



1. Project Data

Project ID P168590	Project Name TNHHDP	
Country India	Practice Area(Lead) Urban, Resilience and Land	
L/C/TF Number(s) IBRD-90940	Closing Date (Original) 30-Jun-2025	Total Project Cost (USD) 37,980,787.52
Bank Approval Date 18-May-2020	Closing Date (Actual) 30-Jun-2025	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	50,000,000.00	0.00
Revised Commitment	41,940,000.00	0.00
Actual	37,980,787.52	0.00

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2. Project Objectives and Components

a. Objectives

According to the Financing Agreement (FA, p 5) and the Project Appraisal Document (PAD, Section II, paragraph A), the Project Development Objective (PDO) of this India: Tamil Nadu Housing and Habitat Development Project was: "To strengthen the housing sector institutions of Tamil Nadu for increased and sustainable access to affordable housing."

This review project performance against the objective is parsed into two sub-objectives:



- To strengthen the housing sector institutions of Tamil Nadu for increased access to affordable housing.
- To strengthen the housing sector institutions of Tamil Nadu for sustainable access to affordable housing.

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

Yes

Did the Board approve the revised objectives/key associated outcome targets?

No

c. Will a split evaluation be undertaken?

No

d. Components

The project had **two** components:

1. **Enabling private sector participation in affordable urban housing provision** (US\$57 million consisting of US\$35 million from IBRD and US\$22 million in counterpart financing at appraisal; US\$ 52.80 million actual, consisting of US\$30.80 million from IBRD, and US\$22 million in counterpart financing). This component was to finance equity (or Class B shares) to Tamil Nadu Shelter Fund (TNSF) to develop Special Purpose Vehicles that would leverage equity and debt through public-private partnership (PPP) instruments that would finance affordable housing investments. The equity contribution to TNSF was to reduce the risk to private investors and increase supply of affordable housing. TNSF can invest in commercially viable projects where the expected return may be lower than that provided by the market because affordable housing is included compared to housing projects that exclusively offer high- and middle-income housing. TNSF established a governance framework and eligibility criteria to standardize, pilot, and demonstrate commercially viable affordable housing projects to attract private investors. TNSF would evaluate each proposed project using environmental, social, and governance considerations contained in its Investment Manual (IM). Two projects were in the pipeline at appraisal: a women's hostel and a rental project for industrial workers. After loan effectiveness, the Asian Development Bank (ADB) contributed an additional US\$35 million in equity to TNSF through a separate operation.
2. **Strengthening Tamil Nadu's urban housing institutions for enhanced sustainability** (US\$14.875 million in IBRD funds at appraisal; US\$7.06 million in IBRD funds, actual) This component was to finance technical assistance and capacity building support to Tamil Nadu Slum Clearance Board (TNSCB), Chennai Metropolitan Development Authority (CMDA), and Tamil Nadu Infrastructure Fund Management Corporation (TNIFMC). This component was to finance the development and implementation of tools to diversify housing solutions according to household needs and capacity to pay; roll-out of three sustainability frameworks for government-supported housing programs; strengthening of citizen engagement and grievance redress; and Resident Welfare Associations (RWAs) in tenements to improve operations and maintenance (O&M) mechanisms. This component was to finance analytical studies, institutional strengthening, and geospatial data integration to inform Chennai's Third Master Plan (TMP). This component was also to finance the state government's participation in the Lighthouse India program, a knowledge



exchange program among India's states and between India and other developing countries to share development experience in strengthening the housing sector.

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

Project Cost: The original total project cost was US\$50.0 million including a front-end fee of US\$0.125 million. The loan disbursed US\$37.98 million. The balance was cancelled.

Financing: The International Bank for Reconstruction and Development (IBRD) financed this project.

Borrower Contribution: The government committed and fully disbursed its contribution of US\$22.0 million.

Dates: The Board approved the project on May 18, 2020 and it was made effective on July 23, 2020. The Mid Term Review (MTR) was conducted on February 10, 2023. The project closed as originally planned on June 30, 2025. The following level 2 restructurings occurred:

- On January 9, 2024, to acknowledge the government's name change of TNSCB to Tamil Nadu Urban Habitat Development Board (TNUHDB), added CMDA as one of the implementation entities, and make the following changes to outcome indicators:
 - Outcome indicator 2 was redefined with reduced target because developing an income-based affordability tool to support the outcome proved infeasible. Most target beneficiaries had informal incomes. Self-reported data was unreliable. The target was reduced because the national government's low-income housing program called Pradhan Mantri Awas Yojana-Urban (PMAY-U) stopped approving new projects after March 2022. This meant that targets, which depended on partnering with PMAY-U could not assist qualified eligible households. The indicator was revised from "Proportion of households benefiting from public support screened through an affordability tool" (original target: 80 percent) to "Proportion of households benefited from TNUHDB's housing units informed by a demand and needs assessment" (reduced target: 50 percent). The revised indicator measured the same outcome – that government housing schemes responded to demand.
 - Outcome indicator 3 divided the indicator to three with new targets for each – from "Proportion of TNSCB's Economically Weaker Section (EWS) / Low Income Group (LIG) housing projects adopting the sustainability frameworks" (original target: 70 percent) to:
 - "Proportion of housing projects adopting the Social Sustainability and Governance Management Framework (SSGMF)" (new target: 80 percent)
 - "Proportion of housing projects adopting the Resilient Urban Design Framework (RUDF)" (new target: 95 percent).
 - "Proportion of housing projects adopting the Environmental Management Framework (EMF)" (new target: 95 percent)
 - Outcome indicator 4 with unrevised target – "Number of sectors integrated into CMDA's geospatial information system (GIS) for improved land use planning" – was moved to intermediate level because it was an output not an outcome.
- On January 16, 2025, to cancel US\$8.06 million, due to foreign exchange gains. The Bank fully disbursed the estimated US\$35 million (Indian Rupees 400 crore) equity contribution, but foreign exchange gains required only US\$28 million.



Split Rating: A split rating will not be undertaken. No changes were made to the PDO. Outcome indicators were redefined to better measure achievement and did not change the project's ambition. The project demonstrated reaching the expected outcome with appropriate changes during implementation.

3. Relevance of Objectives

Rationale

Context: Rapid urbanization and uneven access to formal housing have contributed to a persistent housing shortage in Tamil Nadu, particularly for Economically Weaker Section (EWS) and Low-Income Group (LIG) households. Since 1970, the Tamil Nadu Slum Clearance Board (TNSCB) has been the primary provider of affordable housing; however, no state-level institution was mandated to mobilize private investment in the sector. Although nascent affordable housing finance companies began serving lower-income and informal households, they operated alongside heavily subsidized public provision. In response, the state government initiated a housing sector reform program in 2017 to clarify institutional roles, improve planning and regulatory frameworks to expand land availability, and attract private capital through market-enabling instruments. Key reforms included transforming TNSCB into the Tamil Nadu Urban Habitat Development Board (TNUHDB) and establishing the Tamil Nadu Shelter Fund (TNSF), an Alternate Investment Fund regulated by SEBI, to facilitate private sector participation in affordable housing. TNSF is managed by the Tamil Nadu Infrastructure Fund Management Corporation (TNIFMC). Additional reforms focused on improving responsiveness to household needs particularly for women, strengthening environmental and social sustainability, enhancing operation and maintenance practices, and reinforcing grievance redress and citizen engagement mechanisms.

Country Plans: The Project Development Objective (PDO) was well aligned with national and state priorities. At the national level, the Pradhan Mantri Awas Yojana–Urban (PMAY-U), launched in 2015, aimed to expand housing access for EWS and LIG households, including informal workers and first-time borrowers. Although PMAY-U paused new approvals in 2022, it was re-launched as PMAY-U 2.0 in September 2024. At the state level, the Tamil Nadu Affordable Urban Housing and Habitat Policy (2020) and supporting World Bank Development Policy Loans provided a policy and institutional foundation. In FY2025–26, the state committed US\$42.4 million to scale affordable rental public-private partnerships across all districts. The PDO supported this reform agenda by enabling private investment through TNSF and strengthening core institutions such as the TNUHDB and the Chennai Metropolitan Development Authority (CMDA) by focusing on sustainability frameworks, grievance redress systems, resident welfare association–based O&M models, gender inclusion measures, and metropolitan planning reforms. These efforts contributed to climate resilience, expanded housing supply through improved land use planning, improved living conditions in public housing, and more inclusive service delivery.

World Bank Country Partnership Framework (CPF): The PDO was also consistent with the World Bank Group's Country Partnership Framework (CPF) for India (FY18–22, extended to December 2024), particularly its focus on growth, poverty reduction, and resource efficiency. It built on the Bank's long-standing engagement in Tamil Nadu's urban and housing sectors and complemented ongoing support from development partners, including the Asian Development Bank and GIZ. Overall, the PDO was appropriately framed at an intermediate outcome level, pairing increased access to affordable housing with strengthened institutional capacity to sustain reforms over time.



World Bank Experience in the Country, in the Province, and in the Sector: Since 1977, the World Bank and other development partners have supported housing and urban development in Tamil Nadu, beginning with sites-and-services programs and followed by more than three decades of urban sector lending. The Second and Third Tamil Nadu Urban Development Projects (TNUDPs) advanced urban and governance reforms and operationalized the Tamil Nadu Urban Development Fund (TNUDF)—an innovative public–private partnership (PPP) municipal fund between the state government and domestic private financial institutions. TNUDF was the first of its kind in India to provide long-term, non-guaranteed debt for municipal infrastructure and to leverage private financing for urban development. It enabled Urban Local Bodies (ULBs) to access financial markets, established a strong loan repayment record, and pioneered several firsts in India, including pooled finance municipal bond issuances, beneficiary capital contributions, and municipal-level PPPs. The Third TNUDP, structured as a financial intermediary operation, mobilized resources for TNUDF to scale urban infrastructure investments, strengthen ULB capacities to improve service delivery, and incentivize investments in low-income neighborhoods. More recently, the World Bank supported housing sector reforms through two Development Policy Loans (DPLs): DPL1 (P172732; US\$200 million IBRD, July 2020–June 2022), which supported initial reforms in housing policy, institutional roles, and the regulatory environment; and DPL2 (P178329; US\$190 million IBRD, September 2022–June 2024), which deepened these reforms. As part of the prior actions under the DPL series, the International Finance Corporation (IFC) explored investments aligned with the mandate of the Tamil Nadu Shelter Fund (TNSF) and provided expertise on green building standards.

The PDO builds on this sustained engagement and complements the two-tranche DPL series by adopting a comprehensive approach to affordable housing that combines policy reform, institutional strengthening, and investment mobilization. It also emphasized coordination with development partners active in the sector, including the Asian Development Bank (ADB) and the Gesellschaft für Internationale Zusammenarbeit (GIZ), and aligned with the World Bank’s strategic focus on mobilizing private finance, strengthening climate resilience, promoting social inclusion, and mainstreaming gender considerations in housing and urban development. These experiences provide the Bank an advantage to partner with Tamil Nadu in addressing the state’s housing affordability development problem.

The PDO was articulated at an appropriate level. The increase in access to affordable housing was paired with enhancing the institutional capacity of the agencies that would sustain this approach for low-income constituents of Tamil Nadu.

The relevance of objective is rated High.

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective



To strengthen the housing sector institutions of Tamil Nadu for increased access to affordable housing.

Rationale

Theory of Change: Innovations in housing finance were expected to expand access to affordable housing by reducing risks for private investors. The project supported the newly established Tamil Nadu Shelter Fund (TNSF) through initial equity contributions to mobilize additional financing and stimulate a market for affordable housing. TNSF aimed to finance mixed-income, mixed-use developments, with middle-income units cross-subsidizing low-income housing. Governance frameworks and eligibility criteria were established to standardize and demonstrate commercially viable affordable housing projects, managed by the Tamil Nadu Infrastructure Fund Management Corporation (TNIFMC) in line with the Fund's Investment Manual and environmental, social, and governance (ESG) standards. An appraisal tool for site-specific cross-subsidization was

developed but not implemented because of implementation challenges. Expected outcomes included units delivered in response to market demand, increased share of rental properties in the portfolio, mobilization of external finance, and the introduction of a new affordable housing asset class. Not all indicators defined expected outcomes in the original results framework.

Inputs focused on co-financing viable private and public–private projects, leveraging state-owned land, and using construction grants to engage private operators—particularly through working women's hostels (WWHs) and industrial workers' housing (IWH).

Outputs were to include TNSF investments in commercially viable projects where the expected return may be lower than in projects that focus on high- and middle-income housing.

Outcomes were to be expressed as the units delivered by a public–private investment scheme. This outcome was at an intermediate level rather than long-term, program- and country-level final development outcomes because of the limited size, selected scope of the interventions, and short implementation period covered, for which final outcomes would not be methodologically appropriate to measure. Affordability outcomes included low rent-to-income ratios for WWH residents, proximity of IWH to employment centers, and reported improvements in safety and living conditions for women.

The following **critical assumption** at entry, if realized, was to enhance the achievement of the expected outcome: the private sector would invest in affordable housing, which did materialize at closing.

Overall, the TOC provided a reasonable causal link between the inputs and outputs and expected outcomes. The outcome indicators selected, while measurable, time bound, and achievable did not encompass all outcomes of the interventions that would contribute to achieving the objective (see Outcomes below).

OUTPUTS:

- Completed, as targeted, various market analyses, assessment of product offerings and multiple business model viability for TNSF investments, and market outreach.
- 17 sub-projects were approved for both ownership and rental housing (original target of 10 was exceeded), These 17 sub-projects included four private projects for affordable ownership, senior living, and industrial workers' housing (IWH) and 13 PPP projects for working women's hostels (WWHs) and IWH.
- Delivered 14,183 units (original target of 5,000 was significantly exceeded) through a public–private market solution.



- TNSF portfolio achieved 73 percent of rental housing (original target of 30 percent was significantly exceeded). The share of rental housing was higher than targeted because costs were less per unit. j

OUTCOMES:

- 5 WWHs were operational in 10 locations with average occupancy rates above 90 percent (no target)
- Retrofit sites sustained an occupancy rate above 80 percent (no target).
- Affordable units meant: (i) rent-to-income ratio for WWHs was approximately 15 percent for the lowest income beneficiaries, lower than the state average which ranges from 15.1 to 22.7 percent across all income deciles (based on the 2012 National Sample Survey 2012, the most recent data available); (ii) employers included IWH to a worker's compensation package; (iii) ownership housing was priced based on agreed parameters to appeal to LIG households; (iv) IWH reduced commuting times (no data by how much) and expenses (no data) since units were located close to jobs; and (v) WWHs reported improved safety and living conditions for women workers (no information on incidence of reduced violence or what living conditions were improved).
- 82 percent of TNSF housing projects received green certification (original target of 75 percent was exceeded) indicating private sector businesses in the TNSF portfolio adopted green building standards (see output below under Objective 2).

No indicators were associated with the following expected outcomes described in the TOC; hence, the reported achievements could not be assessed against baselines and targets:

- External finance was mobilized. The ICR reported that the Asian Development Bank (ADB) contributed an additional equity of US\$35 million to TNSF under a separate operation.
- The ICR reported mixed results on a new asset class of mixed-income, mixed use residential developments through cross-subsidization with no further explanation.

Overall, the efficacy of the project to achieve this objective is rated **Substantial**. The revised description of the key outcome indicator, accompanied by a reduced target, was exceeded.

Rating

Substantial

OBJECTIVE 2

Objective

To strengthen the housing sector institutions of Tamil Nadu for sustained access to affordable housing.

Rationale

Theory of Change: Activities to support housing finance innovations and strengthen institutional capacity in Tamil Nadu were expected to expand access to low-income housing and sustain housing programs over time. By improving the design and delivery of new housing programs, the project was expected to make government-sponsored schemes more responsive to demand and enable progressive targeting of beneficiaries. Transparency in the housing sector was also expected to improve through strengthened systems, frameworks, and coordination mechanisms. The project focused on building the capacity of three



core institutions: the Tamil Nadu Urban Habitat Development Board (TNUHDB, formerly TNSCB), the Chennai Metropolitan Development Authority (CMDA), and the Tamil Nadu Infrastructure Fund Management Corporation (TNIFMC). TNUHDB is responsible for planning, constructing, and delivering affordable housing for Economically Weaker Section (EWS) households. CMDA serves as the planning and development control authority for the Chennai Metropolitan Area (CMA), with a mandate to improve the adequacy and efficiency of affordable housing supply by linking residential planning with economic and employment opportunities, and by guiding land-use planning across the metropolitan region. TNIFMC manages the Tamil Nadu Shelter Fund (TNSF) and supports the mobilization and deployment of finance for affordable housing investments. Through enhanced inter-agency coordination—particularly in the preparation of CMDA’s master plan—the project is expected to integrate housing, land use, and infrastructure planning. Sustainability considerations were mainstreamed across housing solutions, including environmental, social, governance, physical design, and citizen engagement dimensions. The expected outcome was that government-sponsored affordable housing schemes would become more demand-responsive and institutionally sustainable.

Inputs were designed to finance a comprehensive needs and demand enumeration tool, an income-based affordability tool, and technical assistance to strengthen the capacity of housing sector institutions to deliver affordable housing. The newly established Tamil Nadu Shelter Fund (TNSF) was expected to create a new affordable housing asset class by financing mixed-income, mixed-use developments in which middle-income units cross-subsidized housing for low-income households. However, the development of an income-based affordability tool proved infeasible because most target beneficiaries had informal incomes and unreliable self-reported income data. This approach was replaced to measure whether government housing schemes were responsive to demand.

Outputs were to include new housing programs in response to demand. The Tamil Nadu Urban Habitat Development Board (TNUHDB) would offer segmented housing by converting unallocated housing units into rental housing; and cross-subsidization in mixed-use tenements that combine commercial and residential uses. TNIFMC was to generate the following outputs: (i) social impact and market assessments; (ii) a structured project pipeline; (iii) promotion of green-certified housing development; (iv) market outreach; and (v) an Environmental, Social, and Governance Management System (ESMS). The Chennai Metropolitan Development Authority (CMDA) was to generate the following outputs: (i) an urbanization vision; (ii) a multi-sectoral geospatial data system; (iii) implementation guidelines for the Master Plan; (iv) modern and inclusive land-use planning systems; and (v) institutional twinning with an international city. The original outcome indicator—“*Number of sectors integrated into CMDA’s geospatial information system for improved land-use planning*”—was reclassified as an output indicator, as it measured the delivery of planning tools rather than an institutional or housing-sector outcome.

Outcome to sustain affordable housing was to be originally measured by new housing solutions and satisfaction expressed by beneficiaries (i.e., meeting demand). When the income-based affordability tool was dropped, the outcome indicator was replaced by implementing three frameworks to be used by TNUHDB housing programs: (i) the Social Sustainability and Grievance Management Framework (SSGMF); (ii) the Resilient Urban Design Framework (RUDF); and (iii) the Environment Management Framework (EMF).

The following **critical assumptions**, if realized, were to enhance the achievement of the expected outcome: (i) the private sector would invest in affordable housing because of favorable conditions and access to long-term developer financing; (ii) the public sector would offer differentiated (stratified) housing solutions based on expressed demand or needs; and (iii) decision makers in Chennai would incorporate the analytical tools into



its master plan and increase the supply of land for affordable housing. These assumptions materialized during implementation and contributed to achieving the PDO.

Overall, the TOC established a valid causal link between inputs, outputs, and expected outcomes. The achieved results in strengthening institutions involved in making housing affordable can be attributed to the project activities. The feature of sustaining access requires a longer period and assessing contributions from other donors active in the sector.

OUTPUTS:

- The TNUHDB Planning Wing increased its staffing, training, and digital tools to monitor compliance. The staff completed guidelines for each goal/principle, conducted training, and hands-on exercises.
- CMDA incorporated six core sectors into the Third Master Plan (TMP) 2027-2046 as targeted:
 - Developed a metropolitan growth vision based on stakeholder consultation and wide public engagement. Conducted an institutional assessment of CMDA to identify areas for improvement to meet the new vision and mission of CMA, and organizational structure, and skill-mix.
 - Completed a multi-sectoral analytical framework to inform the TMP through 16 technical sectoral studies in integrated spatial planning. These sectoral studies were in: (i) urban transport; (ii) flood risk mitigation and stormwater management; (iii) economic planning; (iv) environmental planning and blue green systems; (v) climate resilience and climate action planning; and (vi) gender inclusion.

OUTCOMES: To increase the sustainability of affordable housing, the following three key institutions were strengthened:

- TNUHDB transitioned from a single-entry to a double-entry accounting system; established an Integrated Housing Information System; strengthened its Community Development Wing; and adopted sustainability and inclusion approaches by promoting awareness of its programs among its stakeholders. TNUHDB's EWS/LIG housing projects adopted and implemented the following frameworks:
 - 98 percent of EWS/LIG housing projects adopted the SSGMF (the target of 80 percent was exceeded) to strengthen citizen engagement in TNUHDB's operations.
 - Beneficiary households offered input into housing design, construction, and maintenance. Standard Operating Procedures (SOPs) require finalizing beneficiary lists before submitting project proposals to signal citizen engagement.
 - A gender audit tool promoted social inclusion, safety, and security for women. 98 percent of housing projects (83 of 85) were audited (target of 90 percent was exceeded). Audit findings led to higher level officials resolving corrective measures. 80 percent of households (target of 60 percent was significantly exceeded) were provided livelihood support for women either through O&M work in Resident Welfare Associations (RWAs) or through skills training (such as tailoring, embroidery, driving and others). The proportion of EWS housing units owned/co-owned by women rose from 43 percent to 75 percent, (target of 80 percent was almost achieved, the gap was due to legal requirements to retain original owners' names in reconstruction projects). For greenfield projects and new units, the state has mandated that a woman own or co-own the unit.



- O&M improved by adding Resident Welfare Associations (RWAs) in tenements. Under the 'Nam Kudiyiruppu, Nam Poruppu' (Our Tenements, Our Responsibility) scheme, new by-laws formed RWAs to undertake O&M in tenements. SOPs for fund management were developed, training provided, and a matching grant (equal to three months' maintenance charges) served as incentive. Of the 694 tenements, 562 (81 percent) set up RWAs; 421 (of 694 or 61 percent) have Operational Maintenance Committee (target of 80 percent was not achieved). The outcome indicator was "Proportion of households in TNUHDB tenements that are part of RWAs participating in O&M." RWAs represent all households in a tenement. Hence, the proportion of RWAs participating in O&M measured the residents' engagement in O&M of TNUHDB housing. Multiple factors led to the underachievement, e.g., existing maintenance contracts discouraged residents from forming maintenance committees; limited social cohesion among residents; and certain RWAs did not adopt the new bylaws.
- The grievance redress mechanism for residents of TNUHDB tenements was strengthened through a comprehensive system accessible via phone, web, toll-free number, and written submissions. Trained Community Participation Assistants managed a Grievance Redressal Register for each division. Between April 2020 and May 2025, 86,830 grievances (excluding sale deeds for historic plot allotment) were lodged, 86,222 were resolved or 99.3 percent (target of 70 percent was significantly exceeded). The register is transitioning to an online system to enable efficient monitoring and timely action.
- RUDF provisions were disaggregated into mandatory 'must-haves' and 'should- and can-haves' compliance matrix with weighted scores and minimum threshold. All four ADB-financed tenements under construction (equivalent to 3,265 EWS units) and 2,200 EWS units to be procured were redesigned to comply with the RUDF. Compliance with RUDF integrated environmentally sensitive design into all EWS/LIG housing and has been mainstreamed into private sector project applications.
- EMF was to manage the environmental impacts of housing projects, comply with occupational health and safety (OHS) during construction, and maintenance. New guidelines and regular environmental screening were applied across all eligible projects. Implementing EMF improved the living standards of laborers at construction sites, improved ventilation at labor camps, improved water supply, provided cleaner energy sources (e.g., LPG stoves), provided hygienic restroom facilities, and increased use of Personal Protective Equipment. Waste management improved through training and enforcement of waste segregation, management, and disposal. Trees are not cut on sites, and compensatory tree plantation increased,
- CMDA, the planning and development control/regulation authority for the Chennai Metropolitan Area (CMA) improved the provision of affordable housing across the metropolitan area by establishing a stronger link between residential use/housing spatial planning with economic/commercial zones and opportunities. CMDA has implemented recommendations from the institutional assessment such as hiring of additional staff, training, improved IT systems, and GIS-based planning practices.
 - 300 stakeholder groups were consulted for the TMP vision.
 - Public consultations covered all 29 zones of the CMA, about ~45,000 citizen surveys engaged diverse groups (youth, women, elderly, EWS, persons with disabilities, and LGBTQ+) and public and private sector agencies, businesses, and institutions.
 - At closing, 276 stakeholder groups (92 percent) were consulted (target of 100 percent almost achieved). CMDA is expected to launch an online platform to collect ideas from the public,



- including using social media channels to reach the younger generation to achieve 100 percent participation.
- CMDA updated CMA's base map for 1,189 sq km in a GIS platform using high-resolution satellite imagery, and a Differential Global Positioning System to map survey parcels incorporating five sectoral layers to inform land use planning and infrastructure investments (target of 5 sectors was achieved). These sectors were in: (i) property boundaries (cadaster mapping); (ii) transport (roads, railways, metro, etc.); (iii) water and stormwater facilities; (iv) forest and open space reserves; and (v) distribution and clustering of employment/businesses.
 - Updated the Tamil Nadu Combined Building and Development Rules (TNCDBR) to create an enabling regulatory environment for more compact and sustainable growth patterns.
 - TNIFMC managed the TNSF and strengthened its capacity to implement the Tamil Nadu Affordable Urban Housing and Habitat Policy 2020 by implementing a comprehensive Environmental, Social and Governance Management System (ESGMS) for each subproject cycle. This system included an Environmental, Social and Governance (ESG) screening for TNSF financing. The ESG screening included an impact analysis of TNSF investments against six principles (governance, environment, social, community welfare, people, and financial return). TNIFMC has dedicated staff, implemented a communications strategy to engage with private developers and industrial bodies. The second restructuring cancelled a substantial portion of TA for TNIFMC, replaced by ADB financing to complete the planned activities.

Rating

Substantial

OVERALL EFFICACY

Rationale

The efficacy of the project to achieve the first objective is rated Substantial. The efficacy of the project to achieve the second objective is rated Substantial with moderate shortcomings. Overall efficacy of the project to achieve both objectives is rated Substantial.

Overall Efficacy Rating

Substantial

5. Efficiency

Financial and Economic Efficiency: Financial and economic analyses were conducted at appraisal. For housing markets, TNSF was to create a new housing investment asset class, increase mixed income housing developments, and increase government supported rental units. Benefits from these new units were improved



quality of life of the TNSF housing clients because of the adoption of good design principles, more green space in housing developments, improved tenure security, better maintenance of housing developments, green building certification, and lower flood risk. TNSF contributed an estimated US\$150 million to affordable housing, leveraged an additional US\$150 million for a total estimate of US\$300 million. These resources were to deliver 5,000 affordable housing units. The financial internal rate of return (FIRR) was estimated to be 12 percent with a financial net present value (NPV) of US\$3.88 million at a 10 percent discount rate. Economic benefits were derived from improved tenure security and the use of improved resilient design standards that reduced flood risks. The estimated economic internal rate of return (EIRR) was 12.3 percent with an economic NPV of US\$4.55 million at a 10 percent discount rate.

At closing, following the same methodology at appraisal, costs were slightly below the estimated value (US\$258 million against the appraisal estimate of US\$300 million). 14,183 housing units were delivered, exceeding the estimate at appraisal. These were mainly rental units (about 75 percent of the total portfolio). These were less costly to construct because of the smaller floor area. Financial NPV was estimated at US\$17.6 million, higher than at appraisal because rental housing delivered stable revenue streams over a longer period. The FIRR was estimated at 11.1 percent, or a lower FIRR than homeownership in general, a key factor why market solutions for affordable rentals are uncommon. State-provided land (free or long-term lease) and construction grants required limited need for investment outlays. The economic NPV was estimated at US\$20.85 million also higher than at appraisal because households gained more economic benefits from secure tenure and reduced flood risk. The EIRR was estimated at 13.0 percent.

Administrative and Operational Efficiency: The project achieved most of its targets, with foreign exchange savings that reduced IBRD financing. The closing date was not extended. Efficiency gains were achieved at the administrative and operational level because the same implementation unit managed two separately financed (World Bank and ADB), but complementary operations and gained economies of scale. Some initial delays were experienced in mobilizing the full staff complement at TNUHDB and CMDA. This delayed procurement of TA activities under the second objective although implementation eventually improved without needing any extension of the closing date. Part of the project implementation called for national-level funding for housing. The national government stopped approving new projects under PMAY-U in 2022. This delayed the implementation of the segmented housing pilot. As a result, a key indicator (number of households benefiting from TNUHDB’s pilot of diversified, inclusive housing solutions) could not be achieved. The COVID-19 pandemic negatively affected the housing and real estate market. This reduced demand for new housing, slowed the uptake of TNSF financing, and delayed initial implementation.

The overall efficiency of the project is rated Substantial because of the positive rates of return while taking into account implementation delays.

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 (%)
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Appraisal	0	0 <input type="checkbox"/> Not Applicable
ICR Estimate	0	0 <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 and efficiency is rated Substantial. The overall outcome of the project is rated Satisfactory.

a. Outcome Rating

Satisfactory

7. Risk to Development Outcome

The following pose risks to development outcome:

- Technical risk.** There is a moderate risk that the diversified transaction models that the project introduced to demonstrate the viability of affordable housing to private developers and lenders may not be sustained over time. These models provided the paths to originate and scale affordable rental/ownership assets. The ICR reported that this risk is mitigated by the evident increase in transactions in the TNSF pipeline. The state government is also preparing a second phase of TNSF. This suggests that an increase in the supply of affordable housing with private sector participation is expected to continue.
- Risk of reduced government ownership or commitment.** This is a low risk. The state government has embraced the policy, regulatory, and institutional reforms to foster the enabling environment to address the development problem posed by housing affordability. The guidelines, SOPs, frameworks, and strengthened capacity of the institutions in charge of their implementation are in place. The likelihood that the reforms will be reversed is low. For FY 2024-25, the Ministry of Finance allocated long-term interest free loans equivalent to US\$580 million to 28 states for greenfield construction of WWHs using a PPP model. All states have proposed and received the first tranche of funds.
- Financial risk.** The budgetary support to ensure the long-term sustainability of project outcomes remains a moderate risk. TNUHDB is a public institution that will continue to need budget support. The state's FY2025–26 budget committed US\$42.4 million to support 22 new affordable rental PPP projects for every district. The national government has launched PMAY-U 2.0 in September 2024, requiring each state to have an affordable housing policy in place, indicating continued support to affordable housing.
- Governance risk.** There is some risk of sustaining the improvements the project introduced. These include the frameworks, policies and systems that were mostly adopted and institutionalized. All three frameworks (SSGMF, RUDF and EMF) apply to all new construction and reconstruction by TNUHDB to enhance the sustainability of the tenements. Housing projects funded by TNIFMC need to meet environmental thresholds, adhere to internal management structures, and adequately finance



maintenance. The ESGMS is mandatory for all TNIFMC's business engagements. The SSGMF, RUDF and EMF apply to all TNUHDB projects. The Tamil Nadu Integrated Housing Information System designed to improve all stakeholders access to housing market information is expected to improve under the state's Housing and Urban Development Department.

- **Risk of Stakeholder Ownership may wane.** There is a low risk that wide stakeholder engagement and public communications generated by the CMDA visioning exercise for the TMP raised expectations of constituents. CMDA has shifted to evidence-based integrated spatial planning, more comprehensive and integrated master planning. CMDA adopted the results of the analytical sectoral studies into spatial layers to inform the TMP. The updated Chennai Master Planning Rules mandate future planning exercises to integrate infrastructure and services planning into land use planning procedures. The state is positioned to adopt demand-responsive urban development and enable a more sustainable affordable housing program.

8. Assessment of Bank Performance

a. Quality-at-Entry

The Bank team designed this programmatic approach as part of the One WBG approach to support housing sector reform. The Bank team designed this project to continue the path paved by the two-tranche programmatic DPL series (TNHSSP1 and TNHSSP2) that strengthened housing sector policies and boosted the regulatory environment in Tamil Nadu. The same Bank team prepared the DPL series and this project. Activities were anchored in policies, reforms, and prior actions that the state government committed to under the DPLs. Risks and key challenges were mitigated by adequate measures derived from a comprehensive review of the housing sector. The state's Affordable Urban Housing Policy anchored the project activities. The International Finance Corporation's TA to TNIFMC was to enhance market reach and portfolio performance of TNSF. The Bank team coordinated with other development partners and the government to extract their value-added specialty area to achieve economies of scale in collectively strengthening the institutional capacity of TNIFMC, TNUHDB and CMDA. Actions were coordinated among various stakeholders in the sector to ensure synergy and avoid duplication of effort. It helped the same government PMU was to implement projects financed by the Bank and the ADB. M&E system took off from the DPL series implementation and identified the indicators to be used in monitoring achievement of expected outcomes (see Section 9 M&E below for discussion of the adequacy of indicators used). The Bank team relied on trust built over the long periods of engagement in the urban and housing sector.

Overall, the Bank performance at entry is rated Satisfactory.

Quality-at-Entry Rating
Satisfactory

b. Quality of supervision



The World Bank team conducted nine supervision missions over the five-year project period including virtual ones during COVID 19. The team supervised this project at the same time as the DPL series to optimize the outcome of the DPL reforms with the progress of this IPF to reduce implementation risk. The Bank team delivered targeted technical assistance and supported capacity building with the help of international experts. For example, the Bank team conducted a field visit to Chile to demonstrate its successful transition from a state to a market model where they used targeted subsidies, the private sector resources were mobilized, and housing institutions adopted innovations to make viable a demand based segmented housing solution that Tamil Nadu was considering. The Bank team exposed the CMDA team to Barcelona and Copenhagen to show data-driven planning and neighborhood level redevelopment, integrating land use, transport, and economic planning, for balanced urban economic growth. The Bank team worked with the TNIFMC management and technical team to make the most of market feedback in its product offerings, improving operational efficiency, and recommending disbursement flows. The Bank team recommended two restructurings to respond to implementation challenges, including acknowledging foreign exchange gains. The project closed as originally planned.

Quality of Supervision Rating

Satisfactory

Overall Bank Performance Rating

Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The PDOs were specific and clearly stated. The Theory of Change was logical and documented the causal link between the key activities, outputs, and expected outcomes. However, three of the four outcome indicators needed to be clarified at implementation to better measure the expected outcome of the activities. One outcome indicator was moved to the more appropriate output level (see Implementation below).

b. M&E Implementation

TNIFMC and TNSCB implemented the project M&E as designed. The TNSCB PMU monitored project implementation, environmental and social management, and inter-institutional coordination, and submitted periodic reports for management and the Bank. Weaknesses in outcome indicators were addressed at restructuring, from moving an outcome indicator to a more appropriate output level and clarifying how demand for affordable EWS/LIG housing was to be met. The Mid Term Review (MTR) introduced a new output indicator to measure “households benefitting from TNUHDB’s pilot, diversified, inclusive housing solutions.” This proved immaterial because TNUHDB housing was not financed by project funds and the target unachievable within the remaining implementation period. A beneficiary survey was conducted at closing to provide feedback on elements of project outcomes.



c. M&E Utilization

M&E data was used to inform management and the Bank of project progress. M&E data informed the formulation of adequate corrective measures to address implementation challenges. These measures were executed on time. The project did not require an extension of the closing period.

The quality of M&E is rated Modest given the shortcomings in design and implementation.

M&E Quality Rating

Modest

10. Other Issues

a. Safeguards

Environmental safeguards. The project was categorized as FI-2 and triggered OP/BP4.03, Performance Standards for Private Sector Activities based on the potential TNSF financed sub-projects. TNSF was to make investments with private sector co-financing or participation. The project activities had a higher degree of potential adverse environmental and social impacts such as land free of encumbrance and litigation, compliance with labor laws, health and safety aspects, and other construction related impacts. However, because TNSF was an established financial institution, regulated by SEBI and operated as a private sector financial institution, the overall safeguard risk from the subprojects to be financed were expected to have limited adverse environmental or social risks or impacts, expected to be few, generally site-specific, largely reversible, and readily addressed through mitigation measures. The World Bank's Safeguard Policies also applied to activities implemented by TNSCB that supported technical assistance and capacity building activities although a separate ESMF for the TA was not required because of the low risk assessed on TA activities. This risk was to be mitigated by the implementation of the Environment, Social and Governance Management System (ESMS) framework, building in-house capacity in TNIFMC to operate the ESMS, and soliciting World Bank approval of consulting activities undertaken through the technical assistance component. The ESMS framework was integrated into the TNSF Implementation Manual, applied to all projects supported by the Shelter Fund, regardless of the source of financing, indicating its institutionalization. The ESMS framework guided the screening, due diligence, appraisal, approval, and monitoring of the supported investment projects and included mechanisms to identify and mitigate key ESG risks throughout the life cycle of the supported projects. The detailed executive summary of the ESMS was disclosed in TNIFMC's and the Bank's websites on March 27, 2020.

Social Safeguards: The ESMS included a detailed process to conduct stakeholder consultations and dialogue for every investment; and due diligence for review of land acquisition. This ensured that projects complied with the Environmental and Social Standard 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement prior to submission for support from the fund. All approved projects through the Investment Agreements complied with the environment and social safeguards in the ESMS.



b. Fiduciary Compliance

Financial Management: Financial management complied with World Bank fiduciary policy (ICR, paragraph 53). The PMU submitted quarterly Interim Unaudited Financial Reports (IUFRs) on time. Annual audits were submitted within nine months of each fiscal year end. Audits did not report any major weaknesses. Audit observations were resolved promptly. Overall fiduciary compliance is rated Satisfactory.

Procurement: Procurement complied with the World Bank Procurement Regulations for IPF Borrowers even if some TA and studies under Component 2 experienced delays (ICR, paragraph 53).

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	Modest	Modest	
Quality of ICR	---	Substantial	

12. Lessons

The ICR reported the following lessons, slightly edited for brevity:

- **Housing affordability may be addressed by integrating available financing instruments into a programmatic approach.** In this project, the lack of affordable housing was to be met by combining the strengths of two financing instruments. First, the DPLs to foster policy and regulatory reforms in the housing sector. Second, the IPF to finance seed capital to create an investment platform for the private sector to help increase housing stock, and technical assistance to enhance capacity of the housing institutions involved. The IPF was to fill the gaps in housing policy reforms sponsored by the DPLs by demonstrating to the private sector viable affordable housing investments.
- **Securing early Board approval in targeting the share of affordable units and affordability thresholds in existing market conditions may prove useful.** Two shortcomings in TNSF’s concessional financing led to unprofitable mixed-use, mixed-income developments. Retail, commercial spaces, and market-rate housing units were to cross-



subsidize affordable housing units. The TNSF Board first targeted that 100 percent, later reduced to 75 percent of housing units be affordable. Private investors did not respond. Then, TNSF Board introduced a fixed price point at around US\$50,000 for an affordable unit. This price, however, did not consider rising land, construction, or labor costs. Viable investments were proposed in peri-urban areas with lower land prices. Project sizes were reduced, limiting effective cross subsidy. Where proposals were approved early, design changes or product-mix adjustments could not be undertaken.

- **Using state-owned land, offering construction grants, and promoting private management of rental properties may generate viable rental stock.** Operational capacity, professional management, and predictable revenue streams may sustain rental properties. In India, the rental market is marked by weak contract enforcement, informal landlord–tenant relationships, and limited appetite for long-term rental operations by the private sector. The state government framed its industrial development strategy to attract skilled labor by offering workers’ housing and providing for long-term leases or free land to encourage private investment in rental property. TNSF leveraged state-owned land, offered construction grants, secured private management and investment to create financially viable rental stock.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR followed the guidelines while providing a detailed overview of the project. The report was candid in pointing out the shortcomings of the indicators that would have strengthened the case for a more substantial achievement of the outcomes. The narrative was consistent and supported the ratings and footnotes provided clear support for the performance data being reported. Reported results, examples, and logical reasoning adequately supported the evidence behind the ratings for PDO achievement. The lessons were clear, useful, and based on what occurred during implementation. The annexes provided useful additional data on the changes made to the results framework (Annex 6), a financial analysis and the regulatory and governance arrangements of the TNSF (Annex 3), the robust analytical basis for the efficiency calculations (Annex 4), and the detailed technical assistance activities to support the outcomes of capacity building efforts (Annex 7). The ICR quality is rated Substantial.

- a. **Quality of ICR Rating**
Substantial

