

EVALUATING AFFORDABLE HOUSING PROGRAMMES THROUGH A MULTIDIMENSIONAL FRAMEWORK: A COMPARATIVE ANALYSIS OF GLOBAL MODELS AND THE APNI CHHAT APNA GHAR PROGRAMME IN PUNJAB, PAKISTAN

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Abstract

Access to affordable housing remains a critical challenge in rapidly urbanizing regions, particularly in the Global South, where limited access to formal finance, rising construction costs, and institutional constraints continue to widen housing deficits. This study develops a multidimensional framework to assess housing programmes beyond output-based metrics and to position the Apni Chhat Apna Ghar (ACAG) programme in Punjab, Pakistan within a global policy context. A mixed-methods approach is adopted, combining comparative analysis of global housing programmes using eight indicators—delivery performance, financial accessibility, coverage and reach, inclusion, governance transparency, implementation efficiency, fiscal sustainability, and contextual difficulty—with a survey of 1,496 ACAG beneficiaries across 36 districts. Programme data for global ranking were analysed using NVivo 14, while survey data were analysed using SPSS. Results show that while large national programmes rank higher in scale and institutional maturity, ACAG demonstrates strong performance in financial accessibility and innovation, distributing over 100,000 interest-free loans in its first year. Survey findings indicate improvements in housing safety (98%), education (78%), and household well-being, alongside high transparency (98.5%). However, challenges related to loan adequacy, rising costs, and limited female participation persist. The study concludes that multidimensional evaluation is essential for assessing sustainable housing policy and aligns with Sustainable Development Goal 11.

INTRODUCTION

Rapid urbanization, rising land values, and constrained access to formal housing finance have intensified housing shortages across much of the Global South, placing increasing pressure on already stretched urban systems. As a result, housing deficits are not only quantitative but also qualitative, reflected in overcrowding, unsafe structures, and inadequate access to basic services (UN-Habitat, 2016; World Bank, 2017). Addressing these challenges is central to

achieving broader sustainability objectives, particularly those outlined in United Nations Sustainable Development Goal 11, which calls for inclusive, safe, resilient, and sustainable cities, including access to adequate and affordable housing for all (United Nations, 2015).

In response to increasing housing demand, governments have adopted a wide range of policy approaches, including direct state-led construction, subsidy-based housing provision,

public-private partnerships, and finance-enabled self-construction models (World Bank, 2017; UN-Habitat, 2020). Despite this diversity, housing programmes are frequently evaluated using output-based indicators such as the number of housing units delivered or financed. While delivery scale remains an important measure of performance, such approaches often overlook critical structural dimensions including affordability, governance transparency, financial sustainability, and social impact (Stone, 2006; Turner, 1976). Consequently, large-scale programmes with strong institutional backing tend to dominate conventional rankings, even when they may not fully address issues of accessibility or long-term sustainability (Angel, 2000; Buckley & Kalarickal, 2005).

Recent scholarship in housing policy and urban development has increasingly emphasized the need for multidimensional evaluation frameworks that integrate both quantitative and qualitative indicators (Akinsulire et al., 2024; Ma & Liu, 2024). Housing outcomes are shaped not only by the volume of units produced but also by how effectively programmes respond to socio-economic conditions, institutional constraints, and household needs (UN-Habitat, 2016; World Bank, 2017). Factors such as financial accessibility (Sujit, 2024), inclusion of vulnerable groups (Lidén et al., 2025), governance quality (Kundu, 2022), and the adaptability of housing provision (Pelsmakers & Warwick, 2022) play a critical role in determining whether housing interventions translate into meaningful improvements in living conditions.

This paper contributes to this emerging body of research by developing a multidimensional comparative framework for evaluating affordable housing programmes across diverse global contexts. The framework integrates eight key indicators—delivery performance, financial accessibility, coverage and reach, inclusion, governance transparency, implementation efficiency, fiscal sustainability, and contextual difficulty—derived from established housing policy literature. By applying this framework, the study enables a more balanced comparison of

housing initiatives operating under different institutional, financial, and socio-economic conditions, moving beyond purely output-driven assessments.

Methodologically, the study adopts a mixed-methods approach. Qualitative data on global housing programmes were systematically analysed using NVivo 14, where the eight indicators were operationalized as thematic nodes for comparative analysis of policy documents and secondary sources. In parallel, primary empirical data were collected through a structured survey of 1,496 beneficiaries of the Apni Chhat Apna Ghar (ACAG) programme across 36 districts of Punjab, Pakistan. The survey data were analysed using SPSS to generate descriptive statistics on programme accessibility, implementation experience, and social outcomes at the household level.

Within this comparative framework, the study focuses on the Apni Chhat Apna Ghar programme, a provincial housing initiative launched in 2024 by the Government of Punjab. The programme represents a distinctive policy model that provides interest-free loans to enable self-construction on owned land, shifting the role of the state from direct provider to financial enabler. With more than 100,000 loans distributed within its first year, ACAG demonstrates rapid early uptake and reflects an emerging approach to housing provision based on incremental development and financial inclusion.

By combining global comparative analysis with household-level evidence, the study seeks to position ACAG within the broader landscape of contemporary housing policy. The analysis demonstrates that programme performance varies significantly depending on the evaluative lens applied. While large national systems tend to rank higher when assessed by scale and institutional maturity, programmes such as ACAG perform more strongly when evaluated in terms of accessibility, innovation, and early social impact.

The paper argues that housing policy evaluation must move beyond single-dimensional metrics

toward more comprehensive frameworks that capture both structural design and social outcomes. In doing so, it contributes to ongoing debates on sustainable housing policy and highlights the potential of finance-enabled, user-driven models to support inclusive and resilient urban development in resource-constrained contexts.

Literature Review

Existing housing literature reveals a persistent gap between policy ambition and programme outcomes, particularly in rapidly urbanizing contexts. While a range of delivery models—including state-led construction, subsidy-based provision, and finance-enabled self-construction—have been widely implemented, evidence suggests that many fail to achieve long-term affordability, inclusion, or sustainability. Much of the literature also critiques the dominance of output-based evaluation, which privileges delivery scale while overlooking structural factors such as governance, financial accessibility, and social impact. This review therefore critically examines dominant housing models, identifies recurring structural limitations, and draws on key theoretical contributions to argue for a multidimensional evaluation framework. This synthesis provides the conceptual basis for the indicators used in the comparative analysis

Global Housing Delivery Models

Contemporary housing policy is characterized by the persistence of three dominant delivery models. These are direct state construction, subsidy-based provision, and finance-enabled self-construction (Clapham, 2002). Yet none has consistently resolved the structural challenges of affordability, accessibility, and long-term sustainability. State-led construction programmes, such as those implemented by centralized housing authorities, continue to demonstrate the capacity to deliver housing on a scale through institutional coordination and economies of standardization. However, critical scholarship highlights that such approaches often

prioritize numerical targets over socio-spatial integration (Manoochehri, 2015), resulting in standardized housing forms that inadequately respond to diverse household needs and are frequently located in peripheral areas with limited access to employment and services.

Subsidy-based housing programmes, widely adopted across both developing and emerging economies, attempt to address affordability through financial support mechanisms linked to private-sector delivery (Marshall, 2023). While these models have expanded formal housing provision, they have been criticized for reproducing market-driven inefficiencies, including speculative land development, spatial segregation, and limited beneficiary participation in design and decision-making (Buckley & Kalarickal, 2005; World Bank, 2020). More recent evaluations suggest that subsidy-led approaches often fail to address deeper structural inequalities in housing access, particularly for households operating outside formal financial systems (Ahmad et al., 2025)

In contrast, finance-enabled self-construction models draw on incremental housing theory, emphasizing household agency and adaptability in housing production (Pugnaroni et al., 2013). These approaches have gained renewed attention in recent policy discourse due to their potential to align housing provision with local socio-economic realities and informal building practices (Dafeamekpor et al., 2021). However, their effectiveness remains contingent on the availability of supportive institutional frameworks, including access to land, finance, and technical assistance, without which they risk reinforcing uneven development outcomes (Turner, 1976; Angel, 2000; World Bank, 2017).

Structural Causes of Housing Programme Failure

Despite significant public investment, housing programmes across different contexts continue to exhibit recurring patterns of underperformance, suggesting that limitations are not merely contextual but structural. One of the most widely identified issues is the rigidity of standardized

housing prototypes, which often fail to accommodate evolving household needs, informal economic activities, and culturally specific spatial practices (Biltoria & Roy, 2024). This mismatch frequently leads to post-occupancy modifications that undermine structural integrity and infrastructure capacity (Turner, 1976; UN-Habitat, 2020).

A second critical limitation relates to spatial misalignment. Housing developments located on urban peripheries may reduce initial land costs but often increase long-term socio-economic burdens on households through higher transportation costs and reduced access to livelihoods. Empirical evidence from multiple contexts indicates that such location mismatches can lead to partial occupancy, informal resale, or abandonment of housing units, challenging assumptions that provision alone ensures effective use (Maalsen et al., 2025).

More fundamentally, many housing programmes remain rooted in a product-oriented paradigm that treats housing as a one-time deliverable rather than an evolving socio-economic asset. This approach neglects the dynamic nature of household needs and limits opportunities for incremental expansion, adaptation, and value creation over time (Severson & de Vos, 2021). As a result, even large-scale programmes may fail to deliver sustained improvements in living conditions, reinforcing the need to reconceptualize housing provision as a process rather than a fixed output.

Theoretical Foundations for Multidimensional Housing Evaluation

The growing recognition of these structural limitations has led to a shift toward multidimensional approaches to housing evaluation. Incremental housing theory provides a foundational perspective by emphasizing user control, flexibility, and adaptability as key determinants of successful housing outcomes (Akinwande & Hui, 2024). Complementing this, housing affordability research has moved beyond simple price-based metrics to consider the relationship between housing costs and

household income, highlighting the risks of financial stress and exclusion associated with conventional affordability thresholds (Olanrewaju & Woon, 2017).

Equity and inclusion have also emerged as central concerns in contemporary housing discourse, with increasing emphasis on the need to address the housing needs of marginalized groups, including women, informal workers, and low-income households (Fan et al., 2025). This perspective aligns with broader rights-based approaches to housing, which conceptualize adequate housing as a fundamental component of social justice (Marcuse, 2017; UN-Habitat, 2020).

Governance and institutional capacity further shape housing outcomes, as highlighted in public policy and implementation literature. Effective delivery depends not only on policy design but also on administrative coordination, transparency mechanisms, and accountability structures, which can significantly influence programme efficiency and equity (Howell, 2018; World Bank, 2021).

Finally, housing finance scholarship underscores the importance of fiscal sustainability and diversified funding mechanisms. Heavy reliance on subsidies can create long-term fiscal vulnerabilities, particularly in volatile economic environments, while hybrid financial models incorporating credit systems, revolving funds, and targeted subsidies are increasingly viewed as more resilient alternatives (Buckley & Kalarickal, 2005; Gilbert, 2014).

Toward a Multidimensional Evaluation Framework

Taken together, these strands of literature point to a clear limitation in conventional housing evaluation approaches: the continued dominance of output-based metrics that fail to capture the institutional, financial, and social dimensions of housing provision. Recent scholarship increasingly advocates for integrated evaluation frameworks that combine quantitative measures of delivery with qualitative assessments of accessibility, governance, and long-term

sustainability (Pullen et al., 2010; Moghayedi et al, 2021; Sharafeddin & Arocho, 2025).)

The framework developed in this study builds on this shift by operationalizing eight key indicators—delivery performance, financial accessibility, coverage and reach, inclusion, governance transparency, implementation efficiency, fiscal sustainability, and contextual difficulty. By integrating these dimensions, the study moves beyond simplistic comparisons

based on housing output and provides a more nuanced understanding of programme performance across diverse contexts. The inclusion of both foundational and recent literature ensures that the evaluation framework reflects not only established housing theory but also emerging evidence on housing policy performance in contemporary contexts. Table 1 summarizes how the selected indicators relate to the literature discussed in this section.

Table 1: Indicator used in the ranking and their link to the literature review

Indicator Used in Ranking	Key Concept from Literature	Supporting Authors / Sources	Relevance to Global Housing Programme Evaluation
Delivery Performance (Annual Delivery Rate)	Housing supply responsiveness, delivery scale, and efficiency of centralized vs market-led systems	Angel (2000); Buckley & Kalarickal (2005); UN-Habitat (2016); Clapham (2002); Manoochchri (2015); Marshall (2023)	Measures whether programmes can deliver housing at a scale sufficient to address deficits and reflects efficiency of different delivery models.
Financial Accessibility (Affordability)	Affordability relative to income, access to finance, and exclusion from formal financial systems	Hulchanski (1995); Stone (2006); World Bank (2017, 2020); Olanrewaju & Woon (2017); Ahmad et al. (2025)	Assesses whether housing costs remain within sustainable thresholds and whether programmes reach households excluded from formal finance.
Coverage & Reach (Beneficiary Scale)	Breadth of population served and effectiveness in addressing housing shortages	UN-Habitat (2020); Pullen et al. (2010); Moghayedi et al. (2021); Sharafeddin & Arocho (2025)	Evaluates whether programmes reach a sufficient proportion of the target population relative to housing demand.
Inclusion (Gender & Vulnerable Access)	Housing as a social right, equitable access, and participation of marginalized groups	Marcuse (2017); UN-Habitat (2020); Fan et al. (2025)	Ensures programmes address inequalities and include vulnerable groups such as women, informal workers, and low-income households.
Governance Transparency	Institutional accountability, transparency systems, and implementation governance	Pressman & Wildavsky (1973); Howell (2018); World Bank (2021)	Transparent governance improves trust, reduces corruption risk, and ensures fair allocation of housing resources.

Implementation Efficiency	Administrative coordination, project execution, and delivery timelines	Flyvbjerg (2014); Pressman & Wildavsky (1973); Howell (2018)	Assesses how effectively programmes are implemented, including delays, coordination failures, and execution capacity.
Fiscal Sustainability	Long-term financial viability, subsidy dependence, and hybrid finance models	Gilbert (2014); Buckley & Kalarickal (2005); World Bank (2020); Marshall (2023)	Determines whether programmes can be sustained without excessive fiscal burden and whether financing structures are resilient.
Contextual Difficulty	Structural constraints, institutional capacity, and socio-economic environment	Rodrik (2008); UN-Habitat (2016); Maalsen et al. (2025); Severson & de Vos (2021)	Accounts for external constraints such as informal land tenure, governance limitations, and urban pressures when comparing programmes.

This multidimensional perspective is particularly important for evaluating emerging housing initiatives, where early-stage performance may not be reflected in large-scale delivery but may demonstrate significant innovation in financial design, accessibility, and governance. In this sense, the framework responds directly to gaps identified in the literature and contributes to ongoing efforts to develop more robust and context-sensitive approaches to housing policy evaluation.

Methodology

This study adopts a mixed-methods research design combining comparative policy analysis with empirical survey data to assess affordable housing programmes across multiple scales. The first component is based on a qualitative study that involves a global evaluation of selected housing initiatives using a multidimensional indicator framework, while the second, based on quantitative study, examines the household-level outcomes through survey data collected from beneficiaries of the Apni Chhat Apna Ghar (ACAG) programme in Punjab, Pakistan. Together, these approaches enable a concise assessment of both programme structure and

user-level impacts within a unified analytical framework.

Qualitative study - Programme Selection Criteria

The comparative evaluation presented in this study required the identification of a set of affordable housing programmers representing different institutional contexts, delivery models, and levels of implementation maturity. The objective was not to compile an exhaustive list of global housing initiatives, but to select a group of programmes that would allow meaningful comparison across diverse policy environments while remaining consistent with the multidimensional evaluation framework developed in this research.

Programmes included in the comparative analysis were selected using the following criteria:

First, only government-led or government-supported initiatives were included to ensure consistency in governance structures and policy relevance. Second, programmes were required to have sufficient publicly available and verifiable data to allow consistent evaluation across all indicators. Third, the selection reflects a range of housing delivery models—such as state-led construction, subsidy-based systems, public-

private partnerships, and finance-enabled approaches—to enable structural comparison across different policy mechanisms. Fourth, both mature and recently launched programmes were included to capture differences in institutional development and implementation stages. Finally, programmes were selected from varied economic and governance contexts, allowing the analysis to account for contextual constraints such as land systems, administrative capacity, and urbanization pressures. Together, these criteria ensure a balanced, comparable, and theoretically grounded sample for applying the multidimensional evaluation framework.

Data Sources

The comparative ranking is based on data compiled from multiple publicly verifiable sources to ensure consistency across programmes operating in different contexts. These include official government reports, housing authority publications, policy announcements, international development reports (e.g., UN-Habitat, World Bank), academic literature, and programme dashboards. Official documents were used to identify programme design features such as delivery mechanisms, eligibility criteria, financing structures, and reported outputs, while secondary sources helped verify data and interpret institutional characteristics.

Where direct comparisons were not possible, the most recent confirmed activity data—such as completed units, housing starts, or loan disbursements—were used. Additional contextual information from urban and housing studies informed the assessment of structural conditions, particularly for evaluating contextual difficulty. The Apni Chhat Apna Ghar programme was further analysed using primary survey data to capture household-level outcomes. Overall, this multi-source approach ensures transparency, reliability, and comparability in applying the multidimensional evaluation framework.

Comparative Framework for Global Housing Programmes

To situate the Apni Chhat Apna Ghar (ACAG) programme within the broader landscape of global housing policy, a comparative analysis was conducted of selected affordable housing programmes implemented across diverse institutional and geographic contexts, as explained above.

The comparative framework is grounded in a multidimensional evaluation approach derived from housing policy literature (Table 1). Eight key indicators were identified based on recurring themes in literature as explained above. To ensure systematic and transparent analysis, qualitative data collected for each programme—including policy documents, official reports, and secondary literature—were imported into NVivo 14 for thematic analysis. The eight indicators derived from the literature were operationalized as thematic nodes within NVivo 14. All programme-related data were coded against these predefined themes, allowing consistent identification and comparison of programme characteristics across cases.

This thematic coding process enabled the organization of qualitative evidence under each indicator and supported cross-case comparison through matrix coding queries. By structuring the analysis in this way, the study reduces subjectivity in programme evaluation and provides a transparent basis for assigning relative performance levels across the selected indicators. Rather than relying solely on quantitative output measures such as total housing units delivered, this approach allows the evaluation to incorporate qualitative dimensions such as governance quality, financial design, and inclusion. The coded data were subsequently interpreted to assign standardized performance scores using a five-level scale (Very High to Very Low), forming the basis of the comparative ranking presented in this study.

This integration of thematic analysis strengthens the robustness of the comparative framework by linking the ranking system directly to

systematically analyzed empirical and documentary evidence.

Quantitative study - ACAG Programme Case Study

A structured questionnaire was developed to collect data on beneficiary experiences with the ACAG programme. The questionnaire began with a consent statement to ensure that all participants were informed about the purpose of the study and agreed to take part voluntarily. To enhance accessibility and ensure clarity for respondents, the questionnaire was administered in Urdu. The English-translated version of the questionnaire is included in the Appendix.

Data collection was conducted during the summer of 2025 through a team of trained surveyors engaged across the province. The survey sample consisted of 1,496 respondents across 36 districts of Punjab, representing households that had received ACAG loans. The sample size was calculated to achieve a 95 percent confidence level, ensuring statistical reliability of the findings. Respondents were selected to capture representation across different geographic regions and socio-economic backgrounds within the province.

The questionnaire included both closed-ended and perception-based questions designed to capture measurable outcomes as well as beneficiary perspectives. Key survey themes included:

- Awareness and accessibility of the programme
- Experiences with loan disbursement and construction processes
- Perceived improvements in housing quality and safety
- Impacts on household well-being, including education and gender dynamics
- Challenges encountered during programme participation

Survey responses were analyzed using descriptive statistical techniques in SPSS to identify patterns in beneficiary experiences and programme outcomes. Prior to analysis, data quality and suitability were assessed through reliability and association testing. Cronbach's Alpha was calculated to evaluate the internal consistency of grouped survey items, applied separately to multi-

item constructs across the five themes of the questionnaire. The results indicated acceptable to good reliability, with Cronbach's Alpha values ranging between 0.68 and 0.88, confirming the consistency of the grouped variables. In addition, the Chi-square test of independence was employed to examine relationships between socio-demographic variables (such as age, gender, and education) and programme-related outcomes. Prior to conducting the test, its assumptions were assessed by examining expected cell frequencies. The results confirmed that the assumptions were satisfied, with less than 20% of cells having expected counts below 5 and no cells with expected counts less than 1. These tests collectively ensured the reliability of the dataset and the validity of subsequent statistical analysis. Indicators such as perceived housing safety, educational improvements for children, and employment generation during construction were calculated as percentage responses across the sample. Finally Cross-Tabulation test was conducted to find the correlation among factors like, education, age, gender and ACAG loan and construction experiences. The survey findings were then interpreted alongside the global comparative analysis to provide a more comprehensive assessment of the ACAG programme. While the global ranking evaluates the structural design and institutional positioning of housing initiatives, the survey analysis provides insight into how programme design translates into real-world social outcomes at the household level.

Limitations

There are several limitations in this study. First, cross-national comparisons rely on publicly available programme data, which may vary in detail and reporting standards across countries. Second, the survey captures early-stage impacts of ACAG and therefore reflects short-term outcomes rather than long-term housing or economic effects. Finally, differences in institutional context mean that housing programmes cannot be compared purely on absolute metrics such as total units delivered. For

this reason, the study incorporates contextual difficulty as part of the evaluation framework.

Findings

The findings of this study are derived from two complementary sources of analysis: the global comparative evaluation of housing programmes using the multidimensional indicator framework, and the empirical survey of beneficiaries participating in the Apni Chhat Apna Ghar (ACAG) programme in Punjab. Together, these findings provide insight into both the structural positioning of ACAG within the global housing policy landscape and the programme's early impacts at the household level.

Overview of Selected Global Housing Programmes

To situate the Apni Chhat Apna Ghar (ACAG) programme within the global landscape of affordable housing policy, a set of major government-led housing initiatives from different institutional and economic contexts was selected. These programmes represent a range of delivery models, including direct state construction, subsidy-based housing provision, mortgage-supported ownership, and finance-enabled self-construction. The selected cases include both mature systems with long implementation histories and recently launched programmes that reflect emerging policy approaches.

Pradhan Mantri Awas Yojana (PMAY – Urban and Gramin), India

PMAY is one of the largest affordable housing initiatives globally, launched by the Government of India to provide housing for all through subsidies, credit-linked assistance, and self-construction support. The programme operates through both urban and rural components and uses digital monitoring systems for beneficiary verification and delivery tracking (Government of India, 2024; UN-Habitat, 2016).

Pradhan Mantri Gramin Awas Yojana (PMAY-G), India

PMAY-G focuses on rural housing provision through direct financial assistance to low-income households for the construction of permanent homes. The programme supports owner-driven construction and is implemented through a nationwide beneficiary identification and subsidy distribution system (Government of India, 2023).

TOKİ Social Housing Program, Turkey

The Turkish Housing Development Administration (TOKİ) operates a centralized public housing system that constructs large-scale residential projects for low- and middle-income households. The programme is characterized by strong institutional capacity, standardized construction, and long-term repayment structures (TOKİ, 2023; UN-Habitat, 2016).

Kenya Affordable Housing Programme, Kenya

The Kenyan Affordable Housing Programme is part of the national development strategy aimed at expanding housing supply through public-private partnerships, subsidized finance, and employer-linked contributions. The programme reflects efforts to develop a formal housing finance system in a rapidly urbanizing context (Government of Kenya, 2023; World Bank, 2020).

Apni Chhat Apna Ghar (ACAG), Punjab, Pakistan

ACAG is a provincial housing finance initiative launched in 2024 to enable low-income households to construct homes through interest-free loans. The scheme supports self-construction on owned land through a revolving loan model intended to ensure fiscal sustainability (Government of Punjab, 2024). Although the implementing agency, PHATA, was accessible for direct consultation, no primary institutional data were collected from programme representatives. This decision was made to ensure methodological consistency, as all programmes included in the study were analysed using publicly available information and secondary sources.

Great Mission Housing Venezuela (GMVV), Venezuela

The Great Mission Housing programme is a state-led initiative aimed at providing large numbers of housing units through direct government construction and long-term payment schemes. Although large delivery figures have been reported, the programme relies heavily on public subsidies and operates within a challenging economic environment (Government of Venezuela, 2022; UN-Habitat, 2016).

Mahendra Narayan Nidhi Deprived Housing Scheme, Nepal

This provincial housing programme in Madhesh Province provides financial support for low-income households through direct government-funded construction projects. The scheme operates at a smaller institutional scale and reflects the administrative constraints typical of sub-national housing initiatives (Government of Nepal, 2022).

Saudi Housing Program Sakani, Saudi Arabia

The Sakani programme is part of Saudi Arabia's Vision 2030 strategy and aims to increase home ownership through mortgage subsidies, land allocation, and partnerships with private developers. The programme benefits from strong fiscal capacity and centralized housing policy coordination (Government of Saudi Arabia, 2023; World Bank, 2021).

Indonesia One Million Houses Program, Indonesia

Indonesia's One Million Houses programme seeks to increase housing supply through public construction, developer incentives, and subsidized financing. The programme targets both urban and rural populations and aims to reduce the national housing backlog (Government of Indonesia, 2022).

Pambansang Pabahay Para sa Pilipino (4PH), Philippines

The 4PH programme is a national housing initiative designed to expand affordable housing

through government financing, developer partnerships, and mass construction projects. The programme emphasizes rapid delivery to address housing shortages in urban areas (Government of Philippines, 2023).

Affordable Homes Programme, United Kingdom

The Affordable Homes Programme provides government funding to support the construction of affordable housing through housing associations and local authorities. The programme operates within a mature institutional system with established monitoring and financing mechanisms (UK Government, 2024).

Housing Australia Future Fund, Australia

The Housing Australia Future Fund is a federal financing mechanism designed to support long-term investment in affordable housing through a dedicated capital fund that generates ongoing funding for housing development (Australian Government, 2023).

First Home Scheme, Ireland

Ireland's First Home Scheme is a shared-equity programme that assists first-time buyers by reducing the upfront cost of home ownership. The scheme combines government support with private financing to improve affordability in high-cost housing markets (Government of Ireland, 2023).

Build Canada Homes, Canada

Build Canada Homes is a recent federal initiative aimed at increasing housing supply through public land development, financing support, and institutional coordination. The programme reflects a renewed federal role in housing provision (Government of Canada, 2024).

Bonno National Housing Programme, Botswana

Botswana's Bonno National Housing Programme seeks to expand housing access through government-supported construction and

financing schemes. The programme operates within a developing institutional context and aims to address housing shortages through incremental expansion (Botswana Housing Corporation, 2023).

The housing programmes included in this study were used as comparative cases to apply the multidimensional ranking frameworks developed for the analysis.

Globally developed and matured programmes Table 2 compares established housing initiatives using the multidimensional indicator framework developed in this study, which includes delivery scale, financial accessibility, inclusion, governance transparency, fiscal sustainability, and contextual difficulty. This table is an

outcome of the detailed analysis provided in table 1 in appendices.

Programmes such as PMAY, PMAY-G, and TOKI rank highest due to large delivery volumes, strong institutional systems, and sustained government funding. Mid-level programmes, including the Kenya Affordable Housing Programme and ACAG, show structural strengths but operate within more limited institutional or fiscal environments, which affects scale. Lower-ranked programmes reflect constraints such as heavy subsidy dependence, limited administrative capacity, or difficult implementation contexts. Overall, the table provides a benchmark of mature housing systems against which emerging programmes can be compared.

Table 2: Ranking of Globally developed and matured programmes

Rank	Programme	Overall Position	Reason for Position
1	Pradhan Mantri Awas Yojana (PMAY - Urban + Gramin)	Very Strong - National Benchmark	Highest delivery scale; strong MIS transparency; gender co-ownership mandates; blended subsidy + credit model; sustained national funding. Slight moderation due to administrative complexity.
2	Pradhan Mantri Gramin Awas Yojana (PMAY-G)	Very Strong - Rural Benchmark	Massive rural reach; direct subsidy clarity; strong inclusion targeting; extended timeline to 2028-29. Slightly lower than PMAY Urban due to rural delivery constraints.
3	TOKI Social Housing Program	Strong - Institutional Delivery Model	High construction capacity; centralized national housing authority; relatively efficient project execution; sustainable repayment structures. Less flexible than loan-driven self-build models.
4	Kenya Affordable Housing Programme	Moderate-Strong - PPP Finance Model	Expanding housing finance ecosystem; World Bank support; structured PPP model. Governance still consolidating; delivery scale moderate.
5	Apni Chhat Apna Ghar (ACAG)	Emerging - Structurally Promising Provincial Model	Very high affordability (interest-free loans); fiscally sustainable revolving structure; self-construction flexibility. Limited scale; provincial reach; monitoring systems still developing. Strong contextual difficulty increases implementation complexity.
6	Great Mission Housing Venezuela (GMVV)	Contextually Strong but Fiscally Weak	Large claimed delivery scale; strong state intervention. However, heavy grant dependency, weak fiscal sustainability, and limited governance transparency reduce long-term robustness.

7	Mahendra Narayan Nidhi Deprived Housing Scheme	Moderate-Weak - Limited Provincial Capacity	Direct provincial construction model; limited annual reach; fiscal dependency; constrained institutional infrastructure; operates in high contextual difficulty environment.
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Emerging programmes in last 10 years

Table 3 presents the comparative positioning of recently introduced housing initiatives using the same multidimensional evaluation approach applied to mature programmes. These programmes are still in the process of institutional consolidation, and therefore their ranking reflects not only delivery scale but also structural strength, financial design, and administrative capacity. The Saudi Sakani programme ranks highest among the emerging systems due to strong fiscal backing, rapid expansion under Vision 2030, and a well-developed mortgage-supported subsidy framework that gives it characteristics close to mature national housing programmes. Indonesia’s One Million Houses programme also ranks strongly because of its large national targets, although uneven regional implementation and variations in quality reduce its overall position.

Kenya’s Affordable Housing Programme occupies a middle position, reflecting a developing public-private partnership model that is expanding but not yet fully consolidated. ACAG is positioned as an emerging but structurally innovative programme, with very high affordability through its interest-free revolving loan model; however, its provincial scale and recent launch limit its delivery volume compared to national systems. The Mahendra Narayan Nidhi scheme ranks lower due to limited administrative capacity, smaller fiscal resources, and the constraints typical of sub-national housing programmes operating in high-difficulty contexts. Overall, the table shows that newer programmes vary widely in maturity, and that strong financial design or innovation does not always correspond to large delivery scale at early stages of implementation.

Table 3: Global Ranking of Emerging programmes in last 10 years

Rank	Programme	Overall Position	Reason for Position
1	Saudi Housing Program Sakani	Strong - Emerging National Benchmark	Rapid expansion under Vision 2030; strong fiscal backing; mortgage-supported subsidy system; high institutional capacity approaching mature programme status. Slight moderation due to reliance on high public funding.
2	Indonesia One Million Houses Program	Strong - Large-Scale Expansion Model	National target-driven delivery; subsidy and developer incentive model; high output but uneven regional implementation and varying construction quality.
3	Kenya Affordable Housing Programme	Moderate-Strong - Developing PPP Model	Public-private partnership structure with housing levy financing; institutional ecosystem still consolidating; delivery improving but not yet at mature-system scale.
4	Apni Chhat Apna Ghar (ACAG)	Emerging - Structurally Innovative Provincial Model	Interest-free revolving loan system; very high affordability; fiscally

Emerging Programmes since 2020

The emerging programmes introduced after 2020 were evaluated using the same multidimensional indicator framework applied to mature and mid-stage housing systems in order to maintain methodological consistency across all comparisons. Table 3 in the appendices presents the indicator-based scoring using the eight parameters, allowing each programme to be assessed across multiple dimensions rather than by delivery scale alone. Table 4 here provides the consolidated ranking derived from these scores, summarizing the overall position of each programme based on its combined performance across the indicators.

The results show that programmes with the highest verified delivery activity, such as the 4PH programme in the Philippines, rank strongly

when scale and institutional maturity are emphasized. However, ACAG achieve higher positions when financial accessibility, affordability design, and structural innovation are given greater importance. Similarly, programmes like the First Home Scheme and the Housing Australia Future Fund perform well due to strong financial structures despite lower delivery volumes. This comparison confirms that programme positioning changes depending on the evaluation lens, demonstrating that housing policy performance cannot be understood through output measures alone, but must also consider accessibility, sustainability, and the institutional context in which programmes operate.

Table 4: Global Ranking of Emerging Programmes since 2020

Rank	Programme	Overall Position	Reason for Position
1	4PH - Philippines	Strong - Large-Scale Emerging Benchmark	Highest verified delivery among recent programmes; national expansion model; strong government backing but subsidy-dependent.
2	ACAG - Punjab	Emerging - Structurally Innovative Model	Interest-free revolving loans; very high affordability; rapid early uptake; limited scale due to provincial scope but strong financial sustainability.
3	Affordable Homes Programme (UK)	Strong - Mature Institutional System	Established funding and governance structure; steady delivery; less innovative financially but highly stable.
4	Housing Australia Future Fund	Strong - Fiscal Model Benchmark	Very strong financing structure; long-term sustainability; delivery still developing.
5	First Home Scheme (Ireland)	Moderate-Strong - Affordability-Focused Model	Highly accessible shared-equity design; limited coverage compared to national construction programmes.
6	Build Canada Homes	Emerging - Institutional Formation Stage	Strong policy framework but early implementation; delivery pipeline still forming.
7	Bonno Programme (Botswana)	Moderate-Weak - Early National Programme	Limited scale; constrained fiscal and administrative capacity; operating in high contextual difficulty.

Table 5 evaluates recently introduced housing initiatives using the same multidimensional framework, but with greater emphasis on

financial accessibility, affordability design, inclusion, and structural innovation rather than delivery scale alone. This ranking highlights how

programmes differ when performance is assessed based on how easily households can access housing support and how sustainable the financing structure is, rather than how many units are produced. Under this lens, ACAG ranks highest because of its interest-free revolving loan model, strong affordability, and early evidence of household-level impact, which makes it highly accessible despite its provincial scale. Programmes such as the First Home Scheme and the Housing Australia Future Fund also rank strongly due to innovative financing mechanisms that improve affordability, even though their delivery volumes are smaller. Large national

construction programmes, such as 4PH and the Affordable Homes Programme, rank lower in this table because they rely more on conventional subsidy or grant-based systems, which limits flexibility at the household level. Lower-ranked programmes reflect either early implementation stages or limited financial innovation. Overall, this table demonstrates that programme performance changes significantly when accessibility and financial design are prioritized, showing that innovation-driven housing models can compete with large-scale systems even at early stages of development.

Table 5: Innovation and Accessibility Ranking – Emerging Programmes since 2020

Rank	Programme	Rationale
1	ACAG (Punjab)	Only interest-free revolving loan model; strong early household impact (98% safety; 77-78% education; 92% employment); high transparency (99%); fiscally lean.
2	First Home Scheme (Ireland)	Shared equity reduces entry barrier; innovative in European context.
3	Housing Australia Future Fund	Strong fiscal design but conventional financial structure.
4	4PH Philippines	Large but subsidy-heavy; innovation moderate.
5	Affordable Homes Programme (UK)	Strong but traditional grant-based architecture.
6	Build Canada Homes	Institutional innovation but early stage; limited outcome data.
7	Bonno Programme	Insufficient public evidence on innovation dimension.

The tables presented above do not represent a single universal hierarchy of housing programmes. Rather, they illustrate how programme positioning changes depending on the evaluative lens applied. Together, they demonstrate that affordable housing initiatives can be assessed through different policy priorities—scale and institutional capacity on one hand, and innovation and accessibility on the other.

The first table (Global Comparative Ranking of Mature and Emerging Programmes) situates programmes such as PMAY (India), TOKİ (Turkey), and Sakani (Saudi Arabia) at the top because they operate at national scale, have consolidated institutional systems, and demonstrate sustained multi-year delivery. In this

framework, scale, governance maturity, and delivery infrastructure are primary determinants of strength. ACAG appears in a mid-tier position not because it is weak, but because it is a newly launched provincial programme with limited time for institutional consolidation and scale expansion.

The second table (Emerging Programme Positioning by Start Year) introduces a temporal dimension. It distinguishes between mature systems (launched 2015-2018) and newer initiatives (2021-2024). This highlights that ACAG is the most recent programme in the comparison set. Its lower institutional maturity reflects recency rather than structural deficiency. When time since launch is considered, ACAG's

performance appears comparatively strong for a first-year programme.

The final two tables apply two distinct ranking philosophies, each grounded in a different evaluative logic.

1. **Scale & Maturity Ranking** prioritizes verified delivery activity, fiscal depth, and institutional consolidation. Under this state-capacity lens, programmes are positioned according to numeric output (units delivered, starts, or loans disbursed), financial backing, and governance maturity. With over 100,000 loans distributed within its first year, ACAG now ranks second among programmes launched since 2021, surpassed only by the Philippines' 4PH programme in total numeric activity. However, large national systems such as the UK's Affordable Homes Programme and Australia's Housing Future Fund continue to score strongly on institutional depth and long-term fiscal architecture.

2. **Innovation & Accessibility Ranking** prioritizes affordability design, financial inclusion, early measurable social impact, and fiscal sustainability. Under this lens, ACAG ranks first due to its interest-free revolving loan model, strong early beneficiary-reported social outcomes (including improved safety, education, and household well-being), and fiscally lean structure. Rather than rewarding scale alone, this framework emphasizes structural efficiency and accessibility in constrained environments.

Taken together, the updated tables demonstrate that programme "success" is multidimensional. When evaluated purely on absolute delivery scale, ACAG performs strongly and ranks near the top within the recent cohort. When evaluated on innovation, accessibility, and early social impact, it emerges as the strongest programme in its typological category.

The comparative exercise therefore does not claim that ACAG is globally dominant across all housing systems. Rather, it shows that ACAG combines rapid early scaling with structural financial innovation, positioning it as both a high-performing recent entrant and a distinctive model within contemporary affordable housing

policy. By presenting both rankings, the analysis makes explicit how different evaluative criteria shape programme positioning and strengthens the methodological transparency of the study.

Global Comparative Evaluation of Housing Programmes

The comparative analysis of selected housing initiatives demonstrates significant variation in programme performance depending on the evaluative criteria applied. When assessed through a **scale and institutional maturity lens**, programmes with national scope, large financial resources, and established institutional frameworks tend to rank highest. Mature initiatives such as India's PMAY and Turkey's TOKI programme demonstrate strong delivery performance due to their centralized governance systems, extensive funding mechanisms, and long implementation timelines.

However, the analysis also reveals that delivery scale alone does not fully capture the effectiveness or innovation of housing programmes. When the evaluation shifts toward **innovation and accessibility indicators**, programmes that emphasize financial inclusion and affordability design perform more strongly. In this framework, ACAG emerges as a highly competitive initiative despite its recent launch and provincial scope.

A key factor influencing ACAG's comparative position is its rapid early uptake. The programme has distributed more than 100,000 interest-free loans within its first year of implementation, placing it among the fastest-scaling housing initiatives launched since 2021. When annualized delivery activity is considered, ACAG's early uptake approaches the pace of larger national programmes introduced in recent years.

In addition, the programme's interest-free revolving loan model represents a distinctive financial architecture among contemporary housing initiatives. Unlike subsidy-heavy or developer-led housing systems, ACAG facilitates owner-driven construction while maintaining fiscal sustainability through loan repayment cycles. This design aligns with incremental

housing theory, which emphasizes user agency and flexibility in housing development.

Overall, the comparative evaluation indicates that while ACAG operates at a smaller institutional scale relative to national programmes, it demonstrates strong performance in terms of financial accessibility, innovation, and early delivery momentum.

Beneficiary Survey Findings

The empirical survey of 1,496 ACAG beneficiaries across 36 districts of Punjab provides insight into how the programme is experienced at the household level. The findings indicate high levels of beneficiary satisfaction and significant perceived improvements in living conditions following participation in the programme.

The age distribution of main applicants shows that most beneficiaries fall within the working-age population, reflecting that the programme is primarily accessed by individuals who are actively supporting their families (Figure 1). The largest proportion of applicants, **43 percent**, are between **35 and 45 years old**, indicating that mid-career individuals form the core group seeking housing support. The second-largest category is **25 to 35 years**, representing 35 percent of applicants, which suggests that younger adults are also engaging with the programme as they begin to establish independent households. Applicants aged **45 to 55 years** make up 16 percent, while only 2 percent are below 25 years of age. A very small group (around 4 percent combined)

consists of those above 55, showing that older applicants participate at much lower rates. This overall trend reflects that the programme is reaching individuals who are in their economically active years and responsible for household stability.

Gender data shows a strong dominance of male applicants. Eighty-four percent of the main applicants are men, while only **16 percent** are women. This pattern reflects existing gender norms in property ownership, mobility, and engagement with financial institutions, where men typically act as primary applicants. It also indicates that women continue to face structural barriers in independently accessing housing loans, despite the programme's inclusive aims. The low percentage of female applicants points to the need for targeted strategies that support women's participation, including simplified procedures, awareness campaigns, and gender-sensitive outreach.

Educational backgrounds of applicants vary widely, with a mix of low, moderate, and higher levels of education. A significant portion, **33 percent**, have completed matriculation or an equivalent level, forming the largest single group. Another 23 percent hold intermediate-level qualifications. Respondents with bachelor's or master's degrees account for 17 percent, indicating a reasonable presence of more educated applicants. At the same time, 14 percent have completed middle school only, and 9 percent reported primary-level education.

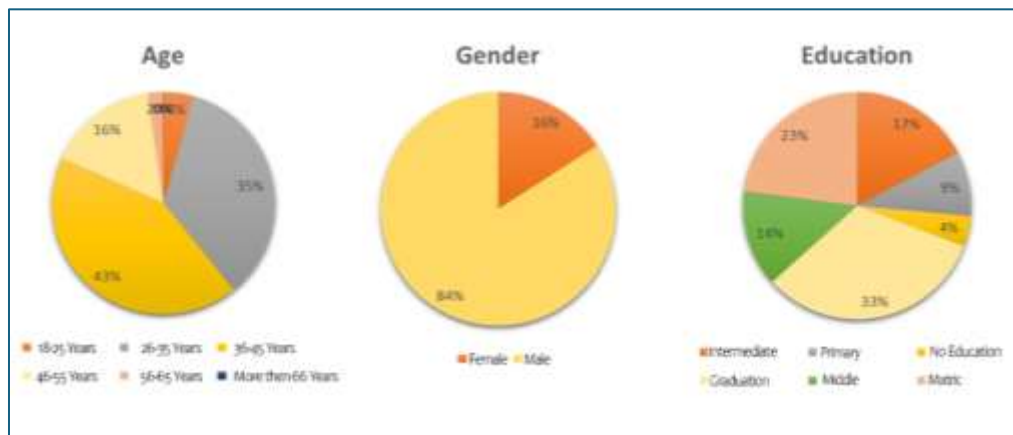


Figure 1: Introductory Statistics

A small group, around 4 percent, stated that they have no formal schooling. This distribution suggests that the programme is accessible across a wide educational spectrum, but the majority of applicants possess at least basic schooling, which likely helps them navigate documentation and banking processes. The presence of individuals with very low education highlights the need for support mechanisms such as simplified forms, verbal instructions, and assistance from field staff.

Awareness and Accessibility of the Programme

The survey shows that awareness and understanding of the programme were generally

high among beneficiaries (Figure 2). Approximately 70% of respondents reported that the eligibility criteria were clear, while 29% stated that the process was very easy to understand, and only about 1% experienced difficulty, indicating that the communication of programme requirements was largely effective. Transparency was also rated very positively, with 99% of respondents stating that the fund disbursement process was transparent. However, accessibility was not uniform across all groups. Gender participation remained limited, as 84% of main applicants were men and only 16% were women, reflecting existing social barriers in property ownership and financial engagement.



Figure 2: Percentages for Awareness and Accessibility of the Programme

Experiences with Loan Disbursement and Construction Processes

Beneficiaries reported mixed experiences regarding the financial and construction stages of the programme (Figure 3). The disbursement process was considered transparent by almost all respondents, and a large majority indicated that the release of funds was timely, with 91% reporting that they did not face delays in receiving loan installments, while only a small proportion experienced delays. This suggests that

the administrative and banking procedures are functioning efficiently in most cases.

The adequacy of the loan amount, however, remained a concern for many households. Only 8% felt the loan was fully sufficient, while 70% considered it partially sufficient, and 22% stated that it was not sufficient at all, indicating that most beneficiaries still needed additional financial resources to complete construction. In line with this, 83% of respondents reported requiring extra funds from savings, family support, or informal borrowing.

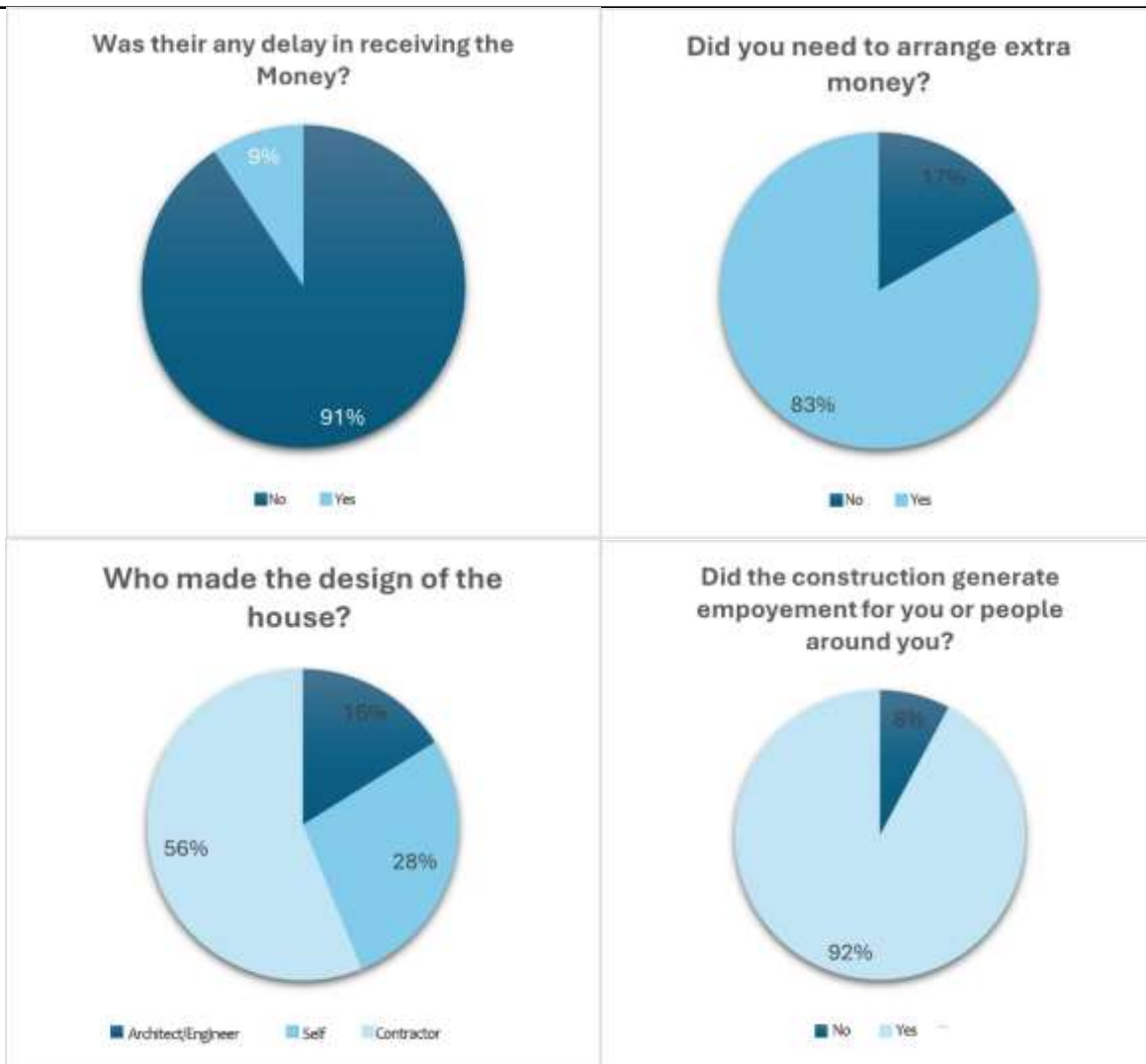


Figure 3: Percentages for Experiences with Loan Disbursement and Construction Processes

During the construction phase, several households reported practical difficulties. About 63% experienced technical problems, and 38% faced increases in construction costs, while only 16% used professional design services, suggesting limited access to technical guidance. Despite these challenges, the programme had a positive economic impact, as 92% of respondents stated that construction generated employment either within the household or in the local community.

Perceived Improvements in Housing Quality and Safety

The survey indicates strong positive outcomes in terms of housing quality and safety (Figure 4). A majority of respondents reported improved living

conditions, with 68% stating that conditions improved and 27% reporting that they greatly improved, while only a small proportion saw no change. Access to basic services also improved significantly, with 77% reporting better access to facilities such as water, sanitation, and electricity, and 22% reporting major improvement. Safety was one of the strongest outcomes, as 98% of respondents stated that their homes became safer after construction, reflecting the shift from temporary or weak structures to more permanent housing. These findings confirm that the programme has had a substantial impact on the physical quality of housing and the overall stability of households.

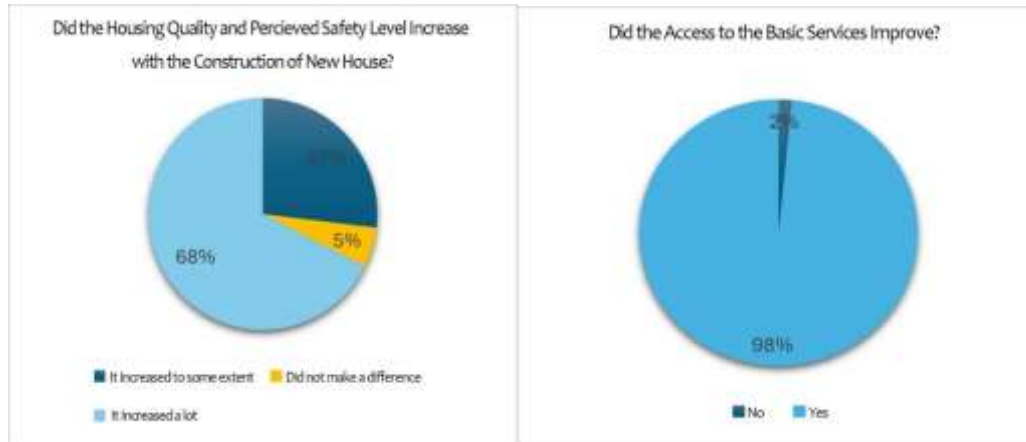


Figure 4: Percentages for perceived Improvements in Housing Quality and Safety

Impacts on Household Well-Being, Education, and Gender Dynamics

Beyond physical improvements, the survey shows clear social benefits (Figure 5). Around 78.8% of respondents reported that their children’s education improved after moving into the new house, mainly due to better study space, improved lighting, and reduced overcrowding. In terms of women’s well-being, 71.7% reported increased comfort, safety, and better household functioning for women, while 16.7% noted reduced physical burden in daily tasks, and 68% stated that

women’s overall living conditions improved. However, gender participation in decision-making remained limited: 89% reported that women did not participate in the loan application, and 75% said financial decisions were made by men alone, indicating that social norms continue to shape access to financial processes even when housing outcomes benefit women. These results show that improved housing contributes to social stability and well-being, but does not automatically change household power structures.

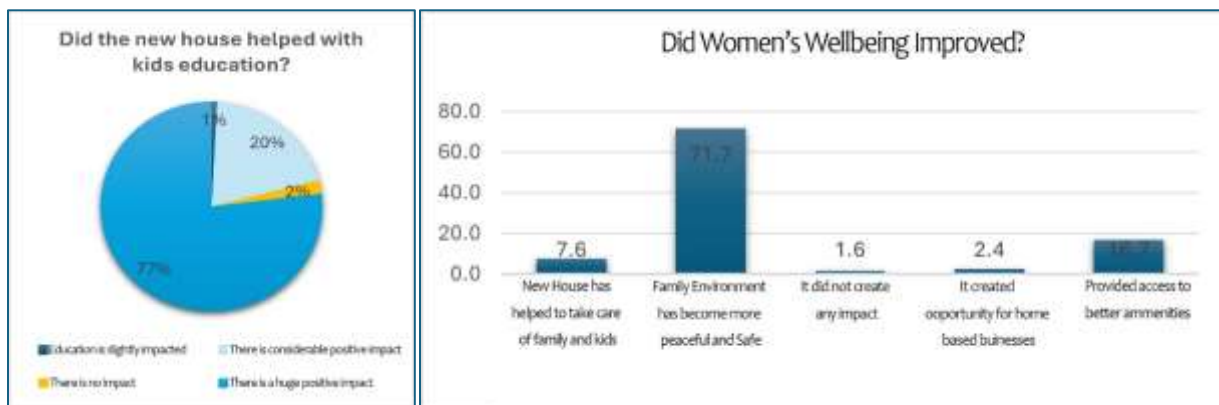


Figure 5: Percentages for Impacts on Household Well-Being

Challenges Encountered During Programme Participation

Despite the overall positive response to the programme, respondents identified several practical challenges during participation (Figure

6). The most frequently reported concern was the adequacy of the loan amount. Only 8% of beneficiaries considered the sanctioned amount fully sufficient, while the majority reported that it was only partially sufficient or required

additional financial support. As a result, many households had to rely on personal savings, family assistance, or informal borrowing to complete construction, especially in the context of rising material and labour costs. This indicates that while the programme successfully enables housing construction, the current loan ceiling does not fully match the actual cost of building even modest houses.

Another important challenge relates to gender participation in decision-making. Although the programme is widely accessible, with a large majority of respondents stating that it reaches poor and low-income households, women’s involvement in the application and financial decision process remains limited. Survey results show that most loan applications were submitted by male household members, and in the majority of cases financial decisions regarding construction were made by men alone. While improved housing conditions significantly enhanced comfort, safety, and privacy for women, their direct participation in financial and construction decisions remained low. This

suggests that social norms, rather than programme rules, continue to restrict women’s role in housing-related decision-making.

Construction-related difficulties were also reported by a substantial number of beneficiaries. Many households faced technical problems during construction, and a significant proportion experienced increases in material costs, which affected the pace and quality of building work. Limited access to professional design or technical guidance meant that most houses were built using informal or self-directed methods, increasing the risk of errors and inefficiencies.

Overall, the findings indicate that the programme performs strongly in terms of transparency, outreach, and administrative efficiency, and is widely perceived to reach low-income households. However, improvements in loan adequacy, technical support during construction, and greater inclusion of women in financial decision-making would further strengthen the effectiveness and social impact of the programme.

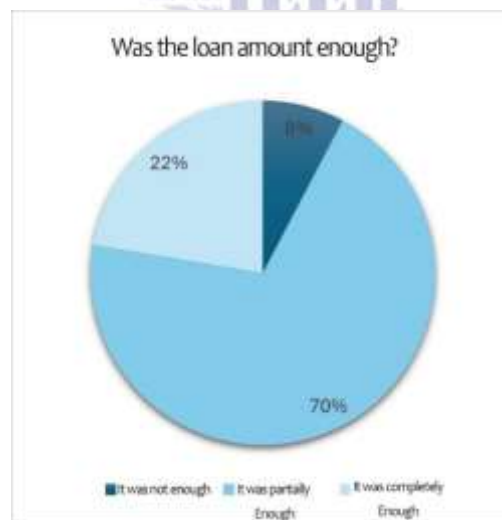


Figure 6: Percentages for Challenges Encountered During Programme Participation

Discussion

The findings of this study reinforce a key proposition emerging across contemporary housing policy literature: that the effectiveness of housing programmes cannot be adequately captured through delivery scale alone, but must

be understood through a multidimensional lens that integrates financial, institutional, and social dimensions. By combining global comparative analysis with household-level survey data, this study demonstrates that programme performance

is not fixed but shifts significantly depending on the evaluative criteria applied.

At a structural level, the comparative analysis confirms the continued dominance of large-scale, state-supported housing systems within conventional evaluation frameworks. Programmes such as PMAY and TOKI rank highly due to their extensive delivery capacity, institutional maturity, and sustained public investment. These findings align with earlier scholarship emphasizing the importance of centralized coordination and scale in addressing national housing deficits (Angel, 2000; Buckley & Kalarickal, 2005). However, the results also echo longstanding critiques that such models tend to prioritize numerical output over adaptability and user responsiveness, often resulting in standardized housing forms that inadequately reflect diverse socio-economic and cultural contexts (Manoochchri, 2015).

In contrast, ACAG represents a shift toward finance-enabled, user-driven housing provision, consistent with principles of incremental housing theory (Turner, 1976). Its interest-free revolving loan model lowers entry barriers for low-income households and enables construction processes that are more closely aligned with household capacities and needs. The rapid distribution of over 100,000 loans within the first year suggests that demand-responsive financing mechanisms can achieve significant early uptake, particularly in contexts where formal housing supply is constrained. This supports recent literature emphasizing the potential of flexible, finance-based approaches to expand housing access in the Global South (Dafeamekpor et al., 2021).

However, the empirical findings complicate the assumption that financial accessibility alone is sufficient to ensure effective housing outcomes. While the programme performs strongly in terms of perceived transparency (99%) and administrative efficiency (91% reporting no delays), the issue of loan adequacy emerges as a critical limitation. The fact that only 8% of beneficiaries found the loan fully sufficient, and that 83% relied on additional financial sources, indicates a structural mismatch between

programme design and actual construction costs. This reflects broader concerns in housing affordability research, which argue that access to credit does not necessarily equate to affordability if repayment burdens or supplementary costs exceed household capacity (Stone, 2006; Olanrewaju & Woon, 2017). In this sense, ACAG's financial model, while innovative, partially reproduces affordability pressures rather than fully resolving them.

The findings also highlight the importance of institutional support systems in determining the effectiveness of self-construction models. Incremental housing theory emphasizes user agency, but its successful implementation depends on enabling conditions such as technical assistance, regulatory guidance, and access to skilled labour (Angel, 2000; World Bank, 2017). The survey results reveal that a majority of beneficiaries faced technical challenges during construction, while only 16% accessed professional design services. This suggests that in the absence of structured technical support, self-construction may lead to inefficiencies, compromised construction quality, and increased long-term vulnerability. These findings align with literature cautioning that informal or unsupported construction processes can reinforce inequalities rather than mitigate them (UN-Habitat, 2020).

Despite these limitations, the study provides strong evidence of the social value of housing interventions when evaluated beyond physical outputs. Improvements in housing safety (98%), access to basic services, and overall living conditions demonstrate that even incremental housing improvements can significantly enhance household stability. The reported improvement in children's education (approximately 78%) further supports the argument that housing functions as a critical socio-economic asset, influencing human capital development and long-term life outcomes (Severson & de Vos, 2021). These findings reinforce the need to conceptualize housing not as a static product, but as an enabling infrastructure for broader social development.

At the same time, the results reveal persistent structural inequalities that are not addressed through housing provision alone. Gender disparities remain particularly pronounced, with men dominating both programme access and financial decision-making processes. While women benefit from improved living conditions—reflected in increased safety, comfort, and household functioning—their limited participation in loan applications (89% excluded) and decision-making (75% male-dominated) indicates that programme benefits do not translate into shifts in intra-household power dynamics. This finding is consistent with rights-based housing literature, which emphasizes that equitable outcomes require not only access to housing but also control over resources and decision-making processes (Marcuse, 2017; Fan et al., 2025). It suggests that without targeted policy interventions, housing programmes may reinforce existing gender norms even as they improve material conditions.

The comparative ranking further illustrates how evaluation frameworks shape perceptions of programme success. When assessed through a scale and institutional maturity lens, ACAG occupies a mid-tier position due to its provincial scope and early stage of implementation. However, when evaluated through indicators such as financial accessibility, innovation, and early social impact, it emerges as one of the strongest performers among recently launched programmes. This shift underscores a central methodological insight of the study: that housing policy evaluation is inherently contingent on the criteria applied. Programmes that appear marginal in one framework may demonstrate significant strengths in another, particularly when evaluated in relation to contextual constraints and policy objectives.

Importantly, the study also highlights the role of contextual difficulty in shaping programme performance. Unlike high-income or strongly institutionalized contexts, housing programmes in regions such as Punjab operate within constraints related to informal land tenure systems, limited regulatory enforcement, and

fluctuating construction costs. These factors influence both programme design and household-level outcomes, reinforcing the argument that cross-national comparisons must account for structural differences rather than relying on absolute performance metrics (Rodrik, 2008). Within this context, ACAG's performance can be understood not simply in terms of scale, but in relation to its ability to operate effectively within a constrained institutional environment.

Taken together, the findings suggest that ACAG represents a hybrid model that combines elements of financial innovation with incremental housing approaches. Its strengths lie in accessibility, early uptake, and measurable social impact, while its limitations reflect broader structural challenges associated with affordability, technical capacity, and social inclusion. These tensions highlight the need to move beyond binary classifications of housing programmes as “successful” or “unsuccessful” and instead evaluate them as evolving systems shaped by both policy design and contextual realities.

Ultimately, this study contributes to ongoing debates on sustainable housing policy by demonstrating that effective housing provision requires an integrated approach that combines financial accessibility, institutional support, and social inclusion. The findings support the argument that multidimensional evaluation frameworks are essential for capturing the complexity of housing interventions and for identifying pathways toward more equitable and sustainable housing systems.

These findings also have direct implications for the assessment of progress toward Sustainable Development Goal 11, particularly Target 11.1, which emphasizes access to adequate, safe, and affordable housing. While ACAG demonstrates strong performance in improving housing safety and accessibility, the persistence of affordability gaps, reliance on supplementary financing, and limited gender inclusion indicate that access alone does not fully meet the broader criteria of adequacy and equity embedded within the SDG

framework. The results therefore suggest that measuring progress toward SDG 11 requires moving beyond output-based indicators toward multidimensional evaluation approaches that capture both structural design and lived outcomes.

Conclusion

This study set out to challenge the dominance of output-based evaluation in housing policy by developing and applying a multidimensional framework that integrates structural, financial, and social dimensions of programme performance. The findings demonstrate that conventional metrics—particularly delivery scale—offer a partial and often misleading representation of effectiveness, privileging large, institutionally mature programmes while obscuring critical issues of accessibility, affordability, and social impact.

The comparative analysis confirms that while large national housing systems continue to dominate global rankings due to their scale and administrative capacity, they do not necessarily perform better in terms of inclusivity or long-term sustainability. In contrast, the Apni Chhat Apna Ghar (ACAG) programme illustrates the potential of finance-enabled, user-driven models to expand access and generate early social benefits, particularly in resource-constrained contexts. However, the empirical findings also reveal that such models are not inherently transformative. Despite high levels of perceived transparency and significant improvements in housing quality and household well-being, structural limitations persist, including inadequate loan amounts, reliance on informal financing, limited technical support, and deeply entrenched gender inequalities in access and decision-making.

These findings underscore a critical tension within contemporary housing policy: innovation in financial design and delivery mechanisms does not automatically translate into equitable or sustainable outcomes. Without parallel investments in institutional support systems, regulatory frameworks, and social inclusion

strategies, even well-designed programmes risk reproducing existing inequalities in new forms. In the case of ACAG, the emphasis on financial accessibility has successfully lowered entry barriers but has not fully resolved the structural constraints that shape housing outcomes at the household level.

More broadly, the study highlights the need to reconceptualize housing policy not as a question of provision alone, but as a complex socio-economic process embedded within broader systems of governance, finance, and social relations. The persistence of gender disparities, affordability gaps, and construction inefficiencies suggests that housing programmes must move beyond facilitating access to actively addressing the conditions under which housing is produced and used.

Methodologically, the study demonstrates the value of integrating comparative policy analysis with empirical survey data to capture both structural design and lived experience. At the same time, it also reveals the limitations of relying on publicly available data and early-stage programme outcomes, pointing to the need for longitudinal and institutionally embedded research to fully understand programme performance.

Ultimately, the study argues that achieving the objectives of Sustainable Development Goal 11 requires more than scaling up housing delivery or introducing innovative financial mechanisms. It requires a shift toward multidimensional, context-sensitive approaches that prioritize equity, adaptability, and long-term sustainability. Without such a shift, housing policy risks producing outcomes that are quantitatively significant but structurally incomplete. In this context, the study demonstrates that multidimensional evaluation frameworks provide a more accurate basis for assessing progress toward SDG 11, as they capture critical dimensions such as affordability, inclusion, governance, and social impact that remain invisible in conventional delivery-based assessments. This underscores the need for policy approaches that align housing provision not only

with quantitative targets, but with the broader sustainability objectives embedded within the SDG agenda.

AI Usage Statement

No artificial intelligence (AI) tools were used for the generation or authorship of the research content. AI-assisted tools, where used, were limited to minor language editing and formatting support, and did not contribute to the conceptualization, analysis, or interpretation of the study.

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