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Report No: PGD117

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROGRAM DOCUMENT FOR A

PROPOSED DEVELOPMENT POLICY CREDIT

IN THE AMOUNT OF SDR 61.5 MILLION (US$84.4 MILLION EQUIVALENT)

TO THE

SOCIALIST REPUBLIC OF VIETNAM

FOR A

CLIMATE CHANGE AND GREEN GROWTH DEVELOPMENT POLICY FINANCING
April 9, 2020

Environment, Natural Resources and Blue Economy Global Practice
East Asia And Pacific Region

Public Disclosure Authorized

(Vietnam)

Socialist Republic of Vietnam

GOVERNMENT FISCAL YEAR

July 1 – June, 30

CURRENCY EQUIVALENTS

(Exchange Rate Effective as of February 29, 2020)

Currency Unit

XDR 1.00 = US$1.37

ABBREVIATIONS AND ACRONYMS

AAA	Analytic and Advisory Activities	JICA	Japan International Cooperation Agency
ACT	Avoided Cost Tariff Regime	LDP	Letter of Development Policy
ADB	Asian Development Bank	LPG	Liquified Petroleum Gas
AFD	l'Agence Française de Développement	LULUCF	Land Use, Land-Use Change, and Forestry
AML/CTF	Anti-Money Laundering and Counter-Terrorist Financing	MDB	Multilateral Development Bank
AQM	Air Quality Management	MTEF	Medium-Term Expenditure Framework
ASA	Advisory Services and Analytics	MTIP	Medium-Term Public Investment Plan
AWD	Alternative Wetting and Drying	MARD	Ministry of Agriculture and Rural Development
BAU	Business as Usual	MOC	Ministry of Construction
BE	Bank-executed	MOF	Ministry of Finance
CA	Current Account	MOIT	Ministry of Industry and Trade
CCGG	Climate Change and Green Growth	MONRE	Ministry of Natural Resources and Environment
CF Assist	Carbon Finance Assist	MOT	Ministry of Transport
CIT	Corporate Income Tax	MPI	Ministry of Planning and Investment
CNG	Compressed Natural Gas	MRV	Measurement, Reporting and Verification
CO_2	Carbon Dioxide	METF	Medium Term Expenditure

			Framework
CO_2e	Carbon Dioxide Equivalent	MW	Megawatt
COVID-19	2019 Corona Virus Disease	NCCC	National Climate Change Committee
CPF	Country Partnership Framework	NCCS	National Climate Change Strategy
CPEIR	Climate public expenditure and investment review	NDC	Nationally Determined Contribution
CPI	Consumer Price Index	NO_X	Nitrogen Oxide
DA	Dedicated Account	NPL	Nonperforming Loan
DANIDA	Danish International Development Agency	ODA	Official Development Assistance
DARD	Department of Agriculture and Rural Development	PCU	Program Coordination Unit
DOC	Department of Construction	PDP	Power Development Plan
DOF	Department of Finance	PER	Public Expenditure Review
DONRE	Department of Natural Resources and Environment	PFES	Payments for Forest Environmental Services
DPI	Department of Planning and Investment	PFM	Public Financial Management
DOIT	Department of Industry and Trade	PIPA	Plan for Implementation of the Paris Agreement
DP	Development Partner	PIT	Personal Income Tax
DPF	Development Policy Financing	PM	Prime Minister
DSA	Debt Sustainability Analysis	PM 2.5	Particulate Matter 2.5
EBF	Excluding Extrabudgetary Fund	PPC	Provincial People's Committee
EE	Energy Efficiency	PPG	Public and Publicly Guaranteed
EM	Ethnic Minority	PSIA	Poverty and Social Impact Analysis
ESCO	Energy Service Company	PMR	Partnership for Market Readiness
EU	European Union	PV	Photovoltaic
FCPF	Forest Carbon Partnership Facility	RE	Renewable Energy
FDI	Foreign Direct Investment	REDD+	Reducing Emissions from Deforestation and Forest Degradation
FIT	Feed-in-Tariff	RPDP VII	Revised Power Development Master Plan VII
FLEGT	Forest Law Enforcement, Governance, and Trade	SBV	State Bank of Vietnam
FX	Foreign Exchange	SDGs	Sustainable Development Goals
GDP	Gross Domestic Product	SDR	Special Drawing Rights
GEF	Global Environment Facility	SCD	Systematic Country Diagnostic
GFS	Government Finance Statistics	SEDP	Socio-Economic Development Plan
GHG	Greenhouse Gas	SOCB	State-owned Commercial Bank
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit	SOE	State-owned Enterprise
GNI	Gross National Income	SP-RCC	Support Program to Respond to Climate Change
GNP	Gross National Product	TA	Technical Assistance
GRS	Grievance Redress Service	TP	Target Program
IBRD	International Bank for Reconstruction and Development	TWh	Terawatt-hour

ICZM	Integrated Coastal Zone Management
ICR	Implementation Completion and Results Report
IDA	International Development Association
IFC	International Finance Corporation
IMF	International Monetary Fund
INTOSAI	International Organization of Supreme Audit Institutions
IPF	Investment Project Financing
IPSAS	International Public Sector Accounting Standards
IT	Inflation Targeting
IWRM	Integrated Water Resources Management
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
VAT	Value-added tax
VAMC	Vietnam Asset Management Company
VGGS	Vietnam Green Growth Strategy
VND	Vietnamese Dong
VNEEP	Vietnam National Targeted Energy Efficiency Program
VSS	Vietnam's Pay-to-Go Social Security System
WB	World Bank
WBG	World Bank Group

Regional Vice President:	Victoria Kwakwa
Country Director:	Ousmane Dione
Global Director (s):	Karin Erika Kemper
Sustainable Development Regional Director:	Benoit Bosquet
Practice Manager (s):	Christophe Crepin
Task Team Leader (s):	Stephen Ling, Thu Thi Le Nguyen

SOCIALIST REPUBLIC OF VIETNAM

CLIMATE CHANGE AND GREEN GROWTH DPF

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The Climate Change and Green Growth DPF Credit was prepared by an IDA team consisting of Stephen Ling (Lead Environmental Specialist and TTL, SEAE2), Thu Thi Le Nguyen (Senior Environmental Specialist and Co-TTL, SEAE2), Madhu Raghunath (Program Leader, SEAU2), Thi Ba Chu (Senior Energy Specialist, IEAE1), Ashraf El-Arini (Environmental Specialist, SEAE2), Cuong Hung Pham (Senior Water Resources Specialist, SEAW1), Diji Chandrasekharan Behr (Senior Natural Resources Economist, SEAE2), Alexander Lotsch (Senior Carbon Finance Specialist, SEAE2), Taisei Matsuki (Senior Climate Change Specialist, SEAE2), Jen JungEun Oh (Senior Transport Specialist, IEAT2), Shigeyuki Sakaki (Senior Transport Specialist, IEAT1), Quyen Thuy Dinh (Program Assistant, EACVF), Annette I. De Kleine Feige (Senior Economist, EEAM1), Viet Tuan Dinh (Senior Economist, EEAM1), Jacques Morisset (Program Leader, EEADR), Lan Thi Thu Nguyen (Senior Environmental Economist, SEAE2), Franz Gerner (Lead Energy Specialist, IAFE3), Rahul Kitchlu (Senior Energy Specialist, IEAE1), Ky Hong Tran (Senior Energy Specialist, IEAE1), Cung Van Pham (Senior Financial Management Specialist, EEAG2), Martin Henry Lenihan (Senior Social Development Specialist, SEAS1), Giang Tam Nguyen (Social Development Specialist, SEAS1), Tuan Anh Le (Social Development Consultant), Khang van Pham (Environmental Consultant). Peer reviewers include: Christophe De Gouvello (Senior Energy Specialist, IEAE1), Giovanni Ruta (Senior Environmental Economist, SENGL), Ross Hughes (Senior Natural Resources Management Specialist, SAFE2) and Marius Kaiser (Senior Climate Change Specialist, SCCAO). The operation was prepared under the overall guidance of Christophe Crepin (Practice Manager, SEAE2), Ousmane Dione (Country Director, EACVF), Benoit Bosquet (EAP Regional Director, SEADR), and Victoria Kwakwa (Regional Vice President, EAPVP).

SUMMARY OF PROPOSED FINANCING AND PROGRAM

BASIC INFORMATION

Project ID	Programmatic
P171006	No

Proposed Development Objective(s)

The program development objective (PDO) is to promote: (a) climate resilient management of landscapes; and (b) adoption of cleaner transport and energy systems.

Organizations

Borrower: SOCIALIST REPUBLIC OF VIETNAM

Implementing Agency: MINISTRY OF NATURAL RESOUCES AND ENVIRONMENT, DEPARTMENT OF CLIMATE CHANGE

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Financing	**84.40**

DETAILS

International Development Association (IDA)	84.40
IDA Credit	84.40

INSTITUTIONAL DATA

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

Overall Risk Rating

Results

Indicator Name	Baseline (December 2018)	Target (June 2021)
1. Number of hectares of production and natural forests with approved sustainable forest management plans.	151,000 ha (production forest), 86,000 ha (natural forest)	250,000 ha (production forest), 100,000 ha (natural forest)
2. 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.	No	Yes
3. Number of sub-sectors with increased climate-responsive investment under the Ministry of Agriculture and Rural Development's annual budget.	0	4
4. Number of provinces establishing groundwater exploitation zone.	0	20
5. Area of farmland with improved water saving practices applied.	320,000 hectares	500,000 hectares
6. Percentage emissions reductions of carbon monoxide (CO) and hydrocarbons (HC) from imported used vehicles and in-use vehicles that do not comply with new emissions standards (as compared to BAU).	0	4 (CO) 7 (HC) 9 (HSU)
7. Percentage national energy savings (through 2030) committed to in newly adopted provincial energy efficiency programs.	0	8
8. Generating capacity of grid-connected wind power in Vietnam.	300 MW	800 MW

IDA PROGRAM DOCUMENT FOR A PROPOSED *DEVELOPMENT POLICY FINANCING TO THE SOCIALIST REPUBLIC OF VIETNAM*

1. INTRODUCTION AND COUNTRY CONTEXT

1. **This Development Policy Financing (DPF) operation, in an amount equivalent to US$84.4 million to the Socialist Republic of Vietnam, is a single, one-tranche operation, closely linked to a 2016 operation that was designed to be the first in a 3-operation DPF series.** These operations support the government's Support Program to Respond to Climate Change (SP-RCC) 2016-2020, which provides policy reforms for effective implementation of climate change and green growth actions prioritized in the 2016–2020 Socio-Economic Development Plan (SEDP), National Climate Change Strategy (NCCS) and Vietnam Green Growth Strategy (VGGS), and Nationally Determined Contribution (NDC). This Climate Change and Green Growth DPF is prepared under the leadership of the Ministry of Natural Resources and Environment (MONRE), in close cooperation with the Ministry of Planning and Investment (MPI), the Ministry of Finance (MOF) and other key line ministries and agencies. It is focused on addressing the key policy challenges of climate vulnerability in rural and coastal landscapes, and ensuring sustainable and low carbon energy and mobility solutions to underpin Vietnam's continuing economic growth.

2. **The SP-RCC has emerged as a key mechanism for cross-sectoral policy dialogue between Government agencies, and collaboration among Development Partners (DPs), including mobilization of budget support.** The SP-RCC is recognized under Vietnam's Plan for Implementation of the Paris Agreement (PIPA) as the platform for climate policy dialogue, in coordination with technical assistance and investments. Reforms have been enacted across key sectors and themes since the start of the current phase of SP-RCC, resulting in significant emissions reductions from light vehicles, increases in non-hydro renewable energy installed capacity and budget allocations for climate resilience, and protection and more efficient use of water and coastal resources, amongst other results. Progress is regularly reviewed by MONRE, in consultation with respective line ministries, and reported to the Prime Minister and the National Climate Change Committee (NCCC). Building on the SP-RCC's achievements and recognizing that actions taken during the 2016–2020 period also lay the groundwork for the implementation of the post-2020 NDC commitments, the Prime Minister has requested the development of an NDC implementation support mechanism that would serve as a platform for cross-sectoral technical, policy and investment dialogue post-2020. This additional DPF operation, and associated technical assistance, therefore not only support the enhancement and consolidation of the SP-RCC's achievements, but also the transition to NDC implementation and the establishment of a mechanism to institutionalize NDC support, review, and increasing ambition.

3. **The DPF supports selected and significant elements of the SP-RCC through a program development objective (PDO)** to promote (a) climate resilient management of landscapes; and (b) cleaner transport and energy systems. The areas of policy reform were selected to capture the greatest opportunities for transformational interventions, and synergies between the climate change and green growth agendas of the NCCS and VGGS[1], building on priorities identified jointly by the government and DPs through the SP-RCC

[1] The agenda elaborated in the VGGS largely overlaps with the low carbon growth agenda for Vietnam, but captures additional elements of clean and resource-efficient growth, including the reduction of air pollution.

dialogue. They are consistent with priorities articulated in the WBG Country Partnership Framework (CPF) for the Socialist Republic of Vietnam for the 2018-2022 period and based on a variety of analytical work undertaken by the Government, the Bank and DPs.

4. **Thirty years of rapid and inclusive economic growth have raised Vietnam's status to that of a lower-middle-income country.** GDP growth per capita has averaged 5.5 percent a year since 1990, yielding per capita gross national income (GNI) of US$2,160 in 2017. Growth has been inclusive: incomes have risen across the income distribution, while growth in inequality has declined, and the percentage of people living in extreme poverty (US$1.9 per day) stands at less than 3 percent today. Key social indicators – education, life expectancy, maternal mortality, and access to basic infrastructure – have improved substantially, and are better than most countries at a similar income level.

5. **However, Vietnam is one of the world's most vulnerable countries to climate change impacts, and the intense exploitation of natural resources and environmental degradation linked to its rapid economic growth has exacerbated its vulnerability.** Droughts, salinization, extreme temperatures, and changes in growing seasons and floods[2], compounded by sub-standard housing in exposed areas and a lack of assets to buffer shocks[3], strongly impact the livelihoods of poor rural and urban households. Over the past 25 years, extreme weather events have resulted in 0.4 to 1.7 percent of GDP loss.[4] By 2050, national income is likely to be reduced by between one and two percent compared to a historical baseline.[5]. Depletion and degradation of natural resources has increased the impact of climate change on those who depend on natural ecosystems for direct livelihoods and to moderate the impacts of hydrological extremes. In the late 2000s, when growth was peaking, natural resource depletion was in the order of 7 percent of GNI [6]. Utilization of land has intensified, water resources are stretched, forests have been unsustainably logged, and capture fisheries and mineral resources are being depleted. Impacts are typically most severe on the poor: 30% of today's poor population is exposed to a historical 25-yr flood, but this is estimated to increase to over 50% with climate change impacts.[7]

6. **Vietnam's NDC recognizes the critical importance of its landscapes and natural resources to managing the impacts of climate change as well as contribution to climate mitigation**:

- ***Land use***. The effects of climate change are felt particularly acutely in Vietnam's rural landscapes. Coastal areas, particularly the low-lying Mekong and Red River deltas are under a variety of threats including typhoons, rising sea levels, saline intrusion, changes in hydrological flows of river systems and drought[8]. Forests provide a range of environmental services that protect against climate extremes: they regulate water flow and quality, and stabilize slopes, benefiting downstream water users and reducing flood risk. Coastal forests are of particular importance to protect against storm

[2] World Bank. 2015. Climate Change and Poverty in Vietnam. Projections for a 50-year return period under a high climate scenario, assuming no protection, along with an overlay of flood models and present socioeconomic data suggest that 40 percent of today's Vietnamese poor will be exposed to flooding.
[3] World Bank. 2015. Climate Change and Poverty in Vietnam: A Qualitative Analysis. Analysis was undertaken in Bac Ninh, Hoa Binh, Kon Tum, An Giang, and Kien Giang Provinces.
[4] World Bank. 2016. Vietnam Systematic Country Diagnostic 2016- Priorities for Inclusive and Sustainable Growth.
[5] https://doi.org/10.3390/su7044131
[6] https://data.worldbank.org/indicator/NY.ADJ.DRES.GN.ZS?contextual=default&locations=VN
[7] https://link.springer.com/article/10.1007/s41885-018-0035-4
[8] Alison et al. 2009. Vulnerability of National Economies to the Impacts of Climate Change on Fisheries: Fish and Fisheries, DOI: 10.1111/j.1467-2979.2008.00310.x

surge and coastal erosion, but mangroves have decreased by over a third from 408,500 ha in 1943 to 270,000 ha in 2015. The forestry sector supports livelihoods for about 24 million people,[9] generates around 10 percent of rural income[10], and could significantly contribute to reducing Vietnam's GHG emissions. Where agricultural production is stressed by erratic rainfall, drought and salinity, adoption of climate smart agricultural technologies is also needed as part of an integrated approach to landscape resilience.

- ***Water resources***. Although Vietnam's water resources are relatively abundant, regional and seasonal shortages are major limiting factors to industrial and agricultural development. Of 16 river basins in Vietnam, 10 currently face seasonal shortages, and 60 percent of inflow originates from neighboring countries where water use is also growing. In 2016, the Mekong Delta suffered its worst drought in nearly a century, with associated losses in rice, seafood and other agricultural production[11]. Excessive use of both surface and groundwater in the Central Highlands has caused declining water tables and threatens sustainable coffee production.[12] Uncontrolled sand and gravel mining in riverbeds is one of the main causes of riverbank and coastal erosion. Sea level rise and increasingly erratic hydrologic patterns from climate change exacerbate these issues.

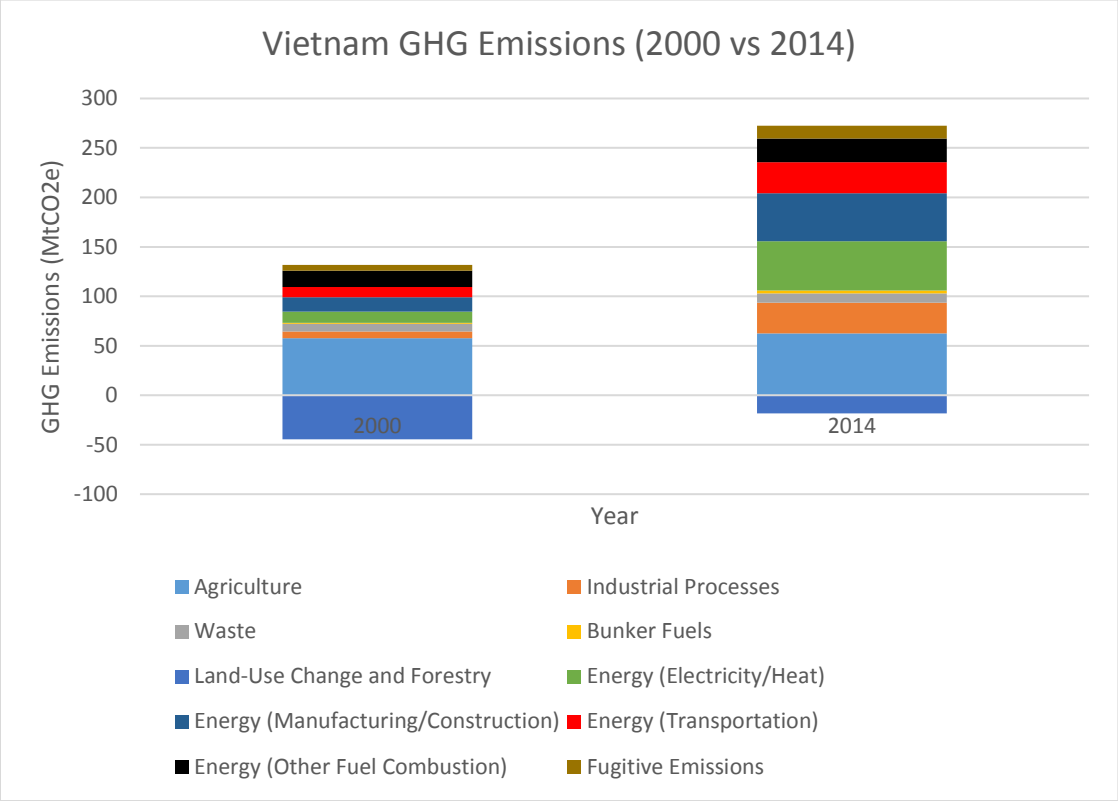
7. **Although Vietnam's GHG emissions are moderate in absolute terms, they are disproportionate to the size of its growing economy.** From 2000 to 2015, CO_2 emissions nearly quadrupled, following faster relative growth than other East Asian countries. Vietnam is the 13th most carbon intensive economy in the world and the 4th amongst low and middle-income countries in East Asia (vs. 33rd and 5th respectively for total emissions).[13] Growth in GHG emissions and air pollution is mostly associated with increasingly coal-based power generation, industrial expansion and a growing transport sector (see Figure 2), and results in significant human health and productivity implications:[14]

a. ***Energy demand and power mix***. Electricity coverage expanded from 48 to 98 percent of households between 1993 and 2012. From 2005-2014, industrial electricity consumption grew at an annual rate of 11.8 per cent[15], and overall electricity demand is expected to grow about 10 percent per annum until 2030, requiring an increase in generating capacity from 38.5 GW to about 100 GW. Vietnam's current energy mix is dominated by hydro (38 percent), coal (33.5 percent) and gas (20.7 percent) with limited non-hydro renewable energy capacity, despite large potential. A business-as-usual approach would imply 44 GW (roughly three quarters) of that extra capacity coming from imported coal.

[9] Joint Development Partners. 2011. "Vietnam Development Report 2011: Natural Resources Management."
[10] Recent analyses by Narloch (2016) using the Vietnam Household Living Standard Surveys (VHLSS) 2010, 2012 and 2014 and gridded weather data from the Climate Research Unit (CRU) show that forestry wages are an important income source in rural Vietnam – especially for poorer households. Results indicate that about 10 percent of income is derived from forests. Forest income includes income from harvested trees and other forest products (such as firewood), hunted animals, as well as income from forest protection and management minus the production costs.
[11] See, for example: http://www.forbes.com/sites/timdaiss/2016/05/25/why-vietnam-is-running-dry-worst-drought-in-nearly-100-years/#240fe7c17b80
[12] Vietnam is the second largest coffee producer after Brazil, and account for 14.5 percent of total production according to International Coffee Organization, 2011.
[13] Trends in global CO_2 emissions: 2016 Report. European Commission, Joint Research Centre (JRC), Directorate C - Energy, Transport and Climate; PBL Netherlands Environmental Assessment Agency.
[14] On-the-ground measurements of PM indicate that the average PM 2.5 reading for Hanoi is more than 60mg/m^3, with certain months having an average of 95-110mg/ m^3, compared to WHO advocated standard of 10mg/ m^3. MONRE data.
[15] From 22,808GWh to 69,391GWh annually according to IEA Statistics

b. ***Transport management***. Freight transport increased by more than 12 percent per year between 1995 and 2006 and road transportation volume trebled from 2005-2013.[16] Car and motorcycle ownership grew by 122 and 233 percent respectively, during the first decade of the 21st century.[17] Several studies estimate that passenger and freight transport demand will increase by 9-10 times by 2030 from 2005 levels. Transport GHG emissions are expected to double from 40 to 80 million tons between 2016 to 2030.

Figure 1: Volume and Composition of Vietnamese GHG Emissions, 2000 & 2014[18]



Source: Yale Center for Environmental Law & Policy

8. **Vietnam's poor environmental performance and unsustainable exploitation of natural capital has produced economic and welfare costs, leading to adoption of green growth objectives.** Vietnam ranks 16th in Asia and 132nd in the world under the 2018 Environmental Performance Index,[19] largely due to poor air quality and wastewater management, tree cover loss and growing GHG emissions. It is also the fourth largest global

[16] Vietnam Statistical Handbook 2014, Vietnam General Statistical Office.
[17] 1 million cars and 20 million motorcycles at the end of 2010, an increase from 450,000 cars and 6 million motorcycles at the end of 2000.
[18] Source: WRI. Climate Access Indicators Tool (CAIT).
[19] Wendling, Z. A., Emerson, J. W., Esty, D. C., Levy, M. A., de Sherbinin, A., *et al*. (2018). *2018 Environmental Performance Index*. New Haven, CT: Yale Center for Environmental Law & Policy. *https://epi.yale.edu/*.

generator of marine plastic[20], which impacts food safety (through contamination of fish), urban infrastructure (through blockage of drainage and sewer systems) and the competitiveness of the tourism sector, as well as contributing to GHG emissions. Average economic losses from ambient PM2.5 concentrations from 1995-2015 were 3 percent of GDP per year, amongst poorer lower-middle-income countries. In Vietnam, total welfare losses from air pollution were estimated at almost US$24 billion in 2016.[21] Vietnam's water productivity also rates low - at about US$2.37 per cubic meter of water against a global average of US$19.42[22]. These issues, as well as the direct losses from climate impacts cited above, have led to a focus on green and resilient growth. The NCCS and VGGS set out a vision for quality of growth, resilience, and advanced and efficient technologies. The 2016-2020 SEDP[23] adopted the vision laid out in the NCCS and VGGS for a sustainable and resilient economy that enhances growth, rather than constraining it. The productivity of agriculture and low-lying coastal regions should be protected from extremes of climate, and a more resource-efficient and cleaner economy should support greater competitiveness and a healthier population.

9. **The originally-conceived 3-operation World Bank DPF series focused on mainstreaming climate within general planning and budgeting processes, as well as tackling specific climate impacts and issues in key sectors. Although unable to proceed as planned, the first operation played a critical role in shaping the form and content of the policy program, and delivered results upon which the new DPF builds, whilst also strategically strengthening the foundations and providing a bridge to a new, post-2020 phase of climate action.** The original series was expected to run from 2016 to 2019, but following approval of the first operation in June 2016, processing the second was delayed beyond the 24 months due to the public debt ceiling and constraints on government borrowing. The series therefore lapsed. Nevertheless, progress under the Government SP-RCC policy matrix continued, supported by technical assistance (TA) and active engagement from the Bank, JICA (Japan International Cooperation Agency) and AFD (l'Agence Française de Développement). By the end of 2018, results had been achieved under multiple targets from the original series, including increased budget allocations for climate-related expenditures, plantation of coastal forest, adoption of energy-efficient technologies and investment in renewable energy (further details in Section 3). The currently proposed operation enhances this momentum, ensuring continued delivery of the latter stages of the SP-RCC, and extending the policy ambition and delivery of results beyond that envisaged for the original series in key areas. This includes supporting policies that should lead to increased protection of water sources, application of water-saving practices over larger areas of farmland, additional reductions in NOx emissions from vehicles, and further scale up of renewable generation capacity. The new DPF and associated TA anchor the Bank's strong and multi-sectoral climate engagement, as they also aim to help shape the next phase of action to deliver on NDC commitments and increase post-2020 ambition.

10. **Although not expressly designed for the purpose, the operation would also support Vietnam's emerging COVID-19 response in a number of meaningful ways.** Firstly, as the final IDA-financing to Vietnam, the operation will provide concessional budget support that can be used as required by Government to respond to

[20] Jambeck, J.R. et al (2015). *Plastic waste inputs from land into ocean.* Marine Pollution.
[21] Data from IMHE (2016) & Cohen et al (2017).
[22] World Bank. 2019. Vietnam: Toward a Safe, Clean, and Resilient Water System
[23] The SEDP serves as Vietnam's five-year development plan, elaborating the objectives of the 2011–2020 Socio-Economic Development Strategy (SEDS) for the 2016–2020 period and identifying specific measures and resources that are needed for its implementation

any fiscal pressure experienced in the wake of COVID-19. More specifically, the policy reforms supported are relevant to COVID-19 response through: (i) improving forest management, which contributes to reducing risks of zoonotic emerging infection diseases by maintaining wildlife habitats and protecting wildlife populations, including enforcement of regulations against illegal hunting and wildlife trade; (ii) increasing investment in natural resources management, climate adaptation and green growth in ways which would contribute to or complement an economic stimulus package aimed at supporting rural incomes and community resilience; and (iii) reducing air pollution, which has been shown to increase vulnerability to acute COVID-19 symptoms.

2. MACROECONOMIC POLICY FRAMEWORK

2.1. RECENT ECONOMIC DEVELOPMENTS

11. **While Vietnam remains significantly exposed to health and economic fallouts from the COVID-19 outbreak, its economy remains fairly resilient to external shocks.** Vietnam reported a GDP growth rate of only 3.8 percent in the first quarter of 2020, which was good by global standards but represented the lowest growth rate since 2009. While the manufacturing and construction sectors exhibited some resilience, tourism and transport activities fell abruptly during the first three months of 2020. The economy has been feeling the pain of the ongoing global financial turmoil, with declining equity prices, rising sovereign spreads and decreasing capital flows. Yet, the economy reported a trade surplus and significant (but declining) FDI inflows in the first quarter of 2020. The credit growth remained vibrant, expanding at 10 percent during the first quarter, partly as the result of the easing of monetary policy by the authorities. With adequate policy buffers in hand and appropriate support from the global community, Vietnam appears to be well-positioned to overcome the ongoing health and economic crisis.

12. **Economic growth was robust in the 2019, despite rising global headwinds**. Following a vibrant outturn of 7.1 percent in 2018, Vietnam's real GDP is estimated to have expanded by 7 percent in 2019. Two factors contributed to this robust performance. Exports grew by about 8.4 percent in 2019, which is lower than in the recent past (14.5 percent in the same period of 2018), but nearly 4 times higher than the global average. Second, rapid expansion of the middle class, with the number of people living with more than $15 per day increasing by about one million every year. In the first quarter of 2020, the pace of economic expansion declined to 3.8 percent as the result of the COVID- 19 outbreak and poor climatic conditions such as the worst salination phenomena in the Mekong Delta over the last century. The agro-forestry-fishery sector expanded by a modest 0.1 percent as a result of the severe drought as well as salinity intrusion (most severe in a century) in the Mekong Delta. The industrial and construction sectors grew by 5.2 percent, slower than the rate of 8.7 percent reported a year earlier. The sharpest deacceleration was observed in the service sector that only expanded by 3.3 percent versus 7.6 percent during the first quarter of 2019. The outbreak has hit hard services such as tourism, transportation and retail trade. The growth of retail sales – a proxy for household consumption – slowed sharply to 1.6 percent (in real term) from 9.3 percent a year earlier. Total investment increased modestly by 2.2 percent in the first quarter of 2020 as the result of lower foreign investments (down 5.4 percent). Meanwhile, public investment rose 5.8 percent thanks to improved disbursements in big infrastructure projects.

13. **Inflationary pressures remained contained and below the State Bank of Vietnam's (SBV) target of 4 percent, despite recent hike of food prices**. Despite rising food prices, driven mainly by the shortage of pork supply in the last quarter, inflationary pressures remained moderate in 2019. The annual average headline CPI declined to 2.8 percent in 2019, down from 3.5 percent in 2018. The increase in prices observed in early 2020 was temporary (due to the lunar new year celebration) as new inflation data for March indicates a decline in headline CPI of 0.7 percent (m/m, unadjusted), equivalent to or 4.9 percent (y/y) in March, down from 5.4 percent the prior month. The main driver for CPI's moderation was the decline in fuel price (down by 4.9 percent (y/y)).

14. **Monetary authorities continue to balance growth and stability objectives**. Domestic credit growth was approximately 12 percent in 2019 and 10 percent during the first quarter of 2020, below the target set up by the State Bank of Vietnam (SBV). Starting in September 2019, amidst subdued inflation pressures and following the move of many other Central Banks in the region, the SBV eased its policy stance by cutting its rediscount rate and refinancing rate and, subsequently, its interest-rate caps on dong deposits and on short-term lending to support businesses, particularly in agriculture, small enterprises, high-tech industries and exporters. On March 16, 2020, as a response to the COVID 19 crisis, the SBV cut its benchmark rates by another 50-100 basis points (bps). The authorities also reduced short-term deposit rates cap by 25-30 bps, and the short-term lending rates cap for priority sectors by 50 bps. The authorities announced a credit package totaling VND 250 trillion (about 3.3 percent of GDP) from the banking sector designed to support affected firms and households. As of March 3, banks have supported more than 44,000 customers, with outstanding loans of about VND 222,000 billion, by either rescheduling repayment, exempting, and reducing interest on existing debts, exempting and reducing fees (including interbank transaction fees for small amounts, and credit information subscription fees). Several fees for securities services have been also reduced or temporary exempted to support the stock market. Given the weak monetary policy transmission in Vietnam—due to the limited number of firms benefiting from credit and the low percentage of households owning a bank account—the impact of such monetary easing is likely to be modest or restricted to formal businesses.

Figure 2: Resilient GDP growth

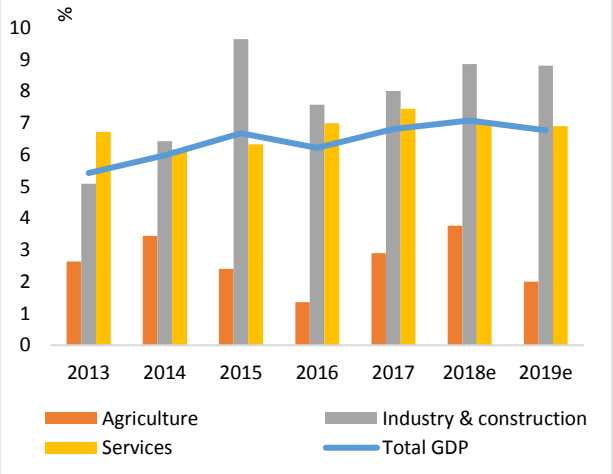
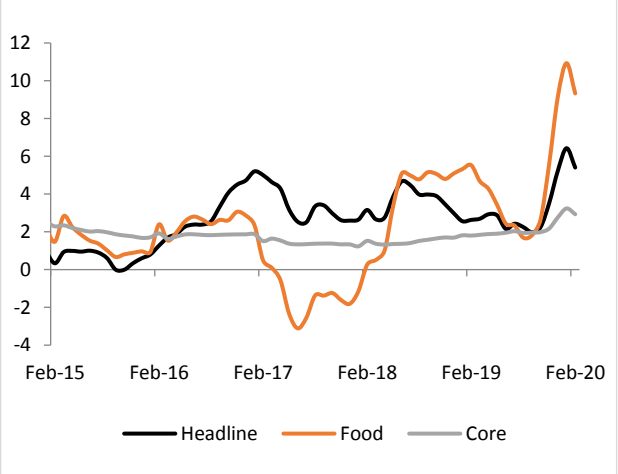
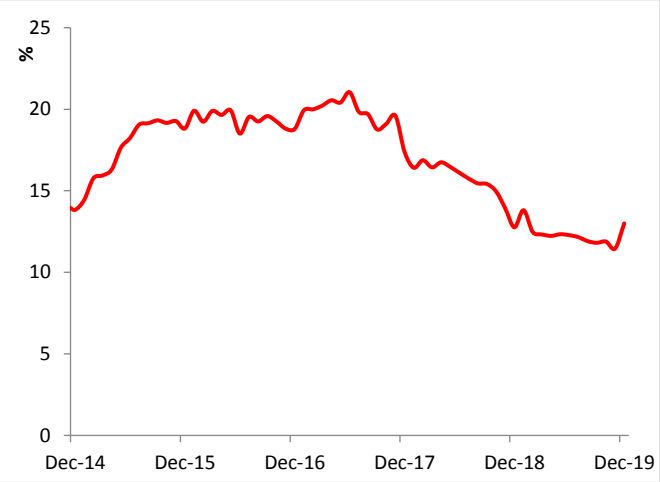


Figure 3: Moderate inflation



Source: GSO

Figure 4: Slowing credit growth



Sources: GSO and SBV

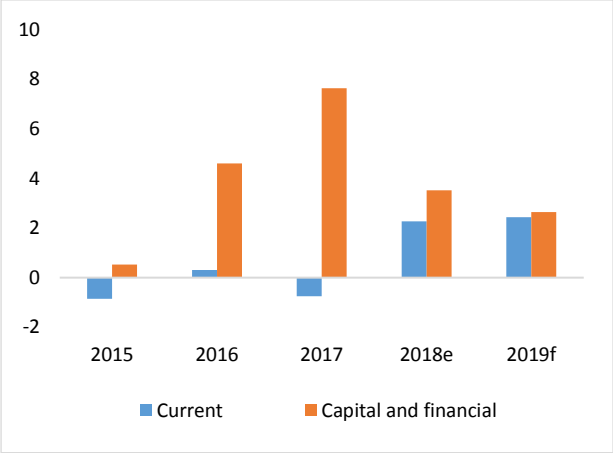
15. **During 2019, banking sector stability has improved, reflecting progress in the management of non- performing loans (NPLs) and higher profitability of the banking sector.** The SBV continues to manage financial risks through non-interest rate measures, such as caps on credit growth (for entire banking system and each individual bank as well) and other macro-prudential measures. It has maintained regulations limiting loans to real estate sector (chiefly for luxury apartment purchases where speculation occurs) or high-risk segments (e.g. stocks and securities). The ratio of NPLs declined from 3 percent to 2 percent in the portfolio of commercial banks during 2019, while the hidden bad debts from SOEs and off-balance sheets debt were reduced from 7.6 percent at end of 2016 to less than 4 percent in 2019. However, undercapitalization of the banking system remains a challenge as, at end-September 2019, only 12 out of 45 banks operating in Vietnam reported a Capital Adequacy Ratio in line with Basel II requirements.

16. **Vietnam's external position remained strong in 2019, with a current account surplus of approximately 4.7 percent of GDP but has started to weaken due to the COVID-19 crisis in the first quarter of 2020.** The merchandise trade balance surplus, combined with strong remittances inflows, helped Vietnam to sustain a current account surplus for the second consecutive year. The capital account also remained surplus in 2019, due to sustained high FDI inflows. The improved balance of payments allowed the SBV to shore up foreign reserves over recent years to the equivalent of about 3.7 months of import cover in December 2019, up from 2.1 months in December 2015—during which period the stock of international reserves has more than doubled. During the first quarter of 2020, the merchandise trade balance remained positive thanks to the modest expansion in exports (up by 0.5 percent in Q1) and the decline in imports (down by 1.9 percent). However, the export sector was severely hit in March (down by 12 percent), mainly because of lower sales by the FDI sector. The exports of services deteriorated by nearly 20 percent (y/y) in Q1 2020 due to substantial loss in receipts from transportation and tourism services (down by 32 and 19 percent, respectively).[24] Over the same period, Vietnam's imports of services decreased by 5 percent. Concurrently, FDI commitments (in all forms) declined significantly by nearly 21 percent to US$8.6 billion in Q1 2020.

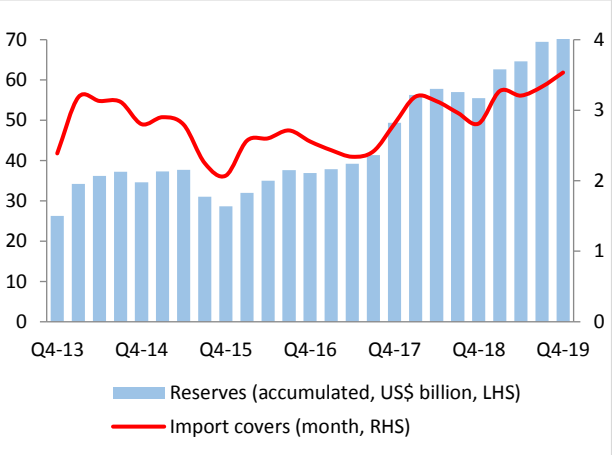
[24] Foreign visitors fell by 64 percent and 68 percent, in February and March compared to the same period a year ago. During the first 3 months of this year, foreign visitors to Vietnam amounted to only 3.7 million people or 18 percent lower than last year during the same period. The biggest reduction comprised tourists from East Asia. In March, arrivals from China and South Korea plummeted by nearly 92 percent (y/y) while Japanese tourists fell by 55 percent.

Figure 5: External position remains strong

Balance of Payments (% GDP)

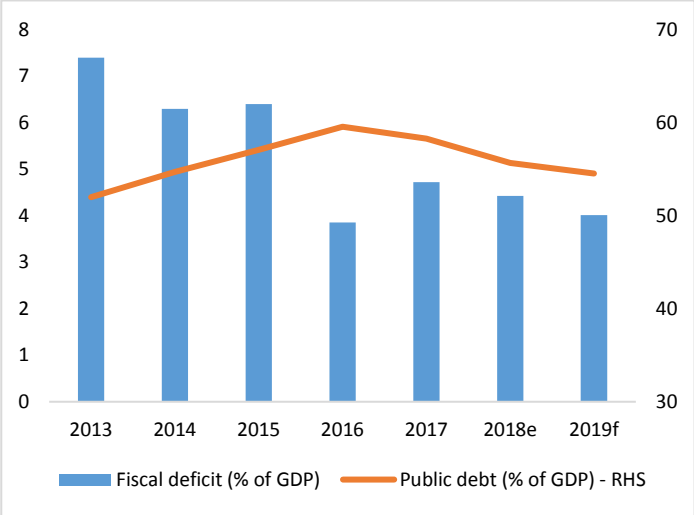


Foreign Reserves



Sources: SBV, IMF and WB

Figure 6: Fiscal consolidation in progress



Sources: IMF and WB

17. **The exchange rate continues to be market-driven, absorbing the impact of external volatility on the domestic economy**. Since the beginning of 2016, the SBV has moved towards more market driven management of the exchange rate – a key step to enhance responsiveness to external volatility. While maintaining a crawling exchange rate peg, the SBV moved to setting a daily reference rate of the dong versus the dollar in line with the market, instead of one-off devaluations as applied in the past. These steps reflect the longer-term objective of the SBV to move away from using the exchange rate as the nominal anchor and to introduce inflation targeting. In the short run, they should prevent pressures from building up, especially in the context of volatility in currency markets across the region. In 2019, Vietnamese dong depreciated slightly by about 1.5 percent in nominal and foreign reserves started to recover– to about 3.5 months of imports from 2.8 months in 2018. Due to the limited nominal depreciation of the dong (relative to currencies of trading partner) the real effective exchange rate continued to appreciate (3.8 percent in 2018 and 2.5 percent in 2019). In the context of a strengthening US dollar and sharper depreciation of currencies of major Vietnam trading partners, concerns of real exchange rate appreciation of the dong and its possible negative impacts on Vietnam's export competitiveness remain. With depreciation pressures rising, the SBV announced on March 23 that it would intervene in the currency market as needed to smooth excessive exchange rate volatility.

18. **In 2019, the government continued to consolidate its fiscal accounts with the objective to further reduce public debt.** The fiscal deficit is estimated to have narrowed to 4.0 percent of GDP in 2019 from 4.4 percent in 2017 and 6.4 percent in 2015 (by IMF's GFS definition). Preliminary figures show that total revenues declined to 24.1 percent of GDP in 2019 – at about the level reported in 2016. This decline in collection is mainly explained by the combination of lower revenue from trade taxes (due to Vietnam's international commitments) and from non-taxes. Over the same period, total expenditures have gradually declined to 28.1 percent of GDP in 2019 from 30.2 percent in 2015, reflecting to a large extent lower capital expenditure from an elevated level, and the rationalization of discretionary spending items. The Government's commitment to strengthen budgetary discipline, needs to be balanced with reforms that create fiscal space to maintain critical investments in infrastructure and spending on essential public services. Therefore, the quality of the adjustment, including a balanced combination of revenue and expenditure measures and a strong focus on spending efficiency gains—as opposed to across-the-board curtailment of discretionary spending and investment—remains important. Preliminary estimates reveal that the Government was able to increase domestic revenue by 9.3 percent (y/y) in the first two months of 2020 even though the collection from trade taxes decreased by 11 percent compared to the same period last year because of the reduction in the value of imports. Concurrently, total expenditures rose 11.5 percent, with a relatively good execution of the capital budget.

19. **After a decade of steady increase, the trajectory of public debt as a share of GDP has started to reverse.** This reflects strong growth, continued fiscal restraint and low interest rates. The gradual decline in the fiscal deficit, together with a reduction in government guarantees and significant privatization proceeds, helped contain further increase in public and publicly guaranteed debt (PPG debt). In 2019, the government continued to refrain from issuing new guarantees, and consequently, the stock of public and publicly guaranteed debt declined from 59.6 percent as a share of GDP in 2016 to an estimated 54.1 percent in 2019, below the statutory limit of 65 percent of GDP (IMF's GFS). The profile of public debt has also improved, as the government significantly reduced its share of external debt in total debt with increased reliance on cheaper borrowing from domestic markets. The authorities also shifted to longer maturities, with the average maturity on outstanding domestic debt rising to 8 years. Yields on government bonds declined across maturities with improved investor confidence. In the first two months of 2020, the authorities issued domestic bonds for a total amount of VND32.3 trillion (about $1.4 billion) with an average maturity of 16.1 years and average annual coupon rate of 3.22 percent.

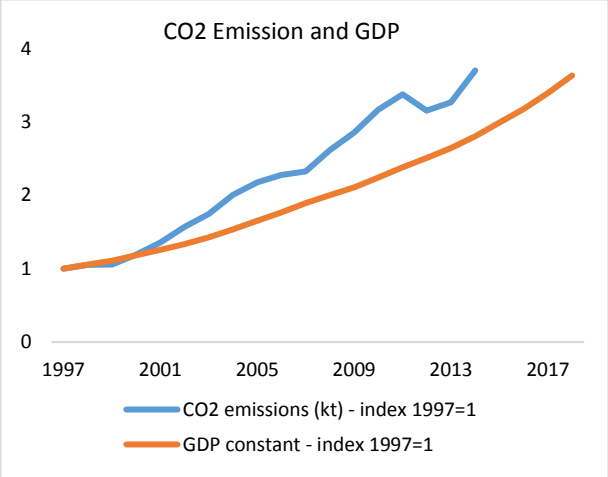
Box 1: Possible macroeconomic impacts of CCGG DPF policy program

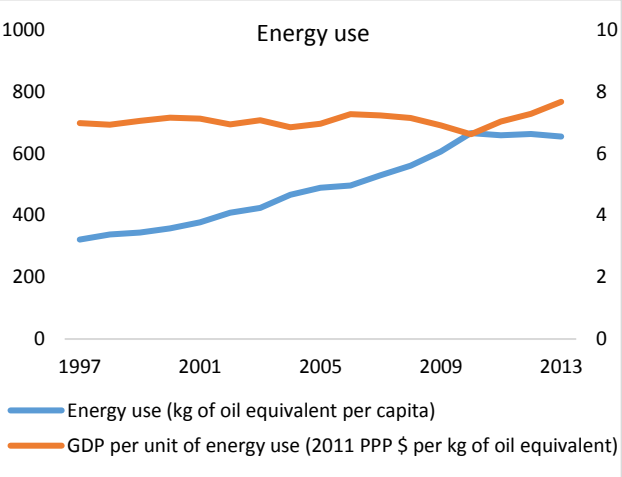
The policy measures supported by this DPF operation should engender enhanced competitiveness, lower the hidden costs of rapid growth, and reduce the risk of investments to climate events. Such measures are an integral part of a comprehensive strategy to address the macroeconomic risks of climate change and reduce the environmental footprint of rapid growth without compromising competitiveness.

Vietnam's strong growth record has been associated with a greater than 200 percent increase in CO_2 emissions between 2000 and 2014. This has been accompanied by a greater than 80 percent increase in energy consumption between 2000 and 2013. In contrast, energy efficiency has declined. Concurrently, the spatial distribution of industrial centers, agricultural investments, urban growth centers and infrastructure in Vietnam makes the economy highly vulnerable to climate change. Coastal flooding and erosion, salinity intrusion and higher incidence of extreme weather events pose high risks to many key sectors of the

economy.

Figure 7. Rapid growth was associated with an increasing environmental footprint, exacerbated by declining energy efficiency





The most direct and positive macroeconomic impact from this operation will be through the several policy actions aimed at improving water and land management as well as to reduce transport congestion and air pollution. A positive impact should be expected on the stock of natural capital and hence on long term growth – in line with the argument developed by the World Bank's in recent global report.[25] The same report also highlights potential indirect effects through human capital (e.g. less pollution and so better health) and physical capital (e.g. less flood and so less destruction). Those macroeconomic impact on long term growth are potentially significant, but hard to quantify. For this reason, the World Bank team is working on technical assistance that will use macroeconomic modelling to estimate potential impacts of climate policies to achieve Vietnam's forthcoming revised NDC commitments. The findings will be mapped to household surveys to estimate distributional impacts.

The operation should also have an impact on fiscal management. It will improve the effectiveness climate related expenditures through better selectivity and coordination. Some measures will also help reduce fiscal costs through the adoption of cost-effective technologies. As higher climate related expenditures may impact the sustainability of public finance, technical assistance will also be provided to help the Government assess potential fiscal risks. In the longer run, the fiscal cost of inaction would likely be much higher than the fiscal cost associated with the investment public spending supported by this operation.

2.2. MACROECONOMIC OUTLOOK AND DEBT SUSTAINABILITY

20. **While the medium-term prospects remain favorable, growth will be affected negatively by the global pandemic**. Preliminary estimates suggest that growth could decline to 3 percent in 2020 (3.5 percentage points lower than pre-COVID-19 forecast). Because of the limited number of infected cases (around 222 by early April 2020), the most important negative impacts associated with the outbreak are on tourism, manufacturing and cross-border trade (due to supply chain disruptions). Inflationary pressures are projected to increase in the

[25] World Bank, the Changing Wealth of Nations, 2018

short-term, reflecting shortage of food and fuel, and possible trade disruptions. With many households now wage dependent, even in rural areas, slowdown in tourism, hotel and catering as well as manufacturing, is likely to temporarily increase poverty. The external position will deteriorate due to fewer foreign tourists and lower (net) exports as well as FDI inflows. Fiscal accounts will temporarily deteriorate in 2020 as the slowdown in economic activities will affect revenue collection. The Government will have also to cover the costs of the fiscal stimulus that to compensate for the negative impact of the COVID 19 pandemic on the economy. Preliminary estimates indicate that this cost could exceed over one percent of GDP through the implementation of tax and social protection measures in favor of the most affected businesses and people.

Table 1: Vietnam Key Economic Indicators

	2016	2017	2018	2019e	2020f	2021f	2022f
Real economy							
Real GDP (% change)	6.2	6.8	7.1	7.0	3.0	6.8	6.5
Agriculture	1.4	2.9	3.8	2.0	0.8	2.0	2.0
Industry and construction	7.6	8.0	8.9	8.9	4.5	8.4	8.3
Services	7.0	7.4	7.0	7.3	2.0	7.0	6.5
Prices							
Consumer price index (% change, annual average)	2.7	3.5	3.5	2.8	3.5	3.6	3.5
GDP deflator (%, change)	1.1	4.1	3.4	1.8	3.4	3.3	3.2
Fiscal balance (% GDP)							
Total revenue and grants	24.0	24.5	24.5	24.1	22.6	23.6	24.1
Total expenditure (including off-budget items)	27.8	29.2	28.9	28.1	28.4	28.3	28.1
Fiscal balance (by GFS, IMF)	-3.9	-4.7	-4.4	-4.0	-5.8	-4.7	-4.0
Public and publicly guaranteed debt (by GFS, IMF)	59.6	58.3	55.7	54.1	55.8	55.0	54.2
External Balance							
Exports of goods (fob, % GDP)	87.7	97.6	100.9	101.8	99.8	100.9	102.6
Exports of goods (fob, % change)	9.0	21.8	13.3	8.4	2.3	9.4	9.7
Imports of goods, (cif, % GDP)	86.9	96.7	98.1	97.6	95.8	96.1	98.2
Imports of goods (cif, % change)	5.6	21.9	11.1	6.8	2.5	8.5	10.2
Foreign direct investment (Inflows, US billion)	11.6	13.6	15.0	19.9	10.3	15.5	17.3
Current account balance (% GDP)	0.3	-0.7	2.3	4.9	0.1	1.0	1.2
Reserves, including gold ($US billion)	36.9	49.4	55.5	78.5	78.2	87.0	97.4
Reserves (in months of imports)	2.5	2.8	2.8	3.7	3.6	3.7	3.8
Financial Markets							
Credit to the economy (% change, period-end)	18.8	17.4	12.7	12.9	7.0	12.0	12.0
Short-term interest rate (3-M deposits, period-end)	4.9	5.5	5.5	5.5	---	---	---
Memo:							
GDP (nominal, trillion dong)	*4,503*	*5,006*	*5,542*	*6,037*	*6,430*	*7,096*	*7,805*

Source: Bank staff, based on official data.
Note: cif = cost, insurance, and freight; fob = free on board, GFS=Government Financial Statistics

21. **Over the medium term, growth is projected to strengthen and sustain at around 6.5 percent in 2021-22, reflecting an improved external demand, a firming of services sector as well as a gradual recovery in agricultural production**. The economy will also rebound from the global coronavirus pandemic. Poverty is

projected to continue to decline further, as labor market conditions are expected to remain favorable. Overall, Vietnam's economic fundamentals remain solid, reflecting positive momentum especially for the export-oriented manufacturing and agriculture sectors. Inflation is expected to remain contained and stay around the authorities' 4 percent target even if a spike is expected in the first quarter of 2019 due to associated impact of the virus crisis of several food value chains. The Government is expected to continue to pursue economic liberalization, including through the ongoing restructuring of SOEs and clean-up of the banking sector on the domestic front, and through ongoing trade liberalization efforts both at the regional and global levels.

22. **On the external front, the current and capital account balances are projected to deteriorate due to weaker global demand, strict borders' restrictions, and rising uncertainty that will discourage foreign investors in 2020** The current account balance should recover in the medium term as it will continue to be supported by rising exports of the foreign-investment-driven manufacturing sector. Several multinational companies are expected to move to Vietnam to take advantage of lower wages and to diversify their risks in face of trade tensions. Concurrently, after a slowdown in 2020, imports of capital and intermediate goods should resume their expansion, as Vietnam's export sector will continue to rely on imported capital goods, components, and raw materials. Vietnam is also being affected by the global slowdown in trade, including the U.S.-China trade frictions, which are expected to have a net negative—albeit manageable—impact on trade over the medium-term. On one hand, Vietnam is expected to continue to benefit from trade and investment diversions. On the other hand, weakened external demand and heightened investor uncertainty stemming from the trade war are expected to lead to a moderation in export growth, offsetting the positive trade diversion impacts.

Table 2: Balance of Payments Financing Requirements and Sources (US$, billions)

	2016	2017	2018	2019e	2020f	2021f	2022f
Financing requirements	29.3	32.7	33.3	23.6	30.6	33.7	36.0
Current account deficit	-0.6	1.6	-5.5	-12.8	-0.2	-3.0	-3.8
Long-term debt amortization	5.2	5.5	9.4	10.4	12.0	12.7	13.6
Short-term debt amortization	16.6	17.1	19.5	21.6	10.2	11.9	12.6
Other capital outflows (incl. deposits)	8.1	8.4	9.9	4.4	8.6	12.2	13.6
Financing sources	29.3	32.6	33.3	23.6	30.6	33.7	36.0
FDI and portfolio investment (net)	11.8	15.6	18.0	23.1	10.3	18.4	20.4
Long-term debt disbursement	8.7	13.7	14.4	16.9	17.4	16.9	17.1
Short-term debt disbursement	27.4	28.5	19.2	18.7	8.5	15.4	16.9
Other capital inflows (incl. deposits)	-3.5	-3.7	-3.9	-3.1	-5.8	-8.2	-8.0
Change in the reserves	-8.3	-12.5	-6.1	-23.0	0.3	-8.8	-10.4
Errors and Omissions	-6.9	-9.1	-8.3	-9.0	0.0	0.0	0.0

Source: World Bank staff estimates, based on official data (GFS methodology)

23. **After a deterioration in 2020, due to the fiscal stimulus package and lower than projected revenue, continued fiscal restraint is expected to lead to further decline in the fiscal deficit and public debt over the forecast horizon**. The fiscal deficit is estimated to increase by about 1.7 percent of GDP in 2020, up from 4.0 percent in 2019, before returning to its declining trend in 2021 and 2022. The temporary increase in 2020 is associated to the COVID 19 crisis that will lead to lower revenue (down by one percent of GDP in comparison to 2019) and spending on the stimulus package considered by the authorities. Looking forward, fiscal consolidation is expected to be pursued against the backdrop of sustained robust nominal GDP growth and

consumption growth, which are expected to bolster revenue performance. The government's commitment to rein in inefficiencies is expected to help contain expenditure growth.

24. **While the external financing requirements remain modest, the financing gap from the Government's accounts is projected to increase substantially as the result of the COVID-19 outbreak in 2020**. The projected current account balance (slightly positive) should be financed by the combination of FDI inflows and development assistance, including from this operation, and possibly through a marginal decline in international reserves. By contrast, the increase in the overall fiscal deficit from 4 to 5.7 percent between 2019 and 2020 will have to be funded by additional borrowing from both domestic and international markets, resulting in an increase in the public to GDP ratio of 1.7 percent of GDP, which will reach 55.8 percent at end 2020. Not only this level would remain significantly below the threshold set by the Government (65 percent), but such increase is expected to be temporary as the authorities remain committed to fiscal consolidation in the medium-term. The modest increase in debt is justified as it will help to finance the fiscal stimulus package aimed at compensating for the negative impact of the pandemic on the economy, including on the most vulnerable groups.

Table 3: Key Fiscal Indicators (% of GDP)

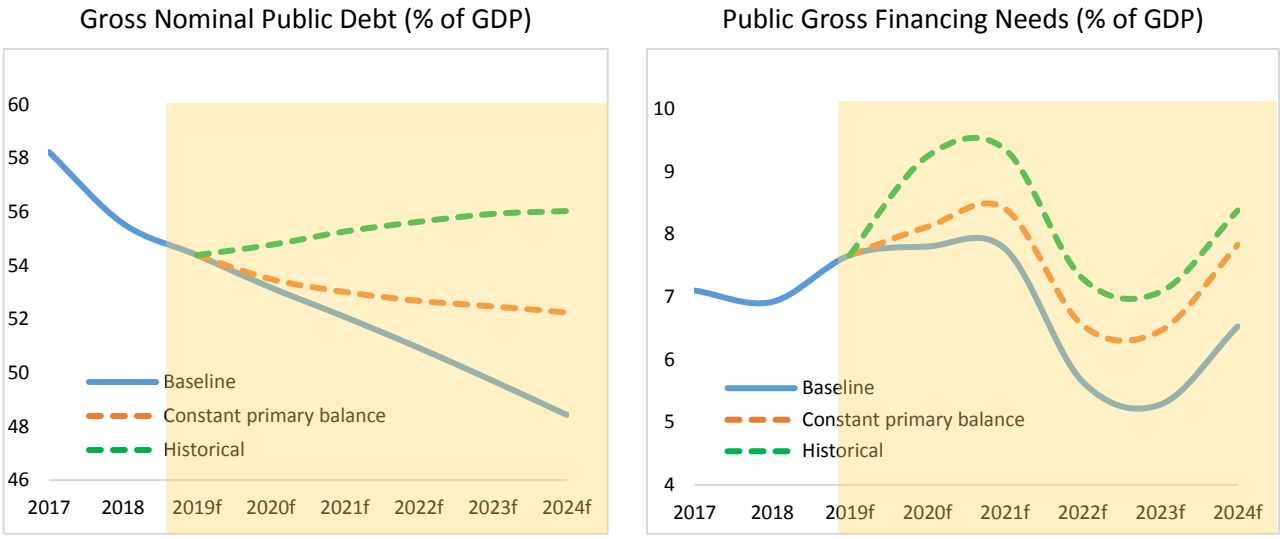
	2016	2017	2018	2019e	2020f	2021f	2022f
Total revenue and grants	24.0	24.5	24.5	24.1	22.6	23.6	24.1
Revenue (excluding grants)	23.8	24.3	24.3	24.0	22.5	23.5	24.1
Tax revenue	18.0	18.5	18.5	18.8	17.5	18.9	18.9
Oil revenues	0.9	1.0	1.0	0.7	0.6	0.6	0.6
Non-oil tax revenues	17.2	17.5	17.5	18.1	16.9	18.3	18.4
Corporate income tax	3.6	3.6	3.8	4.0	3.7	4.5	4.5
Trade taxes	2.1	1.9	1.7	1.6	1.4	1.5	1.4
VAT	6.0	6.3	6.2	6.2	5.8	6.4	6.9
Other taxes	5.4	5.7	5.8	6.3	5.9	5.8	5.6
Non-tax and capital revenues	5.8	5.8	5.9	5.3	5.0	4.7	5.1
Grants	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Total expenditure	27.8	29.2	28.9	28.1	28.4	28.3	28.1
Current	20.4	21.3	20.8	20.3	20.6	20.4	20.3
Administrative	2.6	2.5	2.4	2.4	2.4	2.1	2.0
Economic	2.0	1.8	1.8	1.7	2.2	1.9	1.9
Social	9.3	9.1	9.0	9.1	9.5	9.0	9.0
Education and training	4.3	4.2	4.1	4.3	4.4	4.3	4.3
Health and population	1.7	1.6	1.6	1.7	1.9	1.8	1.8
Interest payment	1.9	2.0	2.0	2.1	2.1	2.1	2.0
Development investment	7.4	8.0	8.1	7.8	7.8	7.9	7.8
Overall fiscal balance	-3.9	-4.7	-4.4	-4.0	-5.8	-4.7	-4.0
Primary deficit	*-1.9*	*-2.7*	*-2.4*	*-1.9*	*-3.7*	*-2.6*	*-2.0*

Source: Bank staff estimates based on official data (GFS methodology)

25. **Over the medium-term, the risk of public debt distress will remain limited**. The improved debt sustainability analysis (DSA) in part reflects the government's shift in recent years into longer-dated maturities, and reduction in interest costs. In the DSA baseline scenario that was run before the COVID 19

crisis, public debt was projected to decline from estimated 54 in 2019 to about 48 percent of GDP in 2024, and it reflected the assumption of a partial implementation of the government's targeted gradual fiscal adjustment. The government's plan included some use of (non-debt creating) privatization proceeds for deficit financing and a gradual reduction in interest expenditures with a shift to lower cost financing. The share of foreign currency-denominated debt was projected to decline from 44 percent of the total debt in 2017 to 37 percent in 2024, leading to a further reduction in foreign exchange rate risk.

Figure 8: Debt Sustainability Analysis (DSA)



Sources: IMF and official data

26. **This baseline DSA assessment is subject to downside risks, including delays in fiscal consolidation, a shortfall in privatization proceeds, and growth and exchange rate shocks**. Domestically, a slowdown in the restructuring of the state-owned enterprise (SOE) and banking sectors could adversely impact the macro-financial situation, undermine growth prospects, and create public sector liabilities. Further fiscal consolidation through the continued contraction of public investment could undermine long-term development objectives. Vietnam's economy also remains susceptible to further volatile developments in the global economy, given its high trade openness and relatively limited fiscal and monetary policy buffers. External risks include escalating trade protectionism, heightened global and regional geopolitical uncertainty, and continued tightening of global financing conditions that could lead to disorderly financial market movements.

27. **The macroeconomic policy framework is deemed adequate for this operation**. Economic growth has been resilient and macroeconomic stability has been broadly maintained. The monetary and fiscal policy stance are appropriate and external buffers are robust. The impact of COVID 19 on Vietnam's economic activities could be significant but short-lived if the outbreak is contained in next few months. The strong fundamentals of the Vietnamese economy, with a large current account surplus and relatively ample fiscal space at the end of 2019, offer the opportunity for the Government to implement a fiscal stimulus that should help compensate for the negative effects of the pandemic on the most vulnerable groups. The resulting temporary increase in fiscal deficit should be accommodated by additional borrowing that will not affect fiscal

and debt sustainability. Other short-term risks include a sharp slowdown in global economic activity and trade flows as Vietnam's economy is one of the most open in the world. Vietnam has been managing the above external risks by diversifying its trade flows and improving its competitiveness. Vietnam's adhesion to new trade agreements, e.g. the Europe-Vietnam Free Trade Agreement (EVFTA), supports this effort. Heightened global volatility underscores the need to maintain sound macroeconomic policies, including implementation of planned structural reforms, such as restructuring the state-owned enterprises, improving investment climate and investing in human capital and infrastructure.

2.3. IMF RELATIONS

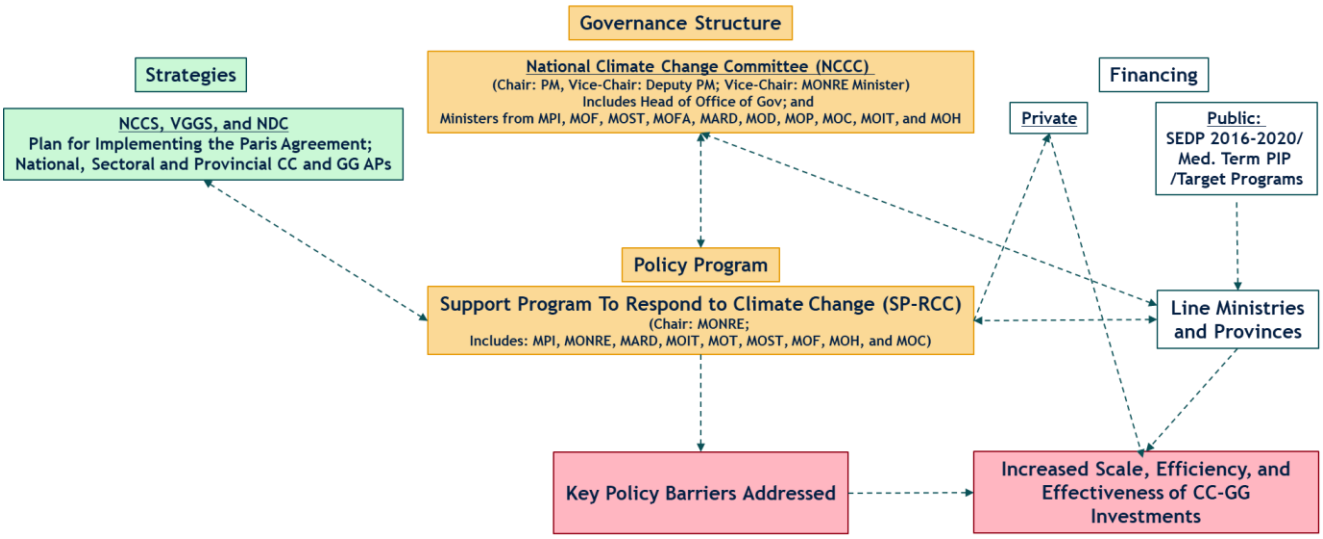
28. **While there is currently no active IMF program, the IMF maintains regular macroeconomic surveillance and policy dialogue in the context of its Article IV consultations.** The previous IMF Poverty Reduction and Growth Facility ended in April 2004. Since then, the engagement with the IMF has focused on regular macroeconomic surveillance, policy dialogue and technical assistance support, including in fiscal policy, debt management, banking sector supervision, macroeconomic modeling and monetary policy. The World Bank and the IMF team are collaborating and regularly exchanging views on pertinent fiscal and macroeconomic policy issues.

3. GOVERNMENT PROGRAM

29. **Vietnam's 2016-2020 Socio-Economic Development Plan (SEDP), adopted by the National Assembly on April 25, 2016, put an unprecedented emphasis on climate resilience and promoting green growth.** Via Resolution No.26/2016, the National Assembly established climate change response as one of the priorities of the Medium-Term Public Investment Plan (MTIP) for 2016-2020, that accompanied the SEDP. A target program (TP) on climate change and green growth was included in the MTIP, as well as other related TPs on sustainable forestry development, agriculture restructuring including disaster prevention and livelihood restructuring, and sustainable aquaculture development.

30. **In parallel, the government developed and approved a 2nd phase of the Support Program to Respond to Climate Change (SP-RCC) for the period of 2016-2020 as a platform for cross-sectoral policy dialogue and coordinated financing of the climate change and green growth TP, with key development partners, including the World Bank, JICA and AFD.** The SP-RCC is intended to support policy reform, capacity building, and increased and more effective investment for climate change and green growth priorities identified in the National Climate Change Strategy (NCCS), approved in 2011, and Vietnam Green Growth Strategy (VGGS), approved in 2012. An extensive cross-ministerial consultative process involving participation of relevant decision makers and supported by extensive analytical work was organized under the direction of the National Climate Change Committee (NCCC), with a Program Coordination Unit (PCU) established within MONRE to support coordination and monitoring of policy actions. The SP-RCC policy matrix includes actions to improve: disaster preparedness and climate monitoring; food and water security in the context of climate change; response to sea level rise and disaster risk in vulnerable areas; sustainable forest protection and development; reducing GHG emissions under the SEDP; strengthening government capacity; community capacity development; and increasing investment.

Figure 9: GoV- - Climate Change and Green Growth Framework



31. **Vietnam's Nationally Determined Contribution (NDC, originally developed in 2015) and Plan for Implementation of the Paris Agreement (PIPA, 2016) establish national climate commitments for the post-2020 period, and a roadmap to prepare for and implement them**. Commitments under the NDC include cutting GHG emissions by 8 percent below business as usual (BAU) between 2020 and 2030, and up to 25 percent conditional on international support (see Table 4), and a variety of adaptation targets, such as integrating climate planning in 90% of SEDPs, reducing poverty, increasing forest coverage, and provision of water and health services[26]. The PIPA provides a framework for delivering on the NDC targets and includes five groups of tasks to guide implementation, including (i) mitigation; (ii) adaptation; (iii) resource mobilization, (iv) establishment of measurement, reporting, and verification (MRV) systems; and (v) policy and institutional development and enhancement. The PIPA recognizes the SP-RCC as the policy mechanism in support of the NDC. The NDC and PIPA once again build on the foundations set in the NCCS and VGGS, which lay out a vision through 2050. These strategies aim not just to address a set of specific climate risks and opportunities to reduce waste and pollution, but to re-orient the whole economy towards a more sustainable mode of planning and development, to position Vietnam as a modern competitive economy with high quality of life and a responsible member of the international community, on par with other major countries.

32. **The PIPA initially prioritized actions for enhancing readiness to NDC implementation during the 2016-2020 period, most of which have been implemented or are underway.** This includes conducting regular GHG inventories, engaging in policy dialogue on mitigation in key sectors (including power, industry, transport, agriculture, and construction), developing a national adaptation plan, prioritizing investment in adaptation and resilience in key vulnerable areas (including coastal areas and the Mekong Delta), and capacity strengthening and public awareness raising on climate change and climate action. As part of this readiness process, MONRE is coordinating a cross-ministerial working group (consisting of MPI, MOIT, MARD, MOT, and MOC) to review and update its NDC for submission to the Government and subsequently the UNFCCC in 2020. In parallel, MONRE is

[26] Refer to Annex 5 for a complete Summary of Vietnam's NDC.

leading the development of a Roadmap for GHG Emission Reductions (to be adopted as a GoV Decree). The Decree is expected to (i) codify a national vision and roadmap for GHG mitigation in line with Vietnam's NDC targets and the NDC review and update process; (ii) provide the institutional framework including roles and responsibilities for GHG inventory and for the measurement, reporting, and verification (MRV) framework of GHG emissions and emission reductions; (iii) provide a legal basis for carbon crediting, including a potential roadmap for piloting and implementing a carbon pricing instrument; and (iv) provide a legal basis for the development of a long-term (2050) low-carbon strategy. Within the energy sector, which is the largest emitter of GHGs, the government is implementing policies and actions for reflecting NDC targets to expand the usage of RE and EE technologies. For instance, prioritization of RE based generation using FIT incentives have been put in place which are now being transitioned to auction-based RE procurement framework to further scale-up the use of RE technologies in the power generation mix.

Table 4. Summary of NDC Mitigation Targets by Sector (as included in Vietnam's NDC Technical Report, MONRE, 2015)

Sector	Unconditional		Conditional	
	Target (%)	GHG emission reductions (MtCO2e)	Target (%)	GHG emission reductions (MtCO2e)
Energy	4.4	29.46	9.8	65.93
Agriculture	5.8	6.36	41.8	45.78
Waste	8.6	4.16	42.1	20.23
Land use, land-use change, and forestry (LULUCF)	50.05	22.67	145.7	66.0
Total	**8%**	**62.65**	**25%**	**197.94**

33. **The SP-RCC, with support from the World Bank's first Climate Change and Green Growth DPF operation, has strengthened dialogue and coordination for integrating climate change and green growth considerations into policy and institutional strengthening and climate-responsive investments.** The Bank played a key role in helping to develop both the content and form of the SP-RCC through its DPF-based support to both the first and second phases. Bank TA helped to identify key priorities, including the importance of linking sector-specific initiatives with expenditure tracking and budgeting, as well as to establish coordination, review and monitoring processes. Results to date have been important for initiating Vietnam's move towards a low-carbon, climate resilient economy (see Table 5 below).

34. **Building on these achievements, the Prime Minister has requested the development of an NDC implementation support mechanism that would serve as a platform for cross-sectoral technical, policy and investment dialogue for the post-2020 period.** This will build on the current experience and structures of SP-RCC, and also serve to coordinate support from DPs. Key objectives are expected to include facilitation of (1) information sharing and coordination amongst and between partners (including the private sector) on NDC

priority action implementation; (2) policy and technical dialogue focusing on overcoming barriers and tracking progress on NDC implementation; and (3) financial support from the national budget, complimented by targeted development finance assistance for investments and technical assistance. Details on the mechanism are being shaped through extensive stakeholder consultations and iterative government and DP review through the end of 2019, led by MONRE.

Table 5. Key Results Supported by SP-RCC

Selected SP-RCC Goal Themes[27]	Highlights of Results to date
Food and Water Security in the Context of Climate Change	**Water protection corridors in place to provide a buffer against uncontrolled development along important waterways.**[28] Twenty provinces have established water protection corridors, including geographic coordinates or detailed descriptions of the boundary with twenty more provinces in the process of establishing these corridors. The provincial decision establishing the protection corridors clarifies the protection purposes of each corridor, for example to protect the resources from pollution as they are used for domestic water supply, or to protect the river embankments from erosion or land encroachment as they are channels for water running out. The decisions also include actions and assignment of responsibility to different provincial departments for implementation.
Proactive Response to Sea Level Rise and Disaster Risk in Vulnerable Areas	**Progress by coastal provinces in the development of integrated coastal zone management programs.** [29] 24 out of 28 coastal provinces have issued and implemented strategies, plans, or projects related to Integrated Coastal Zone Management (ICZM). 5 provinces have developed or are in the process of developing their coastal inventories to inform the development of their ICZM programs. 9 provinces have developed local data management systems on ICZM linking with the national data management system. 19 provinces have established or are in the process of setting up coastal setback lines.
Sustainable Forest Management and Development	**Increased coastal forest area.**[30] Policies to promote the management, protection, restoration and development of coastal forests have resulted in an additional 14,100 ha of coastal forests were planted by the end of 2018 as compared to the baseline in 2016 (a 4.5% increase).
Reducing Emissions in the SEDP Process	**Adoption of city air quality management (AQM) plans.**[31] Five provinces (Hai Phong, Can Tho, Nam Ha, Hoa Binh and Yen Bai) have adopted a plan for improvement of air quality.

[27] The goal themes selected are those that were supported by the preceding DPF series.
[28] Source: Provincial Decisions to establish the list of water source protection corridors, including geographic coordinates, specific sites, and responsibilities and actions to be taken by each provincial technical department and related commune's and district's people committee.
[29] Source: ICZM Review Reports from provinces presented at the State of the Coast Consultation Workshop on April 25, 2019 at MONRE, and Vietnam Sea and Island Institute.
[30] Source: MARD's report on the implementation of Plan 120 on coastal forest protection and management submitted to the Government in January 2019
[31] Source: Provincial Decisions to issue air quality management plans.

Selected SP-RCC Goal Themes[27]	Highlights of Results to date
	Reduced NOx emissions in light-duty transport compared to business-as-usual.[32] More stringent emissions and fuel standards for new vehicles put in place in 2015 are projected to have reduced NOx emissions by 7.49% as of the end of 2018.
	Significant increases in installed capacity for non-hydro renewable energy.[33] Resulting from new incentive frameworks for solar, wind, biomass, and waste-to-energy, as of the end of June 2019, the total new installed capacity of grid-connected non-hydro renewable energy is approximately 4.7 GW, mostly from solar.
	Promoting energy efficiency in residential cooling. [34] New minimum performance standards and labeling for room air conditioners has raised energy efficiency for new air conditioners in one of the fastest growing markets in the region. A recent market assessment indicates that market penetration of inverter air-conditioners (which are on average more efficient than single speed A/Cs) has increased by approximately 31%, as a result of the new policy
Increase Investment and Diversify Financial Resources	**Increased public investment in climate resilience in the Mekong Delta.**[35] The total budget allocated to climate change and green growth investment projects increased from VND 8,210 billion in 2015 to VND 9,807 billion in 2017 (equivalent to a 19.5% increase), with 95% contributing to adaptation and resilience objectives. This includes increased financing for sustainable urban development and resilience, sustainable management of water resources and coastal protection.

Source: WB

4. PROPOSED OPERATION

4.1. LINK TO GOVERNMENT PROGRAM AND OPERATION DESCRIPTION

35. **The operation continues support for the priorities of the government's SP-RCC (2016-2020) that address critical elements of green, low-carbon and resilient development through promoting investment in landscape management, and cleaner transport and energy technologies.** Through the first (2012-2015) Climate DPF series and the first operation of anticipated CC&GG DPF programmatic series, and related TA, the Bank has been a key partner in the development of the SP-RCC, which in keeping with the economy-wide CC&GG objectives, covers a broad range of activities. To maintain a manageable and effective focus, however, the DPF series incorporated policy tracks and results from a subset of the SP-RCC policy matrix. These were identified and developed with line ministries and in discussion with DPs through a cross-ministerial program preparation process coordinated

[32] Source: Vu Anh Tuan (2019) – Report commissioned by MOT
[33] Source: Electricity Vietnam (EVN)
[34] CLASP, 2019 (forthcoming). Vietnam Room Air Conditioner Market Assessment and Policy Options Analysis
[35] Source: MPI report on Climate and Green Growth Public Expenditure and Investment Review in the Mekong Delta (CPEIR-Mekong), 2018;

by MONRE and involving the Ministry of Agriculture and Rural Development (MARD), Ministry of Industry and Trade (MOIT), Ministry of Transport (MOT), MPI, and MOF.

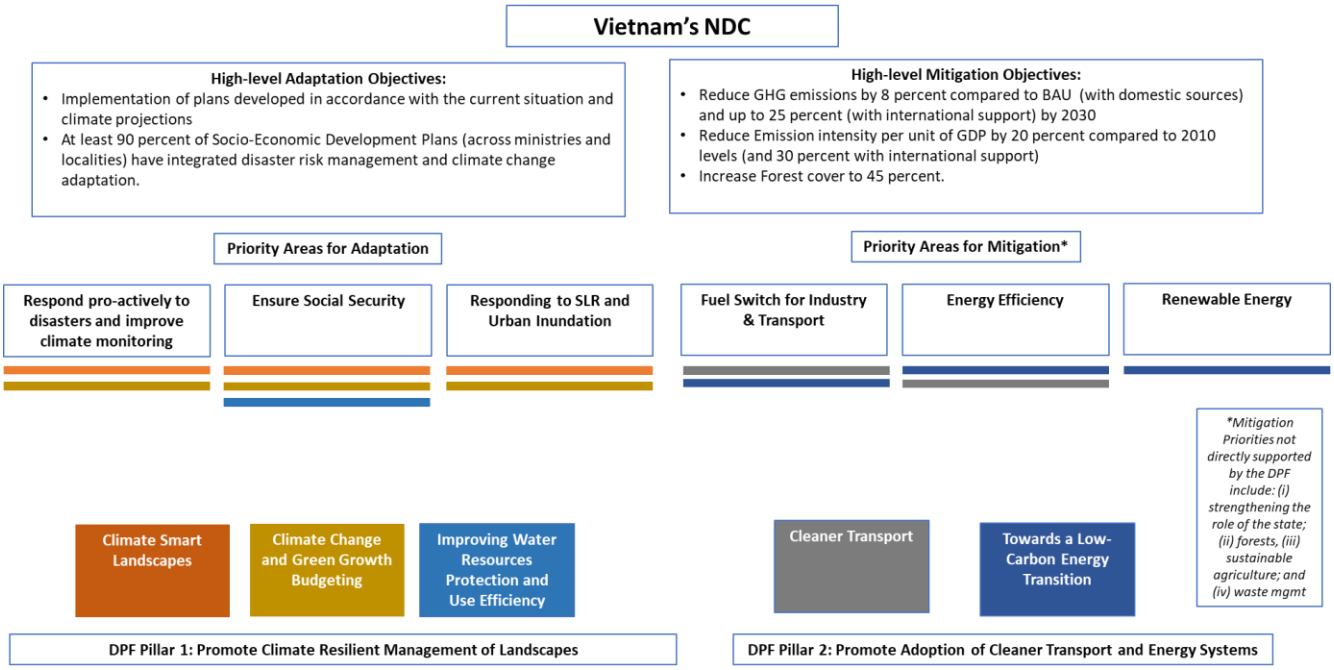
36. **The new DPF has been prepared within the same framework as the originally envisaged CC&GG programmatic DPF series, supporting policies that are needed to expand on and consolidate the achievements of SP-RCC.** The policy tracks under the new operation cover the same focal areas as the original DPF series, as these remain priorities, with the exception of AQM and ICZM, as further reforms in both those areas were delayed by the passage of a large piece of enabling legislation and are beyond the time-frame of this operation. These policy areas that are carried over revolve around (i) expanding financing of CC-GG investments, (ii) resilient landscapes and management of water resources as key cross-cutting elements of responding to climate challenges, and (iii) reducing emissions from the energy and transport sectors. Given that priority water resources issues and public climate investments are both strongly linked with landscape, these have been folded into two pillars on (i) climate resilient management of landscapes and (ii) cleaner energy and transport, which both contribute to green growth and cover much of the priority climate adaptation and mitigation agendas between them. They reflect a slightly more focused set of actions in areas where there remain important policy opportunities to deliver additional results by the end of 2020, as well as facilitating accelerated action post-2020. Around half the prior actions proposed for the new operation were included within the matrix for the original DPF series (mostly as DPF-3 triggers). However, due to the progress in implementing the SP-RCC policy agenda, the remaining prior actions represent additional reforms beyond those included in the earlier series. All the results targets represent outcomes that are additional to what was achieved under the earlier DPF series by the end of 2018 (the effective date of assessment of the DPF-1 ICR). The PDO is aligned with the two pillars, on climate resilient landscape management, and cleaner transport and energy, respectively. Under these, a total of five priority policy tracks are supported, each focused on a single (sub)sector and corresponding to policy areas under the SPRCC policy matrix.

37. **The PDO is to promote (a) climate resilient management of landscapes; and (b) adoption of cleaner transport and energy systems.** These two elements amalgamate policy actions that address core climate change and sustainable growth challenges in Vietnam: addressing rural climate vulnerability through area- and natural resources-based approaches to climate resilience, and climate mitigation within the sectors that contribute most to emissions growth and are also indispensable to continued economic growth. Climate resilient management of landscapes includes planning, budgeting and facilitation of public and private actions to address the impacts of climate change and variability within rural landscapes. In practice, this will also provide significant climate mitigation co-benefits, although these are not the primary objective of the policies supported under Pillar 1. As per the VGGS, cleaner transport and energy refers to low carbon mobility solutions and non-hydropower renewable energy, but the concept also incorporates broader air pollution and environmental health objectives alongside climate mitigation.

38. **The selection of these pillars (and the policy tracks and prior actions) was based on their potential for transformational change through policy-level interventions, and opportunities for synergies between sectors and between climate change and green growth.** The sectors, themes and respective prior actions selected (i) are aligned with priority action areas under Vietnam's climate change and green growth reform program (under the SP-RCC) and with the NDC (as well as the PIPA, NCCS, VGGS, and Prime Minister Resolution 120 on the Sustainable and Climate Resilient Development of the Mekong Delta); (ii) are areas where the Bank is currently

engaged in a substantive policy and financing dialogue (providing complementarity between the DPF and coordinated sectoral engagement) and supported by strong analytical underpinning; and (iii) have potential to further deepen results from the preceding DPF series. Details on the rationale for each policy track and prior action are included in section 4.2. Figure 10 below provides a graphic representation of the alignment of the DPF's Pillars and Policy Tracks with the NDC.

Figure 10. Alignment of the DPF support with Vietnam's NDC (details under each NDC priority area included in Annex 6)



Source: WB

39. **The operation builds on lessons from both the Bank's earlier climate change DPF series (2012-2015), as well as the first operation in the expected CC&GG DPF series, drawing on the implementation completion and results (ICR) reports of both,** and other World Bank development policy operations. The lessons reflected in the design of this new operation include the following:

- **Sustained, programmatic policy and TA engagement is essential to achieve progress in the context of a complex, multi-sector reform agenda that requires a series of incremental steps to move from planning to financing and implementation**. The operation supports action-oriented policy reforms that build upon (a) national strategies and action plans initiated in recent years; (b) high-level policy instruments (i.e. laws and decrees) that provide the legal basis for deeper reforms; and (c) specific administrative actions that allow for the facilitation of low-carbon action and generation of non-climate benefits. Programmatic DPF approaches facilitate a multi-year vision, with periodic financial support conditioned on progress.

- **An accountability framework, rooted in the government's regular annual and medium-term planning cycles, is critical to maintaining momentum across multiple agencies.** The government's

accountability framework for the SP-RCC (2016-2020) is based on a multi-sectoral policy matrix that is submitted to and approved by the prime minister on an annual basis with biannual reporting to the NCCC on progress of policy formulation and implementation. As line ministries are accountable to the prime minister to deliver and implement policy actions, a strong level of accountability is guaranteed.

- **An effective cross-sectoral platform remains crucial for progress on policy and institutional reforms that address climate change and promote green growth, in order to enable increased convergence of between line ministries, across DPs, and between the national and subnational levels of government**. The operation harnesses progress achieved by the government under the SP-RCC, which facilitates government leadership and DP engagement across sectors, while encouraging collaboration and coordination between ministries on select inter-sectoral priority issues, such as area-based adaptation in targeted vulnerable areas. The platform helps to reduce fragmentation among DPs that support the SP-RCC (2016-2020), as well as those interested in supporting capacity and knowledge development in the program's defined policy areas. The NCCC, chaired by the Prime Minister is able to take decisions on important cross-sectoral issues that may arise in policy formulation.

- **Provision of targeted analytical work, technical assistance, and global knowledge and good practice sharing with the government line ministries and agencies, is key**. The Bank provided technical support to the government to prepare the SP-RCC (2016-2020) and in the policy action formulation supported by the series, and will continue to provide TA on both specific technical issues within key climate-relevant sectors, as well as on strengthening the overall coordination, planning and budgetary response to climate change. The generated knowledge enables discussions on raising the ambition of policy reforms including setting targets in support of the NDC. Consensus building is strengthened with TA to enable the participation of different sectors from the national and sub-national levels to discuss and share their experiences in order to formulate implementable policies.

40. **The World Bank's broader policy dialogue and engagement around the DPF is strengthening the Government of Vietnam's foundation for more ambitious action in support of NDC implementation**. The policy dialogue and analytical support from the Vietnam Partnership for Market Readiness project has informed the forthcoming Decree on a Roadmap for GHG emission reductions, which is expected to be adopted by 2020. Support to the development of the NDC Implementation Program under the P-ASA *Supporting systematic action to implement Vietnam's NDC*, funded by the NDC Support Facility, will ensure that there is a mechanism for consistent and high-level dialogue with line ministries, private sector and development partners around priority areas for low carbon and climate resilient development and will feed into the iterative process for NDC updates. The Bank has also recently completed analytical work with MOIT and MOT that has identified cost-effective low-carbon pathways for the energy and transport sectors, respectively. These are informing the forthcoming 2020 NDC update as well as the development of NDC implementation plans for the two sectors. Addiitonally, while not formally part of this DPF operation, the Bank's engagement on REDD+ has included policy development supported by the previous DPF series which set key policy foundations for the Emission Reduction Program for Northern Central Region (currently under preparation).

4.2. PRIOR ACTIONS, RESULTS AND ANALYTICAL UNDERPINNINGS

41. **The operation builds on the progress and achievements of the originally planned CC and GG DPF series and includes a cohesive set of five policy tracks and eight prior actions across the two pillars,** selected from key policy actions under the Government's SP-RCC program. The policy and results matrix are presented in Annex 1 and a table of analytical underpinnings for each prior action is included in Annex 6.

Pillar 1 - Climate resilient management of landscapes

Pillar 1 supports the government's efforts to adapt to climate through increasing the resilient management of landscapes and natural resources, including water resources, as well as to more effectively manage public investment in resilience and green growth. The reforms under this pillar include support under three policy tracks: (i) Climate Smart Landscape Planning; (ii) Climate Budgeting; and (iii) Improving Water Resources Protection and Use Efficiency. Under the first policy track, the DPF supports: (i) improved standards of management for forests that reduce climate risks, i.e. coastal, special use and protection forests, that provide environmental services including protection from storm surge, hydrological regulation and biodiversity conservation; and (ii) guidance on the development and content of Regional Master Plans and the establishment of a National Planning Council to prepare an integrated and climate-responsive Master Plan for the Mekong Delta. Within the Vietnam governance context, official plans typically represent robust policy vehicles as there is a high degree of commitment to their implementation. Under the second track, the DPF supports the establishment of climate budget tagging, a key tool to plan, monitor and manage climate-responsive budgeting. Under the third track, the DPF supports: (i) tighter regulation of both the extraction of groundwater and the extraction of sand and alluvial sediments; and (ii) policies on the provision of technical and financial support for investment in water-efficient irrigation and small-scale storage, and establishment of water-pricing for irrigation users.

Climate Smart Landscape Planning Policy Track

Forest Landscape Management

42. **Rationale:** The forest sector contributes significantly to the country's economy and to its strategies for green growth, and for mitigating and building resilience to climate change. Nevertheless, it continues to face challenges from competing land uses, overexploitation of resources and insufficient capacity for forest governance and management. Deforestation and forest degradation rates are still high in parts of the country, such as the Central Highlands, and the overall quality of the natural forest continues to decline. Two-thirds of Vietnam's natural forests are deemed in poor condition or regenerating, while rich and closed-canopy forest constitutes only five percent of the total. The ongoing decline in natural forest is linked to the emphasis placed on production forests, and limited resources and incentives to manage natural forests. Coastal forests, especially those classified as protection forests, are of particular importance in acting as natural defenses to the significant share of the country's population and economic assets that are located in the vulnerable coastal lowlands.

43. With the support of SP-RCC and the earlier CC&GG DPF operation, the Government has taken measures to restore its coastal forests (including an increase in re-planting of coastal forest), but restoration of mangroves

needs to be accompanied by improved management. Improved forest management is also needed to meet obligations to ensure that all wood products on the agreed list under the Vietnam-EU Voluntary Partnership Agreement are demonstrably from legal and sustainably managed sources, and to meet expectations under the NDC that forests will contribute around 50 million tons of annual CO_2e reductions by 2020. Forest carbon policies have also been strengthened, including the development of the National and Sub-national REDD+ Action Plans, and benefit sharing and transfer of emission reduction rights, such that the REDD+ policy framework is already considered to be relatively strong.

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.

44. **Description:** Decree 156 provides guidance on the classification of coastal protection forests, recognizing the different resilience functions of coastal protection forests including coastal wind- and sand-shielding functions, and tidal wave-shielding and sea-encroachment prevention functions. The objective of the decree is to expand the representation of coastal forest recognized for its protective functions and ensure management and the permitted level of revenue-generating use are aligned with functional category. MARD Circular 28/2018, dated November 16, 2018, further elaborates Article 27 of the Forestry Law with regard to sustainable forest management, and specifies requirements for forest owners to prepare and report on management plans according to the forest's classification as special-use, protection or production forest, and in compliance with national sustainable forest certification systems. For special use and protection forest, the management plan focuses on rehabilitation, protection and conservation of the forest resources, and sustainable financing including the payment for forest environmental services. It also provides for a level of local use that is consistent with the environmental function and creates incentives to manage forests. For production forest, forest owners are required to prepare plans for protection and development of forest resources, harvesting forest products and forest management certification. Improved protection of forests and their wildlife reduces risks of emergence of new zoonotic infectious diseases, whilst supporting payment for environmental services and other forest-based livelihoods that would reduce the vulnerability of rural communities in the wake of COVID-19.

45. These policies continue and strengthen the reforms supported under the earlier DPF operation, realizing broad policy objectives through increasing the representation of special-use and protection forests, and increasing the guidance and requirements for their management, alongside other forest types. Decree 156 operationalizes a key aspect of PM Decision 120 on the management, protection, restoration and development of coastal forests, which was a prior action under the earlier DPF. The current prior action also strengthens the management regime for coastal forests that were replanted as a result of PM Decision 120. Improved and enforceable forest management plans will also enable the forest owners to access European markets for wood products, enhancing incentives for sustainable forest management.

46. **Results:** As a result of implementation of the policies, by the end of 2020, it is expected that the number of hectares of production and natural forests with approved sustainable forest management plans will increase from 151,000 ha to 250,000 for production forests and from 86,000 ha to 100,000 ha for natural forests. Eventually, all forests will be required to be managed in accordance with approved plans, contributing

significantly to the protective and productive functions of Vietnam's forests, and their role in supporting the achievement of the NDC.

Strengthening Resilient Planning of the Mekong Delta

47. **Rationale:** 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. It remains one of the most fertile regions in the world, and offers numerous opportunities to further Vietnam's development and spearhead its transformation to a more productive, innovative and resilient economy. In MONRE's climate change and sea level rise scenarios, the Delta currently has a high inundation risk (approximately 40% of the area), but by 2050, eight of the 13 delta provinces could experience at least a 50% increase in flooded area. An Giang, Dong Thap and Long An Provinces could see as much as 60-75% at risk of inundation, with maximum flood depths of 5-6m. Through its influence on both basin discharge and sea level rise, climate change also impacts saline intrusion into the delta estuary, which reduces agricultural productivity and leads to dry season freshwater shortages. Ca Mau is the most affected province in the delta with 90% of its area affected in dry years, followed by the delta estuary provinces of Ben Tre, Bac Lieu and Soc Trang (60-79%). The vulnerabilities of the Mekong Delta are made worse by non-climate factors – such as groundwater extraction, sand mining, and subsidence.

48. To address climatic impacts, it is essential to have greater coordination across sectors and provinces in order to minimize negative externalities and inefficiencies that are created by siloed planning. A wide range of climate-responsive and water-related investments impact hydrology and require coordination across provincial boundaries, and also require coordination with rural production systems and infrastructure. The Mekong Delta's development needs a fundamental shift in paradigm from a farm and provincial perspective to an area-based and delta-wide one; from short-term and sectoral to long-term and multisectoral, and to working with nature because climate variability and saline intrusion are the Delta's new normal.

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/QD-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.

49. **Description:** In 2017, the National Assembly approved a new Planning Law that transformed the planning process in Vietnam. The new Law converts fragmented planning into a more coherent process, with fewer plans and a clearer hierarchy. The Law limits national-level plans to the National Master Plan, National Land Use Plan, National Marine Spatial Plan and 39 national sectoral plans. These will form the basis of lower-level plans at the regional and provincial. The issuance of sub-national sectoral plans is reduced in favor of a single, integrated, multi-sectoral and spatial master plans at regional and provincial levels. The first regional master plan will be the Integrated Regional Master Plan for the Mekong Delta for the period 2021-2030 with a vision towards 2050, to replace more than 30 sector master plans that currently govern investments and implementation in the Mekong Delta and have led to inconsistencies, inefficient investments and unsustainable development. With support from the Bank's ongoing engagements on the Mekong Delta, the Regional Master Plan would be informed by robust vulnerability models to identify climate-smart pathways and investments under different climate and development scenarios.

50. Decree 37 directs the implementation of the Planning Law and, more specifically, the process and content for developing regional master plans, including the need to incorporate climate issues. PM Decision 1226 established the National Planning Council to ensures that the process of preparing the plan involves key sectors and stakeholders. The Chairman of the Council is the Deputy Prime Minister and members include representatives of the Ministry of Construction, Ministry of Planning and Investment, Ministry of Finance, Ministry of Natural Resources and Environment, and other concerned ministries and ministerial-level agencies. For the development of the Integrated Regional Master Plan for the Mekong Delta, the Vice Ministers from each ministry and Provincial People's Committee (PPC) chairpersons from each province will be directly responsible. This national policy is expected to be complemented by a regional DPF under preparation specifically for the Mekong Delta, which will include further national and local policy actions to support climate resilient regional development. Increased climate resilient investment in the Mekong Delta would expand budget allocations to small works that support local livelihoods and community resilience, and would therefore contribute to or complement any post-COVID-19 stimulus package aimed at supporting rural incomes and vulnerable communities.

51. **Results:** Due to the prior action, it is expected that the 2021-2025 Medium-Term Investment Plan will include coordinated investments identified in the Integrated Regional Master Plan for the Mekong Delta to effectively address multi-provincial issues compounded by climate change. This Master Plan is expected to be critical to enabling effective action on climate change and green growth in Vietnam's most productive and most climate-vulnerable landscape, and the incorporated of key investments in the MTIP will demonstrate commitment to its implementation.

Climate Budgeting Policy Track

52. **Rationale:** Vietnam has committed through the SEDP to increasing financing for investments that enhance climate resilience and green and low-carbon growth. Climate change and green growth budget tagging is needed to monitor and evaluate action under this commitment, as well as to understand and manage the composition of expenditures on these topics. The PIPA calls for MPI to develop a policy to classify and monitor climate change response expenditures from national and international resources, including public and private. As most climate finance is raised and disbursed domestically,[36] a national budget tagging system is a logical starting point, but the methodology is also considered for use in mobilizing finance through green bonds. Private investment for climate-friendly and green technologies and products in Vietnam is largely been supported by policy incentives to expand markets for clean technologies, including measures supported and monitored under this DPF and its predecessor. Methods to monitor private climate investment more systematically are also being explored with assistance from UNDP.

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.

53. **Description:** MPI Minister's Decision 1085 establishes a methodology, roles and responsibilities for the identification, classification, analysis and reporting of climate change and green growth budget allocations. The

36 81 percent globally was spent domestically over 2015-2016, per the Climate Policy Initiative's *Global Climate Finance: An Updated View 2018 Report*.

policy includes a NCCS, VGGS, and NDC-based typology of activities consistent with the Multilateral Development Bank climate finance tracking guiding principles and calls for provinces and ministries to apply the tagging under supervision by MPI. It therefore supports efforts to assess and manage the overall level of public climate investment, as well as the alignment of the that investment with established national climate objectives. While the policy includes methodologies for both adaptation and mitigation-oriented expenditures, the vast majority of climate public financing in Vietnam is directed towards adaptation[37]. Since the policy has been adopted, reviews of climate change and green growth public investment expenditures have been conducted in thirteen Mekong Delta provinces for 2015-2017 and five provinces in the Central Highlands for 2016-2017. The policy responds directly to the government climate financing commitments that were supported under the SP-RCC and the original DPF series and provides a critical element of the systems needed to manage and scale up climate finance. Initial application of the methodology has prioritized those locations and sectors most linked to climate investment. Following assessments in around 30 provinces in the Mekong, coastal and upland areas, MARD is the first ministry which will apply the budget tagging methodology, as it accounts of a large share of central budget climate-related investment.[38] Eventually, the methodology should be rolled out across all relevant ministries. On average, increased climate investment would expand budget allocations to small works that support local livelihoods and community resilience, and would therefore contribute to or complement any post-COVID-19 stimulus package aimed at supporting vulnerable communities.

54. **Results:** The prior action allows for realization of the existing commitment, supported under the earlier DPF operation, to increase investment in response to national climate priorities. This will be demonstrated through increases in climate-responsive investment (as assessed in accordance with the new regulations) within the four most critical sub-sectors under the Ministry of Agriculture and Rural Development[39].

Improving Water Resources Protection and Use Efficiency Policy Track

Water Source Protection

55. **Rationale:** Water availability is vital for sustaining Vietnam's growth, particularly in the agriculture sector, but increasingly in industry as well. In total, 81 percent of water use is within agriculture (crops & livestock), 11 percent in aquaculture, 5 percent in industry, and only 3 percent for residential and urban uses. With about 10,200 m^3 of renewable freshwater per capita, Vietnam's water availability is high by regional and global standards. However, these resources are unevenly distributed across the country and seasons, and rapid development has put pressure on water resources through competing demand for water use and pollution. Rising demand will bring 11 out of 16 river basins into water stress by 2030 with considerable impacts on the economy. Unregulated abstraction of groundwater for agricultural and domestic use is fast depleting the aquafers, lowering groundwater levels and contributing to land subsidence in Hanoi, Ho Chi Minh City and Da Nang, as well as dry season water shortages in the Mekong Delta (where 50 percent of Vietnam's rice is produced) and Central Highlands (where 88 percent of Vietnam's coffee is grown). Saline intrusion to aquifers

[37] Based on the 2015 Climate Public Expenditure and Investment Review (CPEIR) commissioned by the World Bank and UNDP, 88 percent of climate expenditures from 2010-2013 was directed towards adaptation.
[38] MARD accounted for 79 percent of climate expenditures from the five studied line ministries in the CPEIR (MARD, MOT, MOC, MOIT and MONRE).
[39] According to data gathered for the CPEIR, around 90 percent of climate expenditures under MARD were directed to these four sub-sectors.

further reduces agricultural productivity in the Mekong and Red River Deltas. Rural and urban areas are increasingly affected by uncontrolled sand mining of riverbeds and inappropriate development of riverbanks and floodplains, which increases the destructive power of floods as well as the threat to life and assets from river bank and coastal erosion.

56. All of these challenges are significantly exacerbated by climate change. Vietnam is one of the most hazard-prone countries in the East Asia and Pacific region predominantly due to hydrological risks, with more than 70 percent of the population at risk from floods and/or drought. More erratic rainfall patterns are already increasing the frequency and severity of both floods and droughts. Rising sea levels and lower dry season flows compound the effects of groundwater extraction on salinization and subsidence. Sea level rise and erratic rainfall also intensify coastal and river bank erosion, respectively. Government has therefore committed to strengthening the protection of surface and ground water resources as a key part of its climate program, including in the NDC. The institutional and governance framework for water resources management has evolved over time in response to the growing challenges, including issuance of key policies to regulate water resources assessment, planning and management, minimum flow requirements, payment for watershed environmental services, water abstraction charges, and penalties for violation of the law.

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.

57. **Description:** Decree No. 167 regulates the exploitation of groundwater and imposes restrictions to protect the resources from further depletion, through establishment of four different groundwater protection zones. Abstraction is to cease in zones where land subsidence and high saline intrusion are already happening or where groundwater is polluted. The Decree does not allow issuance of permits for exploration and new exploitation from aquafers in Hanoi, Ho Chi Minh City, or the Mekong or Red River Deltas. Under the Decree, the protection of groundwater for continued domestic water supply is privileged in coastal areas threatened by salination, and exploitation of groundwater is also restricted in residential and industrial zones where water supply systems have been established. The Decree requires DONREs to develop maps of groundwater zoning, and consult with affected communities and stakeholders as well as other provincial technical departments including DOC, DOIT, DARDs, before submitting for MONRE's review, and adoption and disclosure by the PPC.

58. The new Decree will prohibit over-exploitation of sand mining in sensitive zones, and protects of beds, banks and alluvial grounds of rivers, with the aim to prevent harmful changes in the morphology and hydrology of river channels and increase the resilience of water sources. It regulates dredging and river works to avoid disrupting the hydrological flow of rivers and flood plains and associated erosion and pollution. These activities are required to ensure the function of the water protection corridors as well as the river ecosystems. The Decree assigns clearer responsibilities of the central and local authorities. MONRE is tasked to develop a framework plan for protection of river banks, beds and alluvial grounds, as well as for sand use, in coordination with other line ministries including with MOC, MARD and MOT. Provinces will be required to develop their own plans under this, and the PPC Chairperson will be held accountable for protection of river ways within the province. These

policies build on water resources protection measures already supported under SPRCC and DPF-1 to establish protection corridors around rivers, lakes, and streams.[40]

59. **Results:** The prior action is expected to enhance the protection of water resources through stronger control exploitation of groundwater and riverbeds, thereby reducing climate vulnerabilities related to water scarcity and sea level rise. It is expected that 20 provinces that face serious overexploitation issue and have associated land subsidence and saline intrusion impacts will have established and disseminated groundwater exploitation zones by the end of 2020, in line with the zonation system in the Decree, and as a precursor and guiding phase to the completion of groundwater zoning in all provinces expected within the next couple of years.

Water Use Efficiency

60. **Rationale:** As agriculture is the dominant user of water, irrigation efficiency is critical to addressing climate-induced and exacerbated shortages, not just for the agriculture sector, but for the economy-wide availability of water resources. A vast network of 7,500 dams stores and diverts water to thousands of irrigation schemes. Irrigation systems are indispensable to Vietnam's position as the world's second largest rice exporter, second largest coffee producer, third largest aquaculture producer, and fifth largest tea producer. However, the high production and low irrigation efficiency have put increasing strain on water resources, which in the context of climate change are now becoming experiencing seasonal water shortages and competition from other sectors. Irrigation is overwhelmingly dedicated to water-intensive, low-value crops. About 58 percent of the area under irrigation is rice paddy, and 45 percent of irrigation water is used in the Mekong Delta, mostly for rice.[41]

61. More efficient irrigation systems can improve farmer incomes. Evaluation of pilots has demonstrated that farmers can get higher incomes from applying alternative wetting and drying (AWD) practices for rice production, which also reduces water use on paddy land by about 30-40 percent. Application of sprinkler and drip irrigation for non-rice crops can increase of crop productivity by 10-50% (up to 80-120% for sugarcane), whilst reducing fertilizer use by 5-30%, and increasing income by 20-40%.[42] Conversely, the government has abolished irrigation fees in 2008, which dis-incentivized efficient use of water, and led to insufficient budget for maintenance, rehabilitation and upgrading of many public irrigation systems. Recognizing the need to improve agricultural water productivity, the Government adopted a plan for development of advanced upland irrigation (2015) and the Law on Hydraulic Works (2017), which established the legal framework for support to efficient irrigation.

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.

62. **Description:** Decree No. 77 aims to improve irrigation efficiency by providing incentives for the development of small-scale, multi-purpose water storage and on-farm water delivery systems. These include no

[40] The DPF and associated dialogue has supported the regulatory framework and institutional arrangements under the Decree, but not does not support the setting of penalties and the handling of criminal complaints in relation to the protection of rivers.
[41] World Bank (2019) Vietnam- Toward a Safe, Clean, and Resilient Water System – page 17
[42] MARD Report at the National Conference to review the implementation of the Irrigation Efficiency Action Plan in May 2018.

land use fees, and financial support of up to 100% of the cost of system design and machinery for efficient lowland irrigation. For construction of water-saving upland irrigation, the Decree provides support of up to 50% of material, machinery and equipment costs, to a maximum of VND 40 million per hectare. It also provides for support of up to 50% of field levelling costs, up to a maximum of VND 10 million per hectare. Sources of financing are from the central and provincial budget through investment programs or projects. The private sector is encouraged to take part. MARD is tasked to provide technical support and issue technical regulations for the construction of small and on-farm irrigation, water storage, and advanced and water-saving irrigation. The PPC is responsible for specific regulations on the level of support available within each Province, based on availability of budget.

63. Decree 96 provides guidelines 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. Establishment of volume-based fees is a critical incentive to increase irrigation efficiency and water productivity. Irrigation prices need to comply with the Law on Price to include the cost for system management, operation and maintenance, and depreciation, and provides a formula to calculate the price, following MOF's issuance of maximum prices. Services covered under the Decree include: (i) provision of irrigation for crops, aquaculture and animal husbandry; (ii) water drainage for rural and urban areas; (iii) flood proofing and prevention; (iv) high tide control; (v) saltwater intrusion prevention, saltwater pushback, desalinization, and freshwater protection. The Decree provides for financial support to poor households for irrigation service payments. MARD is responsible for guidance on technical and economic norms in management and operation of irrigation system, and is working with development partners to obtain technical assistance on price structures and water metering technology. The policy directly supports the livelihoods of vulnerable rural communities, including through the provision of direct cash subsidies to farmers, and would therefore contribute to or complement any post-COVID-19 stimulus package aimed at supporting rural incomes.

64. These policies build on the measures supported under the water resources track of the original DPF series, including the adoption of the upland irrigation development plan and the Law on Hydraulic Works, which established the requirement for irrigation service fees.

65. **Results:** The prior action is expected to contribute to increasing the area of high-value crops (coffee and fruit trees like durian, jackfruit, mangosteen) under more water-efficient irrigation (i.e. drip or sprinkler instead of submerged irrigation systems), as well as the area of paddy rice applying Alternative Wetting and Drying, which reduces methane emissions. It is expected that by the end of 2020, water saving practices will be applied to 500,000 hectares of cropland, increased from a baseline of 320,000 in 2018. This represents a small proportion of the total current area of these cropping systems, so there is considerable scope for additional impact from scale-up after 2020. Actual water savings from these changes will be estimated at the close of the operation.

Pillar 2 - Adoption of cleaner transport and energy systems

Pillar 2 supports the government's efforts to shift towards greener growth through cleaner transport and energy systems to reduce GHG emissions and address air pollution. The reforms under this pillar include support under two policy tracks: (i) Cleaner Transport; and (ii) Towards a Low-Carbon Energy Transition. Under

the former, the DPF supports more stringent vehicle emissions standards in in-use motor vehicles and the imported secondary car market. Under the latter, the DPF supports: (i) adoption of a new national energy efficiency program as a vehicle for investment, policy, and capacity building to reduce the energy and carbon intensity of Vietnam's economy; and (ii) a reform to further incentivize increased electricity generation from wind power. All the policy actions under Pillar 2 support reduction of air pollution and therefore aggravating factors for COVID-19, either directly through higher vehicle emissions standards, or indirectly through reducing the demand for coal-fired power generation.

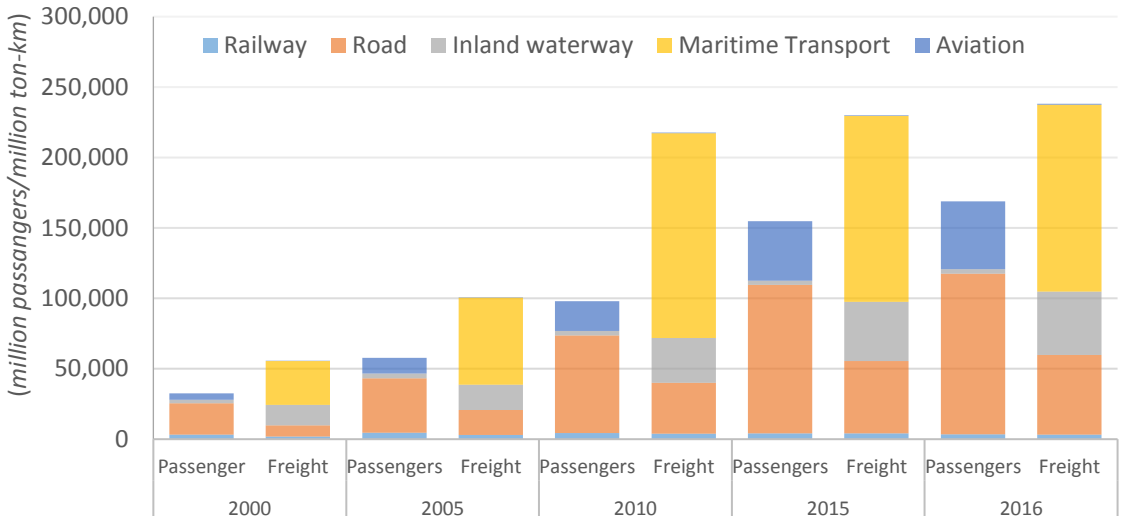
Cleaner Transport Policy Track

66. **Rationale:** The transport sector in Vietnam is growing rapidly: from 2000-2016, passenger-kilometers increased over five times, and freight ton-kilometers over four times (see Fig. 11 below). Road transport accounts for two thirds of total passenger-kilometers and a quarter of freight ton-kilometers.[43] Heavy reliance on road transport has been sustained due to slow development of mass transit, rail and waterborne transport. The rapid expansion of the transport sector's footprint has resulted in a continuous upsurge in emissions. Particularly in Vietnam's increasingly congested urban areas, transport is assessed to be the primary source of air pollution. Vietnam's motorization is still low at around 350 motorbikes and 11 cars per 1,000 inhabitants[44]—although these numbers are much greater in urban areas—and remains on a trajectory of rapid increase as the incomes rise, posing significant challenges to the imperatives for air pollution reduction and climate change mitigation.

67. While the Government has adopted EURO-4 vehicle emission standards for new (manufactured or imported) vehicles through MOT Circular 33/2015/TT-BGTVT, there has been no effective measure to tackle emissions from in-use vehicles and used import vehicles. Currently, there are about 2.2 million light duty four-wheeled vehicles and each year roughly 200,000 additional vehicles are added to this stock, of which two-thirds are newly manufactured (either within or outside of Vietnam) and one third are second-hand imported vehicles. Recent studies by the Bank have also found stricter vehicle emissions standards for all vehicles to be a particularly efficient way to reduce overall emissions from the sector, by as much as 5 million tons per year in 2030, or about 5.5 percent of annual emission under a business-as-usual scenario in the same year.

[43] From the statistics provided by the Ministry of Transport in 2017
[44] From the statistics provided by Vietnam Register in 2017

Figure 11: Passenger and Freight by Type of Transport



Source: Ministry of Transport

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

68. **Description:** Prime Minister's Decision No. 16, 2019, aims at reducing emissions from transport sources, with a particular focus on in-use and used road motor vehicles, setting a road map updating Prime Minister Decision 249/2005 on automobiles. Per the Decision, the Ministry of Transport (MOT) is designated to implement, monitor and report on this policy, through its Department of Environment and Vietnam Register. Currently, Vietnam Register is fully equipped to test vehicles at major seaports and started its formal inspection of second-hand imported vehicles for EURO-4 standard in May 2019. Furthermore, in-use vehicles manufactured after 2008 are being inspected as of January 1, 2020, and those manufactured between 1999-2008 will be inspected starting January 1, 2021, for compliance with Vietnamese Level 2 standard. The exhaust gases subject to the inspection are carbon monoxide (CO), hydrocarbon (HC) and opacity or Hartridge Smoke Unit (HSU)[45]. Vehicles that do not meet the applicable standards are not permitted to be driven. MOT will report to the Government on inspection and pass/failure rates. For this policy to achieve its objective, adequate human resources, equipment and enforcement mechanism need to be put in place. This policy expands on the achievements of the original DPF series, which supported the adoption of MOT Circular 33 on new vehicles, by extending emissions regulations to used and in-use vehicles.

69. **Results:** The prior action is expected to reduce emissions of various pollutants from in-use and imported used road motor vehicles. The impacts will be measured in terms of percentage of CO, HC and HSU emission

[45] Smoke opacity instruments measure the optical properties of diesel smoke, providing an indirect way of measuring diesel particulate emissions. Smoke opacity readings generally do not correlate well with PM measurement parameters and correlations can provide only approximate and not accurate correlations. (*https://dieselnet.com/tech/measure_opacity.php*)

reductions from imported used and in-use vehicles, that do not comply with the new emission standard, as compared to the business-as-usual scenario[46]. The impacts are expected to reach at least 4%, 7%, and 9.5% reduction of CO, HC and HSU emissions, respectively, by the end of 2020. In the long term, it will keep the vehicle fleet operating at this minimum standard and therefore requires vehicles to be maintained and repaired as needed in order to achieve the emissions standards.

Towards a Low-Carbon Energy Transition Policy Track

70. The energy sector accounts for the largest share of GHG emissions in Vietnam (approximately 44 percent in 2014, excluding emissions from land use, land use change, and forestry)[47]. Correspondingly, effective energy sector policies to promote EE and RE are critical for Vietnam to transition towards a low-carbon economy. A recent World Bank study finds that continued progress on EE and RE policies to achieve RE targets in the GoV's latest Power Development Plan (PDP-VIIr) approved in March 2016, and the EE targets in the updated Vietnam National Energy Efficiency Program (VNEEP) can increase the share of clean energy resources in the power generation mix to 26.6%, reduce final energy consumption (FEC) in Vietnam by 9.3%, and reduce coal usage by 12% compared to business as usual (BAU) by 2030, representing a reduction of about 120 Mt CO_2e. from the BAU scenario over the same period.[48] While no specific energy targets are included in the NDC, both EE and RE are critical mitigation objectives for achieving the overall emissions reduction target of at least 8% by 2030.

71. The GoV has been undertaking policy reforms over the past several years to improve EE and to accelerate the adoption of RE technologies, which have already generated significant results on energy savings and renewable energy through putting in place new efficiency benchmarks and standards for energy efficiency and strengthening frameworks to facilitate investment in renewable generating capacity.

Energy Efficiency

72. **Rationale**: The government has recognized the need to make aggressive efforts to improve demand-side energy efficiency across sectors, as the least cost option to meet growing energy demand and avoid new coal fired power generation in Vietnam. Energy efficiency investments could avoid 11GW of new generation capacity by 2030[49]. In this context, the Bank is providing advice to the government 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, contributing 53.9 and 35.6 percent in 2014, respectively.[50] A recent MOIT assessment on energy efficiency potential in Vietnam shows that about US$3.6 billion investment is needed to promote EE across industries.[51] However, more stringent regulations, and stronger enforcement are needed for substantial investment to be materialized, especially in industrial and residential sectors. Further, there is a lack of technical expertise and understanding

[46] From emission testing conducted by MOT in 2017, older vehicles have a higher percentage of non-compliance. For example, cars that are older than 20 years old had a 27 percent non-compliance rate; buses that are older than 16 years old had 25 percent non-compliance; and trucks and special vehicles that are older than 20 years old had 28 percent non-compliance.

[47] Source: Viet Nam's Third National Communication to the UNFCCC (2019).

[48] The World Bank (2019). "Low-Carbon Energy Path to Achieve NDC Targets."

[49] The World Bank (2016). "Exploring a Low Carbon Development Path for Vietnam."

[50] Ministry of Industry and Trade (2016). "Energy Statistics."

[51]. The Bank has approved a US$ 100 million credit line for implementation of a pilot Vietnam Energy Efficiency for Industrial Enterprises Project (VEEIE) in 2017. The VEEIE will provide financial resources and build up implementation capacity of industries and participating financial institutions to scale up the nascent EE market.

by industries, potential service providers, and local financial institutions on modem efficient technologies and practices, efficiency potentials, energy audits and verification, and actual performance of EE measures. With increasing sales of household appliances in recent years projected to continue, improving their energy performance will be a cornerstone of energy efficiency policy.

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/QD-TTg dated March 13, 2019.

73. **Description**: The overall objective of Vietnam's revised National Energy Efficiency Program (VNEEP) is to achieve an efficiency rate improvement of 8 - 10% per total national final energy consumption for 2019 - 2030 against the base case of energy demand forecast in the National Power Development Plan for 2011 - 2020 with outlook to 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 incorporates recommendations from an evaluation of the previous phase of the VNEEP [52] (which ended in 2015, and led to energy savings of about 6% from the 2012-2015), including a plan to set up a financial mechanism for energy efficiency, provision of capacity building for provincial stakeholders for monitoring of energy consumption, and the establishment of an energy data management center. The program also aims to support implementation of and continuous improvement of reforms adopted under the SP-RCC framework and recognized by the originally planned DPF series, which include energy efficiency benchmark standards adopted in key high-emitting industrial sectors, including iron and steel, beverage, plastics, and paper production, and minimum energy performance standards and labeling schemes for household refrigeration and air-conditioning. The new program would therefore continue to increase ambition and strengthen action at the provincial level, where monitoring and enforcement capacity needs to be strengthened.

74. To achieve the above program's targets, the Decision includes roles and responsibilities of line ministries and related government agencies, including provincial governments which are responsible for implementing their own energy saving targets. MOIT will categorize and cluster provinces based on their respective concentrations of industry as it relates to energy efficiency potential. This includes key factors such as industrialization, urbanization, economic growth and financing capacity. Provincial governments will prepare action plans for achieving energy saving targets which are to be endorsed by MOIT.

75. **Results**: The prior action is expected to contribute towards promoting energy efficiency through policy, financing, and capacity building across key high-energy consuming sectors in Vietnam. By the end of 2020, it is expected that provincial energy efficiency programs will have been adopted with aggregated energy savings commitments of 8% by 2030. A strong political commitment to those targets is expected at provincial level.

Renewable Energy

76. **Rationale**: The GoV has set ambitious targets to promote low carbon development through 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. The RPDP VII set the target of 27 GW of new capacity generated from renewable energy (RE) sources by 2030, including 6 GW from wind power and 12 MW from solar PV (See Table 6 for a summary of RPDP VII targets). To scale up solar and wind investments and achieve the

[52] MOIT and DANIDA (2016) Evaluation of Vietnam Energy Efficiency Program – Phase II

government's ambitious targets for non-hydro renewable energy, it is critical for the government to establish an enabling legal, regulatory framework to attract commercial financing from both the domestic and international markets. The recent global trend of decreasing costs of wind and solar technologies have resulted in these technologies becoming more financially competitive in Vietnam. However, the levelized cost[53] of energy for RE generation depends on country specific factors such as off-taker risks, cost of financing, and cost of land acquisition. In addition, in power systems with strong demand growth, such as Vietnam, total system costs of integrating RE are higher than in systems with limited growth, because new thermal baseload capacity is required to back up wind and solar during periods of unfavorable weather. Several challenges need to be addressed, including the lack of concessional financing sources, infrastructure connections, land scarcity, an enabling policy framework, and associated risks related to investments.

Table 6: Power Generation Targets for Renewable Energy Sources from RPDP VII

Year	Installed capacity (MW)		Energy (TWh)	
	2020	2030	2020	2030
Small hydropower (SHP)	3500	6000	10	17
Wind power	700	6000	1.4	12
Solar PV	850	11500	1.4	19
Biomass	650	3500	1.9	12
Total SHP+RE	**5700**	**27000**	**14.6**	**60**

77. The government has already made progress in enhancing the policy framework for scaling up renewable energy. An avoided cost tariff regime (ACT) has been in place since 2009 that has successfully encouraged private sector financed small hydropower projects (up to 30 MW) development of about 2 GW. Since 2011, feed-in-tariffs (FIT) have been used as a policy tool to provide incentives to develop biomass, solid waste, and wind power generation. Until 2017, the FIT regime was generally considered as insufficient with too low FIT that only attracted a small number of projects in non-hydropower renewables. In early 2017, Prime Minister Decision 11/2017/QD-TTg included a set of support mechanisms, including a Feed-in Tariff (FIT) for utility-scale solar PV, exemptions for import duties for goods used as fixed assets for the projects, and exemption and reduction of land use charges. The FIT, which was set at 2.086 VND/kWh (9.35 cents/kWh, exclusive of VAT), led to increased private sector investment in solar PV (by May June 2019, nearly 2,714 MW of new RE generation capacity, mostly from solar PV, had been commissioned). This policy was intended as a first step towards developing the solar

[53] The levelized cost of electricity (LCOE), also known as Levelized Energy Cost (LEC), is the net present value of the unit-cost of electricity over the lifetime of a generating asset. It is often taken as a proxy for the average price that the generating asset must receive in a market to break even over its lifetime.

market in Vietnam. The development of the eighth Power Sector Development Plan (PDPVIII), expected by 2020, will likely include a significantly larger target for renewable energy generation through 2030 (as compared to the PDP VIIr) as well as imported hydro from Lao PDR and China.

78. To further scale-up RE investments in Vietnam this up, the government is accelerating the deployment of an auction-based procurement framework for sourcing additional RE generation capacity, which replaces the current FIT mechanism and improves the market- based competition and allows for efficient price-discovery. The auctions for procuring additional RE generation capacity are expected to be deployed with piloting scheduled in the second half of 2020. World Bank and the Asian Development Bank are providing technical assistance in preparing the pilot scale auctions which includes support for upstream analysis for resources, site selection, network assessment, commercial framework development, etc. Initially, the auction-based procurement framework will be targeting solar PV technologies. Over time, the auction-based procurement framework will expand to wind and other technologies. The World Bank is also engaged in NDC modeling work for the energy sector which is expected to be finalized by the end of 2019 that will also provide a basis for reviewing policy options for Vietnam to meet its NDC commitments.

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.

79. **Description:** The PM Decision amends and supplements several articles of PM Decision 37/2011/QD-TTg dated June 29, 2011, related to incentivizing wind power investment in Vietnam. This includes (but is not limited to) the revision of the previous FIT rate with different tariff levels for onshore (VND 1,928 per kWh, equivalent to 8.5 UScents/kWh) and offshore wind power (VND 2,223 per kWh, equivalent to 9.8 UScents/kWh), as well as providing the basis for future development of an auction mechanism. The new FIT will be valid for wind power projects that will be contracted for twenty years with a commercial operation date prior to November 1, 2021. To address financing challenges faced by wind project developers, the PM Decision also removed the requirement that PPCs consider withdrawing investment registration certificates if construction activities do not begin within twelve months of their issuance. Circular No.2/2019/TT-BCT revised Circular No. 32/2012/TT-BCT to enhance the bankability of the standard PPA for wind power. The policy aims to reduce risks to project developers related to force majeure and technical curtailment, while also revising the compensation for damages associated with the power purchaser (EVN) being the defaulting party to be more in line with actual value of losses incurred by the power seller. As a result of the wind power FIT and standard PPA policies, already a significant pipeline of potential projects at various stages of development totaling approximately 3,000 MW has been generated. However, given the lag time required for large infrastructure projects, a smaller proportion of these projects under development are expected to be commissioned within the FIT deadline. Nevertheless, the wind power FIT and standard PPA have opened the market for significant RE based energy generation in Vietnam.

80. **Results**: The prior action is expected to lead to expanded use of wind power in Vietnam. By the end of 2020, 800 MW of wind power projects will be commissioned in Vietnam (compared to the baseline of 300 MW). As discussed above, the PDP VIIr, which is consistent with Vietnam's 8% ER NDC commitment, relies on

installation of 700 MW of wind power by 2020 and 6,000 MW by 2030. Under the suite of policies support by this and the earlier DPF, the 2020 target is now expected to be exceeded by 2020.

4.3. LINK TO CPF, OTHER BANK OPERATIONS AND THE WBG STRATEGY

81. **By strengthening Vietnam's climate resilience and promoting a low-carbon and green growth development path, the DPF operation directly supports Focus Area 3 (Ensure Environmental Sustainability and Resilience) of the FY18-22 WBG Country Partnership Framework (CPF) with Vietnam**[54]. The CPF is fully aligned with the government's 2010–2020 SEDS and the 2016-2020 SEDP, which underscore the need for strengthening resilience to climate change impacts, environmental protection, and improved management of natural assets. This operation supports the adoption of sustainable models for resource use and management, strengthened climate change mitigation efforts, climate resilience and support for a more sustainable energy generation path. The DPF end of program indicators also contribute towards the indicators for achievement of CPF objectives. It also contributes to strategic shift 2 under the 2019 Performance and Learning Review of the CPF, which states that the Bank's engagement will strengthen and support NDC implementation. Table 6 below contains a summary of this operation's support to Focus Area 3.

Table 6: Vietnam CC-GG DPF Support for CPF Focus Area 3 (Ensure Environmental Sustainability and Resilience)

CPF Objectives	Relevant CPF Objectives Indicators/Supplementary Progress Indicators	Contribution by CC-GG DPF Operation
Objective 9. Promote low carbon energy generation, including renewables, and energy efficiency, and reduce GHG emissions	*CPF Objective Indicators:* Additional installed generation capacity from renewable energy. Energy saving indicator (Mega Watt hours) Reduction in GHG emissions from WB-financed investments – aligned with Vietnam's NDC mitigation priorities **(added at Performance and Learning Review)**	This DPF operation supports the scale up of wind with the promotion of a new mechanism to promote wind power. This DPF operation supports enhancing energy efficiency across the economy (namely, industrial, commercial, and residential sectors) by supporting the adoption of the National Energy Efficiency Program, which has a target of energy savings of 8-10% by 2030 Prior actions under Pillar 2 will lead to GHG emission

[54] Country Partnership Framework for the Socialist Republic of Vietnam for the period FY2018-2022, approved by the WBG Board on May 30, 2017.

CPF Objectives	Relevant CPF Objectives Indicators/Supplementary Progress Indicators	Contribution by CC-GG DPF Operation
	NDC Implementation Platform/Program/Mechanism established by the government and operational (Y/N) **(added at Performance and Learning Review)**	reductions in both energy demand (from fuel and electricity generation) and generation (from fuel switch to renewable energy). The overall DPF engagement is supporting the government's conceptualization and development of the next phase of Vietnam's NDC implementation cross-sectoral planning and coordination mechanism.
Objective 10. Increase climate resilience and strengthen disaster risk management	Area with climate resilient land and water management practices (hectare)	The DPF operation supports this indicator through policies that aim to improve water resources management to respond to climate challenges (including through improved water protection and efficiency); and policies that promote coastal forest classification that enhance resilience.
Objective 11. Strengthen natural resource management and improve water security	Area of coastal forest re-/afforested and protected according to technical norms for improved management (Supplemental Progress Indicator)	The DPF supports this indicator through supporting the classification of coastal protection forest and the development of sustainable forest management plans for special use forests.

82. **This operation also supports Focus Area 1 of the CPF (Enable inclusive growth and private sector participation)** through its support to policies that promote sustainable and climate-smart irrigation, though both the provision of technical and direct financial support to investment in efficient irrigation, as well as establishing a pricing regime for irrigation water.

83. **The DPF operation is also a key component of the Bank Group's broader climate change engagement strategy in Vietnam.** It is a critical part of the Bank's Vietnam climate change action plan, which is responsive to both the WBG and regional climate change action plans. Support to an economy-wide approach to climate action requires engagement across the Bank's portfolio. Just as GoV's CC and GG relevant strategies, related

action plans and SP-RCC enhance coordination of government actions, the CC-GG DPF operation provides a focal engagement around which the Bank's support can be coordinated. The DPF involves colleagues across a range of sectors, adding value to their specific sector dialogues and helping to ensure that the Bank's climate activities are synergistic and responsive to GoV's NDC. It leverages actions supported by the World Bank Group and other DPs' investment programs that are focused on a low carbon, climate resilient economy and that explicitly aim to deliver climate co-benefits at a larger scale. This includes investment programs that support energy efficiency financing in the industrial sector, promote climate resilience in the Mekong Delta Region, and protect forest across coastal provinces. The policies promoted under this DPF leverage the evidence-based analytical policy dialogue, capacity strengthening, and climate-relevant information gathering that the Bank has supported over the past years. Table 7 summarizes related ongoing Bank lending and Analytical and Advisory Services (ASA) in Vietnam, whereas earlier TA inputs are detailed in Annex 6. The Bank has ongoing engagements across all of the policy tracks that will facilitate follow up to the policy actions to support implementation and monitor outcomes. In particular, there are significant operational engagements on forestry, resilient development of the Mekong Delta, irrigated agriculture, transport, energy efficiency and renewable energy.

Table 7: CC-GG DPF Series in the Context of the Vietnam Bank Group Lending and Non-Lending

DPF Pillar	Bank Lending	Bank Non-Lending
Pillar 1 - Climate resilient management of landscapes	• IPF - Managing Natural Hazards Project (P118783) • IPF - Mekong Delta Integrated Climate Resilience and Sustainable Livelihoods (P153544) • IPF - Can Tho Urban Development and Resilience (P152851) • IPF - Mekong Integrated Water Resources Management Project Phase II (P124942) • IPF - Irrigated Agriculture Improvement Project (P130014) • Carbon Finance – FCPF Carbon Fund: Vietnam North Central ER Program (P162605) • IPF – Danang Sustainable City Development Project (P123384) • IPF – Medium Cities Development Project (P116398) • IPF – Vietnam Scaling up Urban Upgrading Project (P159397) • IPF – Dynamic City Integrated Development Project – Thai Nguyen (P160162)	• BE TA for Mekong Delta: Advancing Climate Resilient Development: Inclusive, Innovative, Integrated (P162702) • BE TA for Supporting Systematic Action to Implement Vietnam's NDC (P171403) • BE TA for Mainstreaming Disaster Resilience in Vietnam (P161556) • FCPF REDD+ Readiness (P124584) • GEF Mekong Delta Integrated Climate Resilience and Sustainable Livelihoods Project *(P159976)* • TA for Vietnam Urban Resilience Support and Analysis (P168808) • TA for Water Resilience and Efficiency Improvement (P170285)

DPF Pillar	Bank Lending	Bank Non-Lending
	• IPF – Forest Sector Modernization and Coastal Resilience Enhancement Project (P157127)	
Pillar 2 - Adoption of cleaner transport and energy systems	• IPF/Montreal Protocol - HCFC Phase-Out Project (Phase II) (P152232) • IPF - Vietnam Energy Efficiency for Industrial Enterprises (VEEIE) (P151086) • IPF - Ho Chi Minh City Green Transport Development (P126507) • IPF – Haiphong Urban Transport Project (P111548) • IPF – Second Ho Chi Minh City Environmental Sanitation Project (P127978) • IPF - Urban Water Supply and Wastewater (P119077)	• Recipient Executed TA for Partnership for Market Readiness (PMR) (P152797) • BE TA for Supporting Systematic Action to Implement Vietnam's NDC (P171403) • BE TA for Getting on a NDC Getting on a Low-Carbon Energy Path to Achieve NDC Target (Supported by the Partnership for Market Readiness Upstream Analytical Policy Support, CF Assist and former GCCPT) • TA for Renewable Energy Resource Mapping and Geospatial Planning (P145513) • Programmatic AAA for Clean and Sustainable Energy (P147685) • BE TA Towards Efficient and Sustainable Transport for Vietnam (ABP2) (P162707) • BE TA Solar Power Scale-Up Technical Assistance Project (P162510) • BE TA for Development in ESCO market in Vietnam (P161202) • TA for Policy Development Support for Climate Change and Green Growth (P159301) • Environmental Health Trust Fund – Air Quality Management Pollution Management (P164422) • TA for Strengthening Vietnam's Trucking Sector for Lower Logistics Costs and GHG Emissions (P164018) • TA for Public Transport Development Strategy for

DPF Pillar	Bank Lending	Bank Non-Lending
		Sustainable Urban Mobility in Hanoi (P165439)

84. **The approach of the DPF is also strongly aligned with the 2025 WBG Climate Targets and Actions** which aims to increase WBG financing for climate action, including through the increased use of DPFs, to support countries with systematic implementation of their NDCs, and to integrate climate considerations into national policy planning and budgeting through increased engagement with ministries of finance and planning, as well as to accelerate action in key cross-cutting sectors and areas, including water security, integrated landscapes, and low-carbon energy transition.

85. **A targeted package of technical assistance is being implemented in parallel to support the overall NDC implementation dialogue with the government, including the implementation of policies adopted under the DPF series.** This includes a TA program, under two pillars, that will provide more systematic roadmaps for achieving key NDC targets for 2030, as well as moving beyond them, and strengthening the coordination mechanism and macro-economic planning to support them. Pillar 1 would support work on a select set of critical transitions needed to address key climate challenges in Vietnam, and which build on areas where the World Bank has a strong existing engagement: (i) Low Carbon Energy Transition; (ii) Lower Carbon and Resilient Transport Transition; (iii) Climate Smart Landscapes Transition; and (iv) Green and Resilient Urban Development Transition. A complementary Pillar 2 would focus on the development of tools to support a whole-of-government approach. This would include the development of macroeconomic and macro-fiscal analytics, climate-informed investment planning and budgetary tools, as well as strengthening overall coordination and accountability processes through the design and establishment of the Government's new NDC Implementation Program. The two pillars are anticipated to be mutually reinforcing, with the work on the transitions feeding information on climate impacts into the macro analyses, and on investment and policy needs into public investment management systems and development of the NDC Implementation Program. In turn, Pillar 2 would ensure that climate action in individual sectors is understood as a national priority, coordinated with other sectors and overseen through strong monitoring and reporting systems.

4.4. CONSULTATIONS AND COLLABORATION WITH DEVELOPMENT PARTNERS

86. **The government has organized** and conducted a series of consultations with stakeholders involved in the specific sectors relevant to the policy tracks of this operation. Through the platform developed under the SP-RCC, an established mechanism exists for stakeholder and DP coordination. The Government holds consultation meetings and an annual forum that invites DPs, ministries, provinces, civil society organizations, research institutions, academia, and the media. Extensive consultations were held under this policy dialogue platform to confirm the focus of policy reforms supported under the DPF with relevant line ministries and stakeholders. Individual policy measures supported have undergone extensive consultations with a wide range of stakeholders. Draft regulations are circulated within government agencies at central and provincial levels and

published in the Government Portal and in the respective line ministry's official website for public comments. The line ministries, with support from the Bank's targeted technical assistance, hold dedicated workshops with relevant stakeholders to discuss key prior actions. These consultations have gathered practical feedback on the technical and implementational feasibility of the policy option and balance between ambition and constraint for successful implementation. A preparation mission jointly held with SP-RCC DPs in April 2019, discussed the scope and policy actions for support under the operation with line ministries, DPs and other stakeholders, building on the pre-appraisal mission of the earlier DPF. The plenary meeting of the joint DP SP-RCC missions is open to and have benefited from the active participation of non-SP-RCC DPs and nongovernmental organizations.

87. **DP collaboration and coordination continue to be strong and include regular consultations to discuss progress on the climate change and green growth policy agenda.** The policy dialogue under SP-RCC continues to be supported by the Japan International Cooperation Agency (JICA), l'Agence Française de Développement (AFD) and the Bank. JICA and AfD provide policy lending based on the delivery of policy reforms under SP-RCC. For SP-RCC period 2016-2020, JICA provided a total of JPY20 billion in 2016 and 2017 and AfD provided EUR100 million in 2018 and 2019. The policy actions identified under the program also guide other DPs in developing their support to the Government for climate change and green growth. The Bank holds discussions with DPs on alignment of climate change and green growth initiatives, funding, and TA in particular within the framework of the SP-RCC. DPs meet regularly to discuss and coordinate policy dialogue and assistance. Meetings usually include JICA, AFD, UNDP, GIZ, Canada, EU, Germany, the Netherlands, Norway, among others. This has helped align policy messages, build consensus on and reinforced support for reforms from DPs around a core set of reform measures.

5. OTHER DESIGN AND APPRAISAL ISSUES

5.1. POVERTY AND SOCIAL IMPACT

88. **The Bank has prepared a Poverty and Social Impact Analysis (PSIA) to assess the distributional and social impacts of the policies supported under this DPF** on the well-being of different groups of the population, particularly on the poor and most vulnerable groups, including ethnic minority peoples. Since most of the prior actions are in early stage of implementation, this analysis was conducted through a desk review of existing quantitative and qualitative social research, in an attempt to anticipate the potential impacts. The PSIA also analyzes the potential effects of the prior actions on the poor and vulnerable groups – from a gender perspective. Following consultation with relevant government stakeholders, the PSIA has been disclosed electronically[55].

89. **Overall, all eight prior actions under the DPF are anticipated to result in significant positive social impact, particularly on poverty reduction and livelihood development and environmental quality.** For instance, policies related to sustainable forest management, exhaust emissions standards, and energy

[55] Link to the PSIA: http://documents.worldbank.org/curated/en/492221572325275827/Vietnam-Climate-Change-and-Green-Growth-Development-Policy-Financing-Poverty-and-Social-Effect-Assessment

efficiency, would promote behavior changes among target groups (through program/project activities that raise awareness, and provide knowledge and access to additional income opportunities) are expected to contribute to achievement of sustainable development goals of these policies. Furthermore, improvements in exhaust emissions standards, are more likely to positively impact the poorest and most vulnerable members of societies who are the most exposed to the ill effects of air pollution. The increase of energy generated from the renewable sources will bring health benefits, in particular to the poor.

90. **Although five of eight policy actions are not expected to have any significant poverty or social impacts, three of the eight actions are open to potentially adverse impact for certain groups of people in the short and medium-term.** This is not because the policies directly cause adverse impact but because of how these policies they may be implemented at the local level, which may cause unintended adverse impacts. For instance, Prior Action 4 (restriction of groundwater exploitation) may cause temporary impacts on the income of businesses involved in ground water exploitation which may disrupt their operations, and/or require securing water from alternative (and more expenses) sources. Similarly, Prior Action 1 that involves the establishment of special-use forests, forest management, and tourism development in special-use forests, may result in potential adverse impact on people living in the core zone, and even the buffer zone of the newly established special-use forests. Medium-term impacts may include resettlement of people out of the strictly prohibited subzone, reduced access to exploitation of forest resources that people depend on as their means of livelihoods. Under Prior Action 8, minor land acquisition may be required (for inland wind farm development).

91. **However, the adverse effects anticipated for both prior actions 1, 4, and 8 can be mitigated during implementation.** Mitigation measures have been identified through a) existing measures that are already embedded in existing legal system, and b) additional measures that are proposed as recommendations for government's consideration. These measures aim to avoid the identified potential adverse impacts, primarily through diligent consultation with potentially affected people, promoting their participation and ownership, and good preparation of plans that allow affected groups to adjust over time without compromising their livelihoods. Where adverse impacts cannot not be avoided, as a principle, compensation payment and/or necessary assistance are made to affected peoples (prior actions 1 and 4) and businesses (prior action 4) in accordance with existing laws (e.g. the 2013 Land Law for affected people as a result of land acquisition/resettlement and Decree 167 for businesses affected by restricted exploitation of groundwater).

92. **For potential adverse impact under prior action 1 (physical resettlement, restricted access to forest resources), compensation payments and livelihoods restoration support is provided by project owners (governments and/or businesses) as per the Land Law of 2013.** The Land Law of 2013 allows compensation to be made at market prices for affected assets such as land, houses, structures and crops, and also includes assistance for restoring incomes. The law includes provisions for a grievance mechanism as well consultation, that foster feedback from affected households at various stage of compensation planning and payment. Opportunities exists for affected household to negotiate the compensation rate prior to payment. However, it should be noted that the risk of household resettlement as a result of the implementation of this policy is limited, as the prevailing practice is to leave existing settlements in place, in order to minimize social disruption. Households whose access to forest use is restricted will have the opportunity to be allocated forest land for the purposes of conducting agro-forestry. Some may have additional income due to the availability of payment for environmental services, along with opportunities for agriculture extension trainings and other related services from the annual support fund provided by the government through forest management boards. These practices are aligned with international good practice on off-setting adverse effects on livelihoods of restriction of access

to forest resources.

93. **For prior action 4 (groundwater restriction), Decree 167 requires agencies undertaking groundwater assessment to consult with affected businesses during the preparation of the restriction plan, and even make compensation to affected businesses if their assessment is inaccurate or incorrect.** Thus, governmental agencies conducting groundwater assessments are held accountable for quality and results of the assessment. To strengthen the consultation process, good practices on consultation are recommended to be shared amongst implementation agencies for lesson learnt and improvement to ensure the socioeconomic impact of possible groundwater restrictions on the affected businesses and water users are fully assessed, and a pathway for restoration of the livelihoods of affected business and households are set out for effective management of potential adverse impact on affected parties.

94. **For prior action 8 (wind farm development), during the feasibility stage, adverse impacts related to permanent land acquisition from local people can be avoided. However, where avoidance is not possible, compensation for land acquisition will be paid to affected peoples – as per the 2013Land Law.** For nearshore wind-farms, compensation, or arrangements for alternative income generation can be discussed and arranged, based on consultation with affected (fishing) households, if any. It is noted that the possibility of adverse impact on local people is small because inland wind farms are typically located in coastal, rural, hilly areas where land may be already be under the management of the state. Also, as per Circular 02/2019/TT-BCT, wind farms are encouraged to locate in areas of no, or low agricultural value, and in areas with no, or low population density. Thus, adverse impact on the poor and vulnerable could be absent, or minimal, or easily mitigated using the existing land law.

95. **Gender:** The team has conducted a gender analysis for prior actions, particularly for prior action 5 (given its potential gender impact). Based on the analysis, it is concluded that this project is not a candidate for gender tagging because a complete result chain cannot be established.

96. Of eight prior actions, three PAs would have potential gender impacts. However, potential adverse effects (e.g. restricted access to forest resources and potential resettlement as a result of prior actions 1 and 8, and restricted groundwater access from due to prior action 4) will be avoided/minimized during implementation through existing legal systems and through good international practices, as summarized in the mitigation measures above. Positive impacts can be enhanced through enabling women to access income generating activities, such as in agroforestry and payment for environmental services (prior action 1), as well as to reduce effort on time-consuming water fetching for irrigation and possibly for domestic use, through access to water storage facilities and water saving technologies for irrigation (under prior action 5). The latter is particularly relevant to households living in hilly and mountain areas where farming activities are still mainly rain-fed.

5.2. ENVIRONMENTAL ASPECTS

97. **Overall, the prior actions will mainly bring positive environmental effects through reduction of GHG emission, resource use efficiency and sustainable management of natural resources.** However, it is also envisaged that the implementation of some prior actions may have some adverse environmental effects. The implementation of Circular 28/2018/TT-BNNPTNT, while bringing significant positive effects for sustainable management of forests, may likely involve some environmental and health risks due to exposure to

unmonitored chemicals and synthetic chemical pesticides used for control of harmful pests. The policy asks for development of sustainable forest management including ecotourism activities which could likely bring pollution and cause the degradation of natural habitats if the number of tourists is not controlled. The implementation of Decision 280/2019/QD-TTg will enhance efficient use of energy, yet it would likely generate waste as a result of replacement and disposal of inefficient equipment and machinery. The implementation of Government Decree 77/2018/ND-CP will bring more efficient irrigation which may save water and reduce the need for fertilizer use. This should result in less eutrophication and a potential to reduce the loss of aquatic biodiversity. It may also lead to the intensification of agricultural production which implies increased use of agrochemicals. The expansion of upland cropping may cause natural habitats loss due to deforestation. The implementation of the National Energy Efficiency Program could generate waste as a result of replacement and disposal of obsolete equipment and machinery. This impact is considered insignificant and the waste will be addressed through execution of provisions on waste management of Law on Environmental Protection. The Law stipulates waste management, reduction, reuse and recycle, classification, collection, storage, transportation, and treatment of waste. The implementation of policy to promote wind power will bring increased renewable energy capacity and contribute to reduction of reliance upon fossil energy and GHG emission as a result. Potential environmental effects may arise due to site planning and construction of wind energy infrastructure which may cause conversion and degradation of natural habitats if the infrastructure is near these sites. However, the potential adverse environmental effects associated with the implementation of this policy is considered insignificant.

98. **The Government's existing policy framework, under the Law on Environmental Protection 2014, provides an adequate system to address these adverse environmental effects.** Supporting the implementation of the Law is Decree No. 18/2015/ND-CP on Environmental Protection Planning, Strategic Environmental Assessment, Environmental Impact Assessment, and Environmental Protection Plan, Decree 19/2015/ND-CP on the implementation of a number of articles of the Law on Environmental Protection, and Circular No. 27/2015/TT-BTNMT providing detailed guidance on preparation of Strategic Environmental Assessment, Environmental Impact Assessment, and Environmental Protection Plan. These regulations provide guidance and mechanism to address potential adverse environmental effects. Specifically, EA process requires a mandatory consultation with key stakeholders to aim at finalizing EA, minimizing potential adverse effects on the environment and human health, and ensuring the sustainable development of a project or program and thus to improve decision making. Particularly, article 78 of the Law on Environmental Protection regulates the environmental protection from chemicals, pesticides, and veterinary medicines, including environmental and health risks due to exposure to chemicals and synthetic chemical pesticides used for control of harmful pests. Article 36 of the Law regulates environmental aspects of the sustainable development and protection of forests to mitigate pollution and degradation of critical natural habitats from ecotourism and deforestation. The Law's Chapter 9 with articles from 85 to 98 on waste management, i.e. reduction, reuse and recycle, classification, collection, storage, transportation, and treatment, regulates the generation of wastes as a result of replacement and disposal of old-fashioned equipment and machinery. Wind power projects, depending on the size of land covering, are required to have the Environmental Impact Assessment or Environmental Plan. Depending on the size of the investment, MONRE or provincial DONRE review and endorse the environmental assessment or plan and monitor the application of mitigation measures identified under the EA process. With the recent establishment of MONRE's Training Centre, more dedicated environmental training are provided to designated

staff of relevant government agencies from central to local levels to improve their environmental appraisal and monitoring capacity.

5.3. PFM, DISBURSEMENT AND AUDITING ASPECTS

99. **Public financial management**. Vietnam's public financial management (PFM) environment was considered satisfactory by the Bank-led Fiscal Transparency Review in Vietnam, the government-led Public Expenditure and Financial Accountability Assessment 2013, and the Vietnam Public Expenditure Review 2017. The main recommendations of those reports focused on (a) preparation of the government financial statements prepared in accordance with International Public Sector Accounting Standards (IPSASs)—central level and country wide level; (b) audits of public sector financial statements in accordance with International Organization of Supreme Audit Institutions (INTOSAI) standards; (c) enhancement of the budget system including introduction of "medium-term budget framework and integration of budget information into financial reporting information system; and (d) strengthening the debt and contingent liability management system.

100. **Public disclosure of government budget.** The government of Vietnam discloses the government budget after approval by the National Assembly.

101. **The government has maintained strong ownership of the PFM reform agenda and continues to lead a coordinated reform program in consultation with the DPs**. Issuance of accounting standards for public sector in accordance with IPSASs and piloting the preparation of central government financial statements is among the top priorities for the MOF to work with donors in the coming years. MOF will issue the Standards for Public Accounting in 2024. The government is also working with donors in strengthening the country budget system, with the launch of medium-term public investment expenditure plan for 2016- 2020. The state audit of Vietnam, with support from the Bank, has issued a number of auditing standards and guidance based on INTOSAI principles and will continue to complete the remaining standards in the next 2 years with assistance from development partners.

102. **Dedicated foreign currency bank account**. Because of the unavailability of IMF Safeguard Assessment and the annual audited financial statements of SBV, to address the residual fiduciary risks related to the foreign exchange control environment, the recipient will open and maintain a dedicated account (DA) in U.S. dollars for the recipient's use once the credit is approved by the Board. The DA will form part of the country's official foreign reserves. However, the recipient uses the credit proceeds, the proceeds should always become a part of the country's budget resources. Therefore, the recipient shall ensure that upon the deposit of the credit into the DA, an equivalent amount is accounted for in the recipient's budget management system, in a manner acceptable to the Bank. If, after deposit in the DA, the proceeds of the credit or any part thereof are used for ineligible purposes, as defined in the Financing Agreement, the Bank will request the recipient to refund the amount directly to the Bank. Amounts refunded shall be cancelled.

103. **Reporting and Auditing.** Through SBV, the Recipient will report the exact sum received into the DA, ensure that all withdrawals are for "eligible" expenditures, indicate to the Bank the details of the Treasury account to which the Vietnamese Dong equivalent of the Loan proceeds will be credited, confirm that the Loan proceeds were received into an account of the government that is part of the country's foreign exchange reserves and

that an equivalent amount has been accounted for in the country's budget management system and submit a report on receipts and disbursements for the DA. All those confirmations and submissions are to be made to the Bank within 45 days after disbursement. The Government will, if requested by the Bank, allow an independent external audit of the dedicated foreign currency DA, to be completed within 4 months of the request.

5.4. MONITORING, EVALUATION AND ACCOUNTABILITY

104. **The management of the DPF is fully aligned with the management structure of the SP-RCC (2016-2020).** The implementation of the policy actions, a subset of which are supported under the DPF, is under the oversight and guidance of the NCCC, the highest-level institutional body that oversees Vietnam's climate change and green growth agendas. With this management structure, the policy and institutional reform program under the DPF series is subject to a broader scope of coordination, with more strategic directions for cross-sector and regional response to climate change.

105. **MONRE leads the overall management of the SP-RCC (2016-2020) and collaborates with line ministries to coordinate the policy dialogue and provide overall accountability under the DPF series, including the M&E of quality and progress of policy development and achievement of results indicators.** MONRE coordinates with other line ministries and stakeholders in formulating and confirming the policy matrix for each annual cycle, based on the goals, objectives, and expected results as stated in the NCCS, VGGS, and NDC. Based on the reports from participating line ministries in the program, MONRE undertakes regular reviews of the achievements of the program, including assessing progress in policy development, implementation and against the result indicators. Based on this assessment, MONRE, in consultation with the respective line ministries, reports to the Prime Minister and the NCCC.

106. **The selection of result indicators and targets for the SP-RCC (2016-2020) and operation is based on a consultative process involving MONRE, the relevant line ministries, and the DPs that are involved in the program.** These indicators reflect a balance of realism and ambition in the achievement of policy objectives in each of the policy tracks. To assess progress, the identified indicators reflect different result levels that correspond to the uneven progress in the government's reform agenda in each policy track, with some advanced in having a full set of policy tools available to facilitate achievement of desired results, while others require additional incremental legislative steps to achieve the desired policy objective. In cases where the indicators are more output-oriented, they attempt to capture process elements that would indicate evidence of early implementation that would lead to the desired policy objective. The biannual supervision missions of the SP-RCCC review the ambition of each indicator and target. Where possible, indicators are based on those included in existing government strategies and are adjusted, as needed, to reflect attribution to the policies included in the program.

107. **Monitoring and evaluation of the program is largely undertaken as part of regular progress reviews tied into the SP-RCC programmatic framework to assess progress against the selected results indicators.** The SP-RCC (and the DPF) relies on and improves existing government monitoring and reporting systems. The agreed-upon indicators require (i) ministerial aggregation of provincial reporting; and (ii) the use of an agreed upon

methodologies to assess progress against the indicator. To ensure that this reporting is robust at the provincial level, the DPF recognizes reforms that specify reporting processes in the policy itself. Further, where necessary, TA support is being provided to develop the necessary tools and surveys to ensure that the necessary data inputs are available to chart progress against selected indicators to deepen the qualitative aspects of indicators.

108. **Line ministries are responsible for the delivery of policy actions under the DPF.** The line ministries lead sector technical discussions and take part in discussions during joint technical and evaluation mission carried out between the government and DPs. They propose the selection of and report progress on achievement of their respective sector policy actions. MONRE, as owner of the program, consolidate sectoral reports and report to the NCCC. The Bank will continue participate in supervision and monitoring of the delivery of policies that are still in the final stage of development as well as the progress toward achievement of the result indicators until the closing date of the operation.

109. **Grievance Redress**. Communities and individuals who believe that they are adversely affected by specific country policies supported as prior actions or tranche release conditions under a World Bank Development Policy Operation may submit complaints to the responsible country authorities, appropriate local/national grievance redress mechanisms, or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. Affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

6. SUMMARY OF RISKS AND MITIGATION

110. **The overall risk to PDO achievement is assessed as substantial**. The key risks are highlighted below:

- **Sector strategies and policies risks are substantial**. A number of the policies involve some complexity in their delivery, particularly in relation to some of the longer-term objectives. The policy on regional planning will only support climate outcomes that are as good as the climate-informed analysis of investment need which goes into them. Establishing and collecting water use tariffs for irrigation involves significant political economy and technology challenges. Electricity tariffs remain below cost-reflective levels which could discourage longer-term and at-scale investment in renewable energy and energy efficiency (particularly from the private sector). These risks will be mitigated through continued technical engagement of the Bank in support to the government, and in coordination with other Development partners, on resilient landscapes and investment in clean technologies. For instance, in the energy sector, the Bank and other donors will continue to support power sector utilities and the regulator to progressively move towards efficient and cost reflective tariffs to ensure long-term financial viability of the power sector.

- **Technical design of program risks is substantial**. The multi-sectoral complex nature of climate change and green growth program necessarily reflects the nature of the challenges, but also poses a

substantial risk. There is a risk of uneven progress on policy reforms across a number of line ministries may delay the achievement of reform targets and that MONRE's convening power is insufficient to ensure coordination and effective oversight. This risk is be mitigated through (a) regular reporting by MONRE and line ministries on the implementation of policies to the NCCC (and the prime minister); and (b) parallel investment project financing and analytical assistance being implemented by the Bank and other development partners to support policy implementation in the selected reform areas. The experience under the SP-RCC and earlier DPF operations means that there are already practices in place for coordination and monitoring, and a high level of commitment to the policy agenda has been maintained over some years. Nevertheless, monitoring of policy adoption has been stronger than monitoring of implementation, and the number of sectors and agencies involved means that there are always risks of delays in some areas. The support to the development of a new NDC Implementation Support Program will further strengthen these systems.

- **Institutional capacity for implementation and sustainability risks are substantial**. Implementation of policies in a number of reform areas will require long-term capacity to support e.g. improved management of forests, groundwater protection, and implementation of regional investment plans, routine climate budget analysis and provincial energy efficiency programs. Even though the Bank and other development partners are actively supporting the development of precedents and models, going from these to routine application still presents a challenge as they will require ongoing allocation of resources. The risk is mitigated by parallel support to evaluation and dissemination of impacts and value of these activities, through the DPF, but more significantly also through various sectoral engagements. The team will also engagement with EXT colleagues on effective outreach for the DPF and related climate technical assistance, including on engagement at the leadership level.

Table 8: Summary Risk Ratings

Risk Categories	Rating
1. Political and Governance	Moderate
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Substantial
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Moderate
7. Environment and Social	Moderate
8. Stakeholders	Moderate
9. Other	
Overall	Substantial

ANNEX 1: POLICY AND RESULTS MATRIX

Prior Actions under DPF 1	Indicator Name	Baseline (December 2018)	Target (June 2021)
PDO: to promote: (a) climate resilient management of landscapes; and (b) adoption of cleaner transport and energy systems.			
Pillar 1: Climate resilient management of landscapes			
Climate Smart Landscape Planning Policy Track			
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	Results Indicator #1: Number of hectares of production and natural forests with approved sustainable forest management plans	151,000 ha (production forest); 86,000 ha (natural forests)	250,000 ha (production forest); 100,000 ha (natural forests)[56]
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/QD-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	Results Indicator #2: 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[57].	No	Yes
Climate Budgeting Policy Track			
Prior Action #3: The Recipient, through MPI, has	Results Indicator #3: Number of sub-	0	4

[56] The relatively modest incremental target for natural forests reflects the time needed for preparing robust and consultative management plans in relation to the short period available before the results are assessment, but the policy is expected to be rolled out to all production and natural forests.

[57] The first Regional Master Plan to be developed is expected to be for the Mekong Delta, given the acute climate risks posed to that landscape. Relevant investment particularly concern those that affect inter-provincial hydrological flow, including those that concern flood spillways that cut across provinces, riverbank erosion protection and water storage and management that is coordinated across provinces, and other multiprovincial projects with connectivity through inland waterways.

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	sectors with increased climate-responsive investment under the Ministry of Agriculture and Rural Development's annual budget[58].		
Improving Water Resources Protection and Use Efficiency Policy Track			
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.	Results Indicator #4: Number of provinces establishing groundwater exploitation zones	0	20[59]
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	Results Indicator #5: Area of farmland with improved water saving practices applied.[60]	320,000 hectares	500,000 hectares
Pillar 2: Adoption of cleaner transport and energy systems			
Cleaner Transport Policy Track			

[58] Sub-sectors are expected to be irrigation, forestry, fisheries and disaster risk management, which together account for around 90% of MARD's climate expenditure. The level of climate-responsive investment would be assessed through use of the new regulation on the identification, classification and reporting of climate change and green growth-related public investment.

[59] The 20 provinces completing the groundwater zonation by the end of 2020, are expected to be high priority provinces facing serious groundwater overexploitation issues and associated land subsidence and/or saline intrusion impacts. The policy is expected to be implemented by all within a short period of time beyond the end of 2020.

[60] This would be assessed as the area under coffee and fruit tree production (representing the primary high-value crops cultivated in upland areas) applying new drip or sprinkler irrigation systems in place of submerged irrigation systems, plus the area of paddy rice under large-scale irrigation systems where Alternative Wetting and Drying has been adopted. Information would be collected from communal agricultural cooperatives established by DARDs, and collated by MARD, as part of their routine annual reporting.

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	Results Indicator #6: Percentage emissions reductions of carbon monoxide (CO),d 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)	0	3 percent (CO) 7 percent (HC) 9 percent (HSU)[61]
Towards a Low-carbon Energy Transition Policy Track			
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/QD-TTg dated March 13, 2019	Results Indicator #7: Percentage national energy savings (through 2030) committed to in newly adopted provincial energy efficiency programs[62]	0	8 percent[63]
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.	Results Indicator #8: Generating capacity of grid-connected wind power in Vietnam[64]	300 MW	800 MW

[61] The impact of the policy measures is calculated based on data collected by MOT until the end of calendar year 2020 on the numbers, usage and compliance rates of different classes of vehicles. The result is expressed in terms of percentage of CO, HC and HSU emissions reductions for the vehicles that do not comply with the emissions standard, and as compared to business as usual. .

[62] All provinces are expected to have adopted their provincial energy efficiency programs by the end of 2020, and the result will be calculated on the basis of the cumulative savings reflected at national level.

[63] Expected to be equivalent to about 60m tons of oil equivalent (TOE). The total energy saving will be calculated in absolute terms at the ICR stage.

[64] Data on installed capacity of grid-connected power generating plants is routinely reported by MOIT.

ANNEX 2: FUND RELATIONS ANNEX

Vietnam—Assessment Letter for the World Bank

February 18, 2020

I. Background And Recent Developments

Vietnam's growth performance has been robust in recent years, underpinned by sustained reforms and prudent macroeconomic policies. GDP expanded on average 6.8 percent over 2014-18 and is estimated to grow around 7 percent in 2019.[1] The expansion was private sector-led and broad-based, fueled by growth in incomes and consumption and by strong trade, manufacturing, tourism, and remittances. Headline inflation increased to 5.2 percent at end-2019, driven by higher food prices, reflecting a sharp hike in pork prices, but annual average inflation (2.8 percent) remained below the 4 percent target. Credit growth is moderating, in line with the authorities' targets and modernization of the monetary framework is under way. Significant fiscal consolidation was carried out during 2016–2018, and the 2019 budget remains largely on track, but with infrastructure investment delays. Privatization of blocks of government-owned shares of companies in non-strategic sectors continues through the pace has slowed recently. There are 18 banks[2] officially meeting Basel II standards at end-2019 and the previous commitment of adoption by January 1, 2020 is likely to be extended. Efforts to recapitalize State Owned Commercial Banks (SOCBs) and enhance governance are on-going.

Vietnam remains resilient thus far to global trade tensions and elevated financial volatility. Export growth has moderated, with rising exports to the US offsetting lower demand from China and other partner countries. However, FDI remains strong and the rate of new business creation reached a six-year high. Non-FDI exports have outperformed FDI sector exports in 2019, suggesting encouraging signs of domestic firms participating more actively in the global value chain[3].

Vietnam's external position in at the time of the 2019 Article IV consultation was substantially stronger than warranted by fundamentals and desirable policies. International reserves amounted to 97 percent of the IMF's reserve adequacy metric at end-September 2019.

II. Outlook and Risks

Growth is projected to ease to 6.6 percent in 2020, supported by solid domestic demand and favorable FDI prospects. Rising investment income payments (FDI repatriation), despite strong tourism and remittance inflows, are projected to lower the current account surplus to 1.0

[1] All economic indicators are calculated based on new GDP numbers that are revised upwards by 25.4 percent on average over 2010-17 largely owing to better measurement (coverage of businesses), following IMF technical support. Resulting changes to economic indicators mostly reflect changes in measurement rather than policies.

[2] Some banks, that account for around 40 percent share of total banking assets, are facing difficulties in adopting Basel II due to thin capital ratios.

[3] CT-TPP and other FTAs have increased opportunities for domestic firms to participate in global value chains and boosted exports to new markets.

percent of GDP in 2020. Inflation is projected to remain within the target band. Over the medium-term ongoing structural reforms should further lower the current account surplus.

Large downside risks. Vietnam's highly open economy is vulnerable to rising trade tensions, growing protectionism, and weaker-than-expected global growth, including on account of the negative impacts of the recent nCoV virus outbreak. Vietnam has also been placed on the US Treasury watchlist of currency manipulators which could weigh on the bilateral trade relationship. Domestically, regulatory barriers and overlapping laws and regulations constrain needed infrastructure investments in the energy transmission and transportation sectors, threatening to slow the medium-term growth momentum. Ample liquidity in the banking system, and still high domestic credit targets could encourage excessive risk taking in a banking system which still needs further strengthening. On the upside, newly-signed FTAs could spur productivity gains and support reforms; Vietnam could also further benefit from trade diversion and investment relocation.

III. ASSESSMENT

Vietnam has made impressive strides in maintaining macroeconomic stability and private sector-led growth. But the window to address long-term challenges—including rapid prospective population aging, climate change and digitalization—is narrowing. Fiscal consolidation must become of higher quality; macroeconomic institutions modernized; and governance strengthened.

Fiscal policy should emphasize high-quality consolidation to meet large development needs. On-going fiscal consolidation has contained public and publicly guaranteed debt (PPG) to 43.4 percent of GDP in 2019, well below the statutory limit of 65 percent of GDP. Efforts need to be made to widen tax bases; improve public investment management and adopt an appropriate and feasible PPP law with a strong gatekeeper role for the Ministry of Finance to safeguard fiscal sustainability. Tackling regulatory and other barriers (e.g., land clearance, coordination between ministries, regions and cities, procurement) would help avoid excessive investment delays in both public and private investment. Vietnam should ensure that there is adequate fiscal space to meet longer term challenges arising from aging and climate change.

The banking system continues to be strengthened but fragilities remain. Bank profits are rising, boosted by the strong economy and a shift to retail lending with higher net interest rate margins. Strengthening the legal framework for NPL trading, collateralization of debts, and protecting the third-party asset buyer would help facilitate resolution efforts. Bank balance sheets remain vulnerable to shocks, with attendant macro financial risks. Continued efforts to strengthen the capital of systemically important state banks is critical for bolstering banking system resilience. Over the medium-term, prudently moving away from credit growth ceilings (both aggregate and bank-by-bank) towards price-based monetary policy will improve the allocation of credit in the economy and allow for greater exchange rate flexibility to better navigate external shocks. Developing capital markets, including corporate bond markets, is important for long-term investment funding.

Structural reform agenda needs to be broadened and accelerated to tackle the remaining barriers to investment and raise labor productivity. Continued efforts to remove economic distortions and improve the business climate, and ongoing SOE reforms, are steps in the right direction but need to be accelerated. Further reductions in regulatory barriers and transitioning to international standards for regulatory excellences, transparency and data quality to aid investment. Reducing high levels of informality and raising productivity in the still sizeable agricultural sector to facilitate structural transformation remains a priority. Recent efforts to strengthen tertiary education and upgrade training and curricula will help reduce skill matches in the labor market and aid the economic transition from labor-intensive to high-tech goods.

Structural reforms and modernization of policy frameworks will assist with lowering external imbalances and strengthening policy making. More ambitious reforms to strengthen private investment and improve the efficiency of public investment will help reduce current account imbalances. Greater two-way exchange rate flexibility would reduce the need to build policy buffers and better navigate external shocks.

Vietnam needs to strengthen its governance and reduce corruption vulnerabilities. The 2018 anti-corruption law strengthened the system for the declaration of income and wealth. Additional efforts should prioritize: control of corruption; greater fiscal transparency and public investment management; stronger rule of law and AML/CFT framework and execution.

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Table 1. Vietnam: Selected Economic Indicator 2014–2020 1/

	2014	2015	2016	2017	Est 2018	Projections 2019	2020
Output							
Real GDP (percent change)	6.4	7.0	6.7	6.9	7.1	7.0	6.6
Prices (percent change)							
CPI (period average)	4.1	0.6	2.7	3.5	3.5	2.8	3.0
CPI (end of period)	1.8	0.6	4.7	2.6	3.0	5.2	3.2
Core inflation (end of period)	2.7	1.7	1.9	1.3	1.7	2.8	2.1
Saving and investment (in percent of GDP)							
Gross national saving	34.6	32.0	33.2	32.6	35.3	35.0	34.5
Gross investment	30.9	32.9	33.0	33.2	33.3	33.7	33.5
Private	18.6	20.4	20.6	21.3	22.2	22.8	22.9
Public	12.3	12.5	12.4	11.8	11.1	10.9	10.6
State budget finances (in percent of GDP) 2/							
Revenue and grants	17.7	19.2	19.1	19.5	19.5	19.1	18.8
Of which: Oil revenue	2.0	1.3	0.7	0.8	0.8	0.7	0.7
Expenditure	22.8	24.4	22.2	23.2	22.9	22.5	22.0
Expense	16.3	17.2	16.3	16.9	16.6	16.3	16.1
Net acquisition of nonfinancial assets	6.5	7.1	5.9	6.3	6.4	6.1	5.9
Net lending (+)/borrowing(-) 3/	-5.0	-5.2	-3.1	-3.8	-3.5	-3.4	-3.2
Net lending /borrowing including EBFs	…	…	…	-2.9	-2.9	-2.5	-2.4
Public and publicly guaranteed debt (end of period)	43.6	46.1	47.6	46.3	44.2	43.4	42.6
Money and credit (percent change, end of period)							
Broad money (M2)	17.7	16.2	18.4	15.0	12.4	11.4	11.0
Credit to the economy	13.8	18.8	18.8	17.4	12.7	13.0	13.0
Interest rates (in percent, end of period)							
Nominal three-month deposit rate (households)	5.0	4.8	4.9	5.9	5.9	…	…
Nominal short-term lending rate (less than one year)	8.5	7.2	7.2	8.7	8.7	…	…
Balance of payments (in percent of GDP, unless otherwise indicated)							
Current account balance (including official transfers)	3.7	-0.9	0.2	-0.6	2.0	1.3	1.0
Exports f.o.b.	64.5	68.4	70.0	77.6	80.6	80.5	81.2
Imports f.o.b.	59.3	65.3	65.7	73.7	75.1	75.7	76.3
Capital and financial account 4/	2.4	0.4	4.3	7.2	2.8	4.7	3.0
Gross international reserves (in billions of U.S. dollars) 5/	34.3	28.3	36.7	49.2	55.3	74.9	89.3
In months of prospective GNFS imports	2.4	1.9	2.0	2.4	2.5	3.1	3.3
Total external debt (end of period)	30.6	33.9	35.8	38.9	36.6	38.1	38.5
Nominal exchange rate (dong/U.S. dollar, end of period)	21,388	22,485	22,761	22,698	23,175	…	…
Memorandum items:							
GDP (in trillions of dong at current market prices)	4,937	5,191	5,639	6,294	6,959	7,591	8,309
GDP (in billions of U.S. dollars)	232.9	236.8	252.1	277.1	302.3	326.8	356.9
Per capita GDP (in U.S. dollars)	2,567	2,582	2,720	2,959	3,197	3,422	3,702

Sources: Vietnamese authorities; and IMF staff estimates and projections.

1/ The national accounts has been re-based to 2010 from 1994 by the authorities.
GDP numbers are revised upwards over 2010-17 largely owing to better measurement.

2/ Follows the format of the *Government Finance Statistics Manual 2001*. Large EBFs are outside the state budget but inside the general government (revenue amounting to 6-7 percent of GDP).

3/ Excludes net lending of Vietnam Development Bank and revenue and expenditure of Vietnam Social Security.

4/ Incorporates a projection for negative errors and omissions going forward (i.e. unrecorded imports and short-term capital outlfows).

5/ Excludes government deposits.

ANNEX 3: LETTER OF DEVELOPMENT POLICY

SOCIALIST REPUBLIC OF VIET NAM
MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT

Ha Noi, 19th March 2020
*Ref. No: **383**/ICD-2020*

Mr. David R. Malpass

President
The World Bank
Washington, D.C.

Contribution of the World Bank to Viet Nam's Support Programme to Respond to Climate Change

Dear Mr. David R. Malpass,

I would like to take this opportunity to express our sincere thanks to the World Bank for the continuous and effective support to Viet Nam in addressing climate change and green growth challenges.

Viet Nam recognizes that climate change is an existential challenge to our economy and people's livelihoods. Droughts, salinization, extreme weather and changes in growing seasons, and floods strongly impact the livelihoods of poor rural and urban households. Depletion and degradation of natural resources have worsened the impact of climate change on those who depend on natural ecosystems for direct livelihoods.

Over the last decade, Viet Nam has been active in responding to climate change as part of international efforts to keep the global average atmosphere temperature rise below 2°C. The Government of Viet Nam has made significant efforts to address these threats and impacts while also contributing to curbing our greenhouse gas (GHG) emissions trajectory. Recognizing the need to shift towards a lower carbon and greener economy, we have developed a wide range of national policies and GHG mitigation measures for implementation.

The Socio-Economic Development Plan 2016-2020 (SEDP) adopted in 2016 lays the basis for increased public investment in climate and green growth action. Investment programs related to climate change and green growth were budgeted for implementation for the 2016-2020 period, following the Medium-Term Public Investment Plan. A Target Programme on climate change and green growth was included in the Government's public investment budget for 2016-2020 as well as other climate change and green growth relevant Target Programmes on sustainable forestry development, agriculture restructuring including disaster prevention and livelihood restructuring, and sustainable aquaculture development.

It is, however, important to note that while the implementation of climate change and green growth-related policies and activities relies on domestic human and financial resources, supports from the international community are pivotal for enhancing Viet Nam's contribution to the target of mainstreaming the global average atmosphere temperature rise below 2°C.

The Viet Nam's Nationally Determined Contributions (NDC) and the Plan for Implementation of the Paris Agreement (2016) provide a set of GHG emission reduction targets, mitigation and adaptation priority actions, and a delivery roadmap for achieving these aspirations. Viet Nam has made commitments under the NDC to cut GHG emissions by 8% below business as usual between 2020 and 2030, and up to 25% conditional on international support. The NDC sets achievable targets for reductions in energy and carbon intensity that will require early actions and significant policy commitments, design and implementation across key sectors. The commitments also include climate change adaptation targets, such as integrating climate planning in 90% of

Address: 10 Ton That Thuyet street, South Tu Liem district, Ha Noi, Viet Nam
Tel: +84 24 37956868, Fax: +84 24 38359221, Email: icd-monre@monre.gov.vn, Website: http://www.monre.gov.vn

SEDPs, reducing poverty, increasing forest coverage, and provision of water and health services. The Plan for Implementation of the Paris Agreement provides a framework for delivering on the NDC targets and includes five groups of tasks to guide implementation, including (1) mitigation; (2) adaptation; (3) resource mobilization, (4) establishment of Measurement, Reporting, and Verification (MRV) systems; and (5) policy and institutional development and enhancement. Altogether, 68 comprehensive tasks are included in the Plan.

To support the implementation of the National Climate Change Strategy and Green Growth Strategy, and achieve the goals of mitigation and adaptation to climate change as stated in the NDC, the Government has established a Support Programme to Respond to Climate Change (SP-RCC) in 2016 for the period of 2016-2020, which is a platform for cross-sectoral policy dialogue and coordinated financing with key development partners. The SP-RCC has emerged as a key mechanism for cross-sectoral policy dialogue and development, and the collaboration among development partners, including the mobilization of budget to support the climate change and green growth agenda. Since 2016, four annual Policy Matrices (2016, 2017, 2018, and 2019) have been approved by the Prime Minister for the development and implementation of policy actions by respective line ministries.

Policy development under the SP-RCC has led to a series of results that have been important for setting the stage for Viet Nam to move towards a low-carbon, climate resilient economy. The results (as of the end of 2018) include:

- *Food and Water Security in the Context of Climate Change:* 20 provinces have established water protection corridors. The provincial decisions establishing the protection corridors clarifies the protection purposes of each corridor and also includes actions and assignment of responsibility to different provincial departments for implementation. As of the end of 2018, 320,000 ha of farms are utilizing more advanced and efficient irrigation practices. This has been especially high in regions that are particularly vulnerable to climate change, such as the Central Highlands and the Mekong Delta of Viet Nam. Policy development continues to progress with 23 provinces issuing their own local policies to encourage advanced water-saving irrigation and the Master Plan on Irrigation to 2030;

- *Proactive Response to Sea Level Rise and Disaster Risk in Vulnerable Areas:* 24 out of 28 coastal provinces have issued and implemented strategies, plans or projects related to Integrated Coastal Zone Management (ICZM) strategy. 5 provinces have developed or are in the process of developing their coastal inventories to inform the development of their ICZM programmes. 9 provinces have developed local data management systems on ICZM linking with the national data management system. 19 provinces have established or are in the process of setting up coastal setback lines;

- *Sustainable Forest Management and Development:* Policies to promote the management, protection, restoration and development of coastal forests have resulted in an additional 14,100 ha of coastal forests planted by the end of 2018, which is a 4.5% increase compared to the baseline in 2016;

- *Reducing Emissions in the SEDP Process:* 5 provinces have adopted a plan for improvement of air quality. More stringent emissions and fuel standards for new vehicles put in place in 2015 are projected to have reduced NOx emissions by 7.49% as of the end of 2018. Resulting from new incentive frameworks for solar, wind, biomass, and waste-to-energy, as of the end of 2018, the total new installed capacity of grid-connected non-hydro renewable energy is approximately 2.7 GW, mostly from solar. New minimum performance standards and labelling schemes for room air conditioners has raised energy efficiency for new air conditioners in one of the fastest growing markets in the region. A recent market assessment indicates that market penetration of more energy efficient inverter air-conditioners has increased by approximately 31%; and

- *Increase Investment and Diversify Financial Resources:* The total budget allocated to climate change and green growth investment projects increased from VND 8,210 billion in

2015 to VND 9,807 billion in 2017 (19.5% increase), with 95% contributing to adaptation and resilience objectives.

In this context, we are happy that the World Bank plans to continue the support to our SP-RCC for the 2016-2020 period, and highly appreciate the identified sectors and areas on which the World Bank proposed operation will focus and which are important for the implementation of Viet Nam's NDC.

We suggest moving forward with structuring the World Bank policy actions around two pillars: (i) climate resilient management of landscapes; and (ii) adoption of cleaner transport and energy systems. Again, we would like to reconfirm that those actions are in line with our strategic priorities.

As the results of the policy reform organized under the SP-RCC, which the Viet Nam's National Committee on Climate Change sees as a key component of our action, I would like to inform you of the status of the following prior actions as specified in the policy matrix:

- The Government has adopted a regulation on the classification of coastal protection forests, and the Ministry of Agriculture and Rural Development has adopted a regulation on the development of sustainable forest management plans for special use forests;

- The Government has approved regulations for implementation of the new Planning Law and established the National Planning Council tasked with developing the integrated regional master plan for the Mekong Delta of Viet Nam, amongst other plans;

- The Ministry of Planning and Investment has established a regulation on the identification, classification and reporting of its climate change and green growth-related public investment allocations;

- The Government has adopted regulations on (1) groundwater protection to prevent saline intrusion and land subsidence and (2) management of sand mining and river works planning with main objective for protection of water sources;

- The Government has adopted regulations on (1) irrigation efficiency through promotion of on-farm irrigation and advanced and efficient irrigation systems and (2) water service fees for irrigation;

- The Prime Minister has adopted emissions standards for in-use and used cars;

- The Prime Minister has adopted a National Energy Efficiency Programme through 2030; and

- The Prime Minister has adopted a new mechanism to promote wind power development in Viet Nam.

We look forward to the technical and financial support from the World Bank for the Government's Programme, and very much appreciate the World Bank's contributions to the SP-RCC via the Bank's Development Policy Financing Operation and related technical assistances.

Sincerely yours,

Tran Hong Ha

Minister of Natural Resources and Environment
Socialist Republic of Viet Nam

Address: 10 Ton That Thuyet street, South Tu Liem district, Ha Noi, Viet Nam
Tel: +84 24 37956868, Fax: +84 24 38359221, Email: icd-monre@monre.gov.vn, Website: http://www.monre.gov.vn

ANNEX 4: ENVIRONMENT AND POVERTY/SOCIAL ANALYSIS TABLE

Summary environmental and social effects of policies

Prior Actions	Positive or negative environment effects and mechanisms to address them	Poverty, social or distributional effects positive or negative and mechanisms to address them
Pillar 1: Climate resilient management of landscapes		
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	Overall, the prior action will eventually result in positive environmental outcomes. The policy is expected to result in the development of coastal forests in areas that have been cleared, and were originally forests. The only risk is associated with the promotion of business development and diversification of livelihood opportunities. Development of sustainable forest management plans may likely involve environmental and health risks due to exposure to chemicals and synthetic chemical pesticides used for control of harmful pests, and pollution and degradation of critical natural habitats because of development of ecotourism which will cause infrastructure development and invasion of tourists in critical natural habitats. The Law on Environmental Protection requires environmental protection actions to be taken to mitigate these effects associated with chemicals, pesticides, and veterinary medicines, including environmental and health risks due to exposure to chemicals and synthetic chemical pesticides. It also requires the sustainable development and protection of forests to mitigate pollution and degradation of critical natural habitats from ecotourism and deforestation.	*For Government Decree 156/2018/ND-CP* Overall positive effects are expected as Decree translates a number of articles from the Law on Forestry into practice, aiming at promoting better management, use and protection of forest while enabling forest users to earn forest-based income. Potential adverse effects are anticipated for groups and individuals who live in forest and/or depend on forest resources as a mean of livelihoods. Impact may include physical resettlement out of strictly protected subzone, and restricted access to use of forest resources. *For MARD Circular 28/2018* Overall positive effects are anticipated as Circular is applied to forest owners whose project activities are related to sustainable forest management. The Circular provides detailed technical and procedural requirements on how a sustainable forest plan is prepared. National and international laws and good practices are integrated into this Circular. Potential adverse effects are anticipated for local people, especially poor and vulnerable groups, include ethnic minority peoples who may live in the forest/buffer zones. Measures to avoid potential adverse effects and enhance potential positive effects includes: • Conduct meaningful consultation with and participation of poor/EM peoples potentially affected during identification of core and buffer zones. Follow good practices such as: • Disclose project's potential impact to affected peoples – during project preparation

		• Consult with poor/EM peoples in their own language; • Provide compensation and support package to affected peoples; • Grievance mechanism in place using traditional local system; • Create various development activities that benefit affected poor/vulnerable; • Engage independent monitoring consultant to monitor project activities; and • Consider alternative livelihoods options as a long-term solution that could be phased into annual support program.
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/QD-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 Decision will help orient environmental protection, including (i) environmental zoning in the entire country, (ii) determining of the goal of natural conservation and biodiversity, orientating of areas for establishing nature reserves, critical wetlands and ecological landscapes, high biodiversity areas, biodiversity corridor, and biodiversity conservation facilities, (iii) orienting of national waste management, and (iv) spatial distribution and organization for development of national monitoring stations and environmental precaution. It also helps orient natural disaster prevention and response to climate change, including determining of areas prone to natural disaster, climate change, and sea level rise, and zoning of natural disaster risk, especially natural disaster related to typhoon, water level rise due to storm, flood, flashflood, landslide, riverbank erosion, coastal zone erosion, drought, and saltwater intrusion.	Overall positive effects are expected as the Decree aims to support the government's planning and implementation of the master plans at national, regional, provincial levels. No potential adverse effect anticipated for target groups, including the poor and vulnerable.
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	These Guidelines on the identification and classification of climate change (CC) and green growth (GG) public investments, serve as a mechanism to support the management and implementation of Vietnam's CC and GG policy objectives, as stated NCCS, VGGS, and Vietnam's NDC. This policy action would lead to improved allocation of public resources for climate change and green growth actions. It would indirectly lead to the reduction of vulnerability of climate risks and pollution. This policy action	Overall positive effect anticipated, as the Decision aims to assist the classification of investment projects with a view to develop the national budget under the annual or 5-year list of public investment projects No potential adverse effect anticipated for target groups, including the poor and vulnerable.

	is expected to have climate adaptation and mitigation benefits.	
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 proposed prior action will lead to (i) the effective management of natural mineral resources and water sources, (ii) prevention of unplanned and illegal extraction of sand and gravel from river bed, (iii) the stabilization of river bed, bank and ground to avoid river erosion; and mitigate flood. This proposed prior action will also lead to conservation of aquatic natural habitats, especially spawning ground of aquatic species. The policy on groundwater will lead to improved protection of the resources through stricter management in licensing and clearer role and responsibilities of central and local authorities.	Overall positive effect anticipated, particularly on environment protection and human health as Decree requires restriction of groundwater use in certain (risky) underground areas to protect aquifer, geology, environment, and to prevent groundwater contamination. Potential adverse impact is anticipated for business affected by water access restriction (at varying degree) and for local people who are temporarily affected as they depend on the water services provided by the affected businesses. Measure to avoid/minimize adverse impact: Ensure both affected businesses and water user who are client of affected businesses are consulted appropriately and measures based on consultation with them are in place to avoid/minimize potential adverse impact. A guidance note and sharing experiences amongst provinces to do consultation with potentially affected people. Consultation needs to assess key aspects: • Scope of impact • Potential impact on businesses and on livelihood and income generation of the affected water users, particularly poor and vulnerable households; • Identification of alternative clean water source that affected households may switch to in order to maintain their livelihood and income generation; • Concrete plan, including process, for activities to be done which result in water restriction, and corresponding plan to ensure the water disruption is avoided/minimized, and compensation/assistance provided to affected households
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	More efficient irrigation will lead to less use of water and reduce the need for fertilizer use. This should result in less eutrophication and a potential to reduce the loss of aquatic biodiversity. However, the application of water harvesting may likely lead to the expansion of upland cropping and hence to increased use of	Overall positive effect expected, as the Decree encourages organizations and individuals to take active roles in managing their own water need for irrigation purpose by requesting government financial assistance for them to build small scale reservoirs, improved irrigation and water saving systems, installation of electric water pump, construction of sludge

(ii) guidelines for water service fees for irrigation, as evidenced by Decree No. 96/2018/ND-CP dated June 30, 2018	agrochemicals, and effects on natural habitat. The mitigation measures include the provision of government's extension services to guide farmers for proper dose s of agrochemical and good practices, and prohibition of illegal deforestation regulated in the Forestry Law.	gates, and reinforcement of existing irrigation channels. No potential adverse effect for target groups, including the poor and vulnerable.
Pillar 2: Adoption of cleaner transport and energy systems		
Prior Action #6: The Recipient, through its Prime Minister, has adopted new emission standards for in-use and imported used road motor vehicles, as evidenced by Decision No. 16/2019/QD-TTg dated March 28, 2019	The Decision will help reduce exhaust emission, especially GHG emission from automobiles.	Overall positive effect expected since the application of emission standards helps reduce the level of air pollution which has a positive impact on human health. Although there is a potential cost to individuals whose vehicles do not pass the emission exhaust test, overall no potential adverse effects are anticipated for the poor and vulnerable
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/QD-TTg dated March 13, 2019	The Decision will enhance efficient use and saving of energy. However, it could likely generate wastes as a result of replacement and disposal of old-fashioned equipment and machinery improper for the purpose of efficient use and saving of energy. To mitigate these potential effects, the Law on Environmental Protection regulates the management of waste, which requires the reduction, reuse and recycle, classification, collection, storage, transportation, and treatment. It also regulates the generation of wastes as a result of replacement and disposal of old-fashioned equipment and machinery.	Overall positive effect expected as the Decision promotes efficient use of energy in businesses and promote behavior change towards the efficient use of energy No potential adverse effect for the target groups.
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 proposed prior action will bring the development of renewable energy source and contribute to reduction of reliance upon fossil energy and GHG emission as a result. Potential environmental effects may arise due to site planning and construction of wind energy infrastructure which may cause conversion and degradation of natural habitats and environmental pollution. EIA or EPP are required for wind power projects, which include measures to mitigate the potential adverse effects.	Overall positive effect expected as the prior action aims to increase wind power development among private sector, which helps meet the increasing demand for electricity in Vietnam. It also helps increase the awareness of the general public and their support for wind power as an alternative source of energy. This could also encourage energy saving practice among individual as a result of increased awareness on energy shortage. No potential adverse effect anticipated for the target groups, including the poor and vulnerable.

ANNEX 5: SUMMARY OF VIETNAM'S NDC

Mitigation Commitments: By 2030 Vietnam will reduce GHG emissions by 8 percent compared to BAU[65] (with domestic sources) and up to 25 percent (with international support), in which:

- Emission intensity per unit of GDP will be reduced by 20 percent compared to 2010 levels (and 30 percent with international support);
- Forest cover will increase to the level of 45 percent (also contributes to adaptation).

Adaptation Commitment: Implementation of plans developed in accordance with the current situation and projections until 2030 dependent on national resources and particularly on international support. Key indicator: at least 90 percent of Socio-Economic Development Plans (across ministries and localities) have integrated disaster risk management and climate change adaptation.

Priority Mitigation Measures	Priority Adaptation Measures
- **Strengthen the leading role of the State** (e.g. integrate CC in strategies and dev. plans; improve institutions; CC policies & mechanisms, GHG inventory & MRV systems) - **Improve EE, reduce energy consumption** (e.g. innovate technologies, apply energy savings in residential sector; develop public passenger transport; restructure freight to a shift towards rail and inland waterways; standards on fuel consumption) - **Change the fuel structure in industry and transportation** (e.g. reduced share of fossil fuel; RE and low GHG emission energy, CNG & LPG buses & taxis, apply market instruments to promote structural change and improve EE; phase out fossil fuel subsidies, labeling of energy saving equip.) - **New & renewable energy** (e.g. on- and off grid technologies; develop RE technology market, local industries and service providers) - **Sustainable agriculture** (e.g. R&D; apply production processes and techs to reduce emissions; replicate tech that treat and reuse byproducts and waste from ag production) - **Forests, carbon sequestration & biodiversity** (e.g. special priority regions; integrate resources such as REDD+, PFES, and private sector) - **Waste Management** (e.g. WM planning and capacity; promote 3R; advanced waste treatment; landfill gas and waste-to-energy) - **Communication & Awareness** (e.g. promote pub awareness; TA to people/communities) - **International Cooperation** (e.g. research, enlist support for finance and capacity)	- **Respond pro-actively to disasters and improve climate monitoring** (e.g. modernize hydro-met forecasting, sea level monitoring, produce SEDPs based on CC scenarios; implement disaster prevention plans/measures; develop infra. And residential plans, resettle households frequently affected by natural hazards, community-based adaptation, capacity building) - **Ensure Social Security** (e.g. review, adjust, and develop livelihood and production processes that are appropriate under CC; strengthen the insurance system; infrastructure standards, IWRM, transboundary water issues, ensure food security through sustainable ag; ecosystem- and community-based adaptation, sustainable forest management, protect, restore, plant and improve coastal forests & mangroves, especially in coastal estuaries and Mekong and Red river deltas) - **Responding to sea level rise and urban inundation** (e.g. ICZM, use sea level rise scenarios in urban & land use planning, anti-inundation measures for large cities, resilient urban infrastructure, urban drainage, sea & river dykes, control saline water intrusion)

[65] Greenhouse gases covered include carbon dioxide (CO2), methane (CH4), nitrous oxide (CH4), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6). The emissions cover the energy sector (including fuel combustion from industries and transport); agriculture; land use, land use change, and forestry (LULUCF); and waste. The BAU scenario was developed based on the assumption of economic growth in the absence of climate change policies.

ANNEX 6: DPF PRIOR ACTIONS AND ANALYTICAL UNDERPINNINGS

Prior Actions	Analytical Underpinnings	Inputs to policies
Operation Pillar 1: Climate resilient management of landscapes		
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	• World Bank and MPI (2016): Vietnam 2035: Toward Prosperity, Creativity Equity, and Democracy • MARD (*2015):* Report on policies in the management, protection, restoration, and development of coastal forest to respond to climate change • Vietnam (2016). Nationally Determined Contribution • MARD (2014). Forest Sector Development Report • Joint Development Partners' Vietnam Development Report (2011) on Natural Resources Management • World Bank (2014). Draft Report on The Role of Natural Capital Accounting and Ecosystem Valuation in Forest Policy	The Guidelines provide methodology and criteria to classify coastal protection forests and the determination of the coastal forest belts. The classification is based on the widths of the forest belt defined for coastal wind-and-sand protection forests in eroded and non-eroded areas, and for tidal wave-shielding forest for different typographies. The TA provided support for expert input, field work and a series of stakeholders consultation on the draft and finalization of the Guidelines.
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/QD-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	• Ongoing World Bank TA: Mekong Delta: Advancing Climate Resilient Development: Inclusive, Innovative, Integrated • Ongoing World Bank IPF: Mekong Delta Integrated Climate Resilience and Sustainable Livelihoods	The TA is pulling together existing analytical evidence relevant for an integrated regional master plan (e.g., study on agricultural transformation, study on water governance, study on transport, study on urban resilience, etc.) and assisting with consultation at provincial and central level to enhance the climate responsiveness of the Integrated Regional Master Plan.
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	• MPI, World Bank, UNDP (2015). Financing Vietnam's Response to Climate Change: Smart Investment for a Sustainable Future. • Ongoing World Bank TA (under Policy Development Support for Climate Change and Green Growth ASA –	Recommendations on the methodology for classifying climate change and green growth expenditures were provided under the TA, drawing from experience in using the MDB's classification methodology.

and green growth	P159301) advising on the development of guidelines the CC-GG identification, classification, and reporting and supporting an institutionalization plan for policy scale-up	
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 regulations on sand mining management and river works planning to protect water sources, as evidenced by Decree No. 23/2020/ND-CP dated February 24, 2020.	• MPI, World Bank, UNDP (2015). Financing Vietnam's Response to Climate Change: Smart Investment for a Sustainable Future. • ADB (2013). Vietnam Country Water Assessment	The analytical works provides recommendations for technical requirements for protection of river beds, banks and flood plains in the context of sand and gravel mining in rivers.

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	• World Bank (2013). Irrigated Agriculture Management
	• MPI, World Bank, UNDP (2015). Financing Vietnam's Response to Climate Change: Smart Investment for a Sustainable Future
	  • ADB (2013). Vietnam Country Water Assessment.
	  • WB 2013 Irrigation Sector Review
	  • WB 2016 Irrigation Sector Strategy
	  • 2017 Law on Hydraulic Work supported by the World Bank
	  • 2017 Climate-resilient Irrigation study TA under SP-RCC platform
	• Ongoing World Bank IPF. Irrigated Agriculture Improvement Project
	• Ongoing World Bank ASA. Water Resilience and Efficiency Improvement
		The lending and analytical support demonstrates the needs for improvement in the use of irrigated water for agriculture production. The lessons learnt from practical investment support together with recommendations from analytical work on key aspects for scaling up irrigation efficiency, including cost for materials, machinery, field levelling, canal lining, are important to inform the Government's development of policies to promote irrigation efficiency.

Operation Pillar 2: Adoption of cleaner transport and energy systems		
Prior Action #6: The Recipient, through its Prime Minister, has adopted new emission standards for in-use and imported used road motor vehicles, as evidenced by Decision No.	• World Bank (2016). Exploring a Low Carbon Development Path in Vietnam • World Bank and GIZ (2019). Addressing Climate Change in Transport. Volume 1: Pathway to Low Carbon Transport • Vietnam (2016). Nationally Determined Contribution	World Bank and GIZ (2019) provided a low carbon transport strategy based on an analytical study. The study collected detailed sector data, built a GHG emission inventory, identified mixes of policy/investment options towards meeting the country's NDC targets, 8%

16/2019/QD-TTg dated March 28, 2019	• World Bank (2015). Clean Air and Healthy Lungs: How to Better Tackle Air Pollution	without international support and 15% with international support. The data and modeling tool from the study are also used to establish the baseline and assess the target of associated indicators of the Prior Action.
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/QD-TTg dated March 13, 2019	• World Bank (2016). *Exploring a Low Carbon Development Path in Vietnam* • Vietnam (2016). *(Intended) Nationally Determined Contribution* • Findings from Preparation and Implementation of Vietnam Industrial Energy Efficiency Financing (IPF) • World Bank (2019, forthcoming). "Getting onto low carbon energy path to achieve NDC target" • MOIT and DANIDA (2016) Evaluation of Vietnam Energy Efficiency Program – Phase II	The 2016 World Bank Study "*Exploring a Low Carbon Development Path in Vietnam"* provided information on the marginal abatement costs for key mitigation actions in both renewable energy and energy efficiency. This has informed policy dialogue with MOIT and other key policymakers on priority mitigation actions in support of NDC implementation. Findings from *the preparation and implementation of Vietnam Industrial Energy Efficiency Financing (IPF) project* have provided information on the key policy, financing, and capacity constraints to promote energy efficiency in high-energy consuming industrial sectors in Vietnam. *World Bank (2019. "Getting onto low carbon energy path to achieve NDC target"* provides (i) a robust analysis on cost-effective low-carbon mitigation options and pathways both on the demand and supply sides to achieve the energy sector's contribution for the NDC target; (ii) an estimate of total costs and financing needs for achieving NDC targets; and (iii) evaluates updated NDC targets for the energy targets to determine the least-cost roadmap for achieving the NDC target. The *MOIT and DANIDA (2016) Evaluation of Vietnam Energy Efficiency Program – Phase II* provides a retrospective analysis of the previous phase of the VNEEP which has informed dialogue around the development of the new phase of VNEEP.
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.		