Assessing the Impact of PMAY on Meeting Affordable Housing Needs of Urban Poor in Odisha

*Trisha Pal[1], Dr. Deepa Palathingal[*2]*

[1,2]*CHRIST (Deemed to Be University)*

ABSTRACT

The shortage of affordable housing has emerged as a critical issue in India, particularly for the economically disadvantaged segments of the population. In response to this challenge, the Pradhan Mantri Awas Yojana (PMAY) was launched in 2015 with the aim of providing affordable housing to those in need. This study focuses on assessing the efficacy and pattern of allocation within the PMAY scheme. The research framework encompasses key factors such as population dynamics, the prevalence of dilapidated houses, the demand-supply mismatch, and the allocation of funds towards the creation of houses under the PMAY program. By analysing these factors, the study aims to provide insights into the effectiveness of the PMAY scheme and its impact on addressing the affordable housing crisis in India. The findings of this study have the potential to inform policymakers and stakeholders in the housing sector, facilitating evidence-based decision-making and the formulation of targeted interventions to enhance the effectiveness of the PMAY program.

Keywords: GOI, Beneficiary, State Allocation, PMAY

INTRODUCTION

Urbanization, population growth, and limited financing for low-income individuals drive India's affordable housing issue. The government has implemented programs like PMAY to address this challenge. The effectiveness of PMAY in providing affordable housing is still under discussion. The AWAAS Odisha Urban Housing Mission, launched in 2015, focuses on meeting housing needs in urban areas and is supported by the Odisha government. Various committees, including the OUHM, oversee the implementation of housing policies and schemes. The study assesses PMAY's impact on meeting housing needs in Odisha, considering factors like housing demand, supply, and allocation of funds. It also evaluates the number of homes constructed and improvements in beneficiary living conditions to gauge program effectiveness in addressing affordable housing for the urban poor.

RESEARCH BACKGROUND

In Odisha, the implementation of the Pradhan Mantri Awas Yojana (PMAY) has had a significant impact on addressing the state's affordable housing challenges. Through the AWAAS (Odisha Urban Housing Mission) and District Urban Housing Societies (DUHS), the government has prioritized creating surplus housing stock and providing shelter for the economically disadvantaged. The program focuses on delivering permanent residential units and rental housing for economically weaker sections and low-income groups. Assessing PMAY's impact involves analyzing housing demand, supply, and fund allocation. Understanding the program's effectiveness in Odisha will inform future policies and interventions for ensuring accessible and adequate housing in the state.

OBJECTIVES

ROI 1 To assess the efficacy of the Pradhan Mantri Awas Yojana (PMAY) in Odisha, the study analyzed the percentage increase or decrease in the allocation of funds.

ROI 2 To assess the population impacted by the allocation of funds toward PMAY stakeholders, the study examined the distribution of funds across

ROI 3 To determine the allocation of funds for PMAY, the study analyzed the distribution and utilization of financial resources dedicated to the implementation of the program.

ROI 4 To determine the association between the shortage of houses and the completed houses, the study examined the relationship and correlation between the number of houses needed and the number of houses successfully constructed under the PMAY scheme.
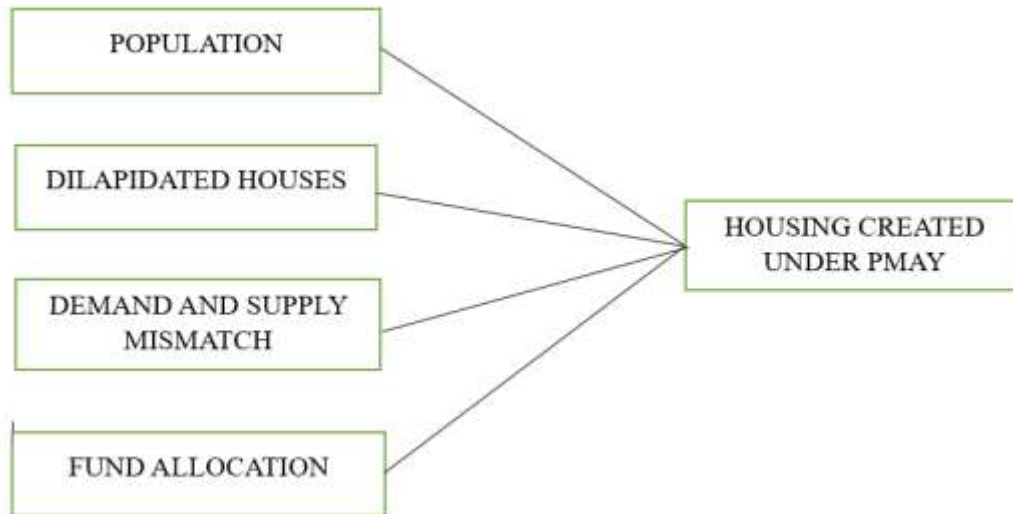
RESEARCH FRAMEWORK

FIGURE 1

METHODOLOGY

DESCRIPTIVE STATISTICS

TOTAL ALLOCATION BY GOI: The table presents data on the allocation of funds for the Pradhan Mantri Awas Yojana (PMAY) in the years 2018 and 2019, along with the percentage change. The mean allocation decreased from 321.56 in 2018 to 208.34 in 2019, representing a decrease of 35%. The median budget also decreased from 268.13 in 2018 to 184.75 in 2019, indicating a decrease of 31%. The minimum allocation increased significantly from 28.5 in 2018 to 79.5 in 2019, showing a percentage change of 179%. On the other hand, the maximum allocation decreased from 988.5 in 2018 to 495.75 in 2019, representing a decrease of 50%.

FIGURE 2

TOTAL ALLOCATION BY STATE: The mean allocation decreased from 321.56 in 2018 to 208.34 in 2019, representing a decrease of 35%. The median allocation also decreased from 268.13 in 2018 to 184.75 in 2019, indicating a decrease of 31%. The minimum budget increased significantly from 28.5 in 2018 to 79.5 in 2019, showing a percentage change of 179%. On the other hand, the maximum allocation decreased from 988.5 in 2018 to 495.75 in 2019, representing a decrease of 50%.
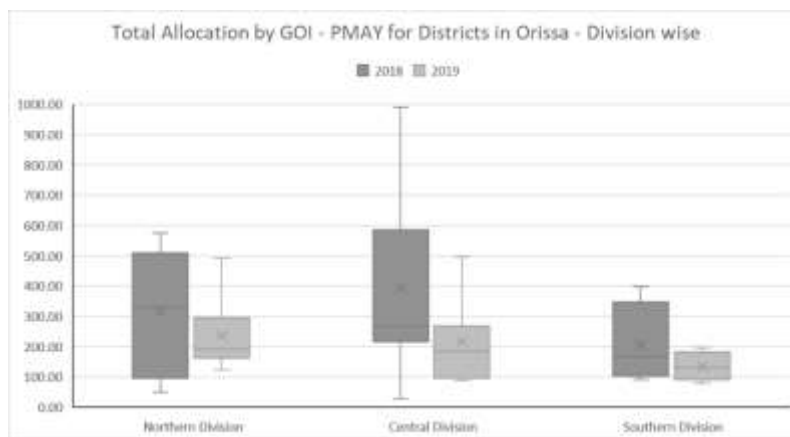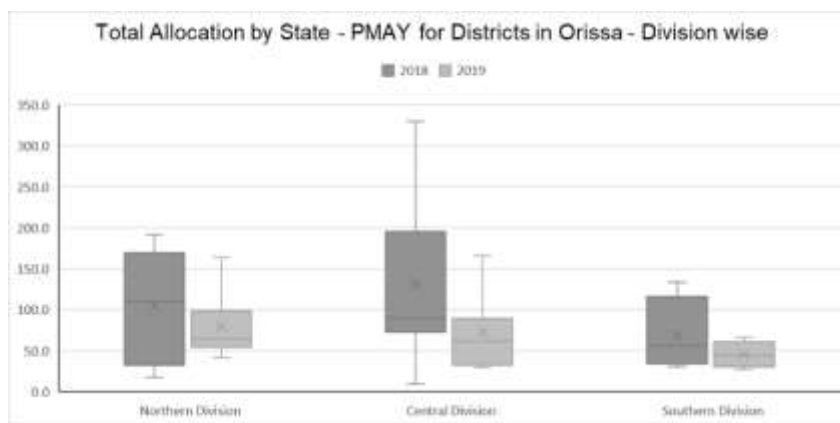
FIGURE 3

<u>TOTAL ALLOCATION BY BENEFICIARIES:</u> The mean value decreased from 213.38 in 2018 to 141.39 in 2019, indicating a decrease of 34%. The median value also decreased from 178.75 in 2018 to 123.5 in 2019, reflecting a decrease of 31%. The minimum value increased significantly from 18.9 in 2018 to 57.61 in 2019, representing a percentage change of 205%. Conversely, the maximum value decreased from 659 in 2018 to 330.5 in 2019, resulting in a decrease of 50%.
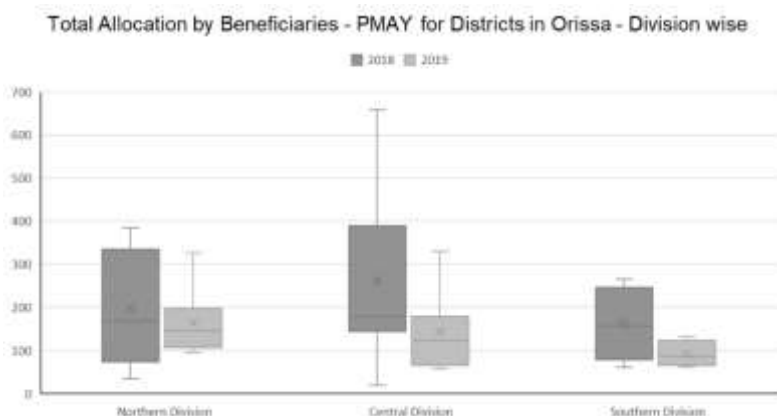

FIGURE 4

STATISTICAL ANALYSIS

The allocation of funds for the Pradhan Mantri Awas Yojana (PMAY) by the Government of India (GOI), state governments, and beneficiaries showed fluctuations between the two years. The overall trend indicates a decrease in the mean and median allocations, reflecting a reduction in the average funds allocated for the program. However, at the district level, there were variations, with some districts experiencing significant increases in funding while others faced substantial decreases. These findings highlight the need for further analysis to understand the factors influencing allocation decisions and their implications for the implementation of PMAY in different regions. The changes in allocation by GOI, state, and beneficiaries underscore the importance of evaluating and monitoring the effectiveness and impact of the program to ensure equitable distribution and effective utilization of funds for providing affordable housing to the economically disadvantaged.

RATIO OF FUND ALLOCATION

DISTRICT	GOI	STATE	BENEFICIARY	GOI VS STATE	GOI VS BENEFICIARY
Angul	342	114	91.2	3	3.8
Balasore	235	78.3	156.67	3	1.5
Baragarh	143.5	47.8	123.91	3	1.2

Bolangir	51.3	17.1	33.65	3	1.5
Cuttack	584.5	194.8	389.67	3	1.5
Deogarh	82.5	27.5	66.55	3	1.2
Dhenkanal	320.17	106.7	213.44	3	1.5
Ganjam	90.95	30.3	60.63	3	1.5
Jagatsinghpur	438	146	292	3	1.5
Jajpur	28.5	9.5	18.9	3	1.5
Jharsuguda	575.5	191.8	383.67	3	1.5
Keonjhar	500.7	166.9	319.6	3	1.6
Khurda	216.9	72.3	144.6	3	1.5
Koraput	194.5	64.8	129.67	3	1.5
Malkangiri	139.5	46.5	186	3	0.8
Mayurbhanj	268.13	89.4	178.75	3	1.5
Nayagarh	988.5	329.5	659	3	1.5
Rayagada	399	133	266	3	1.5
Sambalpur	510.5	170.2	340.33	3	1.5

Source: MOHUA & calculated

The ratios of the Government of India (GOI) allocation compared to the state government allocation and the beneficiary allocation, respectively.

For each district, the "GOI vs State" ratio is consistently 3.0, indicating that the GOI allocation is three times the amount allocated by the state government. This suggests that the GOI plays a significant role in providing financial support for the Pradhan Mantri Awas Yojana (PMAY) in all the districts.

On the other hand, the "GOI vs Beneficiary" ratio varies across the districts. It ranges from 0.8 to 3.8, indicating different levels of contribution from the beneficiaries compared to the GOI allocation. A higher ratio implies a higher proportion of funds provided by the GOI relative to the amount contributed by the beneficiaries.

Overall, the data shows that the GOI plays a major role in funding PMAY, consistently providing three times the amount allocated by the state government. The extent of beneficiary contributions varies across districts, with some districts relying more heavily on the GOI funds compared to the contributions from the beneficiaries.
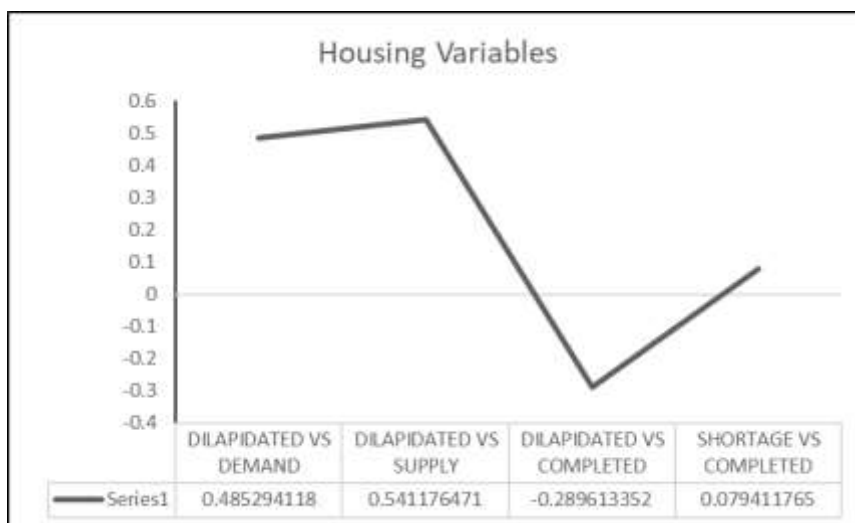
Rank Correlation Analysis of Housing Variables:

FIGURE 5

DILAPIDATED VS DEMAND: The correlation coefficient of 0.485 suggests a moderate positive correlation between the number of dilapidated houses and the demand for housing. This indicates that as the number of dilapidated houses increases, there is a tendency for the demand for housing to also increase.

DILAPIDATED VS SUPPLY: The correlation coefficient of 0.541 indicates a moderate positive correlation between the number of dilapidated houses and the housing supply. This suggests that as the number of dilapidated houses increases, there is a tendency for the housing supply to also increase.

DILAPIDATED VS COMPLETED: The correlation coefficient of -0.290 suggests a weak negative correlation between the number of dilapidated houses and the number of completed houses. This indicates that as the number of dilapidated houses increases, there is a slight tendency for the number of completed houses to decrease.

SHORTAGE VS COMPLETED: The correlation coefficient of 0.079 indicates a very weak positive correlation between the housing shortage and the number of completed houses. This suggests that there is a minimal relationship between the housing shortage and the number of completed houses.

Exploring the Relationships between Completed Houses under PMAY and Project Cost, Population: A Rank Correlation Analysis

COMPLETED UNDER PMAY VS TOTAL PROJECT COST: The correlation coefficient of 0.347 suggests a moderate positive correlation between the number of houses completed under PMAY and the total project cost. This implies that as the total project cost increases, there is a tendency for more houses to be completed under PMAY.

COMPLETED UNDER PMAY VS POPULATION: The correlation coefficient of 0.065 indicates a very weak positive correlation between the number of houses completed under PMAY and the population. This suggests that there is a minimal relationship between the population and the number of houses completed under PMAY.

These rank correlations provide insights into the relationships between the variables being studied. However, it is important to note that correlation does not imply causation, and further analysis is needed to understand the underlying factors influencing these relationships.

DISCUSSION

The rank correlation analysis conducted in this study reveals interesting insights regarding the relationships between various housing variables.

Firstly, the positive rank correlation coefficient of 0.485 between dilapidated houses and demand indicates a moderate positive relationship. This suggests that areas with a higher number of dilapidated houses tend to have a higher demand for housing, potentially due to the need for replacement or renovation.

Similarly, the positive rank correlation coefficient of 0.541 between dilapidated houses and supply indicates a moderate positive relationship. This implies that areas with a higher number of dilapidated houses also tend to have a higher supply of housing, possibly due to renovation or construction efforts to address the deteriorating housing stock.

In contrast, the negative rank correlation coefficient of -0.290 between dilapidated houses and completed houses suggests a weak negative relationship. This implies that areas with a higher number of dilapidated houses may have a lower number of completed houses, indicating potential challenges or delays in addressing the housing needs and improving the housing conditions in these areas.

Furthermore, the positive but low-rank correlation coefficient of 0.079 between shortage and completed houses indicates a weak positive relationship. This suggests that areas with higher housing shortages may have a slightly higher number of completed houses, but the association is not strong.

Overall, these rank correlations shed light on the interplay between dilapidated houses, demand, supply, completed houses, and shortage. The findings underscore the importance of addressing dilapidated housing stock, increasing supply to meet demand, and reducing housing shortages to improve the overall housing situation and living conditions in the studied areas. Further analysis and considerations are necessary to understand the underlying factors contributing to these relationships and to develop effective strategies for affordable housing interventions.

LIMITATIONS, CONCLUSION, AND IMPLICATIONS

Limitations: The study relies on secondary data sources, which may have limitations in terms of accuracy and completeness. The analysis is based on a specific time period and may not capture long-term trends or changes. The study focuses on the state of Odisha and may not be generalizable to other regions or states in India. The analysis is based on correlational relationships and does not establish causation. The study does not consider other potential factors that may influence the outcomes, such as socioeconomic factors or policy changes.

Conclusion: The findings of this study indicate significant correlations between completed houses under PMAY and project cost, as well as population. The positive correlation between completed houses and project cost suggests that higher project costs are associated with a greater number of completed houses. Similarly, the positive correlation between completed houses and population suggests that areas with larger populations tend to have more completed houses under PMAY. These findings highlight the importance of adequate funding and targeted interventions to meet the housing needs of the population.

Implications: The findings of this study have several implications for policymakers and stakeholders involved in affordable housing initiatives. Firstly, it emphasizes the need for sufficient financial allocation to ensure the completion of housing projects under PMAY. Allocating adequate funds can help address the demand-supply gap and increase the number of completed houses. Additionally, the study highlights the importance of considering population dynamics when planning and implementing affordable housing programs. Areas with higher population densities may require targeted interventions and greater investment to meet housing needs effectively. These implications can guide policymakers in designing and implementing effective strategies to address the affordable housing challenge in Odisha and potentially in other regions facing similar issues.

APPENDIX-A

FIGURE1	Research Framework
FIGURE 2	Total Allocation by GOI-PMAY for Districts in Orissa-Division Wise
FIGURE 3	Total Allocation by State-PMAY for Districts in Orissa-Division Wise
FIGURE 4	Total Allocation by Beneficiary-PMAY for Districts in Orissa-Division Wise
FIGURE 5	Rank Correlation Analysis of Housing Variables

APPENDIX -B

DISTRICT	Dilapidated	DEMAND (total household -housing shortage)	SUPPLY (total housing shortage - PMAY sanctioned houses)	SHORTAGE (DEMAND-SUPPLY)	TOTAL PROJECT COST	POPULATION	NO OF UNITS COMPLETED UNDER PMAY
Bargarh	1581	10991	5438	5553	202.77	103541	1974
Jharsuguda	2820	14114	4255	9859	257.5	185885	1526
Sambalpur	3592	17454	36688	-19234	916.75	253778	3979
Debagarh	290	5134	-257	5391	332.005	20096	1158
Sundargarh	7128	14801	-14768	29569	305.655	629194	1589
Keonjhargarh	4403	8248	2937	5311	280.355	213023	901
Jagatsinghapur	999	11725	964	10761	242	104449	1782
Cuttack	9032	14529	42343	-27814	716.5	641130	4475
Jajapur	2036	6189	2692	3497	110.105	72980	2146
Dhenkanal	1908	6050	7477	-1427	252.5	92914	2906
Angul	3055	3528	4708	-1180	259.27	158416	950
Ganjam	7835	10719	53927	-43208	188.5	556359	462

Rayagada	1475	5274	9604	-4330	145.72	115407	1097
Nabarangapur	977	5667	588	5079	178.85	59270	1552
Koraput	3066	2334	9817	-7483	227.75	198449	687
Malkangiri	924	4754	1766	2988	115.1	34616	558

REFERENCES

1. *PMAY-HFA(Urban)*. (n.d.). PMAY-HFA(Urban). https://pmaymis.gov.in/

2. *Home | Department of Housing & Urban Development*. (2021, July 30). Home | Department of Housing & Urban Development. https://urban.odisha.gov.in/

3. *PMAY-Urban*. (n.d.). PMAY-Urban. https://pmay-urban.gov.in

4. *Home | Government of India*. (n.d.). Home | Government of India. https://censusindia.gov.in/census.website/

5. Government of Odisha. (2022). Economic Survey 2021-22. https://odisha.gov.in/sites/default/files/2022-03/Economic_Survey_2021-22_0.pdf

6. Jayaram, P. (2010, November). CPPR study on public land for private use. The Hindu. https://www.thehindu.com/news/cities/Kochi/cppr-study-on-public-land-for-private-use/article808050.ece

7. Pati, D. J., Homma, R., & Iki, K. (2015). Affordable Housing Typologies for India: A Study on the Quality and Affordability of Housing in Different Government Programs. International Journal of Engineering Research & Technology (IJERT), 4(11), 298-303. https://www.ijert.org/research/affordable-housing-typologies-for-india-a-study-on-the-quality-and-affordability-of-housing-in-different-government-programs-IJERTV4IS110297.pdf

8. January 2022, https://ijpiel.com/index.php/2022/01/03/4488/. Accessed 2 October 2022.

9. Observer Research Foundation. (2019, March 1). Housing poverty in urban India: The failures of past and current strategies and the need for a new blueprint | ORF. Retrieved October 2, 2022,

10. Bhushan, Harsh. "Impact of RERA in Real Estate Sector in India: An Analysis." IJPIEL