



Report Number: ICRR0022975

1. Project Data

Project ID P157932	Project Name Access to Affordable Housing Project	
Country Mexico	Practice Area(Lead) Urban, Resilience and Land	
L/C/TF Number(s) IBRD-87640	Closing Date (Original) 31-May-2021	Total Project Cost (USD) 99,895,004.02
Bank Approval Date 14-Jun-2017	Closing Date (Actual) 31-Aug-2021	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	100,000,000.00	0.00
Revised Commitment	99,895,004.02	0.00
Actual	99,895,004.02	0.00

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2. Project Objectives and Components

a. Objectives

According to the Financing Agreement (FA, p 7) and the Project Appraisal Document (PAD, after paragraph 16), the Project Development Objective (PDO) was to increase access to affordable housing for low-income beneficiaries.

This review will assess the extent to which the project achieved this singular PDO.



b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Will a split evaluation be undertaken?

No

d. Components

1. Acquisition of Housing Units (US\$48.75 million at appraisal, revised to US\$33.03 million, and US\$33.03 million, actual). This component was to finance direct support to enhance access to housing by assisting low-income beneficiaries to purchase their first new or existing housing unit in eligible locations. In the 2020 restructuring, US\$15.7 million from this component was to be reallocated to Component 2.

- **Eligible low-income beneficiaries** were those earning less than four units of measurement and adjustment (called *Unidad de Medida y Actualización* or UMAs). The government created the UMA beginning in December 2016 as the denomination of the value of all federal obligations and programs. For 2021, a UMA was equivalent to MX\$89.62 per day while the minimum wage was equivalent to MX\$141.7 per day. Annually, the National Statistical Institute (INEGI) updated the UMA using the inter-annual variation of the national Consumer Price Index (CPI) (or US\$539 per month according to the Operational Rules or OR).
- **Affordable Housing** (*vivienda económica*) referred to the cheapest, formal, market-produced house that cost approximately Mex\$225,230 (or about US\$17,000). This amount was considered affordable for households earning around 3 Monthly Minimum Wages (MW) per month or more. According to the Housing Registry (*Registro Único de Vivienda*, or RUV) and the National Housing Commission (*Comisión Nacional de Vivienda* or CONAVI), the minimum affordable Income referred to a household's income level that would allow them to afford a home at the average price in a specific housing category. This meant that the household would pay less than 30 percent of their income, over a 20-year fixed rate mortgage, with an 80 percent loan to value ratio, and 11.1 percent market interest rate. The National Workers' Housing Fund Institute (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores* or INFONAVIT) developed the following six non-official housing categories that vary substantially by price, size, and quality to reflect the market segmentation: (i) Affordable (*Económica*), (ii) Popular (*Popular*), (iii) Traditional (*Tradicional*), (iv) Mid-range (*Media*), (v) Residential (*Residencial*), and (vi) Residential+ (*Residencial+*). Affordable housing comprised only 13 percent of the total formally produced units because of high land costs in urban areas. More than half of all the formal units produced were priced around of Mex\$301,946 (or about US\$23,000). These were known as *vivienda popular* and were only affordable to households earning more than 4.1 MW, or those at or above the fifth income decile
- **Eligible locations** referred to U1 and U2 *contornos*. The National Urban and Housing Policy designated these areas as near job centers and urban services. CONAVI was to use these designations and areas authorized under the Urban Development Plan. Risk-prone areas were not eligible.

2. Self-production of Housing Units (US\$50.0 million at appraisal, revised to US\$66.6 million at restructuring, US\$66.6 million actual). This component was to finance support to low-income beneficiaries in self-production or the design and construction of their housing units. Self-production housing was to use the beneficiary's own plot, and produce units under his control using self- or third-party construction. Households were also to receive technical assistance (TA) on construction techniques, contract management, and basic financial literacy. The direct housing support was to be paired with one or multiple



micro-credits from microfinance institutions, social housing developers, cooperatives, or multiple purpose financing institutions (*Sociedades Financieras de Objeto Múltiple*). Beneficiaries were also to contribute their own savings, either in kind or through their own labor. This component was to reach informal sector workers who were not eligible to receive mortgage loans from INFONAVIT. Selected housing units were to comply with minimum quality and environmental requirements, be in an authorized area under the Urban Development Plan, and not be located in risk-prone areas. In the 2020 restructuring, US\$15.7 million from component 1 and US\$1.0 million from component 3 increased the allocation for this component.

3. Strengthening Urban Management (US\$1.0 million at appraisal; revised to US\$0 at restructuring, US\$0 actual). This component was to finance technical studies to inform urban planning instruments to accompany the other two components. Activities were to include technical and analytical studies to formulate municipal urban planning instruments, such as (i) housing demand, (ii) infrastructure requirements for urban master planning, (iii) prefeasibility studies, (iv) urban architectural design studies, and (v) financial structures for affordable housing investments. In addition, this component was to finance citizen awareness campaigns and other dissemination/communication activities. In the 2020 restructuring (see Dates below) the allocation for this component was transferred to Component 2 above because the government preferred to strengthen its targeting of low income beneficiaries. CONAVI financed this component using their own funds and received technical assistance from the World Bank funded by the Korea Green Growth Trust Fund (KGGTF) and the Energy Sector Management Assistance Program (ESMAP).

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project Cost: The original total project cost was US\$100 million. The loan disbursed US\$99.9 million.

Financing: The International Bank for Reconstruction and Development fully financed this loan.

Borrower Contribution: None

Dates and Restructurings: The loan was approved on June 14, 2017 and made effective on December 8, 2017. The Mid Term Review (MTR) was undertaken on January 21, 2020. The original closing date was on May 31, 2021 but was extended by 3 months to close on August 31, 2021. There were two level 2 restructurings:

- On April 13, 2020 to introduce changes to the Results Framework following the reallocation of resources from components 1 and 3 to component 2 (see above). These changes reflected the housing policy priorities of the incoming administration. A new federal administration took office in December 2018 with a social policy objective to help the poor and vulnerable groups. While the previous administration used the CONAVI housing support program to influence urban policy by offering incentives that would move toward sustainable urban development patterns, the incoming administration used the housing program to better target the informal sector workers, the poor, and vulnerable groups. The policy shift increased support for self-production processes and to low-income households who did not benefit from housing provident funds like INFONAVIT. Errors identified in the PAD were corrected and targets were adjusted to complement the reallocated funds.
- On May 12, 2021 to extend the loan closing date by three months, from May 31 to August 31, 2021 and disburse the remaining funds.



Split Rating: No split rating of the project outcome was made. The PDO remained unchanged throughout project implementation. The reallocation of resources and target values of outcome indicators were commensurate to the resources transferred and did not affect the Theory of Change of the PDO.

3. Relevance of Objectives

Rationale

Country Context: Mexico adopted the housing sector as key to reduce poverty and foster economic growth. The country has a legal and regulatory framework in place to produce standardized houses to respond to market demand. Housing finance expanded with the National Workers' Housing Fund Institute (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores*, or INFONAVIT) meeting the needs of the formal sector or salaried ('affiliated') workers. Housing stock increased. Approximately 9 million housing units were added to the housing stock between 2000 and 2014. Household formation increased just as housing stock increased so that the housing deficit remained at an estimated 9 million units or 30 percent of the housing stock between 2000 and 2017. Private housing markets met the housing needs of middle income residents but not those of lower income people. Most poor people relied upon home improvement and self-production of housing units for their housing needs but with limited to no support. Many poor households were unable to afford acceptable habitation because of this lack of adequate affordable housing.

According to PAD (paragraphs 9,10), in 2013 the Government launched a new Housing and Urban Policy promoting compact and sustainable cities, and the National Housing Commission (CONAVI) introduced location into the Program eligibility criteria to discourage low-density urban expansion. While the Program successfully incentivized housing production, most of the new units were built in the outskirts of cities with minimal urban services and infrastructure, leading to unsustainable, leap-frog urban expansion. In 2013, CONAVI incorporated location into the criteria for allocation differentiating the direct support amounts by location according to different zones (*contornos*), with higher direct supports for "well-located" housing, defined in urban areas with high employment density and with access to basic services. Despite the location adjustments, in 2014 only 3.2 percent of direct supports were allocated to units in core central areas and 17.9 percent to areas already fully serviced by infrastructure networks. Additionally, informal workers experience higher affordability constraints with respect to the formal beneficiaries of the same income group. Consequently, CONAVI adjusted the Program focus to prioritize low-income and informal households and is in the process of identifying lenders who are eager to work with these population segments, as well as other traditionally excluded sectors such as women, disabled, and youth. The 2019 National Housing Law introduced institutional modifications to the sector. All urban and housing policy competencies were now under the remit of the Ministry for Agrarian, Territorial, and Urban Development (*Secretaría de Desarrollo Agrario, Territorial y Urbano*, or SEDATU). This new housing policy reduced CONAVI's federal direct housing supports linked to mortgage loans issued by a federal housing fund and was instead directed to prioritize housing support modalities to better target poor families not eligible for housing finance provided by INFONAVIT. Most target beneficiary families relied on self-production of their homes.

Country Plans: The Project was substantially relevant to the new sector strategies of the government and its National Development Plan for 2019–2024. This plan prioritized better targeting of housing programs to the poorest. The Sector Strategy for Agrarian, Territorial, and Urban Development (*Programa Sectorial de*



Desarrollo Agrario, Territorial y Urbano) 2020–2024 and the National Housing Program (*Programa Nacional de Vivienda*) 2021–2024 also focused on housing support for the most vulnerable populations and support municipalities and states with the highest housing stock deficit. New and more expansive standards for adequate housing were adopted. The project was aligned to the new administration's commitment to the New Urban Agenda and the Declaration of the United Nations Conference on Housing and Sustainable Urban Development (HABITAT III) signed in Quito, Ecuador, in October 2016.

During the COVID-19 pandemic, the PDO and the project contributed to the government's emergency response strategy. Poor or lack of housing was a major factor in the government's COVID-19 response strategy. Economic revival included significant public investment in the housing sector with impact on employment generation and increased economic activity in construction and real estate services. Housing was a central tool to prevent the spread of the disease by improving living conditions. Arresting the spread of COVID-19 meant staying home, keeping people socially distant, and providing continuing access to services. The 2020 restructuring (see Dates above) allowed the government's COVID19 response strategy to expand its housing support for the poorest households. The PDO was also relevant in the design of CONAVI's Social Housing Program that followed the 'World Bank Group's COVID-19 Crisis Response Approach Paper: Saving Lives, Scaling-Up Impact and Getting Back on Track. The PDO was directly relevant to meeting the objective of Pillar 2: "Protecting Poor and Vulnerable People" (see below).

World Bank Country Partnership Framework: The PDO was substantially relevant to the Country Partnership Framework (CPF) for Mexico for 2020-2025 (Report No. 137429-MX). The PDO contributed toward achieving Focus Area C: "Enabling sustainable infrastructure and climate action" and Objective 6: "Provide more inclusive and sustainable infrastructure services." The 2020 restructuring strengthened the relevance of the PDO by expanding support to the most vulnerable, non-affiliated households of communities in remote regions of the south and southeast. The changes were in line with one of two cross-cutting themes of the CPF- reducing regional inequalities across the country, with a focus on the south.

World Bank Experience in the Country and in the Sector: Between 2001 and 2012, three development policy loans (DPLs) were implemented to support housing and urban development reforms (P070371, P089852 and P101342). These loans focused on affordable housing and reducing urban poverty. The International Finance Corporation (IFC) also provided support to stabilize the mortgage market by injecting liquidity in the sector. Attempts were made to introduce products for lower-income segments. Under the Mexico Urban and Housing Programmatic Approach (P147899), the World Bank prepared (i) the Mexico Urbanization Review Report (P133243) and (ii) the Reimbursable Advisory Services (RAS) on Housing Policy and Financing (P150380). CONAVI implemented the recommendations to improve the design and operability of its housing investment support program. The following recommendations formed part of CONAVI's Operational Rules (OR): (i) adjustment of the parameters to strengthen the support provided for self-producers and the informal sector; (ii) diversifying available housing solutions to support the acquisition of new or existing units, home improvement, self-productions; and (iii) the purchase of serviced plots (ICR, footnote 6). The PDO was also aligned with the the World Bank Group's COVID-19 Crisis Response Approach Paper: Saving Lives, Scaling-Up Impact and Getting Back on Track. The PDO was relevant to the meeting the objective of Pillar 2: "Protecting Poor and Vulnerable People." When the incoming government transferred urban housing policy responsibilities from CONAVI to SEDATU, in 2019, the World Bank began engaging directly with SEDATU to strengthen urban management and urban sector policy in the country and provided technical assistance to the elaboration of the National Housing Program (*Programa Nacional de Vivienda*) 2021–2024 and SEDATU's Sector Program for Agrarian, Territorial, and Urban Development (*Programa Sectorial de Desarrollo Agrario, Territorial y Urbano*) 2020–2024. SEDATU



implemented these activities with World Bank TA support outside of this project. These activities formed part of component 3. Relevant policy advice in the housing and urban sector also informed the Environmental Sustainability and Urban Resilience Development Policy Financing (P174000), which contributed to achieving Pillar 2: Expanding Access to Resilient Urban Infrastructure and Social Housing of the World Bank's CPF by working with SEDATU in implementing the National Upgrading Program under a new operation under preparation.

Overall, the PDO was highly relevant to the country's plans to address challenges in reaching poor and vulnerable groups who lack access to the products offered in the formal housing finance market. The project targeted low-income populations and informal sector workers by applying location criteria for direct housing support allocation. The objective was also aligned with the World Bank partnership framework for assisting Mexico in the sector.

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To increase access to affordable housing for low-income beneficiaries.

Rationale

Theory of Change: The PAD did not include a Theory of Change (ToC) but the Results Framework (PAD, Section VII) showed the logical causal link between inputs and outputs and expected outcomes of the project. The PAD results framework identified four original PDO outcome indicators. The ICR provided a ToC (ICR, Figure 1). **Inputs** were to be facilitated by three components that were to include resources to directly acquire housing units, or support self-production to implement CONAVI's "Access to Financing for Housing Solutions ." Technical assistance inputs were to be directed at self-support housing production and design tools and mechanisms to increase inner city housing. Beneficiaries were to have direct control over the design and construction of the inputs. **Outputs** were reasonably linked to housing units produced for low income people. Units were to be well located, adequate, and affordable. The housing support inputs were to allow the informal sector workers to build or improve their houses themselves with higher quality improved energy efficiency, and resilient to the impacts of climate change. **Outcome** was to be the increased access to affordable housing by low income beneficiaries, including the number of direct beneficiaries and female beneficiaries and the number of cities that have undertaken steps to increase the density or relieve regulatory bottlenecks for affordable housing provision. This latter indicator was to be dropped with the reallocation of resources from components 3 to 2. Note that the outcome indicators were more at the output rather than at an outcome level. No other indicators formed part of the ToC but were acknowledged under Other Outcomes and Impacts.



The 2020 restructuring increased the allocation for direct support to low income housing and dropped the technical assistance for urban management. This change was to correspond to new government housing sector priority (see Section 8 Bank Performance at Supervision below). SEDATU was to be responsible for all urban policy competencies associated with technical assistance inputs. CONAVI was to self-finance urban management technical assistance component supplemented by resources from the World Bank's Korea Green Growth Trust Fund (KGGTF) and the Energy Sector Management Assistance Program (ESMAP). The corresponding PDO-indicator "Number of cities that take concrete steps or actions to increase density or relieve regulatory bottlenecks for affordable housing provision" was dropped but the technical studies to inform urban planning instruments planned under Component 3, were to be supported instead by the World Bank through KGGTF, and ESMAP. Dropping this PDO outcome indicator did not alter the ToC.

For the PDO to have a greater likelihood of being achieved, the ToC identified two critical assumptions:(i) having resources and commitment to maintain the financial and technical support for the project, and (ii) that knowledge gained from the technical assistance delivered would be sustained. These assumptions were borne out at implementation leading to the achievement of the expected outcomes.

OUTPUTS:

- CONAVI developed and implemented a web-based empowerment system for beneficiaries to facilitate their access to housing programs, achieving target. This was complemented by a call center and the use of social media like Facebook, twitter and WhatsApp.
- A community dissemination campaign targeting indigenous populations was designed and implemented, achieving target. CONAVI developed radio jingles in collaboration with SEDATU and the National Institute of Indigenous People (INPI) to reach indigenous communities and facilitate their access to the housing programs. Since October 2019, these radio jingles were transmitted through community radio stations in six different indigenous languages, most prominently in Oaxaca and Chiapas.
- CONAVI carried out a training program targeted at CONAVI technical staff, technical assistance providers and Works Executing Agency (*Organismo Ejecutor de Obra* or OEOs). All technical assistance providers and implementing partners of CONAVI ("Prestadores de Servicio") completed a training program ("*Fomacion de Inducion*") that focused on the main operational, administrative, technical as well as social aspects of the program. CONAVI organized 87 training workshops (substantially exceeding the target of 5) that included dedicated modules on participatory design, traditional architecture and culturally sensitive practices. During the COVID-19 pandemic, CONAVI continued offering the trainings in a virtual format. CONAVI also worked with the Bank team to strengthen capacity in participatory design and culturally adequate communication and dissemination strategies, in the context of the technical assistance provided for the incorporation of sustainability aspects in housing programs (the original definition of this indicator was "training workshops carried out on: construction best practices; workers safety and security; local and culturally adequate design; and/or participatory planning, especially towards women and indigenous peoples).
- The project's technical assistance supported CONAVI in the production of a series of manuals for self builders, technical assistants and OEOs to promote resilient and energy-efficient construction



methods, the use of sustainable materials, and the installation of energy-efficient appliances among beneficiaries of component 2.

- With regard to technical studies under Component 3, relevant activities were carried out by CONAVI with its own resources, some of which received TA from the World Bank funded by KGGTF and ESMAP. This included (i) a technical report prepared in collaboration with the Municipality of Merida to identify the necessary regulatory changes and financing structures needed to make inner-city affordable housing feasible, and (ii) the development of the 'Metropolitan Profile Tool', a practical tool for municipal governments to model future urban expansion scenarios depending on different policy measures. When CONAVI transferred its responsibilities to SEDATU, the ICR (para 25) reports that the World Bank engaged with SEDATU to strengthen urban management and urban sector policy in the country and provided technical assistance to the elaboration of the National Housing Program (Programa Nacional de Vivienda) 2021–2024 and SEDATU's Sector Program for Agrarian, Territorial, and Urban Development (Programa Sectorial de Desarrollo Agrario, Territorial y Urbano) 2020–2024.

OUTCOMES: Through the project, low income beneficiaries increased their access to affordable housing. The PDO-defined outcome indicators were exceeded.

- 28,864 direct housing supports were allocated to low-income beneficiaries (target, 28,700; target **exceeded**). The description of the indicator was revised to remove the reference to U1 and U2 *contornos*, since this indicator was originally defined as including all the direct housing supports to be disbursed under Components 1 and 2. The allocation of support under Component 2 was not limited to U1 and U2 *contornos*. In the 2020 restructuring, this indicator was clarified to measure housing purchase, expansion, and home improvements. Although the PAD defined the maximum income threshold for beneficiaries under the Project at 4 UMs in 2018, this was adjusted in the Project Operations Manual (POM) to 5 UMAs to ensure full alignment with CONAVI's Operational Rules and to ensure the project would reach the poorest. Both the PAD and the Financing Agreement allowed for the flexibility to adjust income thresholds and housing support amounts of the project "pursuant to the criteria and procedures established in the POM." For 2021, one UMA is equivalent to MX\$89.62 (i.e., US\$4.4)(ICR, footnote 15).
- 28,864 direct beneficiaries (target 28,700, target **exceeded**), 70 percent (target 50 percent, target exceeded) of direct beneficiaries were below the 2.6 UMAs.
- About 52 percent of direct beneficiaries who received direct housing support from CONAVI were women (the target was 50 percent). About 59 percent of the beneficiaries of direct housing support under Component 2 (self-production), which targeted informal sector workers, were women (no target) (ICR, paragraph 36). The ICR further reports that this is particularly important as in Mexico, only 18.8 percent of homes are owned by women. Only 17.5 percent of working age women (26.5 percent of men) have access to housing finance. Women predominate the informal sector workers, but only 9.5 percent of women (13.5 percent of men) have access to financing—including through informal financing channels—to buy, repair, or expand their homes.
- 64 percent of beneficiaries were from the informal sector (original target 5 percent, increased at the 2020 restructuring to 60 percent, target **exceeded**). The PAD defined this as "Percentage of direct housing supports to informal (non-affiliated) beneficiaries." The 2020 restructuring clarified two things about this indicator: (i) the 5 percent target was a typographical error that should have read 50



percent; and (ii) target was revised upwards to 60 percent to include beneficiaries under components 1 and 2 who were not affiliated to a housing provident fund INFONAVIT, the Housing Fund of the Institute of Social Security and Services of Government Employees (*Fondo de la Vivienda del Instituto de Seguridad Social y Servicios Sociales de los Trabajadores del Estado*, or FOVISSSTE) or the Social Security Institute of the Armed Forces of Mexico (*Instituto de Seguridad Social de las Fuerzas Armadas de México*, or ISSFAM). All component 2 beneficiaries were non-affiliated workers.

- The indicator "number of cities that take concrete steps and actions to increase the density or relieve regulatory bottlenecks for affordable housing provision" was dropped after the 2020 restructuring. The technical assistance inputs associated with this outcome indicator were to be financed outside of this project. However, the ICR does not report whether the studies were completed.

All target outcome indicators were achieved or exceeded even as the indicators themselves were more at an output rather than at the outcome level. Other outcomes and impacts were described to supplement this lack of indicators. For example, low levels of interest charges for housing loans linked to CONAVI's direct support empowered social housing cooperatives and savings banks that specialize in supporting this lower income segment (ICR, paragraph 48). The impact of the project interventions on poverty reduction was also described, albeit without supporting data and not monitored.

Rating
Substantial

OVERALL EFFICACY

Rationale

The overall efficacy of the project to achieve the singular objective is rated Substantial.

Overall Efficacy Rating

Substantial

5. Efficiency

Efficiency: At appraisal, a cost-benefit analysis was conducted for the two components using a "with" and "without" direct support scenarios. The overall project yield generated an Internal Rate of Return (IRR) of 30 percent with benefits estimated at US\$122 million, using a 5 percent discount rate (PAD, Annex 4). Sensitivity analysis considered a 70 percent reduction in wealth impact or benefits delayed for 6 years and results continued to show positive results. Benefits included government savings on infrastructure costs (roads, public lighting, water and sewerage network construction), household savings on transport costs and travel time. Substantial savings increased when 30 percent of beneficiaries were assumed to move to better locations. Cost savings associated with improved health from issues associated with poor construction materials,



deteriorating homes, reduced greenhouse gases (GHG) due to decreased energy consumption and vehicle-miles travelled were not included in estimating project benefits (PAD, Annex 4, paragraph 6).

At closing, the same cost benefit methodology used at appraisal generated an IRR of 95.7 percent with benefits estimated at US\$109 million using a 10 percent discount rate. The assumptions used at closing were more conservative than those used at appraisal because of a lack of data. The IRR at closing was three times than the estimate at appraisal because of three factors:(i) the estimated benefits and net benefits from self production were twice those estimated at appraisal; (ii) there were no estimated net benefits from house improvements at appraisal; and (iii) the cost of new or used houses were 0.7 percent of the estimate used at appraisal. The ICR reported that analysis at closing did not include benefits such as the reduced vulnerability to diseases, improvement in overall health of the targeted population, the impact on gender equality, climate benefits, and reduced poverty (ICR, paragraph 42 and Annex 4, paragraph 3). Improvements in housing conditions and access to housing rights reflected reduced poverty and were verified through official household survey data. Official data was also used to calculate the average value increase of a 'low-cost' home ('vivienda económica' per CONAVI category). The financial costs of mortgages were checked with different commercial banks.

Administrative and Operational Efficiency The project design was implemented with minor modifications to consider the newly elected incoming government's policy to intensify the targeting of housing support efforts for low income households. The Project was approved in the last year of the 2012-2018 government administration. A new government administration was then elected. Minor delays and adjustments in activities were experienced during the transition to a new administration, which led to the 2020 restructuring. The Project Operations Manual maintained throughout implementation, featured prioritization criteria to target the most vulnerable population as eligible beneficiaries according to the CONAVI OR. This flexibility was effectively used with the changes introduced in the 2020 restructuring. The project loan closing date was extended by three-months to disburse the remaining 6 percent of the loan.

Overall, the project achieved substantial project efficiency. The economic efficiency analysis showed that the project is economically viable. The project disbursed almost 100 percent of the loan with only a 3 month extension.

Efficiency Rating

Substantial

- a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	30.00	97.80 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	95.70	97.70 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.



6. Outcome

The relevance of objective is rated high. The efficacy of the project to achieve the sole objective is rated substantial. The efficiency of the project is rated Substantial. Based on these ratings, the overall outcome is rated Satisfactory.

a. Outcome Rating

Satisfactory

7. Risk to Development Outcome

The following pose some risk to the development outcomes:

- **Government Commitment:** This is a low risk. Government commitment appears strong. Design and allocation of resources considered the incoming administration's prioritization of targeting the underserved low income beneficiaries to access affordable housing. The government made changes to the institutional set up so that CONAVI would continue to implement its Social Housing Program. The government also launched in 2020 the Self-Production Platform (*Plataforma de Autoproducción Decide y Construye*) to disseminate technical expertise and best practices in the housing sector (ICR, paragraph 46).
- **Institutional Risk.** This is a low risk. The government created and reconfigured the institutions involved in the housing sector. SEDATU was created while CONAVI continued to prioritize its efforts on low income housing. CONAVI too, has access to a roster of approximately 900 well-trained and certified service providers (technical assistants and OEOs). This cadre of professionals are expected to ensure that technical standards are maintained and the program remains operable. At closing, CONAVI and the World Bank were discussing a potential new operation to support the Social Housing Program and design more ambitious interventions in targeting the most vulnerable population.
- **COVID19 and the impact of the war in Ukraine:** These are medium risks. COVID19 continues its spread around the world and the negative impact of the war in Ukraine in productive and financial sectors will be felt around the globe for some time to come.

8. Assessment of Bank Performance

a. Quality-at-Entry

The project design was to support CONAVI in implementing its "Access to Financing for Housing Solutions Program." Parameters were flexible and adjustable (e.g., income threshold, direct housing support amounts) according to the CONAVI Operating Rules (OR). Any change were to be included in the Project Operations Manual (POM) against the 'no objection' of the Task Team Leader (TTL). The project design was informed by the World Bank's experience and lessons learned from over two decades of engagement with Mexico in the housing and urban sectors. Among the lessons that were incorporated



into design were the adjustment of program conditions, diversifying housing solutions, and working with municipalities to address regulations that may disrupt the housing supply chain (PAD, paragraph 29). In addition, an Investment Project Financing instrument was to be used with investments to address technical issues; precise targeting of the poor would be adopted; a well-defined Monitoring and Evaluation (M&E) system to be implemented; and a sustained commitment of an implementing agency expected (ICR, paragraph 51). The appraisal team was reported to be knowledgeable in the Mexican housing finance sector. Prior analytical work also informed appraisal. The project design also included IEG's recommendations in its 2016 review of the World Bank's housing portfolio such as (i) housing options according to market segments; (ii) leveraging offerings made by commercial and non-bank financial institutions to bundle mortgages that include direct support and beneficiary contributions; and (iii) segmenting the market to adequately reflect portfolio performance (PAD, paragraph 30). CONAVI incorporated some of the recommendations from the prior World Bank-financed projects and analytical works (see Section 3 Relevance of Objective above) in annually adjusting its Operating Rules (OR) in 2017.

The PDO was well formulated. The Results Framework provided the M&E indicators with minor modification during implementation (see Section 9 M&E below). The design proved agile in its response to government policy shifts. The Operations Manual established prioritization criteria for both beneficiaries and geographic areas according to CONAVI's Operational Rules (OR). The team assessed safeguards and fiduciary arrangements and compliance risk adequately, informed by the experience under the previous Bank-financed projects (see Section 10 Other Issues below). Fiduciary risks were rated Substantial at appraisal, matched by adequate mitigation measures. Design included capacity-building and training to strengthen local and regional microfinance and housing assistance providers. Implementation arrangements built on the effective existing ecosystem of housing support providers.

Overall, the quality of Bank performance at entry is rated Satisfactory. The design was strategically relevant and the approach proved nimble to shifts in government policy. Technical, financial, and economic aspects were adequately assessed, including risks in complying with environmental and social safeguards, institutional, and implementation. Readiness to implement took advantage of the preceding engagement in the sector. The design built on an ongoing program with existing implementation arrangements to reflect readiness to implement. There was a strong focus on M&E to ensure that the project interventions would establish strong links to development outcomes (see Section 9, M&E Design below) although the selected indicators were more at output rather than outcome level. This lack of outcome indicators was a minor drawback that was not addressed at entry (or at supervision below). Nevertheless, the quality of entry is rated Satisfactory with minor shortcomings.

Quality-at-Entry Rating

Satisfactory

b. Quality of supervision

The Bank team conducted 8 supervision missions over the 4 year implementation period. Additional missions were conducted after the new administration took office in 2018. The supervision team included fiduciary management and environmental and social safeguards specialists. After the government transition, the task team delivered safeguards management training to new CONAVI staff. Task team leadership was maintained continuously with one change in 2019, the same time that CONAVI experienced



high staff turnover as the new administration was installed and policy changes introduced (ICR, paragraph 54). The task team conducted virtual oversight missions from early 2020 due to COVID19 travel restrictions. The January 2020 MTR included participatory workshops with CONAVI and other sub-project activity implementing agencies, and field trips to beneficiaries. Additional analytical work was prepared for the MTR. MTR findings informed the 2020 restructuring which reallocated resources from component 3 to components 1 and 2 in response to shifts in government priorities. The changes did not affect the achievement of the PDO and even reinforced the sustainability of the development outcomes achieved. Implementation Status and Results Reports (ISRs) were reported to have identified issues requiring corrective measures, such as the delayed submission of the ex-post evaluation of safeguards performance due to the change in CONAVI's operational personnel in late 2018. CONAVI submitted a revised ex-post safeguards assessment in August 2020 detailing the positive impacts from promoting housing-related ecotechnologies, the results of field visits to collect primary beneficiary information, and a response matrix to the World Bank's comments. The World Bank team is currently working with CONAVI on a new housing operation, provided technical advice and assistance in the drafting of the New Housing Law 2019, and helped develop the National Housing Program 2021–2024.

At supervision, the task team leader approved two revisions in the POM to reflect the income threshold for beneficiaries of direct housing support: (i) to decrease the threshold under Component 1 from 4 to 2.8 UMA_s, equivalent to the extreme poverty line in 2018, and (ii) to increase the threshold under Component 2 from 4 to 5 UMA_s in 2018 (equivalent to the poverty line). In addition, changes to the POM stipulated that the housing support under component 2 could be allocated using two modalities: (i) complementary investment activities by an executing entity, plus CONAVI housing support, and beneficiaries' savings, and (ii) microloan allocated by an executing entity, plus CONAVI housing support, and beneficiaries' savings. The ICR noted that the task team secured technical assistance funds to support CONAVI in strengthening urban management (from the Energy Sector Management Assistance Program or ESMAP I), promote inner-city affordable housing (from the Korea Green Growth Trust Fund or KGGTF), and scale up the incorporation of resource and energy efficiency elements in the self-production of housing (ESMAP II). The ICR did not report that these studies were completed although the ESMAP website did report the completion of "Design of Energy Efficient Subsidy Program for Low-Income Housing in Mexico" in December 2021. There is no KGGTF website to indicate similar information. These would have indicated the financing of Component 3 that would have achieved the dropped outcome indicator.

Overall, Bank performance at supervision is rated Satisfactory with minor shortcoming. The task team adequately supported the implementing entity during the transition to the new administration, supporting the restructuring for improved achievement of the project objectives along the new priorities and policies of the incoming administration. The task team also offered corrective measures to improve compliance and performance. A minor drawback was that the lack of indicators noted at entry that remained unaddressed at supervision.

Overall, the bank performance at entry and supervision is rated Satisfactory with minor shortcoming. At entry, the project was designed with clear objective, realistic expectations built on analysis, and sufficient flexibility to allow for policy shifts. without significant effect on the PDO. At supervision, the World Bank guided CONAVI to effectively navigate policy changes. The minor drawback is related to the lack of outcome indicators that remained unaddressed at entry and at supervision.



Quality of Supervision Rating

Satisfactory

Overall Bank Performance Rating

Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The PDO was clear, targeting low income beneficiaries. The Theory of Change documented the key activities and outputs that would achieve the development outcome. The indicators were specific, measurable, and attributable to the project interventions although defined at the output level (number of beneficiaries). The indicator value for "direct beneficiaries" and "direct housing supports were allocated to low-income beneficiaries" was the same. Nevertheless, the indicators could reasonably show that the number of beneficiaries referred to the increase in affordable housing stock made available to low-income beneficiaries. The outcome indicator was disaggregated to capture vulnerable sectors, such as women (but unclear if these were women headed households or women members of the beneficiary households) and those from the informal sector (non-affiliated) workers). M&E was designed to form part of the CONAVI M&E system, assuring continuity after project closing.

The ICR acknowledged that a useful outcome indicator, such as "Number of low-income beneficiaries with improved access to affordable housing" may have improved the Results Framework. Note, however, that this is more of an output rather than an outcome level indicator. Other useful outcomes were described elsewhere in the ICR (paragraphs 46-49) to supplement this lack of indicators. Useful indicators could have reported on the macroeconomic impact of low level interest rate charges to the overall market interest rate, the share of the low income housing stock to the overall stock delivered by the different housing finance institutions, the impact on affordability that would have led to increase in disposable income, productive economic activities, or the impact on poverty reduction.

b. M&E Implementation

CONAVI implemented the M&E as designed. CONAVI collected data on direct supports and characteristics of beneficiary households, and made the information available for further analysis, M&E, and reporting requirements. M&E reports tracked progress implementation CONAVI addressed gaps in reporting indicators and issues such as those on safeguards implementation, in subsequent reports. The Government provided supplemental quantitative and qualitative results to measure additional impacts. M&E data was sourced from CONAVI, the Housing Registry (*Registro Único de Vivienda*), and the National Housing Information System (*Sistema Nacional de Información e Indicadores de Vivienda*). Errors in the Results Framework (see Section 4 Efficacy above) such as a typographical error in the target (5 vs. 50 percent) and definition of the outcome Indicator ("Percentage of beneficiaries from the informal sector") were clarified at the 2020 restructuring CONAVI prepared a comprehensive midterm report for the January 2020 MTR mission.



c. M&E Utilization

M&E data on performance and results progress informed project management and decision-making.

The MTR recommended clarifications to target values and definitions of indicators in the Results Framework. The 2020 restructuring adopted these recommended changes including reallocation of resource, increased target values to reflect scaled-up activities and corrected minor errors.

The overall quality of M&E is rated Substantial with minor shortcomings. The M&E system as designed and implemented was sufficient to inform the achievement of the objectives although with minor drawback noted in the lack of additional indicators that could have captured the development outcome of the project interventions.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

Environmental and Social Safeguards: The project was classified as Category "B" under the Bank's Environmental Assessment Policy (OP/BP 4.01). Environmental risks and impacts were anticipated to be local, short-term, and easily mitigated. In addition to OP/BP 4.01, the project triggered Indigenous Peoples (OP/BP 4.10) because residents of the target area and targeted beneficiaries included Indigenous Peoples. According to the ICR, the project complied with the Bank environmental and social safeguard policies (ICR, paragraph 65). Mexico prepared an Environmental and Social Management Framework (ESMF) and an Indigenous Peoples Plan (IPP). These plans outlined the necessary environmental and social good practices. The IPP outlined culturally appropriate communications action plans and capacity-building activities for relevant actors that accompany beneficiaries during the construction process (ICR, paragraph 67). The FA stipulated an ex-post safeguards evaluation 12 months after closing (August 31, 2022) to take stock of the safeguards performance of the project and identify any corrective measures, as needed. One was prepared at midterm but was re-submitted in August 2020 with details of the positive impacts from promoting housing-related ecotechnologies, the results of field visits to collect primary beneficiary information, and a response matrix to the World Bank's comments (see Section 8 Assessment of CONAVI implemented the IPP). They conducted trainings that were delivered in local languages to more than 3,800 technical staff of the Works Executing Agency (*Organismo Ejecutor de Obra* or OEOs) as well as beneficiaries. These training programs used nontechnical language, and covered participatory housing design, housing adequacy, and the use of local, traditional material and design. CONAVI developed radio jingles in collaboration with SEDATU and the National Institute of Indigenous Peoples (INPI) to target indigenous communities and facilitate their access to CONAVI's housing programs. By 2020, the radio jingles in 23 languages had reached 843 municipalities. CONAVI also used social media, the web, the telephone, and other channels to receive questions and complaints on CONAVI's programs. CONAVI received and investigated three complaints. Two were judged invalid because the complainant was not a program beneficiary. The third complaint, about an unfinished housing construction but was not financed under the project, was addressed by CONAVI (ICR, paragraph 67, footnote 32).

CONAVI promoted the use of ecotechnologies under self-production of housing units. Until 2019, units completed under Component 2 were given higher investments when energy efficient appliances and



passive design were included. In 2020, CONAVI made ecotechnologies mandatory in housing design by allocating 10 percent of the housing support to financing specific sustainability measures. In 2021, CONAVI instituted a baseline requirement that all housing interventions financed under the project needed to comply with energy efficiency and design. This requirement incorporated more affordable features and energy-efficiency measures (e.g., energy-efficient lightning, efficient faucets and toilets, energy-efficient heating, roof insulation, and passive cooling) in housing design and construction. This signified an increase in the environmental ambition of the Social Housing Program. .

b. Fiduciary Compliance

Financial Management: CONAVI had qualified staff to ensure compliance with financial management requirements. Unaudited interim financial reports were submitted to the World Bank in time. Financial and disbursement monitoring was reported to have been conducted in a timely manner. Audited financial statements were submitted to the World Bank in time and included unmodified (clean) opinions. No findings were reported by the independent auditor. The last audit report covered the period January 1, 2020, to August 31, 2021 (closing period) had not been submitted to the World Bank and was due by February 28, 2022 (ICR, paragraph 64).

Procurement Component 1 did not include procurable activities. Self-production activities under Component 2 were reported to be executed satisfactorily using commercial practices. The Bank considered these acceptable. TA activities expected to be financed by the project under Component 3 were not conducted due to the reallocation of resources to component 2 as explained earlier. At closing, there were no pending procurement activities.(ICR, paragraph 63).

c. Unintended impacts (Positive or Negative)

d. Other

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Satisfactory	
Bank Performance	Satisfactory	Satisfactory	
Quality of M&E	Substantial	Substantial	
Quality of ICR	---	Substantial	



12. Lessons

The ICR presented 5 lessons from the operations that task teams may consider when designing future similar projects in middle income countries like Mexico: (ICR, paragraphs 80 - 84). Four of these are below, slightly modified:

- **A clear definition of the value added offered by the World Bank's assistance may help countries that have strong housing sector institutions.** In this project, contributions to the existing institutions and programs were (i) offering solutions to last-mile challenges facing disadvantaged population groups previously excluded from receiving housing assistance; and (ii) optimizing benefits to climate, gender, and citizen engagement. The project built on the country's strong institutions and took advantage of the government's interest to do more for the target population. The government commitment gave the project team the signal to innovate and experiment for incorporating environmentally-friendly features of affordable low income housing.
- **High quality technical and analytical work may strengthen a flexible design.** In this project, existing housing sector institutions, an operational framework in place, and the government commitment to low income housing facilitated implementation. The Bank team complemented these advantages by conducting substantive analytical work before and during preparation to help CONAVI calibrate the design of its housing program to reach previously excluded groups. The analytical work informed the annual adjustment of the Operating Rules of the CONAVI Social Housing Program, including before appraisal. Technical assistance also provided strategic narratives to innovate on features of the low income housing interventions. Including housing design features that promoted energy efficiency, resilience, and sustainability in self-produced homes also increased the government's collection of useful features to strengthen sector programs such as the National Housing Program 2021–2024.
- **Sector support where sophisticated housing markets are in place may find added value by targeting low income housing needs.** In this project, market-based housing finance was available to most middle-income people. The poorer segment is usually characterized by a lack of access to basic banking services, much less to mortgages or housing finance products. The project demonstrated that innovative interventions may be tied to products of the formal housing finance markets to reach excluded groups of low income households, including informal sector workers and those relying on self-production. The innovation may feature easing the regulatory environment to enjoin participation by local organizations, such as nongovernmental organizations, saving banks, and cooperatives in providing housing finance related services. Microloans and specialized technical assistance may be used to complement the allocation of federal direct housing supports to increase access to housing finance and ensure the appropriate use of resources and housing quality.
- **The building and housing sector projects may benefit from incorporating climate change mitigation and adaptation features in houses supported by public programs.** The building and housing sector contributes up to 40 percent of global Green House Gas (GHG) emissions and energy use. In this project, homes were designed to maximize energy



efficiency gains, reduce emissions, and resilience to climate impacts and natural hazards. These features could significantly contribute to low-carbon, resilient future. Climate change poses threats to poor people living in precarious, overcrowded homes, built with inadequate materials. This segment of the population usually lack technical expertise, and further expose them to adverse climate and health impacts caused by water leaks, poor ventilation, overheating, and dirt floors. The project showed that incorporating sustainability measures in housing design and construction reduced energy consumption and emissions, reduced electricity bills, and led to greater indoor temperature comfort. The TA in this project helped build technical capacities to apply sustainable housing solutions for self-builders (under Component 2) and provided data to measure impact.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR provided a detailed overview of the operations. Various parts of the report were adequately linked, logically integrated, and mutually reinforcing. Candid assessment of the lack of outcome indicators was mentioned but the example provided remained at output rather than at outcome level. The changes during implementation was referenced throughout the report. The section on Other Impacts supplemented the lack of outcome indicators in the Results Framework and Theory of Change to support the rating of Efficacy. Annex 4 provided helpful clarification in assessing the economic efficiency although did not provide a clear comparison with the estimates used at appraisal. Lessons were based on project experience, particularly incorporating sustainability measures in housing design and construction to reduce energy consumption and emissions. The ICR was internally consistent and mostly followed OPCS guidelines except for the following: (i) the lack of outcome orientation because the ratings were based on outputs whereas the guidelines indicate that the PDO and their measurement should be keyed to final development outcomes; and (ii) limitation in the quality of analysis due to weakness in the theory of change featuring the limited indicators.

a. Quality of ICR Rating

Substantial

