

Chapter V

Monitoring and Evaluation

5.1 Introduction

Monitoring of the implementation of the scheme was done through manual monitoring, PMAY MIS, Third Party Quality Monitoring Agency (TPQMA), social audit, geo-tagging, SLTC/CLTCs etc. In addition, the State Government has put in place various online monitoring systems like RGHMOS, KSDB Project Management System (PMS) etc. to monitor the implementation of the scheme. Audit observed deficiencies in the monitoring system which led to inclusion of ineligible beneficiary and double/excess/fraudulent payment. Detailed observations are brought out in the succeeding paragraphs:

5.2 Lapses in manual monitoring resulting in duplication of claims

The CLSS component of the scheme was implemented in Karnataka through HUDCO/National Housing Bank who were appointed as Central Nodal Agency (CNA). CNA on behalf of banks would send list of beneficiaries under CLSS on fortnightly basis to concerned States. The States should consider this list while deciding beneficiaries under other three verticals of the scheme so that no beneficiary was granted double benefit.

On analysis of such data submitted by CNA, Audit observed that in Karnataka, 471 beneficiaries who had availed interest subsidy benefit under CLSS also availed benefit under BLC (441 cases) and AHP (30 cases). Under BLC vertical, financial assistance of ₹ 5.62 crore was released to 229 out of 441 beneficiaries. Audit could not trace the payment made to remaining 212 BLC beneficiaries as the data did not have the 18-digit PMAY beneficiary code. The details regarding 284 out of 471 beneficiaries who had availed multiple benefits were indicated in the fortnightly statement furnished by CNA to SLNA. However, SLNA without verifying the fortnightly statement provided benefits under AHP and BLC verticals to these 284 beneficiaries resulting in duplication of claims.

The State Government while accepting the audit observation stated (September 2021) that ULBs were instructed to recover subsidy amount from the above beneficiaries. Further the real time integration of CLSS beneficiary data with PMAY MIS was introduced (November 2019) which prevented duplication of CLSS with AHP/BLC beneficiaries.

5.3 Monitoring through geo-tagging of houses

The key objective of geo-tagging¹⁹ in PMAY (U) was to monitor progress of construction of individual houses through geo-tagged photographs. The PMAY

¹⁹ Geo-Tagging is a process of adding or tagging geographical information to various media forms such as a digital photograph, video etc.

MIS was integrated with mobile applications BhuvanHFA²⁰ of National Remote Sensing Centre (NRSC) and BharatHFA²¹ of National Informatics Centre (NIC) for geo-tagging of houses constructed under BLC and AHP verticals respectively. These mobile apps were equipped with various features such as geo fencing²², data validation, management, moderation etc.

The operational guidelines of the above applications stipulated that

- The direction and angle of the geo-tagged photograph should be such that entire construction stage or maximum portion of the construction stage of the house is visible in the photograph.
- The photos of all five²³ construction stages should be captured by surveyor nearly from the same geo-coordinate location of earlier construction stage geo-tagged.
- All construction stages should have the picture of beneficiary along with the houses.

Audit observed the following lacunae in geo-tagging of houses under the scheme:

5.3.1 Duplication of geo-tagging process resulting in avoidable expenditure of ₹ 0.97 crore

The scheme guidelines prescribed that funds were to be released to the beneficiaries based on construction stages geo-tagged through Bhuvan/Bharat Apps. CSMC had stipulated (May 2016) that all BLC houses were to be mandatorily geo-tagged under BhuvanHFA application. Instead of BhuvanHFA application, RGHCL was using Indira Mane application (developed inhouse and integrated with RGHOMS) for geo-tagging of houses constructed under BLC vertical. Geo-tagged stage-wise photos of houses were uploaded in Indira Mane app and benefits were directly transferred to those beneficiaries, whose GPS photographs were audited and found to be correct.

Audit mapped geo-tagged data with the payment data and observed that for 48621 beneficiaries, geo-tagging was done under both BhuvanHFA and Indira Mane applications. This resulted in avoidable expenditure of ₹ 0.97 crore²⁴ besides duplication of the process.

Managing Director (MD), RGHCL replied (January 2021) that the duplication of geo-tagging was necessitated as GoI stipulated for geo-tagged photographs of houses captured using BhuvanHFA application for release of second instalment of its share.

²⁰ BhuvanHFA mobile application is integrated with Bhuvan Web portal of NRSC that visualize geo-tagged housing locations for BLC projects

²¹ BharatHFA is the mobile application developed by NIC to capture progress of AHP/ISSR projects.

²² Geo-fencing is the process of geographical validation of the photographs to ensure that they are captured within prescribed boundary (10 metres) of the house geo-tagged

²³ Not Started, Foundation, Lintel, Roof and Completed

²⁴ At the rate of ₹ 200/beneficiary

The reply cannot be accepted as RGHCL carried out geo-tagging using Indira mane application despite specific instructions from GoI to use BhuvanHFA application for geo-tagging from May 2016 itself.

5.3.2 Non-adherence to the technical specifications prescribed for geo-tagging in respect of AHP projects implemented by KSDB

CSMC in its 29th meeting demonstrated (January 2018) BharatHFA application for geo-tagging AHP projects and requested all states to geo-tag their project site applications by 15 January 2018. Additionally, 49th CSMC prescribed (November 2019) mandatory completion of geo-tagging for release of second instalment of Central share for the AHP projects. Audit observed that KSDB was using KSDB PMS application developed inhouse for geo-tagging instead of the prescribed BharatHFA application. The photos uploaded in the KSDB PMS application, did not fulfil the prescribed technical criteria as detailed below:

- The photos did not depict entire house/maximum portion of the house. Instead, a portion of the house preferably door, was captured and uploaded multiple times for various stages of construction in respect of higher carpet area buildings (**Picture 5.1**)

Picture 5.1: Photographs uploaded in KSDB MIS app not indicating the entire structure of the houses constructed

Photographs taken during JPV	Photographs uploaded in KSDB MIS
	
	

- No audit trails or inspection on the uploaded photos were conducted.
- Photographs of beneficiaries were not captured along with the houses.
- The photographs were not watermarked with longitude and latitude of the locations.
- The photographs of all the construction stages were not captured as mandated. A single photograph was used to indicate the different stages as indicated in **picture 5.2**:

Picture 5.2: Same photographs uploaded for different stages of construction

Foundation	Lintel	Roof	Completed
			
			

In view of the above deficiencies in KSDB PMS App, the geo-tagging of AHP projects undertaken by KSDB was yet (March 2021) to be completed as indicated in the PMAY MIS progress report. As observed in **Paragraph 3.2.1**, GoI has withheld release of second share of its instalment for AHP projects, one of the reasons being, non-completion of geo-tagging.

The State Government replied (September 2021) that geo-tagging of in-situ scattered houses implemented by KSDB could not be carried out through BharatHFA app, as it was developed specifically for group housing projects and did not work for individual scattered houses.

Audit is of the view that the deviation from the concept of group housing envisaged under AHP vertical and the constraint of the BharatHFA App in tracking the scattered individual houses defeated the very objective of geo-tagging to monitor progress and exposed the project to the risks associated with poor monitoring. The reply also did not address observations regarding technical deficiencies in KSDB PMS App and non-completion of geo-tagging for AHP projects.

5.3.3 Discrepancies observed in stage wise payments of geo-tagged houses

The payments for BLC beneficiaries were to be made based on the progress achieved in construction as verified through geo-tagged photographs. Joint physical verification of BLC houses revealed that in 20 cases, the beneficiaries were released financial assistance in excess of the scale prescribed for the corresponding stage of progress of construction achieved (**details in Appendix 5.1**). The actual stage of progress revealed through physical verification was less than the stage of progress indicated in the MIS which resulted in excess financial assistance. For instance, in 19 cases, while the JPV revealed the construction stage as 'Roof', PMAY MIS indicated that the construction stage was 'Complete'. These cases need to be further investigated as they indicate irregularities in geo-tagging of photographs.

Release of financial assistance on fake geo-tagged photographs

MD, RGHCL requested (June 2017) Deputy Commissioner (DC) of Gadag district to investigate the reported corruption in PMAY(U) scheme in Gadag-Betageri City Municipal Council (CMC) which appeared (June 2017) in newspaper. In Gadag-Betageri CMC, 3928 DUs were approved under BLC vertical during 2015-17 and financial assistance was released to 1404 beneficiaries. The enquiry conducted by DC Gadag revealed that 245 beneficiaries who had not actually constructed the houses were released a financial assistance of ₹ 1.24 crore on fake geo-tagged photographs and charge sheets were filed (August 2017) against two officials of Gadag-Betageri CMC for facilitating the same. Details regarding further action taken against the officials and recovery of the defalcated amount were not made available to audit.

As mentioned in *Paragraph 5.3.1*, RGHCL was using Indira Mane Application for geo-tagging of houses built under BLC verticals. RGHCL claimed that the application had inbuilt geo-fencing technique to capture GPS co-ordinates that prevent uploading of fake photographs. However, the above controls were bypassed, and 245 fake photographs were uploaded into the system and benefits transferred to ineligible beneficiaries indicating vulnerabilities in geo-tagging through Indira Mane application.

Audit also noticed that apart from the amount of ₹ 1.24 crore mentioned in the charge sheet, an amount of ₹ 0.58 crore was also transferred to 55 out of the above 245 beneficiaries after the date of framing the charge sheet. The SLNA did not take action to block the beneficiaries involved in defalcation which resulted in continued extension of scheme benefits to them. The SLNA also did not take action to fix responsibility for continued release of assistance to the above beneficiaries.

5.4 Functioning of TPQMA

Paragraph 12.10 of PMAY (U) guidelines stipulated that a State level mechanism for third party quality monitoring of projects sanctioned under PMAY were to be evolved with the objectives of review and monitoring of quality of all PMAY projects implemented and to provide a structured report on the quality of projects under PMAY. Based on quality assurance report by such agencies, States and ULBs were to take both preventive and curative measures to ensure that standard quality houses and infrastructure were constructed under the scheme. The SLNA was to place the Third Party Quality Monitoring Report along with the Action Taken Report before SLSMC. The SLNA appointed six TPQMA for monitoring the quality of houses constructed under the scheme. Out of 1847 ongoing projects, 967 projects (52 per cent) were entrusted to these agencies at the end of March 2021. The observations in respect of functioning of TPQMA were as follows:

- TPQMA were to carry out first inspection on attaining 10-15 per cent of progress of work. However, in respect of 218 BLC projects and 73 AHP projects, TPQMA were yet (July 2021) to make their first visit.

- TPQMA were to make their second inspection on attaining 50-60 *per cent* of progress and final inspection on completion of the work. However, in respect of test checked 79 out of 118 (67 *per cent*) BLC projects and 29 out of 47 (62 *per cent*) AHP projects, TPQMA did not conduct mandatory visits as per the stage of progress prescribed in the guidelines
- SLNA was yet (July 2021) to submit before SLSMC action taken report on the quality assurance report submitted by the TPQMA.

5.5 Functioning of CLTC

GoK constituted (April 2016 to May 2020) CLTCs in 31 districts comprising of 111²⁵ experts for enhancing capacity of their employees/officers in operational areas like planning, engineering, social mobilization, financial planning etc.

During joint physical verifications of the selected projects, the following deficiencies were observed in the functioning of CLTCs.

- Records in respect of activities such as slum mapping exercise, co-ordination with various Housing Finance Institutions, banks, private bodies for ensuring financial support, review of the city plan of actions and DPRs, identification and adaptation of green innovative technologies/good construction practices/disaster resistant construction, assessment of the social development impact of the project etc. were not maintained by the CLTCs as mandated in the guidelines.
- Financial formats required under the guidelines, specialized training materials/modules, gender checklists, reports of the trainings and capacity building programme, etc also were not prepared by the CLTCs.

5.6 Social Audit

The scheme guidelines provided for undertaking social audit of the projects being implemented under the scheme. Such social audit would be carried out by State/UT Government and ULBs through credible institutions including technical institutions (IITs, NITs etc.), architectural, design institutes etc. The scheme provided 100 *per cent* financial assistance for social audit with the approval of CSMC. Further GoI also issued guidelines detailing the objective, scope and reporting of social audit of PMAY scheme.

Audit observed that the social audit of the scheme was yet (June 2021) to taken up by the SLNA. In the absence of social audit/evaluation studies the State Government was neither aware of shortfalls in implementation nor was in a position to assess the impact of the scheme.

The State Government replied (September 2021) that RGHCL requested (March 2020) Rural development and Panchayat Raj Department to conduct social audit of the scheme through its social audit unit and the response was awaited.

²⁵ 19 in 2016, 10 in 2017, 64 in 2018, 15 in 2019 and three in 2020