

Visit to Affordable housing sites in Thane, Maharashtra



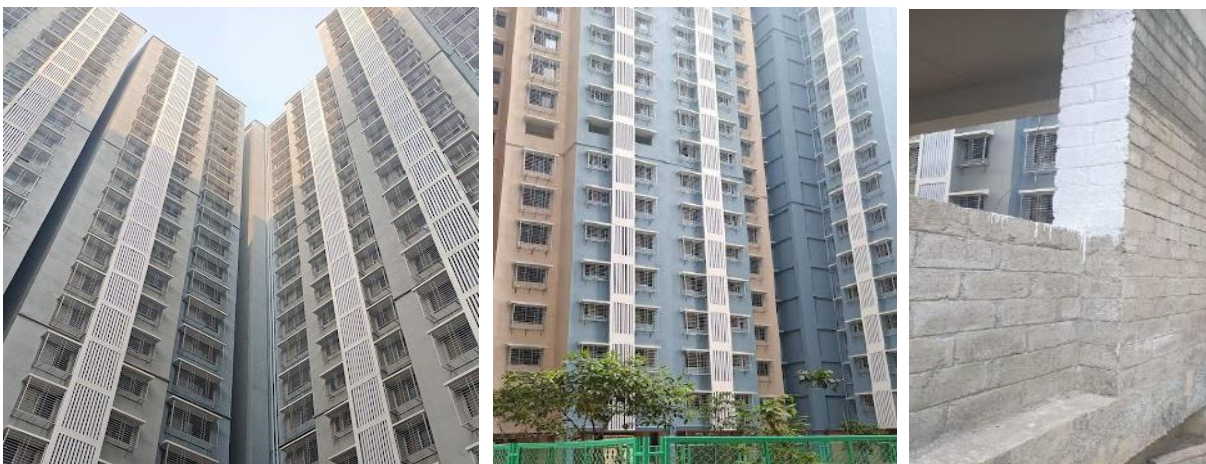
Existing Condition of the Kisan Nagar Cluster, Thane

Development Alternatives, in collaboration with UNEP is working towards ASHRAYE: Transforming Built Environment through Sustainable Materials. The emphasis is on promoting locally sourced, low-carbon materials for construction. Recently, the team visited affordable housing sites and Construction & Demolition (C&D) waste plant located in Thane for survey and data collection for study on embodied energy from the building materials.

Thane is a high density development area, there is a lot of cluster development for residential areas and is developed in the form of residential and commercial mixed zones. The different types of residential areas witnessed in the city were-

- Informal settlements
- Old residential societies
- Gated societies
- High-rise buildings

Development Alternatives team explored the Kisan Nagar cluster, characterised by low-rise development, with clearly defined boundaries and planned redevelopment within the limits. The proposed transformation involves the construction of G+30 structures. The visit to the recently developed site enabled the team to examine the materials and construction technology employed in the new structures. Currently, the area has low-rise structures without adequate ventilation, services, and parking spaces. The development's objective is to enhance living conditions for the residents by addressing these shortcomings.



Proposed Affordable Housing units.

The team also visited the C&D waste plant in Daigarh, Thane. The Plant has been established and maintained by Metro waste Handling Pvt. Ltd. The total capacity of the plant is to generate 300 MT aggregate per day, currently it is generating 150-200 MT aggregate daily. The facility produces various sizes of aggregates supplied to Ultratech and L&T. Ultratech is conducting quality tests on the Aggregates, with test results to be shared, for assessing their suitability as replacements for M15 and M20 aggregates. The plant has executed pilot projects for their final products, specifically designed for non-load-bearing structures, with a daily production capacity ranging from 200 to 250 tonnes. The operation is conducted under the jurisdiction of the Thane Municipal Corporation.

Following were the observations from the plant:

- a) Debris are collected through Collection Trucks, which are GPS enabled and monitored by ICCC centre, Thane Municipal Corporation (TMC).
- b) These trucks then bring the debris to the plant and process it. This results in different types of aggregates being generated.
- c) Separate types of Paver blocks and Tiles are also manufactured in the plant.



C&D Waste plant at Daigarh, Thane

The Development Alternatives team was there to assess the feasibility of sustainable material consumption, circular economy and reduction of Carbon Footprint. The brainstorming session was enhanced by Sunil Pote, Executive Director (Operations) MAHAPREIT (Mahatma Phule Renewable Energy & Infrastructure Technology Limited), with his extensive knowledge on sustainability and green energy.