed them to expedite work on site so that beneficiaries move into their dream homes soon. Through various presentations, he was briefed about the construction system, pattern and the other details about the progress made so far.

Highlights from RACHNA 2.0 training

Encouraged by the overwhelming response and participation in RACHNA training series, the second edition of the programme was launched in December 2022. RACHNA - Resilient, Affordable, Comfortable Housing with National Action - is an initiative of MoHUA with BMTPC and GIZ. Under the initiative, another 75 training events are being organised to create awareness among stakeholders on thermal comfort, its necessity in affordable housing sector and ways to achieve it.

The following workshops were recently conducted under RACHNA 2.0:

Training #36th was held in Jaipur for senior Government officials from the State Govt. It included in-depth seminars on basics of thermal comfort in buildings, its requirement and how Building Physics affects it. Training #38th was organised for two days at National Institute of Technology (NIT), Patna for more than 50 students/Technograhis from Department of Architecture.

With focus on conceptual and vocational learning programmes for diverse group of stakeholders, workshop #39th was held at Light House Project Lucknow for two days for technicians, masons and field workers. The participants were briefed about the six LHP technologies and visited the site to experience live construction process.



The training in Jamshedpur marked the #42nd one in the series. It was a 2-day vocational training event at

Affordable Housing In Partnership (AHP) site at Kasidih, attended by 60 construction workers to make them aware about Innovative Construction Technologies.



The #47th workshop, held in Panchkula, was on Innovative Construction Technologies and Thermal Comfort in Affordable Housing for senior Government officials of Haryana. The participants gained insights on basics of thermal comfort in buildings, its requirement, how building physics affects it, and which are the passive measures that can be implemented for achieving thermal comfort of the occupant.



Training #48th was a two-day affair in Imphal for built environment practitioners on emerging construction technologies for thermal comfort.

Training #49th, held in Hyderabad, was also for Government officials on the topic of Thermal Comfort in Affordable Housing.

Training #55th was on Climate Smart Buildings at Vijayawada, conducted for Senior Government officials of Andhra Pradesh Township & Infrastructure Development Corporation (APTIDCO). The training focused on GHTC-India, Emerging Technologies, Thermal Comfort and need for sustainable design in Affordable Housing Projects.



The training #56th was a vocational programme held in Lucknow for two days with focus on Innovative Construction Technologies and Thermal Comfort for Affordable Housing. The aim was to give the participants practical knowledge of the six LHP technologies and the Innovative construction process of affordable housing. Construction workers and technicians made up the majority of the attendees.



Activities under Climate Smart Buildings Programme

Thermal Performance analysis of Light House Projects

To assess the thermal comfort performance of the Light House Project, Rajkot, a study was conducted by the GIZ – Climate Smart Building Cell in September. A report was prepared and some of the key findings mentioned in the report on thermal comfort study are cited here under.



Figure 1: Indoor dry bulb temperature (DBT) during the daytime was 4 – 5 °C cooler than the outdoor dry bulb temperature (DBT).

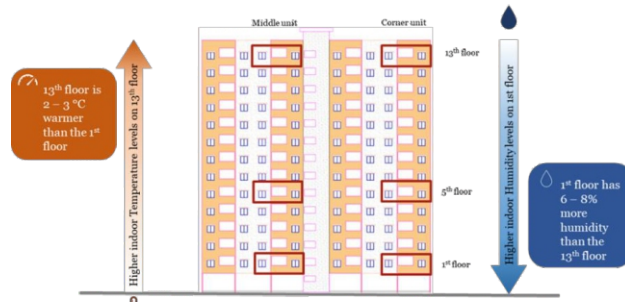


Figure 2: Dwelling units get warmer as we go to higher floors. The 13th floor is 2-3 °C warmer. The humidity levels decrease on higher floors due to better ventilation.

Figure 3: During the daily day & night cycle over a week in the monsoon month, 98% of the time the indoor temperature stayed within the IMAC comfort band

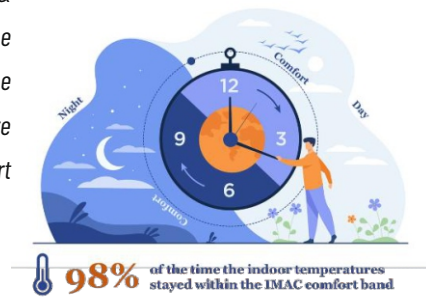
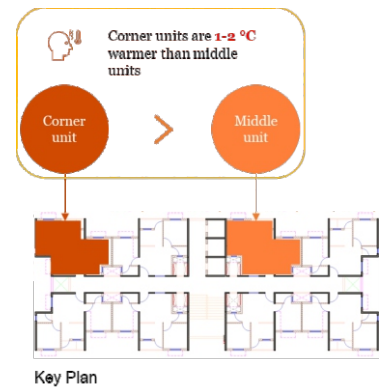


Figure 4: Corner units are enclosed by RCC walls on one side. These RCC walls increase the room indoor temperature by 1-2 °C as they have no insulating properties when compared to AAC walls.



Light House Projects as Live Laboratories

Guest faculties from Indo-German Centre for Sustainability, IIT Madras visited LHP Chennai to understand the affordability and sustainability aspects of the LHP technology. The CSB Team gave a briefing on the project and explained the details of the Precast technology used at the housing project.



Visits at Light House Projects

LHP Indore is at the verge of completion and has become a point of attraction among the beneficiaries. CSB Cell members are assisting the beneficiaries and visitors in knowing more about the construction technology used, its salient features and other advantages of the project as a whole.

Meanwhile, Civil Engineering students from Babu Banarasi Das University (BBDU) recently visited LHP Lucknow site as Technograhis. The CSB Cell team has supported in around 600 Technograhi visits and gave an overview of the project to the visitors and responded to their queries.

PROGRESS OF LIGHT HOUSE PROJECTS AS ON FEBRUARY 28, 2023

INDORE, Madhya Pradesh

Technology Name: **Prefabricated Sandwich Panel System**



No. of Dwelling Units : **1024 Nos. (S+8)**
 No. of Block / Tower : **8 Blocks**
 Units in each Block / Tower : **128 Nos.**

Activities	Progress
Superstructure	
PEB Work	72 out of 72 Floors completed in 8 blocks
Slab Work	72 out of 72 Floors completed in 8 blocks
EPS Panel work in Wall	57 out of 64 Floors completed in 8 blocks
Sample Unit	Completed
Infrastructure Work	Community Center, Internal road work, underground water tank, STP & Sewer line works completed and boundary wall work is in progress.



LUCKNOW, Uttar Pradesh

Technology Name: **PVC Stay in Place Formwork System**



No. of Dwelling Units : **1040 Nos. (S+13)**
 No. of Block / Tower : **4 Blocks**
 Units in each Block / Tower : **A(494), B(130), C(208) & D(208)**

Activities	Progress
Superstructure work of Building Blocks	
Pre-Engineered Steel Building (PEB) Work	<ul style="list-style-type: none"> Block A1 (Part of Block A)- Completed in all 13 Floors Block C & D – Completed upto 13th Floor Remaining Blocks (A2 & B)- In progress upto 9th & 10th floor level respectively
SIP Wall Form work	<ul style="list-style-type: none"> Block A1 & Block C - Completed upto 13 Floors (All 208 DUs in Each Block) Block D– In progress at 13th Floor Remaining Blocks (A2 & B)- In progress at 5th & 6th floor level along with Electrical & Plumbing work
Shear Wall Work (Staircase & Lift well)	<ul style="list-style-type: none"> Block A1- Completed Block C & D- Upto 13th Floor completed Remaining Blocks (A2 & B)- In progress upto 9th floor level
Social Infrastructure	Community Centre & Commercial Block – Structural work completed & the finishing work is in progress.
Infrastructure Work	<ul style="list-style-type: none"> Underground Water Tank- Civil work completed. Boundary wall- About 98% completed STP- RCC Wall casting work is in progress. Rain water harvesting Pits: 4 out of total 5 nos. are completed Internal Road Work – Has just started

PROGRESS OF LIGHT HOUSE PROJECTS AS ON FEBRUARY 28, 2023

RANCHI, Jharkhand Technology Name: Precast Concrete Construction – 3D Volumetric Construction



No. of Dwelling Units : **1008 Nos. (G+8)**
 No. of Block / Tower : **7 Blocks**
 Units in each Block / Tower : **144 Nos.**

Activities	Progress
Casting Yard (Production of Components)	In the casting yard 6,411 numbers of Modules/ different components have been produced out of total requirement of 10,784 number of components
Foundation work	The Raft & Grade slabs of all 7 building blocks have been completed.
Superstructure	Block wise status of erection of Modules/building components : <ul style="list-style-type: none"> • Blocks (No. 1 & 2) – All 9 Floors completed • Block 3 – 3rd floor is in progress • Block 4 – 2nd floor is in progress • Block 5 – 4th floor is in progress • Block 6 – 7th floor is in progress • Block 7 – 7th floor is in progress
Infrastructure work	Pre-cast boundary wall – About 56% of total length completed.

AGARTALA, Tripura

Technology Name: Light Gauge Steel Structural System & Pre-Engineered Steel Structural System



No. of Dwelling Units : **1000 Nos. (G+6)**
 No. of Block / Tower : **7 Blocks**
 Units in each Block / Tower : **A(111), B(152), C(125), D(167), E(167), F(167) & G(111)**

Activities	Progress
Foundation (Dwelling Units)	
Pile Work and Pile head breaking	Completed in 6 Blocks (A, B, C, E, F & G) & D -Block is in Progress.
PCC for foundation	A, B, C, E, F & G Block Completed.
Raft Foundation	A, C, E, F & G Block completed and B - Block is in progress.
Plinth Beam & Pedestal Column Casting	A, E, F & G Block completed and B & C Block is in progress.
Superstructure	A, E, F & G - Block is in progress.



Social Media Corner



Housing For All @PMAYUrban

Training #34 was held online on innovative [#constructiontechnology](#) & to enhance thermal comfort in [#affordablehousing](#) using passive building design.

6:54 PM · Feb 1, 2023 · 1,197 Views

9 Likes

Housing For All @PMAYUrban

Offline/online workshops under @MoHUA_India's [#RACHNA 2.0](#) campaign is being conducted at various places across India to create awareness among stakeholders on [#thermalcomfort](#), its necessity in [#affordablehousing](#) sector & ways to achieve it.

6:54 PM · Feb 1, 2023 · 2,238 Views

4 Retweets 24 Likes

Housing For All @PMAYUrban

[#LHPRanchi](#) comprises of 1,008 affordable housing units with infrastructure and all amenities which are being constructed using Precast Concrete Construction System – 3D Volumetric technology.

1008 Houses under construction at LHP Ranchi

7:04 PM · Feb 3, 2023 · 3,441 Views

7 Retweets 1 Quote Tweet 37 Likes

Housing For All @PMAYUrban

The 3D-volumetric system is a modern method of building in which solid precast concrete structural modules like room, toilet, kitchen, etc. & any combination of these are cast monolithically in Plant or Casting yard in a controlled condition.

Light House Project Ranchi, Jharkhand
Precast Concrete Construction System – 3D Volumetric being used at LHP Ranchi

7:04 PM · Feb 3, 2023 · 1,518 Views

2 Retweets 12 Likes

GHTC INDIA @GhtcIndia

Patna, Jaipur & Lucknow recently turned hosts for [#RACHNA 2.0](#) workshops, held on innovative [#constructiontechnologies](#) & [#thermalcomfort](#) in [#affordablehousing](#).

6:46 PM · Feb 6, 2023 · 105 Views

1 Retweet 2 Likes

GHTC INDIA @GhtcIndia

At Patna, training was conducted for more than 50 students/[#Technograhis](#) from Department of Architecture at National Institute of Technology.

6:46 PM · Feb 6, 2023 · 21 Views

1 Retweet 1 Like

GHTC INDIA @GhtcIndia

Today, Shri RK Gautam, Director, Housing For All, @MoHUA_India, visited [#LightHouseProject](#) Lucknow to inspect the progress of work at site.

[#HousingForAll](#) [#PMAYUrban](#) [#GHTCIndia](#) [#LHPs](#)

10:04 PM · Feb 12, 2023 · 206 Views

1 Retweet 3 Likes

GHTC INDIA @GhtcIndia

On 13.02.2023, Shri Durga Shanker Mishra, @ChiefSecyUP & Shri @amritabhijat, Principal Secretary, Govt of Uttar Pradesh, visited [#LightHouseProject](#) Lucknow to monitor work progress.

7:47 PM · Feb 14, 2023 · 125 Views

2 Likes

GHTC INDIA @GhtcIndia

"Happy Living!" Shri Kuldip Narayan, JS&MD, Housing For All, wished families residing in [#LightHouseProject](#) Chennai as he visited the site today. JS&MD took a tour of the flats & inspected functioning of various amenities provided to beneficiaries.

1:20 PM · Feb 24, 2023 · 106 Views

1 Retweet 3 Likes