

Third Party Quality Monitoring Housing for All

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PMAY(U): TPQM

PMAY scheme guidelines envisage that States/UTs engage Third Party Quality Monitoring Agencies (TPQMA) to ensure quality of construction under IISR, AHP and BLC.



Objectives at State Level

Objectives

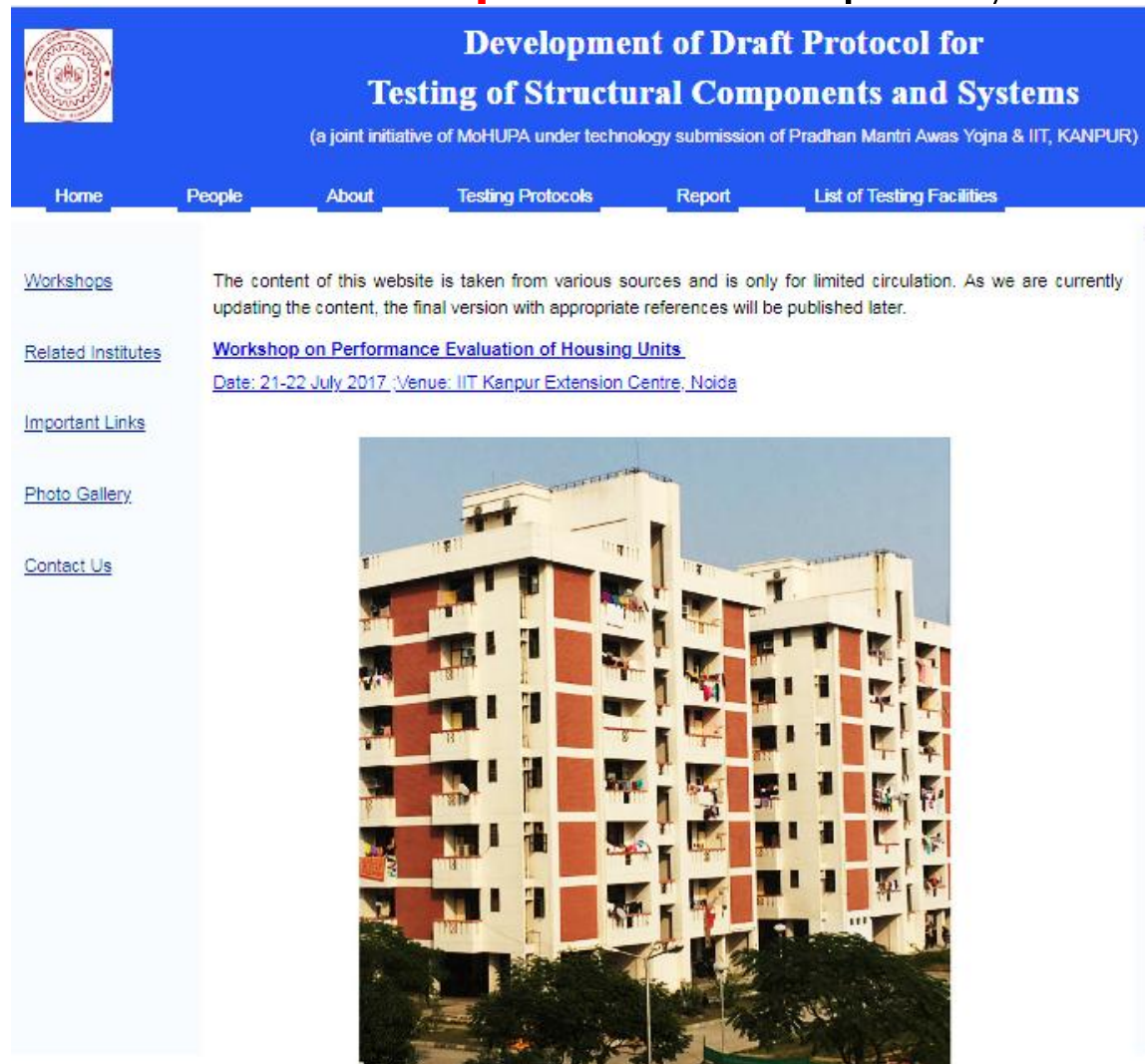
- i. Review and monitoring of quality of all PMAY(U) projects implemented by ULBs/ Implementing Agencies.

- ii. Provide a structured report on the quality of projects under PMAY(U).



Quality Control

Quality control of materials /structural components may be accessed through www.iitk.ac.in/ce/test/mihupa.html developed by IIT-Kanpur.



The screenshot shows a website with a blue header. On the left is the IIT Kanpur logo. The header text reads: "Development of Draft Protocol for Testing of Structural Components and Systems (a joint initiative of MoHUPA under technology submission of Pradhan Mantri Awas Yojna & IIT, KANPUR)". Below the header is a navigation menu with links: Home, People, About, Testing Protocols, Report, and List of Testing Facilities. The main content area has a light blue background. On the left is a sidebar with links: Workshops, Related Institutes, Important Links, Photo Gallery, and Contact Us. The main text area contains a disclaimer: "The content of this website is taken from various sources and is only for limited circulation. As we are currently updating the content, the final version with appropriate references will be published later." Below the text is a link: "Workshop on Performance Evaluation of Housing Units" with a sub-link: "Date: 21-22 July 2017, Venue: IIT Kanpur Extension Centre, Noida". At the bottom is a photograph of a multi-story apartment building with a white facade and red accents.

- Quality control on alternate materials and construction methodologies including disaster resistant construction may be referred through www.housingtechnologynetwork.in



ABOUT KNOWLEDGE PORTAL

The Knowledge Portal for Sustainable Habitat is an open, neutral and free web-based knowledge network that will facilitate sharing of data... [read more >](#)

LATEST NEWS

- 📄 * Multi-Attributes Evaluation Methodology for Emerging Housing Technologies
- 📄 * Ministry of Urban Development OM regarding Adoption of New & Emerging Technologies by CPWD, DDA and NBCC

HABITAT SYSTEMS

FOUNDATION SYSTEM	STRUCTURAL SYSTEM	BUILDING ENVELOPES	INTEGRATED HOUSING SYSTEMS
FLOORING	ROOFING	FACADES & GLAZING	DOORS
WINDOWS	INTERNAL PARTITIONING & CEILING	AIR-CONDITIONING AND VENTILATION	PLUMBING SYSTEM
FIRE PROTECTION	ELECTRICAL SYSTEM	LIGHTING SYSTEM	ACOUSTIC PROTECTION 5

Roles and Responsibilities

At State level:

SLTC within the SLNA play the key role of coordination & overseeing of the TPQMA on behalf of the SLNA in following areas:

- i. Appoint a suitable agency with the required experience and expertise as the TPQMA ensuring no major deviation in the scope of services and no conflict of interest in execution of services.
- ii. Communicate through SLNA to all Urban Local Bodies / Implementation Agencies for organizing field visits of TPQM, etc.

At ULB/ Implementing Agency(IA)

City Level Technical Cell (CLTC) established in the ULBs/IA of the Mission Cities, is responsible for proper implementation of all PMAY projects **including quality control.**

CLTC: Key role of coordination and overseeing of the TPQMA on behalf of the ULB/IA in following areas:

- Schedule the visits of the TPQMA across different projects.

- Ensure that TPQMAs have access to the required documents, project sites, officials for meetings and discussions, other support , etc.

- Ensure that TPQMAs file their reports in a timely manner i.e. within a week time after the visit.

- Examine the reports of the TPQMA and the issues highlighted therein.

On the basis of TPQMA's reports, take corrective measures for improving quality.

Third Party Quality Monitoring Agency (TPQMA) level

TPQMA undertake field visit for ascertaining quality of construction at various stages of construction:

at the beginning i.e. 10-15 % of progress,
mid of construction i.e. 50-60 % of progress and
completion i.e. 85-100 % of progress

with the objectives as follows:

- Schedule the field visits in the Cities across the State/UT
- Review of land requirement/ availability, Site preparation, etc.
- Review of Project Implementation Plan, procurement process, etc.
- Review of Safety and Health aspects.
- Examine Convergence with the Central/ State scheme(s).
- Beneficiary participation/ satisfaction in the project, etc.

Selection of TPQMA

Third Party Quality Monitoring Agencies (TPQMA) are selected by the SLNA of the States/UTs through open and transparent bidding process.

Selection of Dwelling Units (DUs)

- TPQM is done for all projects which are being constructed under ISSR and AHP components of PMAY (U).
- In case of BLC projects, sample size is 5-10% of DUs or 50 DUs, whichever is more.
- In case of multiple 'BLC Projects' with less than 500 DUs, the SLNA/TPQMA may consider forming of clusters of around 500 or more DUs which could then be considered as a single unit/project to draw bigger samples of more than 50 DUs which can be covered under one TPQM visit.
- If there are cities where less than 50 DUs are being constructed under the BLC vertical, all the DUs should be selected for TPQM.

Central Assistance

Central Assistance for PMAY projects would be sanctioned by Central Sanctioning and Monitoring Committee (CSMC) after DPRs are appraised by State Level Appraisal Committee (SLAC) of the State/UTs and approved by State Level Sanctioning and Monitoring Committee (SLSMC).

- Each state/UT will report the progress of TPQM on a quarterly basis.
- Central assistance for this purpose will be limited to 3 ‘visits’ to each project.
- State/UTs/ULBs are free to include more field visits by TPQMA, as necessary.

TPQMA Rates :

Rs. 40,000 per visit is approved for TPQMA. Up to 3 visits and payment up to Rs. 1,20,000 per project will be considered for Ministry funding during a project implementation life cycle.

- Central Govt. and States/UTs : 75:25
- North Eastern & special category States : 90:10.

In order to receive funding from GoI,

Annual Quality Monitoring Plans approved by SLSMC should be submitted to Ministry for the approval of CSMC.

1st installment of 50% shall be released as advance payment after approval of CSMC.

Third Party Quality Monitoring Report

- SLNA should submit the detailed TPQM report of quality assurance to the SLSMC.
- Detailed report would be scrutinized at the level of SLNA.
- SLNA should implement all the remedial measures suggested by the TPQMA. Thereafter, the SLNA should place the report before the SLSMC along with the Action Taken Report (ATR).
- After approval of SLSMC, it should be submitted to the MoHUPA/CSMC.
- TPQM report should also be placed in the website of the SLNA.

Format for Annual Quality Monitoring Plan

A. PARTICULARS:					
Name of State/UT					
No of towns under PMAY					
No. of projects proposed under PMAY* (* As per HFAPoA/AIP)	ISSR	AHP	BLC(N)	BLC(E)	Total
No. of projects approved under PMAY					
B. Desk review/ Field visits proposed					
Category of project	No. of visits for each project		No. of visits proposed during the year		
"In situ" Slum Redevelopment (ISSR)					
Affordable Housing in Partnership (AHP)					
Beneficiary Led Construction (BLC) (New)					
Beneficiary Led Construction (BLC) (Enhancement)					
C. Others					
Fees proposed/ approved for each visit of TPQMA under each category of projects. (Rs. Lakhs)					
Total Fees proposed/ approved in the year..... (Rs. Lakhs)					
Whether same or different agencies have been proposed/selected for TPQM					
Whether transparent competitive bidding process has been adopted/ envisaged for the selection of TPQM Agency					

TPQM Report of ISSR/AHP Projects

Name of TPQM Agency	
Date of Visit	
Current Visit No.	
Previous visit with date	

A. PARTICULARS OF PROJECT

1	Name of the State /UT:											
2	Name of the City:											
3	Name of Project:											
4	Project Code:											
5	Implementing Agency (ULB/ DA/ HB/ UIT/ Slum Rehabilitation Agency)											
6	Location of the Project (Slum name, Ward etc. as applicable)	(Annexe details in case of multiple sites)										
7	Type of Project :(i) In-situ Slum redevelopment (ISSR) (ii) Affordable Housing in Partnership (AHP)											
8	Total Houses (EWS/LIG/MIG/HIG) in the project.											
9	No. of EWS Houses in the project											
10	Description of Work. i. Carpet/ Built up area of EWS house ii. No. of EWS houses in one block iii. No. of blocks iv. Total no. of houses v. Type of Structure (G, G+1, G+2 etc.) vi. No. of storeys / floor.											
11	Date of Approval of project by SLSMC											
12	Approved Project Cost (Rs. Lakhs):	<table border="1"> <thead> <tr> <th>Central share</th> <th>State share</th> <th>ULB/ Implementing agency share</th> <th>Beneficiary share</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Central share	State share	ULB/ Implementing agency share	Beneficiary share	Total					
Central share	State share	ULB/ Implementing agency share	Beneficiary share	Total								
13	Date of sanction of 1 st instalment of central assistance by CSMC											
14	Duration of Project											

B. HEALTH & SAFETY ASPECTS (ON SITE)

1	Whether the drinking water facility is provided on site?	
2	Whether there are adequate no. of toilets provided & maintained for site staff / Workers?	
3	Whether there is a board indicating the safety norms to be observed?	

C. QUALITY ASSURANCE IN THE PROJECT

1	Whether authenticated copy of DPR, contract document, structural drawings and copies of specifications are available at site ?	
2	Whether the Inspection Registers, Site order book and Quality control Test registers are maintained at the site properly and endorsed by the Engineer-in-charge?	

D. BENEFICIARY PARTICIPATION IN THE PROJECT

1	Whether list of Beneficiaries is prepared	
2	Whether houses are identified and allotted	

E. PROGRESS - HOUSING COMPONENTS

1	Numbers of houses sanctioned in the project	
2	Numbers of houses Completed	
3	Numbers of houses in progress	

F. PROGRESS- CIVIC INFRASTRUCTURE COMPONENTS

1	Whether Contract for infrastructure components (i.e. water supply, Sewerage, Drainage, Roads, SWM etc.) have been awarded? i) If no, Time line for award of contract for infrastructure works. ii) If Yes, State the progress of work in % a. Water Supply b. Sewerage c. Drainage d. Roads e. Solid Waste Management f. Electrification g. Any other component (as per sanctioned components) *(Provide detailed report in Annexure-2A)	
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G. SOCIAL INFRASTRUCTURE COMPONENTS		
1	Whether Contract for Social Amenities (i.e. Community centre, Livelihood centre etc.) have been awarded?	
	i) If no, Time line for award of contract for Social Amenities.	
	ii) If Yes, State the progress of work in % a. Community centre b. Livelihood centre c. Informal Sector Market	

H. PHYSICAL PROGRESS OF THE PROJECT/PACKAGES

1	Is there an approved program / schedule of work & whether the same is available at site office	
2	Overall Percentage progress at the time of inspection vis-à-vis expected as per contract.	

I. FINANCIAL PROGRESS & FUND UTILIZATION (Rs. in Lakhs)

1	Sanctioned fund for entire project.	
2	Amount of funds received up to date	

J. VARIATIONS w.r.t. SANCTIONED COVENANTS

1	Are there any major variation because of: i. Specifications ii. Quality iii. Quantity iv. Designs (Architectural / Structural) v. Period of Construction (Increase/Decrease)	
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K. COST VARIATION and TIME-OVERRUNS

Cost variation:

1	Whether there is cost variation?	
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L. REMEDIAL MEASURES TO IMPROVE PROGRESS AND QUALITY

Undertaken by Implementation agency to improve the:

1	Physical Progress	
2	Financial Progress	
3	Quality management	
4	Comments and suggestions of TPQMA on above	

M. COURT CASES AND LITIGATIONS

1	(To be specified)	
2		

N. OTHERS

1	Feedback of beneficiaries regarding provision of Physical & Social infrastructure.	
2	Any specific observation by the beneficiary	

4	Action taken report on previous report: i. Observations of TPQMA ii. Action suggested by TPQMA iii. Action taken by IA (Implementation Agency) iv. Whether TPQMA is satisfied with the action taken by IA	
5	TPQMA's Overview of the Project (in 400-500 words) in a separate sheet	

TPQM Report of BLC Projects

Name of TPQM Agency	
Date of Visit	
Current Visit No.	
Date of Previous visit	

A. PARTICULARS OF PROJECT

1	Name of the State /UT:	
2	Name of the City:	

B. QUALITY ASSURANCE IN THE PROJECT

1	Whether ULB/ State have organized workshop/ training programmes to educate the beneficiaries about quality, construction methods, adherence to disaster resistant technologies etc.	
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C. PROGRESS - HOUSING COMPONENTS

1	Numbers of houses sanctioned in the project	
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D. CIVIC INFRASTRUCTURE

1	Whether provision of Civic infrastructure components (i.e. water supply, Sewerage, Drainage, Roads, SWM etc.) has been ensured?	
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E. SOCIAL INFRASTRUCTURE

1	Whether provision of Social Amenities (i.e. School, Anganwadi, Health centre, Community centre, Livelihood centre etc.) has been ensured?	
2	Any other comments	

F. FINANCIAL PROGRESS & FUND UTILIZATION (Rs. in Lakhs)

1	Sanctioned fund for entire project.	
2	Amount of funds received up to date	

G. COST VARIATION and TIME-OVERRUNS

Cost variation:		
1	Whether there is cost variation? If yes, what are the reasons?	

H. REMEDIAL MEASURES TO IMPROVE PROGRESS AND QUALITY

Undertaken by Implementation agency to improve the:		
1	Physical Progress	

I. COURT CASES AND LITIGATIONS

1	(To be specified)	
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J. OTHERS

1	Any innovative/ cost effective/ green technology has been used	
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Action taken Report based on TPQM

S. No.	Recommendations by TPQM Agency	Action Taken/Reasons for not acting on TPQM Report
1		
2		
3		
4		
5		
6		

(Add additional rows, as required)

1. It is hereby certified that a detailed report of TPQM in respect of the PMAY(U) Project(s) has been received by the SLNA from the TPQMA
2. The TPQMA report has been scrutinized/examined by SLNA and preventive and curative actions have been taken based on the TPQM.
3. An Action Taken Report (ATR) in this regard has been placed before SLSMC in its _____ meeting held on _____.
4. The overall quality of houses constructed under PMAY(U) has been found satisfactory as per latest NBC norms.
5. The TPQM report has already been placed in the SLNA website.

Signature
(State Level Nodal Officer)

Signature
(Secretary/Principal Secretary, Concerned Department)

Points for Discussion

• Standard Operating Procedure (SOP)



The screenshot shows a web browser window with the address bar displaying 'www.iitk.ac.in/ce/test/Hpl.html'. The page has a blue header with the title 'Development of Draft Protocol for Testing of Structural Components and Systems' and a sub-header '(a joint initiative of MoHUPA under technology submission of Pradhan Mantri Awas Yojna & IIT, KANPUR)'. The navigation menu includes 'Home', 'People', 'About', 'Testing Protocols', 'Report', and 'List of Testing Facilities'. The main content area is titled 'Case Study on Performance Evaluation of HPL Buildings' and contains the following text:

1. Background

As we know, under the 'Housing for All' scheme of Govt. of India, approximately 2 crore houses are to be constructed and for houses to be constructed on such a large scale, it is crucial that margin of error (in maintaining quality of construction) is as minimum as possible. And many times such houses can also be non-conventional type, for which not much data/ standard literature is available. Hence it would be a good idea to study recent innovations in building construction and structural engg. in our country and see how these recent technologies perform in terms of durability, strength, economy, energy efficiency and thermal comfort when compared to a conventional RC frame building.

Therefore, as a part of this project, a case study is being done to evaluate the performance of such buildings based on simulations and real time data. For the case study, newly constructed prefabricated buildings constructed at Technological park, Hindustan Prefab Limited (HPL), Delhi have been taken as 'candidate buildings' as these buildings having relatively smaller construction period, can be used as ideal candidates for 'Housing for All'. Performance of these buildings will be evaluated based on following criterion:

1. Structural Performance

- **Frequency of Monitoring.....**

- **Recommendations of TPQMA : If requires:**
 - additional investment,
 - actions, major/minor deviations in outputs, etc.
 - Legal actions/court litigation, etc.....

- **TPQMin conflict zones.....**

- **TPQM : Quality followed by:**
 - time overrun.....
 - cost overrun.....
 - decrease in social benefits....

**Thanking You
for
kind attention**