



**Government of India**  
**Ministry of Housing & Urban Poverty Alleviation**



# **Pradhan Mantri Awas Yojana (Urban)** **– Housing for All**

## **REFERENCE GUIDE FOR THIRD PARTY QUALITY MONITORING**

**2017**





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## **PREFACE**

Government of India has launched a comprehensive mission Pradhan Mantri Awas Yojana (Urban) - Housing for All. The mission seeks to address the housing requirement of urban poor including slum dwellers through following programme verticals:

1. Slum rehabilitation of Slum Dwellers with participation of private developers using land as a resource
2. Promotion of Affordable Housing for weaker section through credit linked subsidy
3. Affordable Housing in Partnership with Public & Private sectors
4. Subsidy for beneficiary-led individual house construction/enhancement

Further details of the programme are available at the website [www.mhupa.gov.in](http://www.mhupa.gov.in).

PMAY scheme guidelines envisage that the States/UTs would engage Third Party Quality Monitoring Agencies (TPQMA) to ensure quality of construction under the above verticals of the Mission except Credit Linked Subsidy (CLS).



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## **ABBREVIATIONS**

<b>AHP</b>	Affordable Housing in Partnership
<b>AQMP</b>	Annual Quality Monitoring Plan
<b>BLC</b>	Beneficiary Led Construction
<b>CLSS</b>	Credit linked subsidy scheme
<b>CLTC</b>	City Level Technical Cell
<b>DA</b>	Development Authority
<b>DBT</b>	Direct Benefit Transfer
<b>DPR</b>	Detailed Project Report
<b>EWS</b>	Economically Weaker Section
<b>GoI</b>	Government of India
<b>HFA</b>	Housing for All
<b>HFAPoA</b>	Housing for All Plan of Action
<b>HB</b>	Housing Board
<b>IA</b>	Implementing Agency
<b>IS</b>	Indian Standards
<b>ISSR</b>	In- Situ Slum Redevelopment
<b>LIG</b>	Low Income Group
<b>MoHUPA</b>	Ministry of Housing and Urban Poverty Alleviation
<b>PMAY</b>	Pradhan Mantri Awas Yojana
<b>SLNA</b>	State level Nodal Agencies
<b>SLSMC</b>	State Level Sanctioning and Monitoring Committee
<b>SLTC</b>	State Level Technical Cell
<b>TPQMA</b>	Third Party Quality Monitoring Agency
<b>UC</b>	Utilisation Certificate
<b>UIT</b>	Urban Improvement Trust
<b>ULB</b>	Urban Local Body
<b>UT</b>	Union Territory





## Third Party Quality Monitoring

Effective monitoring of ongoing project(s) is a key to successful completion of any project with monitoring of quality being most significant aspect. A State level mechanism for Third Party Quality Monitoring of projects sanctioned under PMAY shall be evolved with the following objective:

1. Review and monitoring of quality of all PMAY projects implemented by ULBs/ Implementing Agencies.
2. Provide a structured report on the quality of projects under PMAY.

States/UTs should draw up their quality monitoring and assurance plans involving third party agencies. Such plan will include the visits by third party agencies to the project site and to advise State and Urban Local Bodies/ Implementing Agencies on quality related issues.

The specifications and testing requirements of materials/structural components/system for Quality Control/Quality Assurance may be accessed through a weblink <http://www.iitk.ac.in/ce/test/mihupa.html> developed by IIT-Kanpur. For information on alternate materials and construction methodologies including disaster resistant construction, [www.housingtechnologynetwork.in](http://www.housingtechnologynetwork.in) may be referred.

On the basis of quality assurance report by such agencies, States and ULBs/IAs should take both preventive and curative measures to ensure that standard quality houses and infrastructure are constructed under the mission. Annual Quality Monitoring Plans should be submitted to Mission Directorate for the approval of CSMC after taking approval of State Level Sanctioning and Monitoring Committee. Format for the AQMP is at Annexure-1.

### 1. Roles and Responsibilities

#### A. State Level

It is envisaged that a State Level Technical Cell (SLTC) established in each State Level Nodal Agency (SLNA) will provide strategic coordination and support for all PMAY related activities in the State/UTs. The SLTC within the SLNA will play the key role of coordination and overseeing of the TPQMA on behalf of the SLNA in following areas:

- 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.
- Communicate through SLNA to all Urban Local Bodies/ Implementation Agencies for organizing field visits of TPQMA.



- Ensure the performance of TPQMA is as envisaged in the contract, and that the reports are submitted for record and necessary action.
- Review and scrutinize the reports submitted by TPQMA, examine the issues highlighted by the TPQMA and initiate corrective actions where necessary with concerned ULB/Implementing Agency.
- Make periodic payments to the TPQMA.

## **B. ULB/IA Level**

It is envisaged that a City Level Technical Cell (CLTC) established in the ULBs/IA of the Mission Cities, shall be responsible for proper implementation of all PMAY projects including quality control. The CLTC will play the 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 in the city.
- Ensure that TPQMAs have access to the required documents, project sites, key officials for meetings and discussions and other support required.
- 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.

## **C. TPQMA Level**

The TPQMA will undertake field visit for ascertaining quality of construction at various stages of construction (*preferably 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 under:

- Schedule the field visits in the Cities across the State/UT after proper coordination at State/ ULB level.
- Examine project documentation with respect to sanctioned covenants.
- Review of land requirement/ availability, Site preparation & other statutory clearances.
- Review of Project Implementation Plan and procurement process.
- Review of approved quality monitoring plan.
- Review of Safety and Health aspects.
- Examine Convergence with the Central/ State scheme.
- Beneficiary participation/ satisfaction in the project.
- Report on Quality Assurance. (indicative formats are at Annexure-2 &3)
- Remedial measures to improve quality of the project.
- File report in a timely manner.



Follow-up action of the report, which would be ascertained in the next report.

## 2. Selection of TPQMA

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

SLNA shall ensure that:

1. TPQMA should have experience of similar kind of works.
2. TPQMA should not have incurred any loss for the last 3 years.
3. TPQMA deploys optimum number of experts as per the need of the projects.
4. Deployed experts have experience of similar kind of projects and expertise in the concerned sectors. A suggestive structure is at Annexure-4
5. No Conflict of interest prevails in the engagement.
6. The Terms of Reference (TOR) are as per the prescribed Scope & Deliverables.

Conflict of interest for a TPQMA is defined as:

- Any agency involved as a consultant in project preparation, supervision or implementation work in any of the PMAY projects applying for TPQMA is a conflict of interest in the particular project/City/State (as the case may be)
- The team members of TPQMA should not have been an employee of any City or State level government agency in that particular State in preceding 2 years of this contract.
- The agency black listed or debarred by the Government would not be eligible for TPQM.

## 3. Selection of Dwelling Units (DUs)

TPQM will be done for all projects which are being constructed under ISSR and AHP components of PMAY (U). In case of BLC projects, a systematically selected sample of houses may be monitored. The sampling should be done through a transparent and well-defined process to cover all the BLC Projects in the city in a holistic way, leading to selection of a representative sample.

The recommended sample size for monitoring BLC houses is 5-10% of DUs or 50 DUs, whichever is more. In cities where there are 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.

#### **4. Central Assistance**

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

TPQM agencies will undertake field visits for ascertaining quality of construction at various stages of construction as per PMAY(U) TPQM Reference Guide. 'Visits' include examining/reviewing project documents and implementation and conducting any required tests/assessments and report writing. 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. The State/UTs/ULBs are free to include more field visits by TPQMA, as necessary. For central assistance, the States/UTs should adopt an open and transparent procedure for procurement of these services.

TPQMA rates are shared between central Govt. and States/UTs in the ratio of 75:25 and in case of North Eastern and special category States in the ratio of 90:10. 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. These rates serve as limits of central assistance and States should claim actual expenses only.

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 instalment of 50% shall be released as advance payment after approval of CSMC. Final instalment shall be released on receipt of the undertaking in the prescribed format as per Annexure-5 of this Reference Guide along with the Utilization Certificate (UC) and report on action taken based on TPQM report by the State duly signed.

#### **5. TPQM Report**

SLNA should submit the detailed TPQM report of quality assurance to the SLSMC, as per relevant formats given in Annexure 2 and Annexure 3. This detailed report would be scrutinized at the level of SLNA. The SLNA should implement all the remedial measures suggested by the TPQMA. Thereafter, the SLNA should place the report before the



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SLSMC along with the Action Taken Report (ATR). Only the ATR as per the format given in Annexure 6, after approval of SLSMC should be submitted to the MoHUPA. The MoHUPA/CSMC may ask for any specific TPQM report for further scrutiny, if required. The TPQM report should also be placed in the website of the SLNA.



## Annexure-1

### Format for Annual Quality Monitoring Plan for the year.....

<b>A. PARTICULARS:</b>					
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>B. Desk review/ Field visits proposed</b>					
<b>Category of project</b>		<b>No. of visits for each project</b>		<b>No. of visits proposed during the year</b>	
“In situ” Slum Redevelopment (ISSR)					
Affordable Housing in Partnership (AHP)					
Beneficiary Led Construction (BLC) (New)					
Beneficiary Led Construction (BLC) (Enhancement)					
<b>C. Others</b>					
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					

**Signature**  
**(State Level Nodal Officer)**

**Signature**  
**( Secretary/Principal Secretary, Concerned Department)**





## Annexure 2

### Third Party Quality Monitoring Report of ISSR/AHP projects under PMAY

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):	Central share	State share	ULB/ Implementing agency share	Beneficiary share	Total
13	Date of sanction of 1 <sup>st</sup> instalment of central assistance by CSMC					
14	Duration of Project					



15	Date of Award of work	(Annexe details in case of multiple contracts)	
16	Date of commencement	Scheduled	Actual
17	Date of completion	Scheduled	Expected
18	Inspection undertaken by ( Name) (with contact detail) :	1.	
		2.	
19	Name of State representative present during visit		
20	Name of ULB representative present during visit		
21	Name of Contractor's representative present during visit		
22	Name of Community representative present during visit		
23	Whether list of Beneficiaries finalised/ partially finalised/ not finalised		
24	If finalised, whether uploaded in PMAY MIS		
25	State any deviation from sanctioned DPR in terms of number of houses or size or location or Layout		
26	Compliance of Tender conditions matching to statutory requirements of DPR w.r.t. a. Compliance to time limit. b. Compliance to price escalation. c. Compliance to legal clauses. d. Compliance to liquidated damages. e. Compliance to penalties.		
27	Any other comment		
<b>B. HEALTH &amp; SAFETY ASPECTS (ON SITE)</b>			
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?		



4	Whether the use of following is being done by site staff Safety Helmets Safety Shoes Safety Goggles Safety Jackets	
5	Whether safety railings & safety tapes have been provided around excavation trenches / upper floors/ducts/lift well?	
6	Whether approved quality & type shoring-strutting-scaffolding are provided for excavation trenches/Pits/Building work?	
7	Whether 'FIRST AID' kit is available at site?	
8	Whether Fire Extinguishers are available at site?	
9	Whether ' <b>Blasting</b> ' is being done on site? If yes, whether necessary permissions have been obtained and required precautions have been taken for control blasting?	
10	Whether any Safety-Officer is employed?	
11	Any other comment	
<b>C. QUALITY ASSURANCE IN THE PROJECT</b>		
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?	
3	Whether list of ISI marked/approved materials to be used is available at site?	
4	Is there a provision in Contract/Tender to provide 'Test facilities on site'?	
5	Whether testing facilities to check quality of material is available at site ? if yes attach list of Equipments	



6	<p>Whether the structural Designs are approved / Proof checked by competent Authority Name of the approving authority for structural design.</p> <p>Whether the statutory certificate for disaster resistance design and compliance of codal provision is endorsed by the structural designer on the structural drawings fit for execution, specially in case of multi-storeyed construction. The work is being executed as per the approved drawings fit for execution.</p>	
7	<p>Whether manufacturer test certificate for cement, steel, pipes etc. have been obtained with supply and records are being maintained?</p>	
8	<p>Whether all mandatory tests of construction material, road work, sanitary work, plumbing work, electrical work and concrete in foundations, beams, columns and slabs etc are carried out at stipulated frequency?</p>	
9	<p>Whether regular tests of materials and construction products are being got done from accredited labs also ? If yes, details of such labs</p>	
10	<p>Whether soil investigations of the site proper have been done before the structural design and soil parameters have been accounted for in the structural design/ drawings? If yes, attach copy of soil investigation report.</p>	
11	<p>Whether centring /shuttering is checked for staging &amp; propping, line &amp; level, dimensions, cleaning etc. and its quality approved before each stage and record maintained.</p>	
12	<p>Specific control on RCC work like: mixing by full bag capacity hopper fed mixer, control of slump, placing/ compaction with vibrator. (proportioning with boxes not permitted)</p>	
13	<p>Whether cement register is maintained and checked at site. Comment on method of stacking.</p>	
14	<p>Whether concrete mix is nominal or design mix? (Nominal mix not permitted for quality concrete).</p>	



15	What is the Mode of Concrete mixing (batch mix/ manual)? In case of manual mixing, whether mixing is by weight or by volume of ingredients? (Volumetric mixing not permitted).	
16	Whether Mixer/Vibrator as specified is available at site with adequate means to run them during concreting?	
17	Whether RMC is being used in work? If yes, detail of control and checks done at plant site. Comment on Quality of aggregates ,Slump test, Cube test etc.	
18	Suitability of water for construction What is the source of water Has water been tested and approved by Engineer-in-charge before construction Has water been tested subsequently as per Requirement	
19	Quality of work and workmanship, Comments on	
	i. RCC work (concrete, Reinforcement detailing, cover to reinforcement). Whether Columns are in plumb (check for verticality).	
	ii. Masonry (Joint details, verticality). Check adequate RCC bands are provided.	
	iii. Shuttering (Type of material-pucca/katcha, support spacing )	
	iv. Bar bending and stirrups bending , placement and cover to reinforcement bars.	
	v. Plastering	
	vi. Doors and windows	
	vii. Seepage, if any	
	viii. Cracks, if any	
	ix. Honey combing, if any	
x. Any other		
20	Whether floor slope (especially) in bath, WC, kitchen, terrace and balcony etc. are proper?	
21	Whether dampness/leakages noticed? If yes, state location and probable reasons.	



22	Whether remedial measures are undertaken by IA/ ULB to stop Dampness & Leakages ?if any.	
23	Whether Service lines(Electrical, Plumbing, Others) if any, provided before commencement of concrete?	
24	Whether disaster resistant features have been incorporated?	
25	Whether precautions taken for dewatering and protecting site from flooding as applicable?	
26	Whether sample units/items are completed and approved by competent ULB official / CLTC member before start of mass finishing work?	
27	Whether Adequate plinth height (above the general ground level) is provided to the ground floor of the building to avoid possibility of rainwater and reptiles in the building.	
28	Comments on tests already done but not found satisfactory (specify action to be taken)	
29	Frequency of visit by SLNA/ULB officials and SLTC/CLTC member	
30	Any other comments	
31	Overall assessment of quality (in view of structural stability, non-structural work and workmanship) * <i>video/photographs of the ongoing works maintained by ULB/Implementation Agency may be referred as the case may be.</i>	
<b>D. BENEFICIARY PARTICIPATION IN THE PROJECT</b>		
1	Whether list of Beneficiaries is prepared	
2	Whether houses are identified and allotted	
3	Whether the Beneficiaries are involved in the project preparation and construction work.	
4	Whether the Beneficiaries are visiting the site or not	
5	Any suggestion of the beneficiaries in the construction	
<b>E. PROGRESS - HOUSING COMPONENTS</b>		
1	Numbers of houses sanctioned in the project	
2	Numbers of houses Completed	
3	Numbers of houses in progress	



4	Stages of Progress (Multi storied buildings) : i. Foundation/ Plinth level (Nos.) ii. Superstructure (Frame work) Level(Nos.) iii. Brickwork completed (Nos.) iv. Finishing level (Nos.) v. Total units completed (Nos.) <b>*(Provide detailed report in Annexure-2A)</b>	( Specify No. of Units)	
5	Numbers of houses not started		
6	Reason for non-starter of houses, if any		
7	Numbers of houses occupied by the Beneficiaries		
8	Reasons for Non-occupation of houses (If any)-specific reasons to be given		
9	Size of Unit (Carpet Area)	Sanctioned	As per Implementation
10	Overall physical progress of Housing (in %)		
11	Whether the building plan(s) conform to NBC norms?		
12	Whether authenticated building plans and revisions if any, are available?		
13	Deviation, if any		
14	Any innovative/ cost effective/ green technology has been used?		
15	Any other comment		

## 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) <b>*(Provide detailed report in Annexure-2A)</b>		



	iii) Deviation if any as per sanctioned DPR	
2	Comments on quality of construction of Infrastructure works	
3	Whether the proposed infrastructure components are independent and/or integrated with city level infrastructure?	
4	Whether Transit Accommodation has been provided. If not what measures have been taken for the displaced families?	
5	Overall physical progress of civic infrastructure (in %)	
6	Cost reduction in infrastructure components (To be reported in case of deviation from sanctioned quantity)	
<b>G. SOCIAL INFRASTRUCTURE COMPONENTS</b>		
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 d. Any other component (as per sanctioned components) <b>*(Provide detailed report in Annexure-2A)</b>	
	iii) Deviation if any as per sanctioned DPR	
2	Comments on quality of construction of Social Amenities	
3	Whether livelihood linkages have been ensured?	
4	Overall physical progress of Social Infrastructure (in %)	
5	Overall physical progress of the project (in %)	





<b>H. PHYSICAL PROGRESS OF THE PROJECT/PACKAGES</b>		
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.	
3	Package wise % of progress	(Attach package-wise Annexure)
4	Details of milestones as per contract vis-à-vis their achievement	
5	Reasons for delay	
<b>I. FINANCIAL PROGRESS &amp; FUND UTILIZATION</b>		<b>(Rs. in Lakhs)</b>
1	Sanctioned fund for entire project.	
2	Amount of funds received up to date	
3	Up-to date Expenditure	
4	Amount of funds Utilized (out of received)	
5	Amount of Expenditure by ULB (ULB Contribution + Beneficiaries contribution)	
6	Balance funds Expected/due from various stakeholders	
7	Package wise Expenditure	
8	Over All Financial Progress %= Total Expenditure / Total of Tendered Amount x100	
9	Whether the work is delayed for non payment of any pending bills after construction (to be specified)?	
<b>J. VARIATIONS w.r.t. SANCTIONED COVENANTS</b>		
1	Are there any major variation because of: i. Specifications ii. Quality iii. Quantity iv. Designs (Architectural / Structural) v. Period of Construction (Increase/Decrease)	



<b>K. COST VARIATION and TIME-OVERRUNS</b>		
<b>Cost variation:</b>		
1	Whether there is cost variation?	
2	If yes what are the reasons: i. Change in Quantities ii. New/Additional Items of work iii. Price Escalation Any other ( to be specified)	
<b>Time Overruns:</b>		
1	Whether there is time overrun?	
2	If yes what are the reasons: i. Delay in issue of work order ii. Delay in signing agreement iii. Delay in Handing Over site of work to the Contractor iv. Delay in actual start of work by the Contractor v. Delay in procurement of material ( give reasons) vi. Delay due to lack of interdepartmental coordination Any other ( to be specified)	
<b>L. REMEDIAL MEASURES TO IMPROVE PROGRESS AND QUALITY</b>		
<b>Undertaken by Implementation agency to improve the:</b>		
1	Physical Progress	
2	Financial Progress	
3	Quality management	
4	Comments and suggestions of TPQMA on above	
<b>M. COURT CASES AND LITIGATIONS</b>		
1	( To be specified)	
2		
<b>N. OTHERS</b>		
1	Feedback of beneficiaries regarding provision of Physical & Social infrastructure.	
2	Any specific observation by the beneficiary	
3	Overall observation on the project (with adequate photographs covering project to a large extent including quality issues as applicable) 1. Critical observations 2. Action suggested by TPQMA to SLNA and IA	



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	

*\*The format is indicative; the information will vary for different type of projects. The information may be added/deleted as appropriate.*

**(Signature)**  
**Name and Designation**

**(Signature)**  
**Name and Designation**

**Annexure- 2A**

<b>DETAILED REPORT ON PROPOSED WORKS</b>				
<b>S.No.</b>	<b>Component</b>	<b>Whether in progress (Yes / No)</b>	<b>Whether Inspected (Yes / No)</b>	<b>Comments</b>
<b>A. BUILDING WORK:</b>				
1	Earthwork			
2	Concrete work (Sub-structure /up to plinth)			
3	RCC work (Above plinth / Super Structure)			
4	Brick / Block work			
5	Stonework			
6	Marble work			
7	Wood work			
8	Steel work			
9	Flooring			
10	Roofing			
11	Finishing			
12	Internal services			
13	External Services			
<b>B. CIVIC INFRASTRUCTURE WORKS:</b>				
<b>a. WATER SUPPLY:</b>				
1	GSR/UGSR			
2	ELSR/OHT			
3	Intake-Jack-well			
4	WTP			
5	Pipelines			
6	Pump sets.			
7	Rain Water Harvesting pits			
8	Sump			
9	Tube wells			
<b>b. SEWERAGE:</b>				
1	Sewer Trap Connect. Chamber			
2	Collection network pipes			



3	Inspection chambers			
4	Sewerage pump Stn (SPS)			
5	SPS to STP Pipeline			
6	STP			
7	Septic tank			
8	Soak-pit			
<b>c. STORM WATER DRAINS:</b>				
1	Drains			
2	Open channel			
3	Closed RCC Pipes			
4	In-Situ RCC Box-pipes			
5	Type of Grating/Jali			
6	Inspection Chambers			
7	Point of disposal (Nallah, Canal, River, Creek)			
<b>d. ROADS &amp; CULVERTS:</b>				
1	Roads			
2	Pavements			
3	Jogging track			
4	Plantation			
5	Restoration			
6	Culverts ( Masonry / RCC)			
<b>e. ELECRIFICATION:</b>				
1	H.T. Supply lines			
2	L.T. Supply lines			
3	Transformer			
4	Street Lighting			
<b>f. SOLID WASTE MANAGEMENT:</b>				
1	S. W. Collection System			
2	Dust Bins/Containers			
3	S. W. Transport System			
4	Temp. store yards			
5	S.W. Disposal area			
<b>g. COMPOUND WALL:</b>				
1	Compound/Boundary wall			



2	Entrance Gate			
<b>h. MISCELLANEOUS:</b>				
1	Retaining wall			
2	Any other (to be specified)			
<b>C. REPORT ON SOCIAL INFRASTRUCTURE WORKS:</b>				
<b>a. COMMUNITY FACILITIES:</b>				
1	Community Centre			
2	Livelihood Centre			
3	Any Other			
<b>b. HEALTH /EDUCATION FACILITIES:</b>				
1	Public Health Centre			
2	Anganwadi			
3	Primary School			
4	Secondary School			
5	Higher Secondary School			
<b>c. INFORMAL SECTOR MARKET</b>				
1	Vegetable Market			
2	Meat-Fish Market			
3	Medical Store			
4	Any Other			
<b>d. ANY OTHER ( To be specified)</b>				
1				
2				
3				



### Annexure 3

#### Third Party Quality Monitoring Report of BLC projects under PMAY

<b>Name of TPQM Agency</b>	
<b>Date of Visit</b>	
<b>Current Visit No.</b>	
<b>Date of Previous visit</b>	

<b>A. PARTICULARS OF PROJECT</b>						
1	Name of the State /UT:					
2	Name of the City:					
3	Name of Project:					
4	Project Code:					
5	Implementing Agency/ ULB					
6	Location of the Project ( Slum name, Ward etc. as applicable)					
7	Type of Project :(i) BLC (New Construction) (ii) BLC (Enhancement)					
8	No. of EWS Houses in the project					
9	Date of Approval by SLSMC					
10	Approved Project Cost (Rs. Lakhs):	Central share	State share	ULB/ Implementing agency share	Beneficiary share	Total
11	Date of sanction of 1 <sup>st</sup> instalment of Central Assistance by CSMC					
12	Duration of the project					
13	Date of commencement	Scheduled		Actual		
14	Date of completion	Scheduled		Expected		
15	Inspection undertaken by ( Name) (with contact detail) :	1.				
		2.				
16	Name of State representative present during visit					
17	Name of ULB representative present during visit					



18	Name of Community representative present during visit	
19	Whether list of Beneficiaries finalised?	
20	If finalised, whether uploaded in PMAY MIS?	
21	State any deviation from sanctioned DPR in terms of number of houses or size or location or Layout	
22	Any other comment	
<b>B. QUALITY ASSURANCE IN THE PROJECT</b>		
1	Whether ULB/ State have organized workshop/ training programmes to educate the beneficiaries about quality, construction methods, adherence to disaster resistant technologies etc.	
2	Whether testing facilities to check quality of material is available?	
3	Whether regular tests of materials and construction products tests of materials are being done from accredited labs also?	
4	<p>(i) Whether the structural Designs are approved / Proof checked by competent Authority</p> <p>(ii) Name of the approving authority for structural design.</p> <p>(iii) Whether the statutory certificate for disaster resistance design and compliance of codal provision is endorsed by the structural designer on the structural drawings fit for execution, Specially in case of multi-storeyed construction.</p> <p>(iv) The work is being executed as per the approved drawings fit for execution.</p>	





5	Whether the Inspection Registers, Site order book and Quality control Test registers are maintained and endorsed by the Engineer-in-charge?	
6	Whether cement, steel, aggregates etc. being used in the work, got tested before use?	
7	Whether manufacturer test certificate for cement, steel, pipes etc. have been obtained with supply and records are being maintained?	
8	Whether Cement is free from lumps and is stacked properly to prevent contact with moisture?	
9	Whether soil investigations of the site proper have been done before the structural design and soil parameters have been accounted for in the structural design/ drawings? If yes, attach copy of soil investigation report.	
10	Whether centring /shuttering is checked for staging & propping, line & level, dimensions, cleaning etc. and its quality approved before each stage and record maintained.	
11	Specific control on RCC work like: mixing by full bag capacity hopper fed mixer, control of slump, placing/ compaction with vibrator. (proportioning with boxes not permitted)	
12	Whether cement register is maintained and checked at site. Comment on method of stacking.	
13	Whether concrete mix is nominal or design mix? (Nominal mix not permitted for quality concrete).	



14	What is the Mode of Concrete mixing (batch mix/ manual)? In case of manual mixing, whether mixing is by weight or by volume of ingredients? (Volumetric mixing not permitted).	
15	Whether Mixer/Vibrator as specified is available at site with adequate means to run them during concreting?	
16	Whether Surface of reinforcement is clean and free from rust?	
17	Whether potable water is used for construction ?	
18	Whether proper water / cement ratio has been ensured?	
19	Whether the concrete being cured adequately as per requirements?	
20	Whether bricks are well burnt, of rectangular shape, with sharp edges, free from cracks and of correct size?	
21	Whether i) Execution of Depth & width of Foundation is as per drawing/ adequate & bottom levelled ii) Plinth height is as per drawing/ adequate iii) Horizontal bands (as applicable) have been provided	
22	Whether quality has been checked by TPQMA/ State agency? If yes, details thereof?	
23	Quality of work and workmanship, Comments on	
	i. RCC work (concrete, Reinforcement detailing, cover to reinforcement). Whether Columns are in plumb (check for verticality).	
	ii. Masonry (Joint details, verticality). Check adequate RCC bands are provided.	
	iii. Shuttering (Type of material-pucca/ katcha, support spacing )	



	iv. Bar bending and stirrups bending , placement and cover to reinforcement bars.	
	v. Plastering	
	vi. Doors and windows	
	vii. Seepage, if any	
	viii. Cracks, if any	
	ix. Honey combing, if any	
	x. Any other	
24	Whether provision has been made for Service lines (Electrical, Water Supply, Sanitation etc.)	
25	Whether floor slope (especially) in bath, WC, kitchen, terrace and balcony etc. are proper?	
26	Whether dequate plinth height ( above the general ground level) is provided to the ground floor of the building to avoid possibility of rainwater and reptiles in the building.	
27	Whether dampness/leakages noticed? If yes, state location and probable reasons.	
28	Whether remedial measures are undertaken by IA/ ULB to stop Dampness & Leakages if any?	
29	Whether disaster resistant features have been incorporated?	
30	Any other comments	
31	Report on Overall assessment of quality	Minimum 500 words (To be enclosed separately)
<b>C. PROGRESS - HOUSING COMPONENTS</b>		
1	Numbers of houses sanctioned in the project	
2	Numbers of houses Completed	
3	Numbers of houses in progress	



4	Stages of Progress: i) Foundation/ Plinth level (Nos.) ii) Lintel level (Nos.) iii) Roof level (Nos.) iv) Finishing level (Nos.) v) Total units completed (Nos.)	(Specify no. of Units)	
5	Numbers of houses not started		
6	Reason for non-starter of houses, if any		
7	Numbers of houses occupied by the Beneficiaries		
8	Reasons for Non-occupation of houses (If any)- specific reasons to be given		
9	Size of Unit (Carpet Area)	Sanctioned	As per Implementation
10	Overall physical progress of Housing (in %)		
11	Whether the progress of houses has been ensured through geo-tagged photographs at various construction level?		
12	Whether DBT of fund to individual beneficiary is ensured in the project?		
13	Whether the building plan(s) conform to NBC norms?		
14	Whether authenticated building plans and revisions if any, are available?		
15	Deviation, if any		
16	Any other comment		

**D. CIVIC INFRASTRUCTURE**

1	Whether provision of Civic infrastructure components (i.e. water supply, Sewerage, Drainage, Roads, SWM etc.) has been ensured?	
2	Whether the Existing/proposed infrastructure components are independent and/or integrated with city level infrastructure?	
3	Any other comments	



<b>E. SOCIAL INFRASTRUCTURE</b>		
1	Whether provision of Social Amenities (i.e. School, Anganwadi, Health centre, Community centre, Livelihood centre etc.) has been ensured?	
2	Any other comments	
<b>F. FINANCIAL PROGRESS &amp; FUND UTILIZATION</b>		<b>(Rs. in Lakhs)</b>
1	Sanctioned fund for entire project.	
2	Amount of funds received up to date	
3	Up-to date Expenditure	
4	Amount of funds Utilized (out of received)	
5	Amount of Expenditure by ULB	
6	Amount of Expenditure by Beneficiaries	
7	Balance funds Expected/due from stakeholders	
<b>G. COST VARIATION and TIME-OVERRUNS</b>		
<b>Cost variation:</b>		
1	Whether there is cost variation? If yes, what are the reasons?	
<b>Time Overruns:</b>		
1	Whether there is time overrun? If yes, what are the reasons?	
<b>H. REMEDIAL MEASURES TO IMPROVE PROGRESS AND QUALITY</b>		
<b>Undertaken by Implementation agency to improve the:</b>		
1	Physical Progress	
2	Financial Progress	
3	Quality management	
4	Comments and suggestions of TPQMA on above	
<b>I. COURT CASES AND LITIGATIONS</b>		
1	(To be specified)	
<b>J. OTHERS</b>		
1	Any innovative/ cost effective/ green technology has been used	



2	Feedback of beneficiaries regarding provision of Physical & Social infrastructure:	
3	Reasons for delay in completion of housing and Infrastructure, if any:	
4	Any specific observation by the beneficiary	
5	Overall observation on the project (with adequate photographs covering project to a large extent including quality issues as applicable) 1. Critical observations 2. Action suggested by TPQMA to SLNA and IA	
6	Action taken report on previous report: i. Observations of TPQMA ii Action suggested by TPQMA iii Action taken by Beneficiaries/ IA (Implementation Agency) iv Whether TPQMA is satisfied with the action taken	
7	TPQMA's Overview of the Project (in 400-500 words) in a separate sheet	

*\*The format is indicative; the information will vary for different type of projects. The information may be added/deleted as appropriate.*

**(Signature)**  
**Name**  
**Designation**  
**Date**

**(Signature)**  
**Name**  
**Designation**  
**Date**



## Annexure 4

### Suggested structure and positions

It is envisaged that for quality monitoring of approved projects, there will be a team of one Senior Engineer (Civil) and one Junior Engineer (E/M) for site visits of minimum 6 projects of different cities in a month. The Senior Engineer will act as Team Leader.

For more site visits in a month (depending upon number of approved projects), the Agency is expected to provide additional teams as envisaged above from time to time during the term of the contract.

The job description for each position including qualification & experience is given below. The job description provided is indicative in nature and may undergo changes.

	Position	Job Description	Qualification & Experience
1	<b>Team Leader (Senior Engineer, Civil)</b>	<ul style="list-style-type: none"> <li>• To lead the team of professionals engaged to carry out the job of monitoring of housing and infrastructure projects.</li> <li>• Responsible for ensuring the overall outcome and activity based support envisaged for the TPQMA.</li> <li>• Co-ordinate with team member and report to the SLNA on progress of outcomes.</li> <li>• Be responsible for the overall management of the Agency and budget, and for the timely and efficient delivery of outputs.</li> <li>• Closely monitor the performance in collaboration with the SLNA to ensure that requirements related to PMAY are fully addressed.</li> <li>• Liaise with external stakeholders as per the requirements of the scheme.</li> </ul>	<ul style="list-style-type: none"> <li>• Post Graduate in Civil Engineering with at least 15 years of experience.</li> <li>• Experience in the urban sector, of which at-least 3-4 years should have been on leading monitoring agencies.</li> <li>• Shall have a thorough knowledge of :               <ul style="list-style-type: none"> <li>○ Latest specifications pertaining to Building &amp; infrastructure works</li> <li>○ Related publications according to which the works are required to be carried out and the tests to be conducted to ensure a good quality work.</li> </ul> </li> </ul>



	Position	Job Description	Qualification & Experience
2	Engineer (E/M)	<ul style="list-style-type: none"><li>• Shall be required at site as directed by the SLNA and shall inspect and monitor implementation of the project, find deficiencies and suggest suitable remedial measures.</li><li>• Support Team Leader / Senior Engineer to document and communicate reports to States and Cities and necessary follow-up actions.</li></ul>	<ul style="list-style-type: none"><li>• Graduate in Electrical/Mechanical Engineering with at least 7 years of experience <b>or</b> Diploma in Electrical / Mechanical Engineering with at least 10 years of experience.</li><li>• At least 2-3 years of experience in the urban housing and infrastructure sector.</li><li>• Shall have exposure to quality assurance in new construction and subsequent Maintenance aspects.</li><li>• Must be familiar with:<ul style="list-style-type: none"><li>○ Modern methods of construction of building.</li><li>○ Design standards and technical specification of Electrical and Mechanical works in the building and infrastructure.</li></ul></li></ul>





## **Annexure 5 Undertaking**

It is hereby certified that the following parameters have been followed in respect of the reimbursement of TPQMA charges: -

1. The services of the agency have been procured through transparent competitive bidding processes, as per procurement norms of the state.
2. The works have been awarded after the launch of PMAY i.e. 25<sup>th</sup> June, 2015.
3. The work was advertised through EoI publication/Tender Advertisement on \_\_\_\_ (date).
4. The bids received through transparent competitive bidding process were evaluated and work was awarded to M/s \_\_\_\_\_, which was the lowest bidder. Details of bid evaluation / comparative statement are available with the ULB / Implementing agency.
5. TPQMA has followed a systematic sampling process to select BLC houses as per the TPQMA Reference Guide.
6. The work has been completed by the appointed agency to the satisfaction of the ULB / Implementing agency.
7. Out of the total requested reimbursement amount towards TPQMA charges, Rs. \_\_\_\_ lakhs have been paid to the agency and the balance Rs. \_\_\_\_ lakhs will be paid by the ULB / implementing agency on receipt of payment from the Ministry. Copy of payment invoice, proof of payment made to the agency and copy of cash vouchers are available with the ULB / Implementing agency.
8. The quality monitoring of the project(s) is going on as per the sanctioned plan and no revision has been / is being proposed.
9. ULBs have considered and compiled with all recommendations of the TPQM agency.

**Signature**  
**(State Level Nodal Officer)**

**Signature**  
**(Secretary/Principal Secretary, Concerned  
Department)**



## **Annexure 6**

### **Action Taken Report based on Third Party Quality Monitoring (TPQM)**

The following actions have been taken based on the TPQM Report

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

*(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)**





The Joint Secretary & Mission Director (Housing for All)  
Ministry of Housing & Urban Poverty Alleviation  
Government of India  
Room No.116, G-Wing, Nirman Bhawan,  
New Delhi-110011  
Tel: 011-23061419; Fax: 011-23061420  
E-mail: [jshfa-mhupa@gov.in](mailto:jshfa-mhupa@gov.in)  
Website: <http://mhupa.gov.in>



Ministry of Housing and  
Urban Poverty Alleviation,  
Government of India



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