



GLOBAL
HOUSING
TECHNOLOGY
CHALLENGE INDIA



Ministry of Housing and Urban Affairs
Government of India



Notification and Implementation Plan for ULBs

Date | Place

Implementation Plan for ULBs

1

Integrating the standard in **building bye-laws**

2

Integration of the standard in **building approval process**

3

Empanelment of **Professionals**



Integrating the standard in building bye-laws

Steps to integrate the standard in building bye-laws



1

Set up a technical committee

Technical Committee can be formed by:

- ULBs
- or Within the cells in the SDA (such as the ENS)
- or the State/UT departments



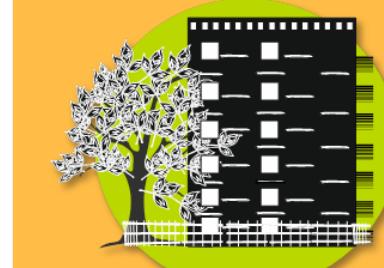
Committee members can include qualified architects and engineers.

2

Amend standards

Based on:

- local conditions
- compliance approach (i.e. the bundle approach offering a choice from locally available light-weight, heavy weight and alternative construction practices)
- legal provisions for enforcement



3

Receive public comments

THE 'enter STATE/UT' OFFICIAL GAZETTE

Date: **enter date**

Article 19 (1)(e) Indian Constitution recognizes the right to shelter as a fundamental right. Through their various rulings, the honourable courts of India have also established the right to housing as essential to right to life guaranteed by Article 21 of the Indian Constitution. The Universal Declaration of Human Rights – 1948, also ratified by India, extends the right to housing to the right to 'adequate housing'. The United Nations, in its interpretation of the 'right to adequate housing', stresses that adequate housing is not limited to the building structure, but it also extends to sustainability, and non-discriminatory access to facilities essential for health, security, comfort and nutrition. Recognizing and acknowledging adequate housing that is thermally comfortable and resilient puts focus on passive design principles at the outset.

In accordance with the Indian Constitution, national policies and international obligations, the 'enter state/UT' hereby specifies the 'Thermal Comfort Design Standard'. The standard identifies the design requirements to ensure a certain minimum level of thermal comfort performance in residential developments with specific emphasis on low-income housing that have limited means/access to mechanical comfort systems. The state also hereby specifies the 'Implementation Plan for Urban Local Bodies (ULBs).' The plan recommends steps and strategies to integrate thermal comfort standards into the building bye-laws and building approval processes, and measures to strengthen the capacity to adopt and implement the standard.

For information of the public likely to be affected thereby and notice is hereby given that the said notification will be taken into consideration on or after the expiry of a period of thirty (30) days from the date of publication of the draft in the official Gazette;

The objections or suggestions, which may be received from any person with respect to the said Notification within the period specified above, will be taken into consideration by the Central Government;

Objections or suggestions, if any, may be addressed to the **enter name**, **enter department** and may be sent to e-mail id: **enter email address**.

**Open to the public
for suggestions for a
particular period of
time (30 days)**

4

Notify in the gazette

Notified by the states for enforcement of the standards in the official gazette.



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Date: **enter date**

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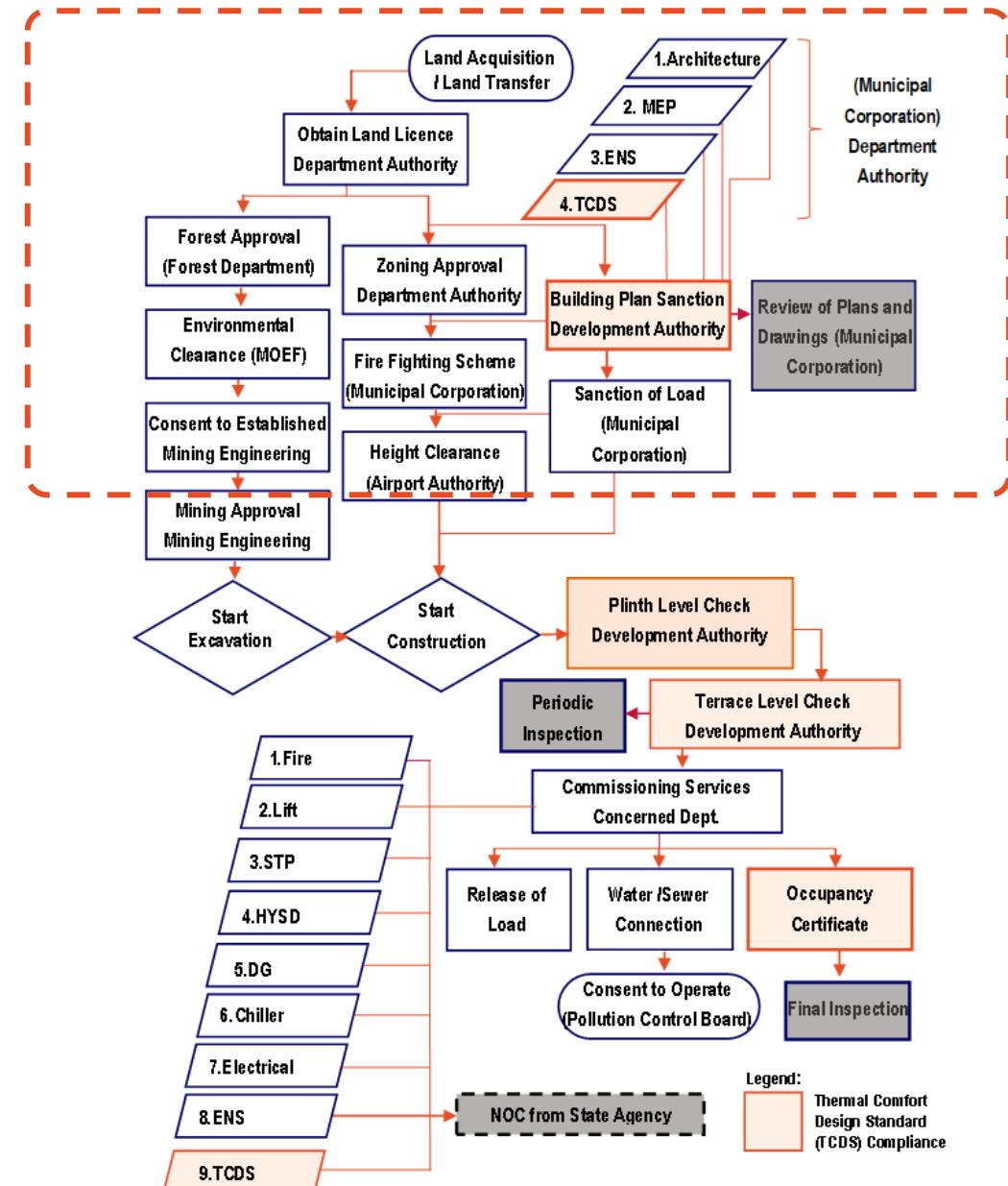


Integration of the standard in building approval process

Design Phase

Documents and specifications:

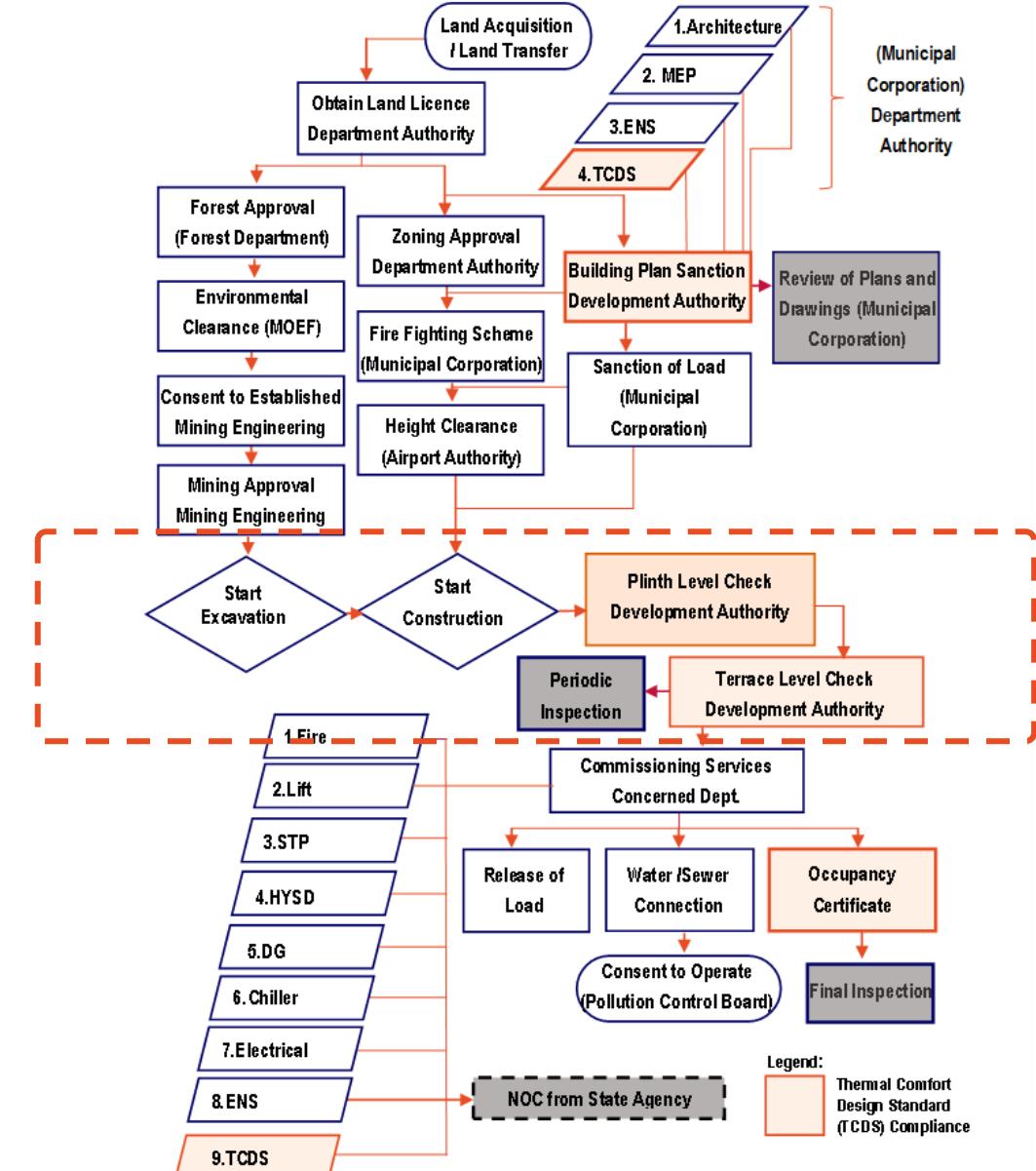
- Material specification sheets
- Calculations for window area to exposed wall area ratio (by wall surface), window area/operable window area to carpet area ratio, U-factor for composite opaque assemblies, and density for composite opaque assemblies.
- Equipment schedules
- Compliance forms for building envelopes, low energy systems, lighting systems, and other special requirements in large residential complexes



Construction Phase

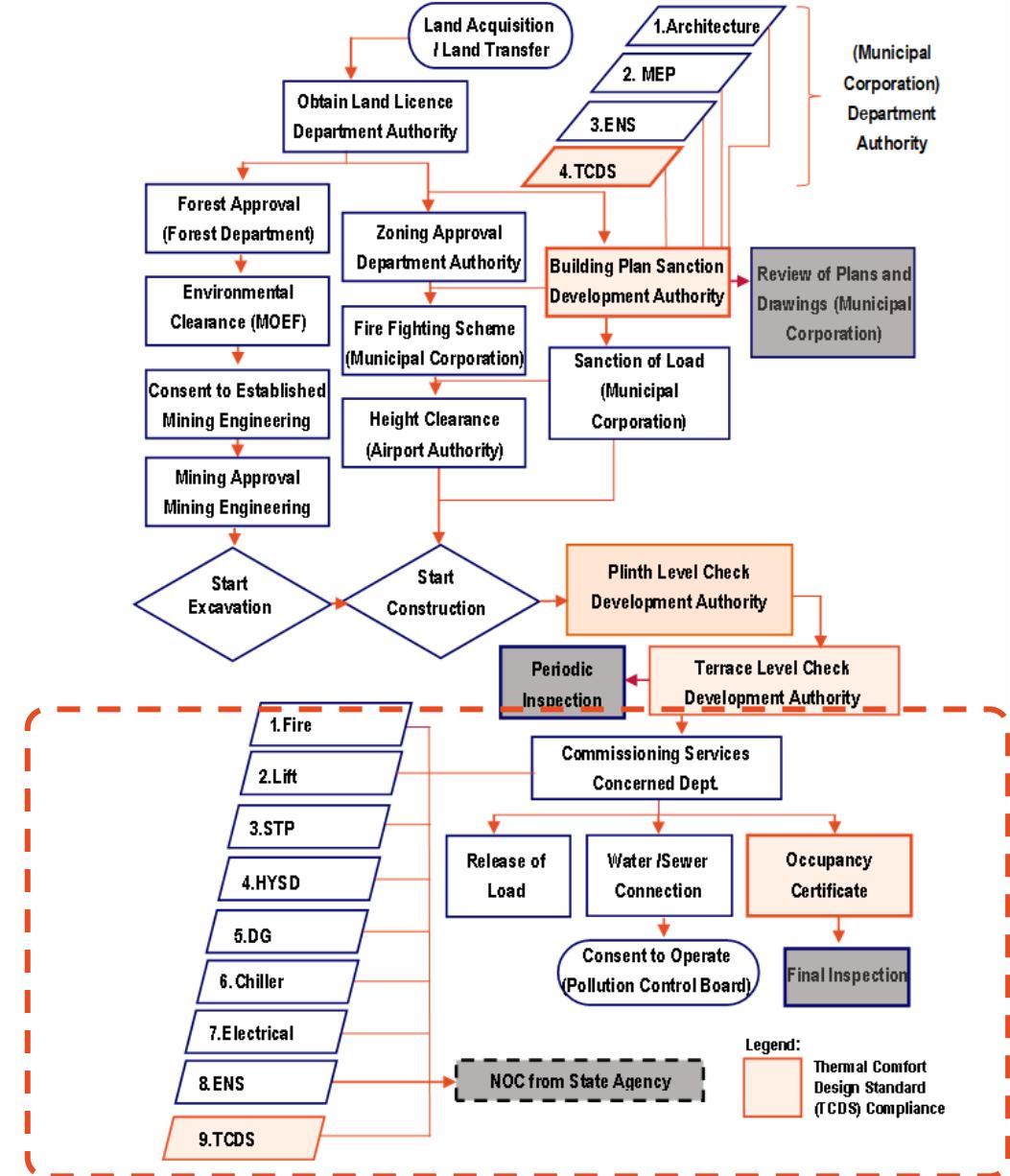
Conduct inspection to check thermal comfort compliance when the building reaches:

1. plinth level
2. terrace level



Post Construction Phase

A final check for thermal comfort compliance is recommended at this stage to avail the occupancy certificate.





Empanelment process of professionals

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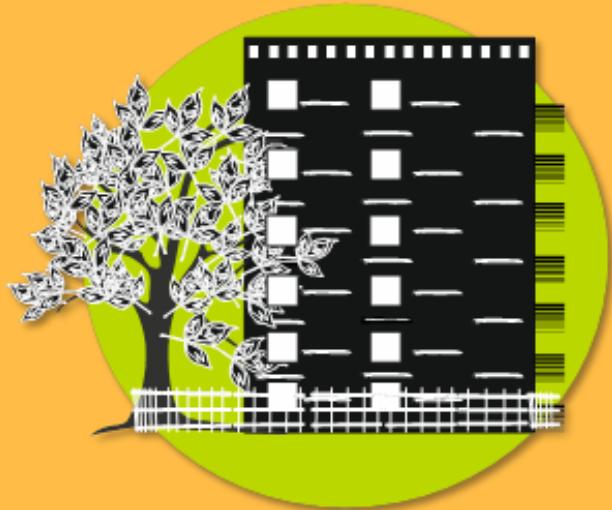
The agency will administer the program, conduct tests and maintain a registry of professionals.

Accreditation program which will include

- training schedules
- empanelment of experts for delivery
- certification system
- test procedures
- training materials
- outreach mechanisms and materials, etc.

Program to be executed and a registry of the certified professionals to be maintained.

Training materials to be updated as per amended standards issued by the states/UT.



Thanks!