Green and Resilient Affordable Housing Sector Project

Submitted By: Asian Development Bank (ADB)

Organization Profile

Organization Name: National Housing Development Corporation Limited

Organization Type: Financial institution

Website: www.nhdcl.bt

Practice Details

Country(ies): Bhutan

City(ies): Trashiyangtse, Samdrup Jongkhar, Pema Gatshel, Nganglam, Phuentsholing, Thimphu, Samtse, Chukha

Start Year: 2022 **Ongoing:** Yes **End Year:** N/A

Main Adequate Housing Components:



Housing Thematic Areas:

- Social Housing
- Housing & Climate Mitigation
- Housing & Climate Adaptation
- Housing Policy, Legislation & Governance
- Housing Data & Monitoring

Relevant SDGs:



UN-HABITAT

Problem & Context

Bhutan's National Housing Policy (NHP) of 2020 was the first comprehensive effort to address the country's worsening housing crisis, driven by escalating land and construction costs, limited affordable finance, and rising urban migration. The NHP sets ambitious goals: expand affordable rental housing, promote homeownership, and strengthen governance. Yet it lacks legal authority, a clear implementation plan, and dedicated funding. This gap between goals and resources remains a major weakness.

Governance and coordination are also limited. The policy does not align with broader urban planning or establish a regulatory framework for multi-family housing, leading to disputes. Its heavy reliance on private sector and market-driven solutions has favored higher-income groups, with little public investment in subsidized housing for the poor. As a result, the NHP, despite its vision, struggles to make housing genuinely affordable for those most in need.

Solution Developed

The Green and Resilient Affordable Housing Sector Project (GRAHSP) is a key initiative to address Bhutan's housing crisis, particularly for lower-income groups. Its core objective is the construction of about 1,000 affordable rental units across towns, directly benefiting low-income households and marginalized urban workers. The designs integrate green and resilient features such as rainwater harvesting and energy-efficient interiors. By using locally sourced, low-impact materials, the project minimizes its environmental footprint while ensuring durability against disasters such as earthquakes and landslides.

Beyond construction, GRAHSP strengthens the housing sector's institutional framework. It supports Bhutan's National Housing Policy (NHP) through a concrete Housing Strategy, ensuring the policy's goals for affordable, safe, and sustainable housing are translated into tangible results. To reinforce this framework, the project is also developing a Housing Management Information System, an integrated platform to consolidate housing-related data and improve evidence-based decision-making.

Implementation

The GRAHSP combines physical construction with sector reforms. The core output is 1,000 affordable rental housing units, designed with resilient and green features. Alongside construction, project implements soft measures: developing a Housing Strategy aligned with the National Housing Policy, endorsing green building guidelines, creating a Housing Management Information System, and preparing a Condominium Regulation to address co-ownership and governance issues.

The project is led by Government of Bhutan with funding from ADB. Key agencies include Ministry of Finance, the Department of Human Settlement under Ministry of Transport and

Infrastructure, and National Housing Development Corporation Limited (NHDCL) as implementing agency. Beneficiaries from low-income groups and current residents of NHDCL social housing were consulted in the design process. An NGO consultant supported the development of allotment criteria.

The physical works began in May 2023 for completion by 2028. The Housing Strategy will be completed by Nov 2025. Green building guidelines were endorsed in May 2025. Housing data analysis under the HMIS is scheduled for May 2025, and the Condominium Regulation is expected by end-2025.

The total project cost is $37 million, financed through a $24 million concessional ADB loan, a $6 million ADB grant, and counterpart funding from the government. Project's multi-agency structure and development partner collaboration is central to successful implementation.

Enablers & Obstacles

Key Drivers & Enablers: Project drew strength from National Housing Policy provided a framework and direction. Draft Housing Strategy translated policy into action. Technology was a key enabler, with Housing Management Information System centralizing housing data, strengthening capacity, and supporting evidence-based decisions. Transparency in beneficiary selection was reinforced thru NGO engagement, building community trust. Strong political commitment and financial support from government and ADB were critical.

Obstacles & Resolutions: Housing unit target was reduced from 1,000 to 801 from inflation, labor shortages, and supply chain disruptions during pandemic. This was carefully mitigated by cost-saving measures e.g. simplified layouts and adopting earlier green building standards. Geotechnical issues emerged, with some sites rejected for earthquake fault lines or landslide risks. These were resolved by selecting alternative locations and conducting detailed site investigations.

Results & Impact

Quantitative and Qualitative Results: Project has advanced despite challenges. The housing target was revised from 1,000 to 801 units due to inflation and pandemic disruptions. As of Mar–Apr 2025, 280 units are under construction, 251 are in the preparatory phase, and 270 have completed due diligence. Qualitative results include greater social inclusion through preferential employment for women, internships for five female engineering students, and safe on-site facilities with separate toilets. Soft outputs have strengthened the sector's framework: a draft Housing Strategy, green building guidelines, a Housing Management Information System for data-driven planning, and a Condominium Regulation for co-ownership and governance.

Impacts on Low-Income Households and Marginalized Groups: The project benefits low-income households by providing green and resilient affordable housing, ensuring at least 95% spend no

more than 30% of disposable income on rent. Marginalized groups, such as municipal waste workers living in informal settlements, are specifically targeted for housing allocation.

Broader and Longer-Term Impacts: Project improves the livability, safety, and sustainability of Bhutan's human settlements. By applying seismic and green building standards, it enhances resilience to natural disasters. Institutional impacts include a Housing Strategy and Housing Management Information System, which strengthen evidence-based policymaking and long-term housing sector planning.

Replication & Scale Up

The NHDCL has benefited from the ADB-assisted GRAHSP, but its reach remains limited to a few towns in Bhutan due to funding constraints. Replicating this approach in other regions to serve more low-income households will require mobilizing resources from domestic and international sources. Public–private partnerships should be explored for more sustainable implementation. While housing demand exists, limited land makes careful site selection and planning critical. Ongoing government support, institutional capacity, and inter-agency coordination are essential.

The ADB-assisted GRAHSP project is highly beneficial but remains limited in reach. Scaling up to benefit more low-income households in Bhutan requires promoting public–private partnerships to attract private investment, establishing community-based housing cooperatives for collective access to land and finance, expanding government-backed low-interest housing loans, and adopting cost-effective, eco-friendly construction technologies to lower costs, strengthen resilience, and ensure sustainable, inclusive housing.

Policy Uptake

This housing practice is a new or innovative practice that is not yet adequately or fully integrated into formal policy frameworks.

This housing practice is innovative but not yet fully integrated into formal policy. Ongoing work includes a draft Housing Strategy, energy efficiency and green building guidelines, a Housing Management Information System, and a Condominium Regulation. To ensure a holistic approach, the government will conduct stakeholder consultations, with these components considered for adoption and integration into formal policy frameworks.

Lessons & Takeaways

Key lessons learned include the importance of balancing climate-smart features with affordability, ensuring that innovative solutions like EDGE certification do not make housing inaccessible. Designs and materials should align with regulations, be functional, durable, and suitable for local conditions. Housing should combine efficiency, quality, and inclusivity to meet

the needs of low- and middle-income households while promoting sustainability, resilience, and long-term value.