



1. Project Data

Project ID P160162	Project Name DCIDP-Thai Nguyen		
Country Viet Nam	Practice Area(Lead) Urban, Resilience and Land		
L/C/TF Number(s) IDA-62970	Closing Date (Original) 31-Dec-2023	Total Project Cost (USD) 50,508,232.38	
Bank Approval Date 22-Jun-2018	Closing Date (Actual) 31-Dec-2023		
	IBRD/IDA (USD)	Grants (USD)	
Original Commitment	80,000,000.00	0.00	
Revised Commitment	50,508,232.38	0.00	
Actual	50,508,232.38	0.00	
Prepared by Cynthia Nunez-Ollero	Reviewed by Peter Nigel Freeman	ICR Review Coordinator Avjeet Singh	Group IEGSD (Unit 4)

2. Project Objectives and Components

a. Objectives

According to the Financing Agreement (FA, p. 4) and the Project Appraisal Document (PAD, paragraph 11), the project development Objective (PDO) of this Dynamic City Integrated Development Project (DCIDP) - Thai Nguyen Project was “to improve access to urban infrastructure and to improve integrated urban planning and management in the project city.” The FA noted that the project will improve the quality of transport connectivity, urban environmental sanitation, and education services.



This review will assess project performance against this PDO that has been parsed into the following two sub-objectives:

- To improve access to urban infrastructure – transport connectivity, urban environmental sanitation, and education services
- To improve integrated urban planning and management in the project city.

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

1: Structural Investments – Rehabilitation and Construction of Urban Infrastructure (at appraisal, US\$87.5 million consisting of US\$75.7 million in IDA, and US\$11.8 million in counterpart funds; restructuring increased the allocation to US\$92.03 million although IDA was reduced to US\$54.30 million; actual, US\$ 84.7 million consisting of US\$50.51 million in IDA, US\$34.23 million in counterpart funds). This component was to finance investments in environmental sanitation, transport, and amenities to improve access and reliability of urban services for the bottom 40 percent of the population. Sub-components to be financed were to include: (i) the construction of new drains, dredging and embankment of ditches, streams and channels to improve the local drainage system and flood management; (ii) the rehabilitation and construction of sewer collection networks, and the expansion of the existing wastewater collection system; (iii) transport investments in strategic urban roads and bridges, aligned with existing master plans, and based on sound analyses of travel and traffic demand and street design patterns; (iv) urban amenities and public spaces such as new, accessible public spaces around the improved infrastructure and the construction and rehabilitation of two preschool facilities. The first restructuring increased overall funding for this component from counterpart fund sources. The second restructuring reduced the scope of drainage, road, and bridge investments, the amount of public space to be created or improved (see Dates below on restructuring).

2: Non-Structural Investments – Technical Assistance and Implementation Support (appraisal, US\$6.56 million consisting of US\$4.31 million in IDA, US\$2.25 million in counterpart funds; restructuring increased the funding to US\$7.97 million in IDA; actual, US\$0.93 million, all from counterpart funds) This component was to finance the preparation of an integrated urban development plan. This component was also to finance technical assistance to prepare and implement project investments. The second restructuring replaced an integrated urban development plan with a public transport strategy and an urban asset management plan. The implementing agency used provincial funds to complete the following planned activities under component 2 (see Section 5 Efficiency, Administrative and Operational Efficiency below).

- **Integrated planning.** This activity was to finance the development or updating of comprehensive, context-specific strategic urban development plans that were based on the specific needs, resources, and development issues of the project city (including a reassessment of economic and



demographic assumptions and growth projections). These plans were to be functionally and spatially aligned with the updated provincial-level and regional-level strategic plans; and would reinforce Thai Nguyen's role as a secondary city within the National Master Plan. In addition, the plans would be informed by disaster and climate risks. The city and province were to work closely with the national technical body for urban planning, the Ministry of Construction (MOC).

- **Public transport planning.** Restructuring added this technical assistance to finance the development of a public transport development strategy aligned with the updated city master plans and promote the expansion of local public transport systems. The component was to identify and include safeguard provisions for suitable public transport in Thai Nguyen. Further, the plans were to provide a framework for decision-making, with sustainable urban mobility indicators (e.g., sustainable urban transport index [SUTI] by UNESCAP), to define specific targets, such as higher network coverage and modal share by public transport, accessibility, affordability, safety, etc.
- **Asset management.** Restructuring added this technical assistance to finance the development of asset management plans for sustainable urban assets. These plans were to include financial sources for operations and maintenance (O&M) of completed project assets. The plan was to include an analysis of the financing needs and own-source revenue mobilization forecasts and implementation challenges for the project city. The plans were to help Thai Nguyen achieve efficient and sustainable capacity to manage urban assets.
- **Project implementation support.** This component was to finance the technical designs for sub-projects; construction supervision and contracts management; monitoring of environmental and social safeguards; and financial audits.

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

Project Cost: The original total project cost was US\$100 million consisting of US\$80 million in IDA and US\$20 million in counterpart funds. The first restructuring cancelled US\$23 million of the IDA credit (see below). The credit disbursed US\$50.5 million. The balance was cancelled.

Financing: The International Development Association (IDA) Scale-Up Facility (SUF) financed this credit.

Borrower Contribution: The government originally committed US\$20 million in counterpart contributions consisting of US\$5.9 million to finance front end, commitment, interest, and other fees and the balance of US\$14.1 million to finance land acquisition and resettlement. The government increased their commitment to US\$43 million at restructuring to meet increased costs of land acquisition and resettlement. The government disbursed US\$27.7 million at closing after scaling down the project scope and reduced resettlement needs.

Dates: The Board approved this credit on June 22, 2018 and it was made effective on December 27, 2018. The credit closed on December 31, 2023 as originally scheduled. The Mid-term Review was conducted on November 25, 2021. Two Level 2 restructurings project were approved:

- On August 11, 2021 (Report No. RES47762) to cancel US\$23 million and acknowledge the government's commitment to increase its contributions from US\$20 to US\$43 million to finance land acquisition and resettlement. Two reasons led to this increase: (i) the appraisal underestimated (by three times) the number of households to be resettled, and the amount and cost of the unit price of land (by two times); and (ii) in May 2020 the national government began to require that counterpart funds free up IDA resources for investments by financing IDA-eligible project expenditures (taxes,



front-end fees, commitment fees, interest) instead. The Thai Nguyen People's Provincial Committee (PPC) anticipated lengthy Implementation and retained the US\$100 million overall project envelope. The PDO formulation and outcome targets were unchanged.

- On March 30, 2022 (Report No. RES50089), in response to the PPC request to scale down investments as counterpart funding began to increase. The following targets in outcome and intermediate outcome indicators in drainage and roads were **reduced**:
 - For the following outcome indicators:
 - (4) People with access to new and improved roads – from 38,133 to 36,050 people. The target of the share of female beneficiaries and the share of the bottom 40 percent beneficiaries from 51 to 49.6 percent.
 - (6) People with access to new or improved public spaces – from 42,611 to 42,150 people. The target of female beneficiaries and 'bottom 40 percent' beneficiaries – from 56 to 51 percent.
 - (8) Direct project beneficiaries – from 81,951 to 79,495 people.
 - For the following targets of the intermediate outcome indicators due to reduced investments in new roads, bridges, ditches, and upgraded roads:
 - The additional wastewater treatment capacity – from 1,100 to 930 m3.
 - The length of roads and bridges constructed or improved – from 14.45 to 13.75 km
 - The area of new/improved walkable public space – from 151,925 to 116,605 m2
 - One outcome indicator was **revised** and corresponding targets for two intermediate outcome indicators were **increased**:
 - Replaced the outcome indicator (9) from “Integrated urban management plans **developed**” – to “Integrated urban development plan, public transport strategy, and urban asset management plans **approved** by Thai Nguyen City for implementation.”
 - Targets of two intermediate outcome indicators were **increased** – (i) the number of plans to be delivered – from one to three; and (ii) the target for the number of residents consulted to acknowledge two consultations – the initial one and a subsequent one to consult on redesigned elements of these plans.

Split Rating: No split rating of the outcome will be made. The PDO was unchanged. Investments were scaled down because of the expanding need for counterpart funds to finance land acquisition and resettlement. Targets for these investments were correspondingly reduced but the reductions were not significant and the split rating would not have implications on the pre- and post rating. Efficacy will be assessed against the revised targets.

3. Relevance of Objectives

Rationale

Country Context: Viet Nam became a middle-income economy in 2018 following reforms. GDP growth averaged 5.3 percent annually since the late 1980s. Cities like Hanoi and Ho Chi Minh City contributed to over half of the national GDP. However, urbanization was characterized as low-density and fragmented. Secondary cities and rural areas faced inadequate services and increased vulnerability to climate change. The government classified urban centers according to population, density, and ratio of non-agricultural laborers. This resulted in fragmented urbanization and inefficient sprawl that contributed to traffic



congestion, air pollution, and informal settlements. This project was formulated to achieve the economic and social benefits associated with cities that had more compact development patterns, strong public transport linkages, and access to services and jobs. More efficient use of infrastructure would reduce environmental degradation.

Thai Nguyen is 80 kilometers away from the capital and located in the more mountainous North-East of the capital region. The city-level annual GDP growth rate was of over 15 percent over the period 2011-2015 compared to the country's annual GDP growth rate of 5.9 percent during the same time. The city has historically served as a center for heavy industry focused on steel and iron. The city local economy consisted of 75 percent in industry/construction sector; 20 percent in trade/services/commercial sector; and 5 percent in agricultural/forestry production. Thai Nguyen has a population of 420,000 in 2018, its poverty rate is 3.6 percent and 22.8 percent of its city population fall below the national low-income classification level. It lacked financing sources and its priority investments in road network development encouraged motorization, with little attention to developing the public transportation systems. This increased traffic congestion, flooding, uneven spatial development, and led to the deterioration (or lack) of public spaces. Residents have uneven access to basic services, including lack of 24-hour water supply, wastewater treatment, childcare services, and road networks. The city's master plan of the city through 2030 called for the conversion of agricultural to urban land and urban expansion with minimal restrictions, without clear market demand analysis or an indication of phasing plans. Thai Nguyen was a large Class I city, served as the provincial capital and regional hub of the Northern Mountainous Region. This importance as an economic engine undergoing rapid urbanization, need improved urban infrastructure services and demonstrated significant potential growth as a province- and region-level urban economic center and was deemed ready to showcase a Dynamic City Integrated Development approach where secondary cities, such as Thai Nguyen could demonstrate its economic potential to play a greater role in enhancing productivity and growth. Its successful implementation was to inform the support to the government's urban development agenda.

Country Plans: Urbanization had a strategic role in the country's industrialization and modernization plans. In 2009 the national government developed the Framework Master Plan for Urban Development in Viet Nam to 2025 and Vision to 2050 (i.e., National Master Plan). These plans aimed for well-planned urban growth to support Viet Nam's continued transformation into a high-income economy. The National Master Plan emphasized the importance of urban connectivity as well as the treatment of surface and wastewater (Section 5. "Plan for arrangement of national urban technical infrastructure"). The PDO was relevant to the objectives of the country's urbanization plans. The PDO remained relevant to Viet Nam's national development plans and policies, including the January 24, 2022 Resolution No. 06-NQ/TW "On planning, construction, management, and sustainable urban development in Vietnam to 2030, with a vision to 2045." This policy called for improving urban infrastructure services, delivering effective urban social services, such as education, by addressing the lack of urban management capacity to spur urban development. The country planned to implement a five-city 'Dynamic Cities' project" consisting of the secondary cities of Thai Nguyen, Ky Anh, Tinh Gia, Hai Duong, and Yen Bai but proposed Thai Nguyen to showcase the approach because of its size, the scope of the proposed interventions in response to its needs, and its existing urban plans.

World Bank Country Partnership Framework. The PDO was relevant to the goals of the World Bank Group's Country Partnership Framework (CPF) for Vietnam, FY2018-2022 (Report No. 111771-VN). The PDO was relevant in contributing to the achievement of two CPF objectives: Objective 5, "to improve planning, management and delivery of infrastructure and land in cities", and Objective 10, "to increase climate resilience and strengthen disaster risk management." The CPF also noted "the need for further



productive infrastructure remains, particularly in energy, transport, water, sanitation, and telecommunications.” The CPF for Vietnam, FY2023-2027 is to be finalized but the PDO remained relevant to this updated CPF’s priorities of climate resilience, sustainable growth, and gender inclusion. The PDO was also substantially relevant to the World Bank’s Country and Climate Development Report for Vietnam (July 2022), since the pilot city of Thai Nguyen was in a potential flooding hotspot region (ICR, paragraph 25).

World Bank Experience in the Sector and in the Country: In its urban sector engagement strategy, the Bank likewise recognized the importance of secondary cities for balanced and sustainable urban growth, and a 2016 report jointly authored with Viet Nam’s Ministry of Planning emphasized the need for institutional strengthening to foster integrated urban planning as well as the need to improve road quality and the quality of urban transport services. The Bank’s approach at the time was to prepare multi-city lending operations for these secondary cities, and Thai Nguyen was part of a proposal for a five-city lending project (the other cities being Ky Anh, Tinh Gia, Hai Duong, and Yen Bai). A multi-city project – ‘Dynamic Cities’ – was designed, but at the time of appraisal the national government of Viet Nam deemed only Thai Nguyen ready to receive World Bank financing, therefore this standalone project was proposed to the Board instead. It was envisaged that successful aspects of the project could be replicated in the other cities once they were operationally ready for an urban lending project to be commenced. The World Bank urban infrastructure projects in Vietnam include the ongoing Dynamic Cities Integrated Development Project (P168290, 2019) that followed this project and focused on increasing access to urban infrastructure and improving integrated urban planning for four secondary cities: Yen Bai, Hai Duong, Tinh Gia, and Ky Anh. Another ongoing project is the Vinh Long City Urban Development and Climate Resilience Project (P171700, 2020), that is providing new and improved drainage systems, and reducing travel times. Discussions are ongoing about streamlining a similar model to support Class-2 and Class-3 cities.

Overall, the PDO was pitched at an appropriate level to pilot the approach on how to address the urban development problems faced by an emerging secondary city of Thai Nguyen.

The relevance of the PDO is rated **High**.

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To improve access to urban infrastructure. The FA referred to ‘transport connectivity, urban environmental sanitation; and education services.’

Rationale



THEORY OF CHANGE (TOC): The Project Appraisal Documents included a TOC. The Bank team acknowledged that as an early formulation this TOC had shortcomings, including indicators that were presented as long-term rather than short-term outcomes. At appraisal, the inputs (financing and technical assistance) were to lead to completed investments and plans to improve access to urban infrastructure. The urban infrastructure services to be improved were in transport, urban environmental sanitation, and education. The team updated the TOC at the second restructuring clarifying the expected outputs and classified outcomes as short-term vs long term, indicating that the project was designed to achieve short term outcomes. Activities under this objective was to finance investments in urban environmental sanitation, urban transport, and urban amenities. The completed investments in these urban services were expected to improve access and reliability of urban services for the bottom 40 percent of the population in the target area. These investments were to promote more compact and denser urbanization and meet demands for climate change adaptation. This project was formulated to achieve the economic and social benefits associated with cities that had more compact development patterns, strong public transport linkages, and access to services and jobs. More efficient use of infrastructure would reduce environmental degradation. Additionally, gender-inclusive economic opportunities were needed.

INPUTS: were to be the financing of the urban investments in the three sectors and training and technical assistance to improve capacity to deliver these services.

OUTPUTS: were to be the completed investments in transport connectivity such as roads, bus shelter; in urban environmental sanitation such as drainage, the flood protection works; and in education services such as in preschool facilities.

OUTCOMES: were to be improved service delivery in transport, environmental services, and education. Outcomes were to be expressed in the number of beneficiaries and end users, the land area covered by flood prevention, and the satisfaction rate expressed by beneficiaries for the access to services delivered. There was a lack of indicators to reflect the impact of the outputs on the lives and livelihoods of beneficiaries, including, for example, lives saved, and property destruction avoided because of the flood prevention measures investments, or the jobs created for women with more time freed from unpaid childcare because they use pre-school care.

A CRITICAL ASSUMPTION was to be that the City People's Committees (CPC) budgets would include annual allocations for infrastructure operations and maintenance (O&M) and kindergarten staffing. The likelihood that the outcomes would be achieved was to increase if this assumption came to bear.

Overall, the TOC established a reasonable causal link between inputs, outputs and expected outcomes. The outcomes were measured in the number of beneficiaries and the satisfaction generated by the improved access to the services in transport, sanitation, public space, and education.

OUTPUTS:

- To improve access in transport connectivity,
 - Completed a bus station along the canals used by workers commuting from Thai Nguyen to the major industrial sites south of the city (target **achieved**).
 - Constructed or improving 14 km of roads and bridges, (achieving target of 13.75 km) consisting of 6.5 km in Huong Thuong-Chua Hang Road (including Molinh 1 and Huong Thuong bridges); 2.3 km in Bac Nam Road; 1 km in Le Huu Trac Street; 3.8 km in Dong Bam



Street (including Molinh 2 bridge) and 0.3 km in the Dan bridge. Huong Thuong, a new four-lane, cantilevered bridge replaced a toll bridge, and was free to cross.

- To improve access in environmental services,
 - Constructed 2.2 km of drains (target **achieved**), consisting of 1.5 km in the Xuong Rong canal and 0.7 km in the Mo Bach canal.
 - Constructed 930 m³ of additional water treatment capacity (target achieved: 540 m³ in the Phan Dinh Phung and Gia Sang areas of the city, and 390 m³ of capacity provided in Tan Thinh and Thinh Dan).
 - Connected 887 households to new or improved wastewater treatment systems (**exceeding** the target of 840). These households previously discharged water directly into ditches, into septic tanks, or into the ground.
 - Improved 1.5km of new pipeline in the Xuong Rong canal and 1.3km the area in the Mo Bach canal to improve the city sewer system, (achieved the target of 2.8km).
- To improve access in education services,
 - Constructed preschool facilities in Huong Son Kindergarten and rehabilitated the preschool facilities in Phan Dinh Phung Kindergarten (target **achieved**). Both preschool facilities met the government standards for teacher-to-student ratios across the age groups (two teachers for every thirty pupils for children aged 25-36 months and two teachers for every thirty-five pupils for those between 37 and 72 months).
- To improve access in public spaces,
 - Constructed 116,605 square meters of walkable public space (target achieved). This improved space consisted of 98,555 m² in Bac Nam-Huong Thuong and Huong Thuong–Chua Hang roads; 15,550 m² in Dong Bam Road and 2250 m² in Le Huu Trac Road.
 - Planted 667 trees, providing shade, natural flood risk reduction (no target) and improving air quality (no target).

OUTCOMES:

- In improved access to environmental sanitation, three targets were exceeded and two were achieved:
 - Reduced the flood risk for 643 ha of the target area prone to floods (**exceeded** the target of 631 ha baseline reported was 643 ha per the PAD).
 - 1,323 people who live or work in the areas in which flood risk is reduced benefited from the improved drainage (exceeded the target of 1,207 people). The achievement exceeded the target because of an increase in the number of residents within the geographic area. 51.8 percent of these beneficiaries were female, (**exceeding** target of 51 percent), and 54 percent of them were from the bottom 40 percent of the income distribution (**achieving** the target of 54 percent).
 - 3,291 people benefited from improved access to sanitation (**exceeded** the target 3,178). 51.8 percent of these beneficiaries were female (**achieved** the target of 51 percent), 58.7 percent were from the bottom 40 percent of the income distribution (**achieved** the target of 58 percent).
- In improved access to education services, two targets were exceeded, and one was achieved:
 - A 60 percent reduction in time spent on unpaid childcare by mothers of young children, aged 3–72 months (**exceeded** the target 50 percent). This achievement was informed by surveys, computed as a weighted average of the 58 percent reduction for mothers of children enrolled in the Huong Son Kindergarten and 62 percent for mothers of children enrolled in the Phan Dinh Phung Kindergarten).



- 98 percent of users were satisfied with the childcare services provided (**exceeding** the target of 80 percent).
- The preschool facilities improved the teacher-to-student ratios across the age groups (2:30 for children aged 25-36 months against a baseline of 2:45; 2:35 for those between 37 and 72 months (60 in the TOC), against baselines of 2:40 for those aged 37-60 months and 2:50 for those aged 61-72 months. The improved ratios meant that the targets were **achieved**.
- In improved access to transport connectivity, all targets were exceeded:
 - 37,331 people have access to new and improved roads (**exceeded** the target of 36,050). 51.8 percent were female (**exceeded** the target of 49.6 percent). The share from the bottom 40 percent was 54 percent, (**exceeded** the target of 49.6 percent).
 - 97 percent of users were satisfied with the completed roads (**exceeded** the target of 80 percent). The same remarkably high level of satisfaction was found among 97 percent of female users (**exceeded** the target of 80 percent) and 97 percent of users with incomes in the bottom 40 percent of the distribution ((**exceeded** the target of 85 percent). The roads and bridges reduced the travel time from the outlying districts into the city by 40-50 percent less than before the project. In particular, the use of the four-lane, cantilevered Huong Thuong bridge, reduced the travel time from the far side of the Cau river into the city from 15-20 minutes to 5 minutes. These completed roads and bridges were designed guided by the city masterplan and served to mitigate against flooding.
- In improved public spaces, all but one target was exceeded. One target was **not achieved**.
 - 43,646 people were provided with access to new or improved public spaces (**exceeded** the target of 42,150). 51.8 percent were female (**exceeded** the target of 51 percent), 52 percent of users with incomes in the bottom 40 percent of the distribution (**did not achieve** the target of 56 percent). According to the ICR, this target was not achieved because Thai Nguyen city enjoyed an unexpected faster than average income growth during the project period (ICR, footnote 8).
 - 97 percent of users were satisfied with the improved public spaces (exceeded the target of 80 percent). The satisfaction levels 97 percent of female users (**exceeded** the target of 80 percent) and 97 percent of users from the bottom 40 percent of the income distribution (**exceeded** the target of 85 percent).
- Overall, 80,235 people were direct project beneficiaries (**exceeded** the target of 79,495). This consisted of 1,323 who benefited from the investments in flood risk reduction; 3,291 who benefited from the investment in sanitation; 37,331 who benefited from investments in transport connectivity, and 43,646 who benefited from investments in improved public spaces. These beneficiaries include 3,500 residents who also benefitted from the construction of Huong Son Kindergarten preschool facility and the renovation of Phan Dinh Phung Kindergarten preschool facility and were not included in the total count of direct beneficiaries to avoid double counting.
- One outcome was reported but was not part of the results framework and had no target. Anecdotes from local officials reported a six-fold increase in value of land surrounding project areas.

Overall, the efficacy of the project to achieve this objective is rated **Substantial** because the outcomes that were attributable to the project activities were achieved or exceeded. The target beneficiaries expressed satisfaction with the investments made in improving access to transport connectivity, environmental sanitation, public spaces, and education.



Rating
Substantial

OBJECTIVE 2

Objective

To improve integrated urban planning and management in the project city

Rationale

THEORY OF CHANGE: A TOC was prepared at appraisal as part of a new World Bank requirement for project appraisal. The second restructuring updated the TOC to improve the attribution of the outcomes to the outputs generated. TA and project implementation support to Thai Nguyen PPC was to strengthen its capacities for integrated economic and spatial planning informed by climate change and disaster risks. The TA was to ensure the strategic relevance and efficiency of the municipal infrastructure investments to be financed. The technical assistance and implementation support activities were to (i) link financing and budgets to the investment programs of the city; (ii) consolidate spatial and sectoral plans into integrated strategic development plans; and (iii) encourage the community to participate from planning to implementation. The integrated urban development plans would enable the project city to manage urbanization in a more comprehensive manner to achieve more compact, denser urban development. City level officials were to use these integrated plans to prioritize infrastructure financing and achieve efficient and sustainable capacity to manage urban assets. The plans would reinforce Thai Nguyen's role as a secondary city within the National Master Plan.

INPUTS: were to be the financing of training and technical assistance to develop or update a comprehensive, context-specific strategic urban development plan that was based on the specific needs, available resources, and development issues of the project city. Inputs associated with gender sensitive approaches were training to mitigate the risks of the influx of predominantly male construction laborers during implementation.

OUTPUTS: were to be the integrated urban development strategy. Restructuring expanded the number of plans from one to three and now included a public transport strategy and an urban management asset plan.

OUTCOMES: were to be the **approved** three plans noted above by the Thai Nguyen City People's Committee. Restructuring replaced the language from "developed" to "approved" by the CPC.

A CRITICAL ASSUMPTION was that continued implementation of integrated urban development plan, public transport strategy, and urban asset management plans, if realized would increase the likelihood that the outcomes would be achieved.

Overall, the TOC established a reasonable causal link between inputs, outputs and expected outcomes. The outcomes were measured in the approval and implied implementation of the three plans.

OUTPUTS:

The following targets were **exceeded**:

- 52.5 percent of participants were female (target 44 percent)



- 54 percent were from the bottom 40 percent of the income distribution (target 42 percent).

The following targets were **achieved**

- Conducted five stakeholder consultation sessions or training activities in integrated urban development planning
 - Three consultations were held in April, July, and November 2022.
 - Two training sessions were held in July and August 2023.
 - COVID-19-related restrictions led to an initial consultation by email.
- 2,350 beneficiaries participated in these consultations for project planning, implementation, or evaluation
 - 810 beneficiaries participated in evaluation
 - 1,530 beneficiaries participated in technical design consultation, social and environmental safeguard consultations

OUTCOMES: The following targets were **achieved** using the government's contributions, pointing to improved urban planning processes and strengthened corresponding national government capacity.

- Thai Nguyen City **approved** an integrated urban development plan, a public transport strategy, and an urban asset management plan for implementation.
 - The integrated urban development plan incorporated sectoral plans (e.g., land use planning, transportation, and other basic service infrastructure) and linked them with socio-economic development plans, budgets, and investment phases to address urban planning weaknesses. The approved urban development plan was integrated to provincial and national plans.
 - The public transport strategy was integrated to provincial and national plans.
 - The urban asset management plan was implemented, using a new software system. City and regional officials approved indicative O&M budgets, implying implementation.

Overall, the efficacy of the project to achieve this objective is rated **Substantial**, with minor shortcomings due to lack of outcome evidence to reflect how the approved plans were implemented and strengthened capacity.

Rating

Substantial

OVERALL EFFICACY

Rationale

The overall efficacy of the project to achieve both sub-objectives is rated **Substantial** with minor shortcomings. The TOC established reasonable causal links between the outputs and expected outcomes. Most of the outcomes were fully achieved. While the project met the targets for approval and implementation of the plans and strategies on urban management, additional evidence could have been provided with regard to the outcomes of the implementation of plans.



Overall Efficacy Rating

Substantial

5. Efficiency

Economic Efficiency: The economic analysis confirmed the economic viability of all the proposed sub-projects of Thai Nguyen. At appraisal, a 'with and 'without' economic analysis, sensitivity analysis (10 percent increase in the economic investment cost and a 10 percent decrease in the quantifiable economic benefits) compared scenarios and quantified the economic benefits of the different physical elements of the project. The analysis used a 10 percent economic opportunity cost of capital, following World Bank guidelines. The estimated economic internal rates of return (IRR) ranged from 10.6 - 24.6 percent to justify the project's economic viability. The overall IRR and NPV of the project components were not calculated at appraisal.

The same economic analysis methodology used at appraisal was applied at closing. The (IRRs) of the completed investments ranged from 13.8 – 28.8 percent. Traffic counts along Le Huu Trac Road at completion were significantly lower than forecasted at appraisal because Le Huu Trac Road was not constructed as planned at appraisal following the downscaling of the project leading to the much lower VOC savings compared to other roads built or improved as part of the project. This caused a slightly reduced IRR from 18.2 to 16.8 percent. At closing, the project investments achieved an overall IRR of 20.26 percent and an overall NPV of US\$ 50.86 million. Economic efficiency of the investments at appraisal could not be compared at closing.

Administrative and Operational Efficiency: Implementation had delays in the first three years of implementation. In addition, the following lack of institutional coordination among regional and policy directives, and factors outside the control of the government led to administrative and operational inefficiencies:

- The government did not include this project in its Medium-Term Investment Plan (MTIP) 2016-2020. Counterpart funds were not available for land acquisition during the early implementation period.
- Appraisal seriously underestimated the resettlement land area needed, its unit cost, and the number of households to be relocated and resettled. Corrective measures called for increasing government contributions. The government consequently requested scaling down of the project.
- On May 25, 2020 the national government issued a decree stipulating that counterpart funds, not IDA funds, would be used for certain expenditures, even if these were IDA eligible. The new government policy and the underestimated costs strained counterpart financing needs.
- On March 14, 2023 the national government approved the Thai Nguyen PPC-initiated provincial plan. This new integrated plan for the whole province overlapped with the activities to be financed under component 2 – land management, tourism, transportation, urban development, wastewater, and waste management. Provincial funds financed these overlapping activities and led to using less than US\$1 million in IDA credit under Component 2.
- The Vietnam Dong strengthened against the US\$ in the early implementation period. The government feared that funds would not be sufficient for the original scope of the project and scaled it back. This led to a reduction in public space area and additional wastewater capacity. When the US\$ bounced back toward closing, there was not enough time to use the balance.



- COVID-19 disrupted the supply of labor and materials. The cost of material increased.

The government requested to cancel US\$23 million of the original credit because the project was to close soon. Two restructurings reflected the reduced targets for the outcome and output indicators of the results framework.

Overall, project efficiency is rated **Substantial** given the high economic internal rates of return at closing even though there were some 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 (%)
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 the objectives is rated High because the PDO remained relevant to the country’s urbanization policies and the World Bank’s updated partnership strategy for the country. The efficacy and efficiency of the project to achieve the two sub-objectives is rated Substantial with minor shortcomings. The overall outcome is rated Satisfactory.

a. Outcome Rating

Satisfactory

7. Risk to Development Outcome

The following pose risks to development outcome:

- **Financial risks.** This is a moderate risk. In this project, an intermediate indicator referred to the development of an urban asset plan ‘with annual budgets for O&M.’ This was to ensure that adequate investments would be available after project closing. However, it belongs to the nature of public authority budgets that they can be changed and therefore such investment cannot be guaranteed.



Given that the local government approved and implemented asset management plans, are already under implementation, the risk is unlikely to materialize.

- **Governance and Ownership Risks.** This is a moderate risk. In this project, the second component was dedicated to establishing strategies and plans to sustain the infrastructure services financed under the first component. At restructuring, the government recognized that outcomes were not “to develop” sustainable infrastructure investments plans but “to approve and implement” these. Local leaders in both the city and the province expressed their commitment to implement future investments informed by these plans. To mitigate the risk that commitments may waver, the ongoing World Bank-financed Dynamic City Integrated Development Project (DCIDP, P168290) adopted the design of this pilot.

8. Assessment of Bank Performance

a. Quality-at-Entry

At appraisal, the World Bank team designed the project to support the World Bank’s objectives for Vietnam in its Country Partnership Framework. The team considered the government’s urbanization strategy to address the urban sprawl pattern by promoting a more compact development to increase urban density. The Project Management Unit (PMU) had limited experience with Bank financial management and procurement procedures. The team designed mitigating measures to strengthen the PMU’s capacity to implement the project as designed. The team decided to pilot Thai Nguyen before other secondary cities and towns under the subsequent Dynamic Cities Integrated Development Project (DCIDP). Lessons from similar prior World Bank-financed projects informed design. These included operations in Vietnam such as the Medium Cities Development, the Da Nang Sustainable Development, the Vietnam Urban Upgrading, and the Can Tho Urban Development and Resilience Projects. Similar urban development projects in China, Indonesia, Sri Lanka, Tanzania, and Uganda also provided lessons. Among these were sustained political commitment; evidence-based integrated urban development strategies or master plans linked to the budget process; in-situ resettlement or early resettlement sites preparation; and enjoining community participation in planning, designing, and implementing project activities.

The Bank team complied with a new requirement for project appraisal and used the indicators of the results framework to form a Theory of Change. However, the team acknowledged that some outputs were misidentified as outcomes. Activities were designed to promote compact development. However, the team acknowledged that not all the interventions would contribute to achieving this aim. For example, constructing dual carriageway roads may lead to development away from the center rather than compact development. Transport elements turned out not fully aligned with the Bank’s emphasis on sustainability, nor “consistent with low carbon and climate-resilient development pathways.” While a reliable bus system that uses the new roads may reduce Thai Nguyen’s emissions from this sector, the improved roads may also increase the use of personal vehicles rather than traveling by bus.

There was also lack of implementation readiness. There was delayed inclusion of the project into the government’s Medium Term Investment Plan. This action affected the timely availability of government contributions. Project design also significantly underestimated the number of households to be resettled as part of the planned civil works, from a planned 133 to an actual of 466 households. This also meant an



underestimate of the resettlement area needed at implementation. There were also shortcomings in the original Theory of Change and the outcome indicators.

Overall, the performance of the Bank team at entry is rated **Moderately Satisfactory**.

Quality-at-Entry Rating

Moderately Satisfactory

b. Quality of supervision

The World Bank conducted 12 supervision missions and met regularly with the Thai Nguyen PPC, city officials, and the PMU over the five-year period, including virtual missions during the COVID-19 pandemic. During early implementation, the World Bank team adopted corrective measures to address delays, administrative issues, and financial complications that arose. They completed two restructurings, revised the results framework to address the mismatch in outcome indicators, cancelled US\$23 million in IDA funds, and scaled down activities. On March 14, 2023 the national government approved the Thai Nguyen PPC-initiated provincial plan. This new integrated plan for the whole province overlapped with the activities under component 2 – land management, tourism, transportation, urban development, wastewater, and waste management. The World Bank team responded by providing technical inputs and guidance to add details to improve the provincial plans. The Bank team acknowledged that poor coordination was reflected in the August 2021 restructuring where component 2 increased its allocation rather than anticipating that the component and the overall project would now cost less than planned. The short period between restructurings (seven months) also highlighted the presence of complex oversight requirements, with different processes and procedural priorities – one by the government, and the other by the World Bank (ICR paragraph 79).

Adequate land acquisition proved problematic because the national government's Medium Term Investment Plan (MTIP) 2016-2020 did not include this project. The pass through-delivery of IDA funds from central national government in 2019-2020 took longer than expected. Restructuring led to downscaling to make up for time lost. An increase in government counterpart financing was to address these dropped activities, but the Thai Nguyen PPC budget did not finance all aspects of the dropped activities, nor were these subjected to the project's control and coordination. The ICR acknowledged that the Bank team could have provided closer oversight of M&E implementation (ICR, paragraph 80).

Overall, the quality of the Bank performance at supervision is rated **Satisfactory**. The World Bank team provided corrective measures in response to the government's changing administrative landscape and the challenges brought by the pandemic and foreign exchange losses. The project did not require a time extension.

Overall, the quality of Bank performance at entry and supervision is rated **Moderately Satisfactory**.

Quality of Supervision Rating



Satisfactory

Overall Bank Performance Rating

Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The Theory of Change (TOC) at appraisal outlined a reasonable, logical, causal link between activities to be implemented, outputs, and expected outcomes, duly reflected in the results framework. Some outcome level indicators were limited to intermediate results or output level, such as the number of urban development strategies developed, the beneficiaries of the infrastructure investments, or level of satisfaction with the completed investments (rather than the services delivered). Other M&E methods mentioned were sound – each subproject would conduct semiannual M&E evaluations; each city would conduct a mid-term and a final project evaluation including a beneficiary survey. The intermediate results indicators adequately captured the contributions of the activities to achieve the PDO. The indicators were specific, achievable, relevant, and timebound. They were measurable except the World Bank team acknowledged that some methodology was unclear (ICR, paragraph 66). For example, “people who have access to new and improved roads under the project” was defined as “the number of people, (motorized and non-motorized users), with access to new or improved roads within a 500-meter range” without clarifying if survey respondents were users who live; work; live and work in the area; or non-residents who use the roads. Relevant baseline ratios were reported. The PAD reported that beneficiaries were to be consulted in the planning, implementation, and evaluation of project investments.

b. M&E Implementation

The Thai Nguyen City People’s Committee (CPP) Project Management Unit (PMU) supported by third-party consulting firms implemented the M&E system as designed. The PMU reported on progress against indicators in the results framework and refined an outcome indicator for improving urban planning to address its weakness – i.e., “approved,” implying implementation, rather than merely “developed,” an output indicator at best. At restructuring, the PMU reduced targets in response to the cancelled funds and downscaling of activities to complete the project on time. The PMU monitored compliance with environmental and social safeguards (see Section 10 Other Issues below). The PMU used drones to supplement data collection in monitoring construction progress. The ICR reported that beneficiaries were consulted, and training sessions were conducted as part of the integrated urban development planning and in the preparation and implementation of project investments. Beneficiary surveys were conducted to evaluate the completed project investments.

c. M&E Utilization

The team, and the government used M&E data generated by the system to inform on progress, identify challenges, and prepare corrective measures to resolve these. The World Bank team used the data to complete to formulate corrective measures to resolve implementation challenges. M&E data informed restructurings. According to the ICR, beneficiaries were informed of outcomes, based on surveys



conducted at closing. M&E data informed the design of the follow-on project, the Dynamic Cities Integrated Development Project (DCIDP, P168290).

Overall, the quality of the M&E is rated **Substantial**. There were shortcomings in outcome indicators at design of which most were addressed during restructuring. M&E implementation informed project outcome and guided the completion of the project.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

Environmental Safeguards The project, which was classified as category B requiring a partial assessment and triggered the following safeguards policies: Environmental Assessment (OP 4.01), Natural Habitats (OP/BP 4.04) because of the work on bridges and ditches; Forests (OP/BP 4.36) because the project acquired 1.45 ha of forest, and Physical Cultural Resources (OP/BP 4.11), because of relocating 58 graves. The project completed an Environmental and Social Impact Assessment (ESIA) to identify potential impacts and risks associated with the proposed physical investments in each subproject; and an Environmental and Social Management Plan (ESMP) for each ESIA to identify mitigating measures to address risks; monitoring and supervision plans; and institutional arrangements. The project team disclosed the English and Vietnamese versions of the ESIA/ESMP locally and in the World Bank Infoshop on March 1, 2018. The PMU designated staff responsible for the environment, health, and safety (EHS) aspects of subprojects and construction supervision firms were assigned EHS compliance monitoring responsibilities. During COVID-19, the construction supervision consultants ensured continuity with the oversight responsibilities, including participation in virtual meetings and inspections. Project contractors complied with the EHS terms and conditions in construction contracts. They also implemented corrective measures when gaps were identified (e.g., lack of personal protective equipment and inadequate site safety measures). The project complied with World Bank environment and social safeguard policies (ICR, paragraph 70).

Social Safeguards. The project triggered Involuntary Resettlement (OP/BP4.12). The team prepared a Resettlement Policy Framework (RPF) and a Resettlement Action Plan (RAP). The RPF and the RAP were disclosed locally on January 11, 2018 and on the World Bank's website on March 29, 2018. The RAP updated the costs, scale, and scope of the project land acquisition and resettlement (LAR), and the livelihoods restoration program (LRP). Both LAP and LRP were disclosed locally on December 22, 2023 and on the Bank external website on December 25, 2023. The project affected 49.2 hectares of land, 20.1 hectares of agricultural land, 8.3 hectares of residential land, and 1.6 hectares of production forestland; and a total 1,220 households. 98 households were relocated. Partial loss of agricultural land affected 905 households. The city maintained a Grievance Redress Mechanism (GRM) based on a national GRM mechanism that applied to all administrative levels and the courts. The PMU appointed a GRM focal point to coordinate the resolution of grievances. The project received 51 resettlement compensation complaints. All were reported resolved. The PMU conducted training on acceptable behavior of male non-resident workers who were coming to work on construction sites. There were no reports of sexual abuse or harassment. Clearing the land for roads, bridges and drains were delayed until the project's final months, because



property owners were dissatisfied with the compensation and because family disputes made establishing land ownership difficult. These problems were resolved in time for the project to close as originally planned.

b. Fiduciary Compliance

Financial Management The project complied with the World Bank’s Financial Management (FM) policies (ICR, paragraph 74). The Thai Nguyen Project Management Unit (PMU) was adequately staffed. The PMU submitted financial reports on time, assessed to have managed the designated account adequately, adopted sufficient internal controls, and updated the accounting software and information management systems. Financial audits were found acceptable. The auditor was conducting a final audit of expenditures at the time of the ICR preparation. The government did not include this project in its Medium-Term Investment Plan (MTIP) 2016-2020. No counterpart funds for land acquisition were available for the period 2019-2020. However, the shortage of counterpart funds was eventually resolved.

Procurement The Bank’s prior and post reviews of procurement contracts confirmed that the project complied with the World Bank procurement policies (ICR, paragraph 75). In 2020, the COVID-19 pandemic happened. In 2021, the country experienced foreign exchange losses (Vietnamese Dong strengthened against the US\$). In the first two years of implementation, land acquisition was also delayed. Procurement activities were delayed as a consequence. A portion of the credit was cancelled and restructuring reduced the scope of works. The PMU responded by undertaking a flexible scheduling of construction activities. The PMU maintained the data on civil works. Construction Supervision Consultants monitored implementation progress. Following the restructuring, the project accelerated procurement and awarded 21 Bank-financed contracts. All were completed by the original closing date (December 31, 2023). All were of acceptable quality and without cost overruns. The World Bank team provided hands-on guidance, intensive training, and timely support to mitigate the PMU’s initial lack of experience with World Bank procurement.

c. Unintended impacts (Positive or Negative)

d. Other

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Satisfactory	
Bank Performance	Satisfactory	Moderately Satisfactory	Shortcomings in quality at entry.
Quality of M&E	Substantial	Substantial	
Quality of ICR	---	Substantial	



12. Lessons

The operation offered the following lessons:

- **The accuracy of the estimates of the extent of the land area to be acquired, its unit costs, and the number of households to be relocated and compensated are critical since they would affect the scale and timeliness of the infrastructure to be delivered.** In this project, design was informed by a lesson from similar operations, but, unfortunately, this lesson was ignored. As a result, the project experienced delays, downscaling, and reduced impact of the investments made. To mitigate this risk, project teams need to estimate costs accurately as part of the conditions for credit or loan effectivity; or hire consultants to prepare such estimates.
- **If multi provincial urban infrastructure projects were clustered around a theme, a streamlined design and coordination can be optimized.** In this project, design and implementation revolved around coordination among many actors from the national, provincial, city levels. For example, the national Ministry of Construction was to provide upstream technical support for investment design to ensure alignment with the country's development objectives. At the same time, the Ministry of Construction could use the data from these designs to develop cost or design standards when building or improving drainage channels per kilometer for other cities with similar conditions. Or recommend how to sequence project construction to reduce disruption or delays. Multiprovince urban infrastructure projects could offer cities incentives to adopt lessons from each other's experience under an umbrella national program. Such a national program could then lead to more efficient management and coordination of activities. The World Bank, for its part, could consider a more streamlined financing approach such as a Series of Projects (SOP) or Multi-Phase Program approach.
- **Planned activities to mitigate a development problem stated in a project objective need to be clearly defined to justify their inclusion.** This project was intended to achieve higher urban density to promote compact urban development. However, some proposed infrastructure investments in transport connectivity, for example, could promote the opposite effect of reducing density because improved road connectivity can reduce travel time to the center and promote suburban living. A clear Theory of Change could help clarify how inputs lead to expected outcomes to achieve the development objective.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The report followed the guidelines, was internally consistent, and highlighted how the activities informed the outcomes. The TOC provided a useful overview of the project. The M&E system generated the evidence to support the achievements reported. Table 1 was particularly helpful in providing an overview of the impact of



the reduced investments and reduced targets in achieving the expected outcomes. The annexes filled the gaps to support the evidence and the ratings, particularly the detailed breakdown of the results reported in Annex 1 and efficiency analysis in Annex 4. The report was candid, illustrated the operational realities and justified the measures adopted in response to the changing administrative landscape. Lessons were derived from the project operation. The quality of the ICR is rated Substantial.

a. Quality of ICR Rating
Substantial