



1. Operation Information

Operation ID P171006	Operation Name Climate Change and Green Growth DPF
Country Vietnam	Practice Area (Lead) Environment, Natural Resources & the Blue Economy

Non-Programmatic DPF

L/C/TF Number(s) IDA-66170	Closing Date (Original) 30-Nov-2021	Total Financing (USD) 86,008,980.00
Bank Approval Date 05-Jun-2020	Closing Date (Actual) 30-Nov-2021	
	IBRD/IDA (USD)	Co-financing (USD)
Original Commitment	84,400,000.00	0.00
Revised Commitment	84,400,000.00	0.00
Actual	86,008,980.00	0.00

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2. Program Objectives and Pillars/Policy Areas

a. Objectives

The Program Development Objective (PDO) of this Development Policy Financing (DPF) operation, as stated in the Program Document (PD, page 6), is “to promote: (a) climate resilient management of landscapes; and (b) adoption of cleaner transport and energy systems.”



For this evaluation, the individual objectives are identified as follows:

PDO 1. To promote climate resilient management of landscapes

PDO 2. To promote adoption of cleaner transport and energy systems

b. Pillars/Policy Areas

The PDOs were to be achieved under two pillars (PD, para 36):

Pillar 1: Climate resilient management of landscapes

Pillar 2: Adoption of cleaner transport and energy systems

c. Comments on Program Cost, Financing and Dates

Program Financing. This single-tranche operation was financed by an IDA credit of US\$84.2 million. The tranche was fully disbursed on completion and verification of prior actions.

Program Cost. At appraisal, the project was estimated to cost US\$84.4 million. At project closing, the amount disbursed was US\$86.08 million. The Bank team clarified that the discrepancy between the amount approved and disbursed was due to the exchange rate fluctuation between XDR and USD.

Dates. The operation was approved on June 5, 2020, became effective on June 4, 2021, and closed as scheduled on November 30, 2021.

3. Relevance of Design

a. Relevance of Objectives

Country Context: Vietnam was one of the world's most vulnerable countries to climate change impacts. The intense exploitation of natural resources linked to its rapid economic growth exacerbated its vulnerability. In the late 2000s, when growth was peaking, natural resource depletion was in the order of 7 percent of GNI. The rapid development and uneven distribution put pressure on water resources leading to competing demands and pollution. Climate change may lead to increased frequency of droughts and storm events. Overstretched water resources will make the country more vulnerable to drought, and unsustainably logged landscapes will increase the risk of flooding from storm events. More resilient landscape management could mitigate these effects. Where agricultural production is stressed by erratic rainfall, drought, and salinity, the adoption of climate-smart agricultural technologies is also needed as part of an integrated approach to landscape resilience. From 2000 to 2015, carbon dioxide (CO₂) emissions nearly quadrupled, and Vietnam was the 13th most carbon-intensive economy in the world and the 4th amongst low and middle-income countries in East Asia. The adoption of cleaner transport and energy systems was needed to address the rising greenhouse gas



(GHG) emissions, air pollution caused by the transport sector, and the growing reliance on coal-based power generation.

Government Strategy: The DPF's objectives were well aligned with the Government of Vietnam's 2016-2020 Socio-Economic Development Strategy (SEDS), which underscored the need for climate resilience, environmental protection, and improved management of natural assets (ICR, para 6). The operation supported the government's Support Program to Respond to Climate Change (SP-RCC) 2016-2020, which facilitated policy reforms for the effective implementation of climate change and green growth actions prioritized under the National Climate Change Strategy (NCCS) approved in 2011 and Vietnam Green Growth Strategy (VGGS) approved in 2012. This included supporting policies that aimed to increase the protection of water sources, additional reductions in air pollutants from vehicles, and further scale-up of renewable generation capacity (ICR para 7). The policy reform areas were chosen based on the highest potential for transformative interventions, aligning with shared priorities identified collaboratively by the Government, the Bank, and other Development Partners involved in the SP-RCC program. The objectives were also aligned with the commitments made under the Nationally Determined Contribution (NDC, initially developed in 2015) which included reducing GHG emissions, and a variety of adaptation targets such as integrating climate planning in the Socio-Economic Development Plan (SEDP), increasing forest coverage, and provision of water services. (Program Document, para 31).

Bank Strategy: The DPF's objectives were well aligned with the Country Partnership Framework (CPF) 2018-2022. The two pillars of the PDO on promoting (i) climate resilient management of landscapes and (ii) cleaner transport and energy systems were aligned with Focus Area 3 (Ensure Environmental Sustainability and Resilience). The DPF end-of-program indicators also contributed towards the indicators for achieving CPF objectives. It also contributed to the 'Strategic Shift Five' under the 2019 Performance and Learning Review of the CPF, which stated that the World Bank's engagement would support the NDC implementation.

Previous Bank experience: This DPF was built on an earlier 2016 operation that was designed to be the first in a 3-operation series. The originally conceived DPF series focused on mainstreaming climate within general planning and budgeting processes and tackling specific climate issues in critical sectors. The original series was expected to run from 2016 to 2019, but following approval of the first operation in June 2016, processing of the second operation was delayed beyond 24 months and eventually dropped due to the public debt ceiling and constraints on government borrowing. The preparation of this DPF drew upon the policy discussions conducted during the previous DPF series. It sought to expand upon the achievements made in the earlier phase while creating a pathway towards a new phase of climate action in Vietnam beyond 2020, centered on implementing NDC commitments. This operation extended the policy ambition and results beyond those envisaged for the original series in critical areas, including increased protection of water sources, additional reductions in air pollutants from vehicles, and further scale-up of renewable generation capacity.

The Program Development Objective was appropriate in its ambition and relevant to the country and Bank strategy. It was a natural continuation of achievements under the previous DPF.

b. Relevance of Prior Actions

Rationale

Pillar 1: Climate resilient management of landscapes



The reforms under this pillar included support under three policy tracks: (i) Climate Smart Landscape Planning; (ii) Climate Budgeting; and (iii) Improving Water Resources Protection and Use Efficiency.

Climate Smart Landscape Planning

Prior Action 1: The Recipient, through its Government, has adopted criteria for the classification of coastal protection forests, as evidenced by Decree No. 156/2018/ND-CP dated November 16, 2018, and through MARD, has adopted Circular No. 28/2018/TT-BNNPTNT dated November 16, 2018, on the development of sustainable forest development plans.

The first prior action for this reform area focused on adopting ‘criteria for classifying coastal protection forests and respective management measures’. Additionally, it aimed to establish requirements for sustainable forest management plans, recognizing the crucial role these forests play in enhancing the climate resilience of Vietnam’s vulnerable coastal landscape. The forest sector is of vital importance to Vietnam’s economy and climate change strategies; however, it faced challenges such as competing land uses and overexploitation. Two-thirds of Vietnam’s natural forests were deemed to be in poor condition or undergoing regeneration. The decline was linked to the emphasis on the production forests and limited resources allocated to the management of natural forests. Coastal forests, especially protection forests, were crucial for protecting vulnerable populations and economic assets in the lowlands.

Considering the pressing issues of forest overexploitation and inadequate forest management capacity, prioritizing the protection and management plans for forests was both critical and timely. However, the prior action itself mandated only the adoption of criteria and the development of requirements, which by themselves may have little impact. A more substantive prior action might have required the actual classification and reporting on coastal protection forests according to agreed criteria. While PA#1 was relevant in terms of increasing recognition and developing management plans in line with national certification systems, it was too early in the results chain to have a significant impact on achieving the objective of improved climate landscape management. Consequently, the relevance of the prior action is rated as Moderately Satisfactory.

Prior Action 2: The Recipient has: (i) through its Government, adopted Decree No. 37/2019/ND-CP dated May 7, 2019, guiding the implementation of the Planning Law, including the process, content, and climate considerations for the preparation of regional master plans, and (ii) through its Prime Minister, issued Decision No. 1226/QĐ-TTg dated September 24, 2018, establishing the National Planning Council tasked with the responsibility of developing regional master plans for the Mekong Delta and other regions.

The second prior action focused on strengthening the resilient planning of the Mekong Delta. The Mekong Delta is home to 20 million people and accounts for half of Vietnam’s rice production, 70% of aquaculture production, and one-third of GDP. The Delta had a high inundation risk, and it was expected that by 2050, eight of the 13 Delta provinces could experience at least a 50% increase in the flood areas. To address climatic impacts, it was essential to have greater coordination across sectors and provinces to minimize negative externalities and inefficiencies created by siloed planning. Vietnam’s 2017 Planning Law transformed the planning process into a more coherent and integrated one, with the Integrated Regional Master Plan for the Mekong Delta set to replace more than 30 sector master plans that have led to inefficient investments and unsustainable development.

The development of the Mekong Delta needed a shift towards a more integrated, area-based, and climate-smart approach. PA 2 included adopting guidance for implementing the Planning Law, including process,



content, and climate considerations for the preparation of regional master plans and establishment of a National Planning Council tasked with developing regional master plans. The Program document notes (para 41) that within the Vietnam governance context, official plans typically represent robust policy vehicles as there is a high degree of commitment to their implementation. However, the prior action was somewhat weak, as it mandated only the issuance of guidance and the creation of a planning body, not the actual issuance of plans that included climate considerations.

PA 2 was relevant in supporting this shift and the development of the first single, integrated, multi-sectoral, and spatial master plan at the regional level - the Mekong Delta regional master plan (with a strong focus on climate resilience and sustainability). However, for this PA to generate a tangible outcome, it was expected that the 2021-2025 Medium-Term Investment Plan would include coordinated investments identified in the Regional Master Plan. However, the Regional Master Plan was approved after the MTIP. PA 2 was in congruence with the PDO and addressed the key issues of fragmented and sectoral-based planning, which had led to inefficient investments. However, the contribution of this PA to the achievement of outcome was difficult to substantiate as the result chain associated with this PA was weak. The relevance of this prior action is rated as Moderately Satisfactory.

Climate Budgeting

Prior Action 3: The Recipient, through MPI, has adopted Decision No. 1085/QD-BKHDT dated July 16, 2018, governing the identification, classification, and reporting of public investment allocations related to climate change and green growth.

The third prior action focused on adopting guidance for identifying, classifying, and reporting public investment allocations related to climate change and green growth. Vietnam has committed through the Socio-Economic Development Plan to increasing financing for investments that enhance climate resilience and green and low-carbon growth. Climate change and green growth budget tagging are needed to monitor and evaluate action under this commitment and understand and manage the composition of expenditures on these topics.

The prior action aimed to implement a consistent methodology for tracking climate budget public expenditures. The prior action was important to assess and manage the overall level of public climate investment and the alignment of that investment with established national climate objectives. However, the causal chain to increase investment in response to national climate priorities as a result of the prior action was weak. A stronger prior action might have required an increasing allocation of public investment for climate change, rather than solely classifying and reporting on investments that are responsive to climate concerns. The relevance of the prior action is rated as Moderately Satisfactory.

Improving Water Resources Protection and Use Efficiency

Prior Action 4: The Recipient, through its Government, has: (i) adopted regulations on groundwater protection to prevent saline intrusion and land subsidence, as evidenced by Decree No. 167/2018/ND-CP dated December 26, 2018; and (ii) improved sand mining management and river works planning to protect water sources, as evidenced by Decree No. 23/2020/ND-CP dated February 24, 2020.

The fourth prior action aimed to protect water sources through regulations on groundwater protection to prevent saline intrusion and land subsidence and regulations to improve sand mining management and river works planning. The unregulated groundwater abstraction depletes aquifers, and uncontrolled sand mining leads to erosion and flood risk. Climate change exacerbates water scarcity and salinization, affecting the country's water



resources. The government has committed to protecting surface and groundwater resources through policies regulating water management, abstraction charges, and violation penalties.

The prior action aimed to regulate groundwater exploitation and establish four different groundwater protection zones, with restrictions on abstraction in zones where groundwater is already depleted, polluted, or threatened by salinization. While the Ministry of Natural Resources and Planning (MONRE) continued to be responsible for overall framework planning and oversight, the responsibility for groundwater and sand management was assigned to the provincial authorities, thereby increasing accountability, and enhancing enforcement on the ground. Establishing the institutional and governance framework for water resources protection was considered instrumental to ensuring water resources' sustainability and security, especially in the face of increasing climate change impacts. The relevance of the prior action is rated as Satisfactory.

Prior Action 5: The Recipient, through its Government, has adopted: (i) Decree No. 77/2018/ND-CP dated May 16, 2018, providing financial incentives for on-farm irrigation, and advanced and efficient irrigation system; and (ii) guidelines for water service fees for irrigation, as evidenced by Decree No. 96/2018/ND-CP dated June 30, 2018

The fifth prior action focused on improving irrigation efficiency by providing incentives for the development of small-scale, multi-purpose water storage and on-farm water delivery systems. Agriculture is the primary water user, and increasing irrigation efficiency is crucial for addressing climate-induced water shortages. The dominant use of water-intensive, low-value crops for irrigation has put pressure on water resources, especially in the context of climate change. The incentives include subsidies ranging from 50-100% for design and machinery costs in investments that improve irrigation efficiency.

In addition, the PA focused on guidelines for water service fee for irrigation. In 2008, the government had abolished irrigation fees, which led to an insufficient budget for maintaining public irrigation systems and disincentivized efficient water use. The new guidelines are for pricing irrigation services based on either area served or volume of water used (depending on farm size and crop type) and a timeline for rolling out their application. The establishment of volume-based fees was a critical incentive to increase irrigation efficiency and water productivity.

The prior action aimed to reduce the pressure on water sources by providing incentives to enhance water use efficiency and improve water productivity, directly contributing to climate resilient management of landscapes. The relevance of the prior action is rated as Satisfactory.

Pillar 2: Adoption of cleaner transport and energy systems

The reforms under this pillar include support under two policy tracks: (i) Cleaner Transport; and (ii) Towards a Low-Carbon Energy Transition.

Cleaner Transport

Prior Action 6: The Recipient, through its Prime Minister, has adopted new emissions standards for in-use and imported used road motor vehicles, as evidenced by Decision No. 16/2019/QD-TTg dated March 28, 2019.

The sixth prior action regarding new emissions standards for in-use and imported used road motor vehicles aimed to encourage the adoption of progressively cleaner fuels in the transport sector, thus leading to a reduction in polluting vehicles and reduced local air pollution. The transport sector in Vietnam has been growing



rapidly, with road transport accounting for two-thirds of total passenger kilometers and a quarter of freight ton-kilometers. This heavy reliance on road transport has led to a continuous upsurge in emissions, making transport the primary source of air pollution in Vietnam's congested urban areas. While the government has adopted EURO-4 vehicle emission standards for new vehicles, there has been no effective measure to tackle emissions from in-use vehicles and used import vehicles, which account for a significant share of the sector's emissions.

The prior action expanded on the achievements of the original DPF series, which supported the adoption of regulations on new vehicles, by extending emissions regulations to in-use and imported used road vehicles. The prior action was expected to significantly reduce air pollution and GHG emissions and lead to a cleaner transport sector in Vietnam. The relevance of the prior action is rated as Satisfactory.

Towards a Low-Carbon Energy Transition

Prior Action 7: The Recipient, through its Prime Minister, has adopted a national energy efficiency program for the period 2019-2030, as evidenced by Decision No. 280/2019/QĐ-TTg dated March 13, 2019.

The energy sector in Vietnam is responsible for the largest share of GHG emissions (44% in 2014), making it critical to promote energy efficiency (EE) and renewable energy (RE) policies to transition towards a low-carbon economy. At appraisal, the Program Document noted (para 72) that the government is planning to move from the current voluntary to a more mandatory EE regime, adopting a carrot-and-stick approach, particularly in the industrial and residential sectors that are responsible for the majority of electricity consumption in Vietnam. The seventh prior action aimed at adopting a national energy efficiency program for 2019-2030. The program supports policy development, technical and financial assistance for promoting investment, strengthening of monitoring and compliance regime, communications and awareness raising, and research and development. It also included a plan to set up a financial mechanism for energy efficiency, provision of capacity building for provincial stakeholders for monitoring energy consumption, and the establishment of an energy data management center.

The program included a high level energy savings target of 8 to 10 percent from 2019 to 2030 against a business-as-usual energy demand forecast, as well as specific targets for key sectors such as cement, steel, plastic, chemical, textile, beverage, and paper industries, and goals related to the adoption of energy management systems, energy efficiency measures in industrial parks and clusters, and the certification of green buildings. To achieve these targets, the provincial plans incorporate various solutions and actions, including the review and development of energy efficiency policies and regulations, providing technical and financial support for investment in energy efficiency projects, establishing energy databases, capacity building initiatives, monitoring and evaluation of energy efficiency regulations, communication and awareness campaigns, international cooperation, and research and development of energy efficiency technology. The plans also assign clear responsibilities to local departments and designated energy users, ensuring effective implementation and coordination. Moreover, the plans generally include financial resources and budget requirements for their successful execution.

The prior action was expected to lead to increased uptake of energy efficiency measures and was an important step for moving towards a low-carbon energy transition. The relevance of the prior action is rated as Satisfactory.



Prior Action #8: The Recipient has: (i) through its Prime Minister, revised the feed-in tariff to promote investment in wind power development in Vietnam, as evidenced by Decision No. 39/2018/QD-TTg dated September 10, 2018; and (ii) through its MOIT, adopted a standard power purchase agreement for wind power, as evidenced by Circular No. 02/2019/TT-BCT dated February 28, 2019.

The eighth prior action focused on increasing the feed-in tariff and adopting a standard power purchase agreement for wind power development. The Government of Vietnam has set ambitious targets to promote low-carbon development by reducing the carbon intensity of its power sector with the adoption of the Renewable Energy Development Strategy and the Revised Power Development Master Plan VII. To achieve the government’s targets, several challenges need to be addressed, including the lack of concessional financing sources, infrastructure connections, an enabling policy framework, and associated risks related to investments. The prior action was expected to incentivize investment in both onshore and offshore wind and address financing challenges wind developers face (for example, reduced risks related to force majeure and technical curtailment).

The prior action helped to address the need for an enabling policy and regulatory framework to attract commercial financing in wind power. The prior action was expected to lead to a significant investment in wind power generation and expanded use of wind power in Vietnam, contributing towards Vietnam’s low-carbon energy transition. The ICR team also clarified that the feed-in-tariff was an interim mechanism for developing wind power in Vietnam. To further scale-up renewable energy (RE) investments in Vietnam, the government intended to accelerate the deployment of an auction-based procurement framework for sourcing additional RE generation capacity, which would replace the current FIT mechanism, strengthen market-based competition and allow for efficient price recovery. The relevance of the prior action is rated as Satisfactory.

Table 1: Rating of Relevance of Prior Actions

Pillar	Prior Action	Rating of Relevance of PA
Pillar 1: Climate resilient management of landscapes	1. Adoption of criteria for the classification of coastal protection forests and the development of requirements for sustainable forest management plans.	Moderately Satisfactory
	2. Adoption of guidance for implementing the Planning Law, including process, content, and climate considerations for preparation of regional master plans and establishment of a National Planning Council tasked with the responsibility of developing regional master plans	Moderately Satisfactory
	3. Adoption of guidance for the identification, classification, and reporting of public investment allocations related to climate change and green growth	Moderately Satisfactory
	4. Adoption of regulations on groundwater protection to prevent saline intrusion and land subsidence and regulations to improve sand mining management and river works planning to protect water sources	Satisfactory
	5. Adoption of financial incentives for on-farm irrigation and advanced and efficient irrigation systems, as well as guidelines for water service fees for irrigation	Satisfactory
Pillar 2: Adoption of	6. Adoption of emissions standards for in-use and imported used road motor vehicles	Satisfactory



cleaner transport and energy systems	7. Adoption of a national energy efficiency program for the period 2019-2030	Satisfactory
	8. Revision of the feed-in tariff and adoption of a standard power purchase agreement for wind power development	Satisfactory
Overall Rating of Relevance of Objectives		Satisfactory

The prior actions were appropriate along the results chain for realizing the intended objectives. Five of the eight prior actions were satisfactory, and three were moderately satisfactory. Assuming equal value to each prior action, the relevance of the design is rated as Satisfactory.

Rating

Satisfactory

4. Relevance of Results Indicators

Rationale

PDO 1: To promote climate resilient management of landscapes

To assess the achievement of this objective, there were five Results Indicators (RIs), with each PA having one RI. Below is the discussion and rating of each result indicator used to assess the extent to which the PAs were achieved.

RI1: Number of hectares of production and natural forests with approved sustainable forest management plans

The indicator was relevant to assess the government's commitment and the PA's impact on strengthening forest management. While, in principle, the indicator was appropriate, the definition and targets should have aligned with the official categories of forests. The targets include one for production forests (250,000 ha) and one for natural forests (100,000 ha). However, according to Decree 156 and Circular 28, forests were categorized into three types: specialized, protection, and production. Natural and plantation forests could fall into each of the above categories. Therefore, the indicator and targets should have been defined for the three categories of the forest instead of production and natural. There was no indicator to measure the progress on classification and reporting on coastal protection forests regulation under PA#1. The relevance of the indicator is rated as Moderately Satisfactory.

RI2: Medium-Term Investment Plan includes coordinated investments as defined in the Integrated Regional Master Plan for the Mekong Delta to address multiprovincial issues compounded by climate change

The indicator aimed to demonstrate the government's commitment to addressing issues of fragmented and sectoral-based climate planning by integrating coordinated investments identified in the Regional Master Plan into the 2021-2025 Medium-Term Investment Plan. The Mekong Delta Plan was the first master plan at the regional level that would be informed by robust vulnerability models to identify climate-



smart pathways and investments under different climate and development scenarios. This Master Plan was deemed to be critical to enable effective action on climate change and green growth (Program Document, para 51), and the incorporation of key investments in the MTIP was to demonstrate commitment to its implementation. The Program Document had also identified the risk to be substantial 'because the approval of the regional plan was expected to involve complex political economy challenges'. The relevance of the indicator is rated as Satisfactory.

RI3: Number of sub-sectors with increased climate-responsive investment under the Ministry of Agriculture and Rural Development's (MARD) annual budget

The indicator under this PA aimed to measure the sub-sectors with increase in investment in response to national climate priorities. The indicator focused on measuring the increase in climate-responsive public investment (as assessed in accordance with the new regulations on identifying and reporting on climate public expenditure under PA#3) under the Ministry of Agriculture and Rural Development (MARD). The ICR team clarified the focus was on MARD to start with since it accounted for a large share of the state budget's climate-related investment. A Climate Public Expenditure Review conducted prior to DPF preparation found that MARD accounted for 79 percent of climate expenditures from the five key climate-relevant line ministries (MARD, Ministry of Transport, Ministry of Construction, Ministry of Industry and Trade, and Ministry of Natural Resources and Environment). The four sub-sectors where an increase was expected were irrigation, forestry, agriculture, and fisheries, based on an assessment of the sub-sectors that constituted most of the climate public financing under MARD.

While the indicator had good intentions by aiming to measure the increase in climate-responsive investment, it fell short in its ambition. Instead of measuring the relative or percentage increase, it only counted the number of sub-sectors with an increase. Consequently, any sub-sector, regardless of the magnitude of the increase, would have been included. A more appropriate approach would have been to target a percentage increase in climate-responsive spending across key sub-sectors, rather than solely focusing on the number of sub-sectors with an increase. The relevance of the indicator is rated as Moderately Satisfactory.

RI4: Number of provinces establishing groundwater exploitation zones

The indicator aimed to measure the number of provinces establishing groundwater exploitation zones where restrictions on abstraction would be applied following PA 4. The indicator was relevant for assessing the commitment of the Government to strengthen the governance framework for managing water resources, specifically groundwater resources, at the sub-national level. The indicator was measurable and a direct outcome of the reform. The ambition was appropriate given the program timeframe. However, there was no indicator to reflect the application of sand mining regulation under PA#4. The relevance of the indicator is assessed as Satisfactory.

RI5: Area of farmland with improved water-saving practices applied

The indicator aimed to measure the area of farmland with improved water-saving practices applied. In principle, this indicator was appropriate for assessing the impact of the policy on incentivizing farmers to adopt water-saving techniques. However, the team clarified that this indicator was measured as the area of farmland in the provinces (district and commune levels) where the incentive mechanism was adopted and officially reported to MARD, it did not measure whether water-saving practices were applied on farms. The assessment of the implementation of this policy showed different levels of adoption across the



provinces, with only 21 out of 63 provinces issuing relevant policies and strategies at the provincial level to implement Decree 77. The indicator for this PA could have been further enhanced by measuring the actual area under improved water-saving practices (rather than just where the incentive mechanism has been adopted) as well as including an indicator that reflected the adoption of the policy across provinces by putting specific regulations and measures in place. Also, there was no indicator to reflect the application of the water service fees for irrigation. The relevance of the indicator is assessed as Moderately Satisfactory.

PDO 2. To promote adoption of cleaner transport and energy systems

To assess the achievement of this objective, there were three Results Indicators (RIs), with each PA having one RI. Below is the discussion and rating of each result indicator used to assess the extent to which the PAs were achieved.

RI6: Percentage emissions reductions of carbon monoxide (CO), hydrocarbons (HC), and Hartridge Smoke Unit (HSU) from imported used vehicles and in-use vehicles that do not comply with new emissions standards (as compared to the BAU)

The indicator aimed to measure the percentage emission reduction of carbon monoxide (CO) and hydrocarbons (HC) as well as exhaust Hartridge Smoke Units (HSU) as a direct result of the adoption of the new emissions standards for in-use and imported used road motor vehicles. The indicator was relevant for assessing pollution abatement associated with the policy. However, the indicator could have been simplified by excluding the qualifier of in-use vehicles “that do not comply with new emissions standards” as the policy applied to both compliant and non-compliant vehicles. The relevance of the indicator is rated as Satisfactory.

RI7: Percentage of national energy savings (through 2030) committed to in newly adopted provincial energy efficiency programs

The indicator measured the total energy savings commitments made in provincial energy efficiency programs/plans to be adopted due to the national program. Given the short period between the adoption of the program and the measurement of the indicator, measuring the actual energy savings associated with adopting the national energy efficiency program would take time. Thus, the tracking of the achievement of provincial implementation, i.e., the adoption of provincial programs/plans and energy savings targets, the indicator was realistic. The target of 8 percent was appropriate as it aligned with the national-level program target. The relevance of the indicator is rated as Satisfactory.

RI8: Generating capacity of grid-connected wind power in Vietnam

PA 8 aimed to encourage increased private investment in wind power. The indicator aimed to measure the downstream outcome of expanding wind power capacity in Vietnam, which the prior action contributed to. The electricity utility (EVN) regularly monitored and reported on the indicator. The ICR team argued that PA 8, which focused on revising the feed-in tariff and adopting a standard power purchase agreement for wind power development played an important role in advancing the progress of all wind power projects in the pipeline and ensuring their successful completion and commission. While the pipeline of projects was already identified in the revised power Master Plan VII and so many of the wind projects were already in development prior to the feed-in tariff revisions, without a revised pricing mechanism, there could be delays or postponement of the pipeline. In particular, developers could be unable to reach the financial



closure for offshore wind projects. It's important to note that all wind power projects were financed by the private sector.

The indicator was outcome-oriented and a critical measure of Vietnam's progress towards a low-carbon energy transition. The relevance of the indicator is assessed as Satisfactory.

Rating

The results framework was mostly appropriate with clear, feasible, and measurable indicators, although there were a few exceptions. Given that this was a standalone DPF, some indicators focused on intermediate results, which were more feasible and realistic. The Bank considered the client's capacity to deliver the targets. It ensured they were ambitious enough to be achieved within the operation's short duration and aligned with the relevant ministries' mandates.

However, some indicators had moderate shortcomings in the definition and target setting. For instance, the improved forest landscape management policy track's targets could have aligned better with the three official categories of forests. The climate budgeting policy track aimed to measure the number of sub-sectors with increased public investment allocations for climate change under MARD rather than the relative increase in investment. The indicator on the area of farmland with improved water-saving practices applied could have been more outcome-oriented by measuring the actual area under improved water-saving practices rather than just where the incentive mechanism has been adopted. There were no results indicators to measure the policy impact of regulations pertaining to coastal protection, sand mining, and irrigation service fees. Overall, the relevance of results indicators is rated as Moderately Satisfactory.

Description	Associated PA	RI Relevance	Baseline	Targets	Actual Value as of Target date	Actual Change in RI relative to Targeted Change	RI Achievement Rating
PDO 1: To promote climate resilient management of landscapes							
<i>RI1: Number of hectares of production and natural forests with approved sustainable forest management plans</i>	PA1	MS	151,000 ha (production forest); 86,000 ha (natural forests) (2018)	250,000 ha (production forest); 100,000 ha (natural forests) (2021)	1 million ha (production forest); 2.1 million ha (specialized forest); 4.6 million ha (protection forest) (2021)	Target exceeded for production forest; Data not available for natural forests.	Substantial
<i>RI2: Medium-Term Investment Plan includes coordinated</i>	PA2	S	No (2018)	Yes (2021)	No (2021)	Target was not achieved since the	Modest



<i>investments as defined in the Integrated Regional Master Plan for the Mekong Delta to address multiprovincial issues compounded by climate change</i>						RMP for the Mekong Delta was not formulated in time to inform the MTIP.	
<i>RI3: Number of sub-sectors with increased climate-responsive investment under the MARD's annual budget</i>	PA3	MS	0 (2018)	4 (2021)	2 (2021)	50% achieved	Modest
<i>RI4: Number of provinces establishing groundwater exploitation zones</i>	PA4	S	0 (2018)	20 (2021)	24 (2021)	Target Exceeded	Substantial
<i>RI5: Area of farmland with improved water-saving practices applied</i>	PA5	MS	320,000 (2018)	500,000 (2021)	528,624 (2021)	Target Exceeded	Substantial
PDO2: To promote adoption of cleaner transport and energy systems							
<i>RI6: Percentage emissions reductions of carbon monoxide (CO), hydrocarbons (HC), and Hartridge Smoke Unit (HSU) from imported used vehicles and in-use vehicles that do not comply with new emissions standards (as</i>	PA6	S	0 (2018)	3 percent (CO); 7 percent (HC); 9 percent (HSU) (2021)	10 percent (CO); 15 percent (HC); 9 percent (HSU) (2021)	Target Exceeded	Substantial



<i>compared to the BAU)</i>							
<i>RI7: Percentage of national energy savings (through 2030) committed to in newly adopted provincial energy efficiency programs</i>	PA7	S	0 (2018)	8 (2021)	8 (2021)	Target achieved	Substantial
<i>RI8: Generating capacity of grid-connected wind power in Vietnam</i>	PA8	S	300 (2018)	800 (2021)	4000 (2021)	Target Exceeded	Substantial

Rating

Moderately Satisfactory

5. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To promote climate resilient management of landscapes

Rationale

Theory of Change: Reforms supported the government’s efforts to adapt to climate change by increasing the resilient management of landscapes and natural resources, including water resources, and managing public investment more effectively. Further enhancement of legal and institutional measures for forest management, and spatial planning of the Mekong Delta would likely contribute to the prudent use of natural resources and climate-resilient management of the region. Climate budget tagging was expected to enable a stronger understanding of the composition and levels of public expenditures with climate benefits, thereby providing important information to policymakers to drive an increase in climate investment and assist in monitoring climate policy implementation. Establishing the legal and governance framework to address groundwater exploitation and providing incentives for more efficient irrigation systems would help prevent land subsidence and contribute to improved management of water resources, especially in the face of increasing climate change impacts.

There was a clear line of sight from the reform efforts to the expected outcomes except in the case of the climate budgeting policy track. The outcome focused on measuring an increase in climate financing while the PA focused on strengthened capacity to identify and report on climate public expenditure rather than encourage increased climate-responsive investment. There were no critical assumptions highlighted in the ICR.

Outcomes



Several key results in the areas of climate-smart landscape planning, climate budgeting, and improving water resources protection and use efficiency were critical in achieving the objective of improving climate resilience landscape management. Firstly, by the end of 2020, approximately 1 million hectares of production forests have their forest management plans approved by the relevant authorities compared to a target of 250,000 hectares. However, the area under natural forests could not be tracked as described earlier. Moreover, even though not formally part of the indicator, 2.1 million hectares of specialized forests and 4.6 million hectares of protection forest also had their forest management plans approved. The area of production and natural forests with approved sustainable forest management plans was substantially achieved and could have exceeded the target if the indicator had been better defined.

Furthermore, the approval of the Mekong Delta Regional Master Plan (RMP) in February 2022 marked a shift towards integrating spatial planning, considering climate change as a major challenge. The ICR notes (para 31) that the RMP has set a precedent for future planning exercises by considering climate change as a major challenge for development, analyzing and modeling potential impacts of climate change, and identifying solutions to address them. However, the target of using the RMP to inform the Medium-term Investment Plan (MTIP) was not met because of the misalignment in the timing of the two plans. The MTIP coordinated by the Ministry of Planning and Investment for 2021-2025 was approved by the National Assembly in late 2021 prior to the RMP approval. Hence, the priority investment list could not be formulated in time to inform the development of the MTIP.

Regarding climate public investment allocations, two out of the four targeted sub-sectors- irrigation and fisheries -witnessed increased allocations from 2016-2020. However, forestry and agriculture sub-sectors experienced decreased allocations. From 2016 to 2020, climate-responsive public investment allocations increased by 62 percent in the irrigation sub-sector and by 8 percent in the fisheries sub-sector but fell by 57 percent and 42 percent in the forestry and agriculture sub-sectors, respectively. Overall, given that investment in the irrigation sub-sector constituted the majority of public investment financing during this period, climate public investment spending across the four sub-sectors increased by 49 percent which was higher than the increase in public investment spending (33%) across the four sub-sectors. However, the result was not directly attributable to the prior action. As discussed earlier, the causal chain of the PA is weak since the prior action focused on enhancing the government's capacity to report on climate public expenditures rather than promoting an increase in climate public spending.

Moreover, delegation of responsibility for groundwater and sand management to the provincial authorities helped to increase accountability and enforcement on the ground. By mid-2022, 24 provinces had approved the groundwater zoning plans surpassing the target of 20. However, groundwater exploitation is still ongoing where local governments are slow in formulating underground water restriction maps and implementing restriction measures. Also, about one-third of provinces in Vietnam have implemented the policy (Decree 23) regarding zoning and protection measures for river sand and river management amid high domestic demand for sand for construction. Moreover, the Decree stipulated that within three years of effectiveness (i.e., by February 2023), all provinces must complete groundwater zoning. The Bank team informed IEG that, the overall target of the decree has not yet been met and there are 41 remaining provinces that have yet to complete the zoning plans.

Lastly, following the policy on incentivizing farmers to adopt water-saving techniques, by mid-2020, 528,624 ha of farmland applied the incentive mechanism for improved water-saving practices (compared to the target of 500,000 ha). It is, however, important to note that the level of support to farmers and farming companies varied in the 21 provinces, with the average of support ranging from 25-45 percent value of the irrigation equipment (approximately US\$1,000 per ha on average), which is lower than that guided in the Decree 77.



Limitations in the implementation of this Decree in selected provinces, especially in the poorer ones, have led to the request of MARD leadership to revise the Decree to provide better financial incentives (i.e., increase the support ratio to at least 50 percent for the poor provinces) for selected technical solutions and expand the beneficiary group to cooperatives and farmers' groups.

Overall, the achievement of the objective related to climate-resilient management of landscapes had some moderate shortcomings. While progress has been made across all five reform areas under this objective, it fell short of achieving the desired targets, or the indicators could have been better defined for three reform areas. The targets associated with the reform areas on improving water resources protection and use efficiency were exceeded. On improved forest landscape management, while one of the two targets was exceeded substantially, the other indicator/target was defined incorrectly. In strengthening the resilient planning of the Mekong Delta, the RMP itself has been a pioneer for regional and climate-informed master planning in Vietnam. However, the list of priority investments that seek to address multiprovincial issues compounded by climate change under the RMP was not formulated in time to inform the development of the MTIP. On climate budgeting, there were increased climate public investment allocations in two of the four sub-sectors in MARD from 2016-2020 even though total climate public spending across the four sub-sectors increased. As noted earlier, there were no results indicators to measure the policy impact of regulations pertaining to coastal protection and irrigation service fees. Overall, the efficacy of the first objective is rated as Moderately Satisfactory.

Rating

Moderately Satisfactory

OBJECTIVE 2

Objective

To promote adoption of cleaner transport and energy systems

Rationale

Theory of Change: Reforms supported the government's efforts to promote the adoption of cleaner transport and transition towards low-carbon energy systems. Policies for improving automobile emission standards and regulating emissions from in-use and imported vehicles would likely contribute to reducing air pollution and GHG emissions from road transportation. Adopting a national energy efficiency program and strengthening energy efficiency action at the provincial level would contribute to energy savings. The establishment of an enabling legal and regulatory framework, including the tariff regime would likely attract commercial financing for scaling up renewable energy investments.

There was a clear line of sight from the reform efforts to the expected outputs and outcomes, and the actions appeared appropriate to achieving the desired outcomes. There were no critical assumptions highlighted in the ICR.

Outcomes

The implementation of new emissions standards for in-use and imported used road motor vehicles has played a pivotal role in promoting cleaner transport. These standards have effectively contributed to the reduction of carbon monoxide (CO) and hydrocarbon (HC) emissions, as well as exhaust units (HSUs). The relative



reductions in CO and HC emissions were estimated at 9.86% and 14.76%, respectively, for the 2019-2021 period, exceeding or meeting the 3% and 7% targets, respectively. The relative reduction of exhaust units is estimated at 9.21 percent compared to the target of 9%. The ICR team clarified that the targets were exceeded mainly because they were initially set based on projected vehicle numbers and types. However, the actual impacts were determined using real data from Vietnam's vehicle register, which accounted for the variation between the projected and actual figures.

In terms of advancing clean energy, the adoption of energy efficiency plans in 58 out of 63 provinces demonstrates a significant commitment towards national energy savings targets. These plans align with the broader objectives at the national level. The overall average energy savings target is 5.42 percent for the 2019-2025 period and 8.03 percent for the 2019-2030 period, in line with the 8 percent target for this DPF as well as the national level program targets of 5-7 percent for the 2019-2025 period and 8 -10 percent for the 2019-2030 period. These plans encompass high-level energy savings targets, specific targets for key sectors such as cement, steel, plastic, chemical, textile, beverage, and paper industries, and goals related to the adoption of energy management systems, energy efficiency measures in industrial parks and clusters, and the certification of green buildings. To achieve these targets, the provincial plans incorporate various solutions and actions, including the review and development of energy efficiency policies and regulations, providing technical and financial support for investment in energy efficiency projects, establishing energy databases, capacity building initiatives, monitoring and evaluation of energy efficiency regulations, communication and awareness campaigns, international cooperation, and research and development of energy efficiency technology. The plans also assign clear responsibilities to local departments and designated energy users, ensuring effective implementation and coordination. Moreover, the plans generally include financial resources and budget requirements for their successful execution.

Following the prior action 8 on revising the feed-in tariff (FIT) and establishing a standard power purchase agreement to promote clean energy development, particularly in wind power, about 4GW of privately financed (and operated) wind-based power projects have been commissioned. The outcome significantly exceeded the target of 800 MW (baseline of 300 MW) as a substantial capacity of around 4GW in privately financed wind-based power projects was commissioned. Based on the average capital cost of \$1.2 billion per GW of wind power capacity (per Bank staff estimates based on industry standards), this indicates an estimated deployment of \$4.8 billion in private investment, primarily from domestic independent power producers. As noted earlier, the ICR team emphasized that PA 8, which revised the feed-in tariff and established a standard power purchase agreement for wind power, contributed towards the progress of all wind projects in the pipeline, as it prevented delays and ensured financial closure, especially for offshore developments. The Bank team shared with IEG that the significant increase can be attributed to multiple factors, including the generous FIT, declining costs of wind technologies, a stable political environment, and the growing demand for electricity in Vietnam.

Overall, the progress towards the clean transport and energy objective has been substantial. The targets under all three results areas were either achieved or exceeded. The enforcement of emission standards for in-use and imported used road vehicles has been maintained. The target for national energy savings committed to in provincial energy efficiency programs has been met, and commercial financing for wind power development has exceeded expectations. However, there are some challenges. The revised feed-in tariff (FIT) expired as planned, and there is uncertainty regarding future wind power pricing. Decision 39 proposed a reverse auction system to replace the FIT, but it has not been implemented yet. The ICR team informed IEG that to bridge this transition period, the Ministry of Industry and Trade has introduced decision



21/QD-BCT, which specifies the tariff range for solar and wind projects, and developers will negotiate the tariff with the utility company (EVN).

The overall efficacy for the second objective is rated as Satisfactory.

Rating

Satisfactory

Overall Achievement of Objectives (Efficacy)

Rationale

In terms of climate-resilient management, progress has been made across all five reform areas, but there were some shortcomings in achieving the desired targets or defining indicators correctly. While improvements were seen in water resources protection and use efficiency, there were moderate shortcomings in the achievement of the targets for forest landscape management, climate investment allocations, and informing the priority investments for the Mekong Delta. Additionally, there were no indicators to measure the policy impact of regulations related to coastal protection, sand mining, and irrigation service fees. On the other hand, the progress towards clean transport and energy have been substantial, with targets being achieved or exceeded in all three areas. However, there are challenges regarding the expiration of the revised feed-in tariff and uncertainty about future wind power pricing. Overall, the efficacy is rated as Moderately Satisfactory.

Overall Efficacy Rating

Moderately Satisfactory

6. Outcome

Rationale

The PDOs were relevant to the Government and Bank strategy for Vietnam and built on the prior DPF. The prior actions were timely, relevant, and aligned well with the PDOs. The relevance of the operation's prior actions is rated satisfactory. The relevance of the results indicators is rated as moderately satisfactory given the moderate shortcomings in the definition and target setting of some indicators. The overall efficacy with which the project's objectives were achieved is rated as moderately satisfactory mainly because of moderate shortcomings in the achievement of the first objective. The overall outcome is rated as **Moderately Satisfactory**.

a. Rating

Moderately Satisfactory



7. Risk to Development Outcome

Government ownership/ Commitment: The sustainability of the development outcomes does not face substantial risk. The ICR notes that there continues to be strong government commitment to the policy reform areas in the DPF. The government has recently taken bolder international climate commitments, including the Prime Minister's declaration that Vietnam would reach net-zero GHG emissions by 2050 at COP26, the commitment to halt deforestation by 2030 and to slash methane emissions by 30 percent (from 2020 levels) by 2030, and the commitment to end all investment in new coal power generation, scale up renewable energy deployment and phase out coal power by 2040.

Future pricing of wind power: The draft of Vietnam's Power Development Plan VIII anticipates wind power to lead the next phase of Vietnam's renewable energy transition with 18 GW of wind needed by 2030 and an estimated 42.7 GW of onshore wind and 54 GW of offshore wind by 2045. This will require massive investments and an incentive framework to support it. As noted earlier, the feed-in tariff was an interim mechanism for developing wind power in Vietnam. To further scale up RE investments in Vietnam, the government intended to accelerate the deployment of an auction-based procurement framework for sourcing additional RE generation capacity, which would replace the current FIT mechanism. Due to the delay in implementing the planned reverse auction system to replace the feed-in-tariff by 2021, there is uncertainty surrounding the future pricing of wind power. This uncertainty can potentially impact the sector's ability to attract commercial financing in the sector and hinder the establishment of market-based competition and efficient price recovery. Additionally, these challenges may have implications on the affordability of wind power and its ability to scale up effectively.

Further, the roll-out of the recent Country Climate and Development Report (CCDR) in 2022 offers the World Bank and other donors an opportunity to continue and deepen dialogue on climate policy reform and implementation. The CCDR builds on policy reform areas of this DPF operation, namely the reform area on strengthened resilient planning of the Mekong Delta under Pillar 1 and the entirety of Pillar 2 on adopting cleaner transport and energy systems. The actions identified in the CCDR to build climate resilience will likely contribute towards sustaining the development outcomes achieved under this DPF.

8. Assessment of Bank Performance

a. Bank Performance – Design

Rationale

This DPF was developed based on strong analytical underpinnings and the policy dialogue under the preceding DPF series. The World Bank assisted MARD in strengthening the technical quality of the criteria for classifying coastal protection forests. The World Bank has also been actively involved in the Mekong Delta, directly contributing to developing an integrated regional master plan. In addition, the Ministry of Planning and Investment (MPA) Guidelines for the identification, classification, and reporting of public investment allocations related to climate change and green growth benefited from technical assistance provided by the World Bank. The policy reforms supported by this DPF were informed by the World Bank's extensive lending engagement on irrigation. The impact of policy reforms under Pillar 2 was



supported by World Bank modeling in the transport and energy sectors. The quality of technical discussions around the potential reforms was enhanced by the dialogue supported under complementary IPFs, including the Forest Sector Modernization and Coastal Resilience Enhancement Project (P157127), the Mekong Delta Integrated Climate Resilience and Sustainable Livelihoods Project (P153544), the Vietnam Irrigated Agriculture Improvement Project (P130014), and the Vietnam Energy Efficiency for Industrial Enterprises (P151086). These were coupled with a multi-sector ASA program, the Supporting Systematic Action to Implement Vietnam’s NDC program (P171403), which brought substantive technical expertise and coordination support to the DPF engagement.

As discussed in Section 3, the DPF also drew on the lessons learned and aimed to build on the results delivered under the previous DPF. A key lesson was that the operation should be supported by a broader technical and analytical support program that responds to the country’s needs and demands. Given the cross-sectoral nature of the operation, there was a strong World Bank engagement at both sector and coordinating levels across ministries.

Several risks were identified at appraisal, including sector strategy and policy risks, technical design, and institutional capacity for implementation risks, given the program’s complex political economy and multi-sectoral nature. The mitigation measures incorporated in the design, including complementary technical assistance, IPF, and ASA support from the Bank to strengthen policy design and implementation, proved largely adequate.

The ICR notes that coordination with other development partners was strong due to the SP-RCC program, which brought together MONRE, key line ministries, and development partners and was a useful model for policy dialogue and technical assistance. However, some momentum was lost when it became clear that the program would end in 2020 with no immediate follow-up program to support it. As a result, the World Bank had to go through other channels to keep the momentum for policy dialogue, donor coordination, and monitoring progress. (ICR, para 65)

As discussed in Section 3, while most of the prior actions were appropriate along the results chain for realizing the intended objectives, few prior actions primarily consisted of procedural steps, which, on their own, were unlikely to make significant contributions towards achieving the objectives. M&E design also needed to be stronger at appraisal. For example, the indicators for the “improved forest management,” climate budgeting,” policy reform areas could have been better defined, and the causal chain strengthened. Additionally, there were no indicators to measure the policy impact of regulations related to coastal protection, sand mining, and irrigation service fees.

Rating

Satisfactory

b. Bank Performance – Implementation

Rationale



The World Bank adequately assessed the government's implementation capacity in the reform areas covered by the operation. The Bank mobilized additional support when required to monitor progress, for example in the case of the transport indicator.

As this was a standalone operation rather than a series of operations, no implementation support missions were carried out by the DPF team following Board approval, which could have been enhanced. The ICR notes (para 67), that it would have been beneficial to engage in regular and structured discussions with the Ministry of Natural Resources and Environment (MONRE) and relevant line ministries to strengthen policy dialogue and potentially realize impact beyond the immediate outcomes indicated by the results indicators.

Rating

Satisfactory

c. Overall Bank Performance

Rationale

Given the Satisfactory performance at design and implementation, the overall Bank Performance is rated as Satisfactory.

Overall Bank Performance Rating

Satisfactory

9. Other Impacts

a. Social and Poverty

The ICR notes that an ex-post review was conducted vis-a-vis the ex-ante findings from the 2019 PSIA report to evaluate the potential direct and indirect impacts on poor/vulnerable groups caused by certain policies, specifically Prior Actions #1, 4, 5, and 8. Secondary data and expert opinions were used for the review. The remaining four Prior Actions were not reviewed as they were not anticipated to adversely impact poor/vulnerable groups.

Prior Action 1, which aimed to translate the Law on Forestry (2017) into practice, has positively impacted the management, use, and protection of forests in the country. Forest-dependent households and ethnic minority communities have been able to access forest land legally through land titles, allowing them to invest in their land, generate additional income, and use it as collateral for loans. This has increased forest coverage and protection through increased participation and Payment for Ecosystem Services. Customary rights to forest land use by ethnic minorities are ensured through forest land allocation to these communities.

Prior Action 4, which includes Decree 23 and Decree 167, has had overall positive impacts, but enforcement has been slow. Decree 23 has strengthened the protection of riverbeds, riverbanks, and riversides by regulating



sand and gravel exploitation. However, the main target group of this policy is organizations and individuals who are adversely affected by income loss due to restrictions on the extraction of river sand and gravel. Approximately, one-third of the provinces in Vietnam have adopted this policy amid the high demand for sand in the construction industry. Still, some continue to exploit groundwater due to the slow implementation of restrictions, which may lead to reduced surface water supplies, lowered water tables, and land subsidence in critical areas. Decree No. 167 targets the private sector, including companies and individuals who are engaged in the exploitation of groundwater. Secondary data reveals that in cases where local governments have been slow in developing maps to restrict groundwater use, the extraction of groundwater persists. In critical areas, groundwater overuse may result in a lowered water table, reduced surface water supplies and quality, and land subsidence.

Prior Action 5 has had initial positive impacts in improving irrigation access for farming communities, but there is a lack of incentives for private sector investment and constraints to effective implementation. These constraints include a lack of investment budget at the local level and advanced/water-saving technologies not always being suitable for all farming conditions. As a result, some poor and vulnerable populations cannot benefit from the policy due to a lack of matching funds from investors and the affordability of irrigation fees, exacerbating livelihood difficulties for those relying on irrigation for food security and livelihood improvement.

Prior Action 8 has successfully enabled private sector investment in wind power, although technical constraints have led to delayed operations and loss of expected income. There are also site-specific social impacts, including land acquisition for installation and construction, and ongoing social risks during operation, such as flicker, noise, and blade throw for plants located onshore.

b. Environmental

The policies supported by this DPF operation have positively impacted the environment, forests, and natural resources aspects, as articulated in the preceding sections. For example, PA3 has led to increased public investment in climate resilience. PA6 has led to a cleaner vehicle fleet with reduced local air pollutants. PA8 has led to increased investment in wind energy, displacing fossil fuel sources and contributing to GHG emissions reductions and decreased air pollution.

c. Gender

The Program Document (paras 95) indicated that the team had conducted a gender analysis for prior actions at preparation and concluded that "this DPF is not a candidate for gender tagging because a complete result chain could not be established". The ICR team confirmed the findings and the ICR reported no gender impact of this operation.

d. Other

The policy dialogue supported by this DPF and associated advisory services and analytics (ASA) strengthened the government's institutional capacity to undertake climate reforms. Drawing from the lessons and experience gained from the SP-RCC, the World Bank supported the development of an implementation support program for



Vietnam’s NDC. Informed by this support, the Prime Minister adopted the Scheme on tasks and solutions to implement COP26 on July 25, 2022. This Scheme serves as the official government program to support the government’s implementation of Vietnam’s COP26 net zero commitments. It is funded by the state budget and is supervised by a newly established National Steering Committee charged with implementing Vietnam’s COP commitments. This program would improve the government’s ability to implement critical policy reforms to support these commitments.

The ICR reported no unintended outcomes or impacts in relation to this operation.

10. Quality of ICR

Rationale

The ICR is overall well-written and comprehensive. It provides a clear rationale for the selected prior actions and clearly illustrates the causal links between the prior actions, the results indicators, and the intended outcomes. The ICR is evidence-based, candid, and internally consistent. The ICR appropriately discusses complementary technical assistance, IPF, and ASA support from the Bank to strengthen policy design and implementation. Additionally, the ICR also draws relevant lessons from the experience of implementing this operation.

There were minor shortcomings. The theory of change in the ICR did not include any critical assumptions. The narrative focused mainly on the short-term results, with only brief descriptions of the sustainability of the development outcomes. Overall, the quality of the ICR is rated Substantial.

a. Rating

Substantial

11. Ratings

Ratings	ICR	IEG	Reason for Disagreement/Comments
Outcome	Moderately Satisfactory	Moderately Satisfactory	
Bank Performance	Satisfactory	Satisfactory	
Relevance of Results Indicators	---	Moderately Satisfactory	
Quality of ICR	---	Substantial	

12. Lessons



The ICR draws the following main lessons from the experience of implementing this operation.

Climate DPFs have been effective in supporting the cross-sectoral approach needed to address climate change and policy, bringing together expertise from various sectors to advocate and provide technical support for impactful policy reforms. Like the previous series, this DPF operation involved a broad team across World Bank global practices, including Environment, Water, Agriculture, Transport, Energy, and Social, to ensure all policy reform areas and prior actions are rooted in existing sectoral dialogue and have a strong analytical basis.

Policy reforms can be effectively supported by using a combination of World Bank instruments. Using different World Bank instruments, such as dialogue supported by Investment Project Financing (IPF) and a multi-sector ASA program, proved effective in enhancing the quality of technical dialogue around potential reforms to support policy changes in Vietnam. Going forward, given the constrained lending environment for DPF operations in Vietnam, continued support for policy reforms will need to be undertaken through advisory services and analytics which can be linked with IPF. The recently launched CCDR builds on policy reform areas of this DPF operation and the lapsed preceding DPF series and offers an opportunity to continue and deepen dialogue on climate policy reforms.

Programmatic DPFs are likely to be effective in addressing wide-ranging sector reforms that are challenging to achieve in the short run: While benefiting from a prior engagement, the stand-alone operation had some limitations compared to a programmatic approach. Programmatic series offer advantages such as fostering long-term government commitment, focusing on medium-term results, conducting supervision missions for stronger policy dialogue, and allowing sufficient time for policy engagement. This approach is particularly valuable for broader climate reform goals which require sustained dialogue and time to yield outcomes.

A multi-sectoral government program on climate policy development is largely effective in enhancing development partner coordination: The SP-RCC program enhanced development partner coordination on climate policy development by bringing together the three development partners with parallel policy lending and associated ASA. However, the quality of policy dialogue and coordination diminished towards the end of the program. Moreover, development partners not providing policy lending did not actively engage in policy dialogue. It is important to have a program with a longer time horizon, including key development partners and continued high-level chairpersonship within the government to ensure continued momentum.

IEG draws the following additional lesson from this operation.

Selecting weak prior actions that will require important additional steps to achieve results creates a risk. In this DPF, some prior actions required only minor procedural steps rather than the needed reform action – for example the establishment of a national council for issuing master plans, rather than the actual issuance of plans. It turned out in this case that the needed reform actions were largely carried out as expected, and so there was no serious consequence on the program outcomes. But better practice would be to condition the prior actions on the main reform step that will achieve the desired results, especially in a non-programmatic DPF.

13. Project Performance Assessment Report (PPAR) Recommended?

No