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AUSTRALIA-WORLD BANK GROUP STRATEGIC PARTNERSHIP IN VIETNAM
Mekong Delta Theme

Mobilizing Financing for Climate Smart Investments in the Mekong Delta: An Options Note



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Preface and Acknowledgments

The Mekong Delta in Vietnam covers approximately 12 percent of the national area, and is home to approximately a fifth of Vietnam's population. The region contributes 50 percent of the rice crop, 65 percent of aquaculture, 70 percent of fruit, 95 percent of exported rice and 60 percent of exported fish. There are considerable opportunities for further development of the Mekong Delta region. Unlocking these opportunities will require addressing several existing challenges. The challenges stem from, among other things, inadequate infrastructure and market access, fluctuations in water availability, weak interprovincial coordination, climate change, pollution, and energy constraints. The Mekong Delta of Vietnam is also extremely vulnerable to climate change.

The Mekong Delta pillar of the Australia-World Bank Group Strategic Partnership in Vietnam (ABP2) aims to inform the operationalization of Prime Minister Resolution 120 on the Sustainable Development of the Mekong Delta in Response to Climate Change by bringing knowledge and informing policies and investments. The Option Note is part of a series of products and activities being carried out under ABP2. The Options Note focuses on one of the key areas for operationalizing Resolution 120 – mobilizing financing for climate smart investments in the Mekong Delta. The note is prepared by a team composed of: Diji Chandrasekharan Behr (Senior Natural Resources Economist), Alwaleed Alatabani (Lead Financial Sector Specialist), Ashraf El-Arini (Environmental Specialist), Farah Imrana Hussain (Senior Financial Officer), Shanthi Divakaran (Senior Financial Sector Specialist), Phuong Hoang Ai Nguyen (Environmental Specialist), Nguyet Hoang (Senior Finance Consultant), Pham Duc Cuong (Senior Finance Consultant, Former DG Department of Public Asset Management, MOF), Ketut Kusama (Senior Financial Sector Specialist), Tao Wang (Senior Environmental Specialist), Mohamed Rozani Bin Mohamed Osman (Senior Financial Sector Specialist), and Rachel Chi Kiu Mok (Analyst). The team benefitted from guidance from Ousmane Dione (Country Director), Stefanie Stallmeister (Portfolio and Operations Manager), Christophe Crepin (Practice Manager, SEAE2), Stephen Ling (Lead Environmental Specialist and Acting Practice Manager, SEAE2), Kellie Raab (First Secretary, Economic and Development Cooperation, Australian Embassy), and Hoai Nam Nguyen (Senior Program Manager, Australian Embassy).

Table of Contents

EXECUTIVE SUMMARY	i
TÓM TẮT TỔNG QUAN	vi
I. INTRODUCTION	1
Scope of the Paper	3
II. FINANCING CLIMATE RESILIENCE IN THE MEKONG DELTA: HOW MUCH IS NEEDED? HOW MUCH IS AVAILABLE?	4
Financing Needs for Climate Smart Investments in MKD – What We Know from 2010-2020	4
Financing Needs for Climate Smart Investments in MKD – Looking Ahead	7
Financing Available for Climate Smart Investments in MKD	9
III. OPTIONS FOR FINANCING CLIMATE SMART INVESTMENTS: LESSONS FROM INTERNATIONAL EXPERIENCES FOR VIETNAM	13
Results-based Climate Finance	15
Ecological Fiscal Transfers	15
Carbon Pricing Instruments	18
Instruments for Reducing Risks	20
Green Banking and Green Loans	22
Green Bonds	25
Public Fund Facilities and Strategic Investment Funds	28
IV. CONCLUSION	39
ANNEX	44
Annex A: Key Elements of Directive 23	44
Annex B: Estimating Financing Need and Financing Available	45
Annex C: Review of Extrabudgetary Funds in Vietnam That Have Use in MKD	47
Annex D: Additional Information on Instruments for Incentivizing or Mobilizing Additional Financing for Climate Smart Activities	56
Annex E: Elements of MONRE’s Proposal for Modifying the VEPF to Include Objectives of the MDF	62

Executive Summary

The Mekong Delta (MKD) of Vietnam is identified as one of the deltas in the world that is most vulnerable to climate change. According to the 2016 climate change projections issued by the Ministry of Natural Resources and Environment (MONRE), the MKD faces high inundation risk (approximately 40 percent of the MKD is exposed to significant risk under current conditions). By 2050, as much as 60-75 percent of some provinces in the region may be inundated. Erratic rainfall and salinity intrusion into groundwater sources will also make domestic freshwater supply less reliable. In addition, infrastructure will be exposed to increased tropical storm intensity, long-term sea level rise, and rapid fluvial and coastal flooding.

Promoting and sustaining growth in the MKD will require rethinking future development pathways for the region. Currently, development of the region is poorly coordinated with fragmented and discordant sectoral policies (agriculture, climate change, land use, water, transport, urbanization, etc.) and investment decisions that result in inefficiencies and hidden costs including from negative environmental externalities. Going forward, policies and investments must better recognize and optimize the use of natural conditions that define the Delta to mitigate any unintended negative impact and seize opportunities created by exogenous factors such as climate change.

The Government of Vietnam (GoV) recognizes the importance of working with the new normal created by the emerging natural and climatic conditions in the MKD. Prime Minister Resolution 120 on the Sustainable Development of the MKD considering Climate Change, issued on November 17, 2017 (hereafter referred to as Resolution 120), charts out the government's orientation and priorities for creating a climate smart and economically prosperous MKD. Resolution 120 calls for rethinking the development path for MKD, advocating for economic transformation while "living with nature". Achieving the objectives in Resolution 120 will require addressing several fundamental challenges that exist in the MKD, one of which is the insufficient financing for innovative and climate resilient investments.

In the MKD, efforts to promote climate smart economic transformation will need to incentivize use of available public financing for more climate smart investments and mobilize additional financing. The financing would be important for key sectors such as agriculture, energy, environment, erosion protection, transport, urban upgrading, and water. This could include financing for:

- a. Infrastructure for restructuring agriculture in subregions of the delta (e.g., upper Delta). This includes irrigation infrastructure, energy infrastructure, secondary and tertiary level transport infrastructure (waterways and roads), infrastructure for value-addition and processing;

- b. Flood protection infrastructure (both nature-based and grey infrastructure);
- c. Freshwater retention infrastructure;
- d. Monitoring stations – both for hydrometeorological monitoring and monitoring of groundwater and surface water, sediment load monitoring, etc.;
- e. Nature-based and grey infrastructure for river and coastal area erosion protection (e.g., mangrove forests in coastal areas, dykes and embankments, mixed systems for erosion control);
- f. Port upgrades and storm shelters in coastal provinces where fisheries are a significant economic activity;
- g. Renewable energy; and
- h. Transport connectivity (both expressways and inland waterways).

It is estimated that approximately USD 4.7 billion to USD 6.7 billion in US dollars (USD) could be needed for climate smart investments in the MKD in the next five years (2021-2025). This estimated financing need, although in line with financing needs of the previous planning period, is a conservative estimate. The insufficient financing for both the socioeconomic development of the MKD and climate smart development of the MKD, underscores the importance of: (i) creating synergies between the two agendas where possible (e.g., making investments related to agriculture, environment, land, natural resources, tourism, transport, urbanization, and water more climate smart) and (ii) mobilizing additional financing.

The government could consider deploying various instruments that have been applied widely in other countries and, in some cases, as pilots in Vietnam to address the financing objective of Resolution 120. The innovative instruments that could be considered to create incentives to use existing financing for climate smart investments include: results-based climate financing that can reward specific climate smart outcomes and is a performance-based payment; ecological fiscal transfers that are performance-oriented fiscal transfers among government levels that integrate ecological or climate-based indicators into fiscal transfer schemes; and carbon pricing instruments such as carbon taxes which can help internalize the societal cost of greenhouse gas emissions and level the playing field between polluters and non-polluters. There are also innovative instruments that can help mobilize additional resources. These include: risk sharing instruments such as guarantees where public money is blended with private capital through a risk sharing mechanism; green banking and green loans which make financing available for projects that are considered to contribute to low-carbon and climate resilient development; and green bonds which are a form of bond instrument where proceeds will be exclusively applied to finance or refinance eligible projects that contribute to mitigating or adapting to climate change. There are also aggregation vehicles that can be used to raise financing depending on the financing required and investment objectives to be met. This includes a public financing facility that is focused on sustainable development or climate, and strategic green investment funds. The feasibility of operationalizing these different instruments vary in the short, medium and long term and each require different actions to be taken by the Government of Vietnam (GoV). The table below summarizes the feasibility of operationalizing the various instruments and some key actions that GoV would need to carry out.

Instrument	Feasibility of operationalizing the proposed instrument for climate smart investments in Mekong Delta in the short to long term /1			Key actions by Gov't if the instrument is to be operationalized
	Short Term (0-2 years)	Medium Term (3-5 years)	Long Term (5-10 years)	
Results- based Climate Financing (RBCF)	Low	Medium	High	<ul style="list-style-type: none"> Expand the use of RBCFs beyond forest sector Determine feasibility of monitoring the climate smart action, and processing of the payment Develop measurement, reporting and verification system (including data and information needed), and conduct baseline analysis for emissions
Ecological Fiscal Transfers	Low	High (for pilot)	High	<ul style="list-style-type: none"> Conduct a feasibility study to amend the fiscal code Introduce measurable indices for the ecological service Determine baseline and measure progress
Carbon Pricing	Low	Low	Medium	<ul style="list-style-type: none"> Complete analysis to select between carbon tax or emissions trading system (ETS) – includes conducting the analysis on impact (distributional and financial) of carbon pricing and selecting suitable carbon price Reform tax code to allow earmarking carbon tax revenue for specific purposes
Instruments for Reducing Risks (e.g., guarantees, insurance, risk sharing facility)	Low	Low	Medium	<ul style="list-style-type: none"> Assessment of key risk constraints to private financing (both domestic and foreign direct investment [FDI]) in the sectors of interest For a sovereign guarantee, work with Ministry of Finance (MOF) to establish a credit guarantee fund. For non-sovereign guarantee/ partial guarantee, a non-sovereign fund would be needed. For both, need to do analysis to design the fund to ensure its sustainability – for example limit exposure to concentrated risks For insurance – need to ensure good understanding of risk in the sectors of concern. Have improved targeting, design of right insurance product for the target group identified

Instrument	Feasibility of operationalizing the proposed instrument for climate smart investments in Mekong Delta in the short to long term /1			Key actions by Gov't if the instrument is to be operationalized
	Short Term (0-2 years)	Medium Term (3-5 years)	Long Term (5-10 years)	
Green Banking and Green Loans	Medium (established on a voluntary basis)	Medium (based on issuance of State Bank of Vietnam [SBV] regulations)	High (based on issuance of SBV regulations)	<p>While specific actions are listed below, it is also important to address the current challenges in the overall banking sector</p> <ul style="list-style-type: none"> • Assess demand for green financing and ensure there is not unnecessary competition between green financing and regular financing • Determine capacity building required within existing commercial banks to meet SBV issue-specific regulations for commercial banks on green financing • Leverage the sustainability-linked loan or bond structure to scale up financing for MKD
Green Bond for MKD	Medium (if Gov't issuance)	Medium (if Gov't issuance)	Medium (for international issuance)	<ul style="list-style-type: none"> • Green bond framework • Green project portfolio (if the sovereign issued green bond is for MKD, it would need to identify financially viable green investments in MKD) • Independent external verification of green projects • Annual investor reporting (on allocation of proceeds and expected environmental impact)
Public Financing Facility for MKD	Low	Medium	High	<ul style="list-style-type: none"> • Conduct detailed analysis on how public expenditure from a public financing facility would address market failures • If proceeding, consider converting the Vietnam Environment Protection Fund (VEPF) to a public sustainable development/ climate funding facility to bring together different sources of public financing targeted for the Mekong Delta • Review the governance regime required for the public finance facility and consider declaring a special mechanism ("Cơ chế đặc thù") to allow proposed Regional Coordination Council to oversee the public financing facility

Instrument	Feasibility of operationalizing the proposed instrument for climate smart investments in Mekong Delta in the short to long term /1			Key actions by Gov't if the instrument is to be operationalized
	Short Term (0-2 years)	Medium Term (3-5 years)	Long Term (5-10 years)	
Strategic Green Investment Fund (SGIF) for MKD	Low	Low	Medium	<ul style="list-style-type: none"> • Suitable and detailed upstream analytics on range of key issues • Mindset change on fund management and investment selection • Establishment of SGIF through appropriate regulation or ad hoc law • Design suitable governance for SGIF (government representation at the ownership level and increasingly private sector representation at the board and management levels) • Transparent project selection process

1/ It is important to note that “feasibility” here does not include any assessment of the potential volume of financing in comparison to the needs.

This report provides a rapid review of a set of innovative and effective instruments/options for mobilizing financing for the MKD. The Government’s commitment to mobilizing dedicated financing for climate smart investments in the MKD and willingness to make the needed mindset shifts should inform its selection of the suitable suite of instruments it could deploy and be followed with a more in-depth analysis of the selection options and how to effectively implement them in MKD. Depending on the instrument (or combination of options) the Government selects, a more elaborate roadmap would need to be developed. Independent of the instruments selected, Vietnam, as has been done in other countries, will need to commit to a paradigm shift in how business is conducted going forward. To achieve climate smart economic transformation in the MKD, the Government will need to address key issues that inform design of financing instruments, choice of instruments, and the structure, institutions and regulations that influence the effectiveness of these instruments. It will also be imperative to improve the Government’s financial management of its investment projects going forward in order to attract private capital in the future.

Tóm tắt tổng quan

Đồng bằng sông Cửu Long (ĐBSCL) của Việt Nam được xác định là một trong những vùng đồng bằng trên thế giới dễ bị tổn thương nhất bởi biến đổi khí hậu. Theo dự báo về biến đổi khí hậu do Bộ Tài nguyên và Môi trường (Bộ TN&MT) công bố vào năm 2016, ĐBSCL phải đối mặt với rủi ro ngập lụt cao (trong điều kiện hiện nay, rủi ro ngập đáng kể sẽ xảy ra đối với khoảng 40% diện tích của ĐBSCL). Đến năm 2050, 60-75% diện tích của một số tỉnh trong vùng có thể bị ngập lụt. Lượng mưa thất thường và xâm nhập mặn đi sâu xuống các tầng nước ngầm cũng sẽ khiến việc cấp nước ngọt cho sinh hoạt trở nên khó khăn hơn. Ngoài ra, cơ sở hạ tầng cũng sẽ bị ảnh hưởng trước cường độ gia tăng của bão lũ, mực nước biển dâng trong dài hạn và ngập lụt diễn tiến nhanh từ ngoài sông và biển.

Duy trì và thúc đẩy tăng trưởng tại ĐBSCL đòi hỏi phải có suy nghĩ lại về con đường phát triển trong tương lai của vùng đất này. Hiện nay, sự phát triển của khu vực này đang được điều phối một cách kém hiệu quả với nhiều chính sách ngành phân tán và thiếu thống nhất (ví dụ như trong nông nghiệp, biến đổi khí hậu, sử dụng đất, nước sạch, giao thông, đô thị hóa, v.v), và các quyết định đầu tư tỏ ra kém hiệu quả và chưa tính hết được các chi phí, bao gồm cả những chi phí ngoại biên do các ảnh hưởng tiêu cực về môi trường. Để bước tiếp, các chính sách và đầu tư cần phải được chuẩn bị tốt hơn trong việc ghi nhận và vận dụng tối ưu các điều kiện tự nhiên vốn làm nên vùng đất này để giảm thiểu mọi tác động tiêu cực ngoài ý muốn và nắm bắt được các cơ hội do hoàn cảnh bên ngoài đem lại, chẳng hạn như biến đổi khí hậu.

Chính phủ Việt Nam đã nhận thấy sự cần thiết phải phát triển trên một hiện trạng mới được hình thành bởi các điều kiện tự nhiên và khí hậu mới nổi tại ĐBSCL. Nghị quyết số 120 của Chính phủ về Phát triển bền vững ĐBSCL trong điều kiện biến đổi khí hậu ban hành ngày 17 tháng 11 năm 2017 (sau đây gọi là Nghị quyết 120) đưa ra định hướng và những ưu tiên của Chính phủ để xây dựng ĐBSCL thích ứng với khí hậu và thịnh vượng về kinh tế. Nghị quyết 120 khuyến nghị đánh giá lại con đường phát triển của ĐBSCL, đề xuất chuyển đổi kinh tế “thuận với thiên nhiên”. Để đạt được các mục tiêu của Nghị quyết 120, cần giải quyết một số thách thức cơ bản hiện nay tại ĐBSCL, một trong số đó là tình trạng thiếu tài chính cho các đầu tư sáng tạo, thông minh và thích ứng với biến đổi khí hậu.

Tại ĐBSCL, các nỗ lực thúc đẩy chuyển đổi kinh tế thích ứng thông minh với khí hậu cần khuyến khích sử dụng nguồn lực tài chính công hiện có cho nhiều đầu tư thông minh với khí hậu hơn và huy động các nguồn tài chính bổ sung. Nguồn lực tài chính rất quan trọng trong những lĩnh vực chính như nông nghiệp, năng lượng, môi trường, bảo vệ chống sạt lở, giao thông, nâng cấp đô thị và nước sạch. Nhu cầu tài chính có thể bao gồm:

- a. Cơ sở hạ tầng phục vụ tái cơ cấu ngành nông nghiệp ở các tiểu vùng của đồng bằng (ví dụ như thượng nguồn châu thổ), bao gồm cơ sở hạ tầng thủy lợi, cơ sở hạ tầng năng lượng, cơ sở hạ

tăng giao thông cấp hai và cấp ba (đường thủy và đường bộ), cơ sở hạ tầng để nâng cao giá trị gia tăng và chế biến;

- b. Cơ sở hạ tầng chống ngập (gồm cả hạ tầng xanh dựa vào thiên nhiên và hạ tầng cứng);
- c. Hạ tầng lưu trữ, giữ nước ngọt;
- d. Trạm quan trắc - cả quan trắc khí tượng thủy văn và quan trắc nước ngầm và nước mặt, quan trắc tải lượng phù sa, v.v;
- e. Cơ sở hạ tầng xanh và cơ sở hạ tầng xám/cứng để bảo vệ chống sạt lở cho các vùng ven sông và ven biển (ví dụ như rừng ngập mặn ven biển, đê kè và bờ bao, các hệ thống hỗn hợp để kiểm soát sạt lở);
- f. Nâng cấp cảng và nơi tránh trú bão ở những tỉnh ven biển nơi mà thủy sản là một ngành kinh tế quan trọng;
- g. Năng lượng tái tạo; và
- h. Kết nối giao thông (cả đường cao tốc và đường thủy nội địa).

Ước tính có thể cần khoảng 4,7 - 6,7 tỷ USD cho các đầu tư thích ứng thông minh với khí hậu tại ĐBSCL trong 5 năm tới (2021-2025). Nhu cầu vốn dự kiến, mặc dù phù hợp với nhu cầu vốn của giai đoạn quy hoạch trước đó, vẫn là một ước lượng thận trọng. Sự thiếu hụt nguồn lực tài chính cho cả phát triển kinh tế-xã hội của ĐBSCL và phát triển thông minh, thích ứng với khí hậu của ĐBSCL nhấn mạnh tầm quan trọng của việc: (i) hài hòa cả hai nghị sự này nếu có thể (ví dụ đầu tư trong các lĩnh vực như nông nghiệp, môi trường, đất đai, tài nguyên thiên nhiên, du lịch, giao thông, đô thị hóa, và nước sạch cần thông minh và thích ứng hơn với khí hậu) và (ii) huy động thêm nguồn lực tài chính.

Chính phủ có thể xem xét triển khai một số công cụ đã được áp dụng rộng rãi ở các quốc gia khác, trong một số trường hợp, như là thí điểm tại Việt Nam, để giải quyết mục tiêu về tài chính trong Nghị quyết 120. Có thể xem xét những công cụ sáng tạo để khuyến khích sử dụng nguồn lực tài chính hiện có cho các dự án đầu tư thích ứng hơn với khí hậu bao gồm: đầu tư cho khí hậu dựa trên kết quả, theo đó có thể trao thưởng cho những kết quả đầu ra cụ thể có tính thích ứng với khí hậu và là các đầu tư mà giải ngân cũng dựa trên kết quả; phân bổ tài khóa dựa trên sinh thái, là những phân bổ tài khóa giữa các cấp từ trung ương xuống địa phương dựa trên kết quả, trong đó các chỉ số về sinh thái hoặc khí hậu được đưa vào trong cơ chế phân bổ; và các công cụ định giá carbon như thuế carbon, có thể giúp nội hóa chi phí xã hội của khí thải nhà kính và tạo sân chơi bình đẳng giữa người gây ô nhiễm và người không gây ô nhiễm. Ngoài ra còn có các công cụ sáng tạo khác có thể giúp huy động thêm vốn, bao gồm các công cụ chia sẻ rủi ro như bảo lãnh, trong đó vốn của nhà nước và tư nhân được kết hợp thông qua một cơ chế chia sẻ rủi ro; ngân hàng xanh và tín dụng xanh, trong đó cung cấp vốn cho các dự án được coi là có đóng góp cho sự phát triển carbon thấp và thích ứng với khí hậu; và trái phiếu xanh, là một loại trái phiếu để tài trợ hoặc tái cấp vốn riêng cho các dự án đủ điều kiện góp phần giảm thiểu hoặc thích ứng với biến đổi khí hậu. Bên cạnh đó, các công cụ tổng hợp có thể được sử dụng để huy động vốn tùy thuộc vào số vốn cần huy động và mục tiêu đầu tư cần đáp ứng, như quỹ đầu tư công tập trung vào phát triển bền vững hoặc khí hậu, và các quỹ đầu tư xanh chiến lược. Mức độ khả thi của việc vận hành các công cụ này trong ngắn hạn, trung hạn và dài hạn không giống nhau và mỗi công cụ yêu cầu Chính phủ có những giải pháp khác nhau. Bảng dưới đây tóm tắt tính khả thi của việc vận hành các công cụ và một số giải pháp chính mà Chính phủ cần thực hiện.

Công cụ	Tính khả thi của việc vận hành công cụ được đề xuất cho đầu tư thích ứng với khí hậu ở ĐBSCL trong ngắn hạn và dài hạn /1			Các hành động chính của Chính phủ nếu công cụ này được đưa vào áp dụng
	Ngắn hạn (0-2 năm)	Trung hạn (3-5 năm)	Dài hạn (5-10 năm)	
Đầu tư cho khí hậu dựa trên kết quả (RBCF)	Thấp	Trung bình	Cao	<ul style="list-style-type: none"> Mở rộng việc áp dụng công cụ RBCF ngoài ngành lâm nghiệp Xác định tính khả thi trong việc giám sát hành động thích ứng với khí hậu và thực hiện chi trả. Phát triển hệ thống đo đạc, báo cáo và thẩm tra (bao gồm dữ liệu và thông tin cần thiết) và tiến hành phân tích đường phát thải cơ bản
Phân bổ vốn dựa vào sinh thái	Thấp	Cao (để thí điểm)	Cao	<ul style="list-style-type: none"> Thực hiện một nghiên cứu khả thi để điều chỉnh mã ngân sách Giới thiệu các chỉ số đo lường đối với dịch vụ sinh thái, Xác định giá trị cơ sở và đo lường tiến độ thực hiện
Định giá carbon	Thấp	Thấp	Trung bình	<ul style="list-style-type: none"> Hoàn thành một phân tích để lựa chọn giữa thuế carbon hoặc hệ thống giao dịch phát thải (ETS) - bao gồm phân tích về tác động (phân phối và tài chính) của giá carbon và chọn giá carbon phù hợp Cải cách mã số ngân sách để cho phép gắn nguồn thu từ thuế carbon với những mục đích cụ thể
Các công cụ giảm thiểu rủi ro (ví dụ như bảo lãnh, bảo hiểm, quỹ chia sẻ rủi ro)	Thấp	Thấp	Trung bình	<ul style="list-style-type: none"> Đánh giá những rủi ro chính đối với nguồn vốn tư nhân (cả đầu tư trực tiếp trong và ngoài nước [FDI]) trong các lĩnh vực quan tâm Nếu Chính phủ bảo lãnh, cần phối hợp với Bộ Tài chính (Bộ TC) để thành lập quỹ bảo lãnh tín dụng. Đối với các khoản vay không được Chính phủ bảo lãnh hoặc chỉ bảo lãnh một phần, sẽ cần một quỹ không bảo lãnh. Đối với cả hai loại quỹ, cần phân tích để thiết kế quỹ sao cho đảm bảo tính bền vững - ví dụ như hạn chế rủi ro tập trung Đối với bảo hiểm - cần đảm bảo hiểu rõ về rủi ro trong các lĩnh vực quan tâm. Hoàn thiện việc xác định các đối tượng mục tiêu, thiết kế sản phẩm bảo hiểm phù hợp cho nhóm mục tiêu được xác định

Công cụ	Tính khả thi của việc vận hành công cụ được đề xuất cho đầu tư thích ứng với khí hậu ở ĐBSCL trong ngắn hạn và dài hạn /1			Các hành động chính của Chính phủ nếu công cụ này được đưa vào áp dụng
	Ngắn hạn (0-2 năm)	Trung hạn (3-5 năm)	Dài hạn (5-10 năm)	
Ngân hàng xanh và tín dụng xanh	Trung bình (được thành lập trên cơ sở tự nguyện)	Trung bình (dựa trên các đợt phát hành theo quy định của Ngân hàng Nhà nước [NHNN])	Cao (dựa trên các đợt phát hành theo quy định của NHNN)	<p>Mặc dù dưới đây có nêu các giải pháp cụ thể, những điều quan trọng là phải giải quyết các thách thức hiện nay trong toàn ngành ngân hàng.</p> <ul style="list-style-type: none"> • Đánh giá nhu cầu về nguồn vốn xanh và đảm bảo không có sự cạnh tranh không cần thiết giữa nguồn vốn xanh và nguồn vốn thông thường • Xác định nhu cầu nâng cao năng lực của các ngân hàng thương mại hiện nay để đáp ứng những quy định cụ thể của NHNN về tài chính xanh • Khuyến khích cấu trúc tín dụng hoặc trái phiếu gắn với tính bền vững để tăng quy mô vốn cho ĐBSCL
Trái phiếu Xanh cho ĐBSCL	Trung bình (nếu Chính phủ phát hành)	Trung bình (nếu Chính phủ phát hành)	Trung bình (nếu phát hành quốc tế)	<ul style="list-style-type: none"> • Khung trái phiếu xanh • Danh mục dự án xanh (nếu trái phiếu xanh được Chính phủ bảo lãnh phát hành cho ĐBSCL, cần xác định các dự án đầu tư xanh khả thi về tài chính tại ĐBSCL) • Xác minh độc lập đối với các dự án xanh • Báo cáo hàng năm cho các nhà đầu tư (về phân bổ số tiền huy động được và tác động môi trường dự kiến)
Quỹ đầu tư công cho ĐBSCL	Thấp	Trung bình	Cao	<ul style="list-style-type: none"> • Thực hiện phân tích chi tiết về cách thức các khoản chi công của một quỹ đầu tư công giải quyết những thất bại của thị trường như thế nào. • Nếu thực hiện cơ cấu này, cần xem xét chuyển đổi Quỹ Bảo vệ Môi trường Việt Nam (VEPF) thành quỹ đầu tư khí hậu/phát triển bền vững nhà nước để tập hợp các nguồn tài chính công dành cho ĐBSCL. • Đánh giá cơ chế quản trị cần áp dụng đối với một quỹ đầu tư công và ban hành cơ chế đặc thù để cho phép Hội đồng điều phối vùng giám sát quỹ đầu tư công

Công cụ	Tính khả thi của việc vận hành công cụ được đề xuất cho đầu tư thích ứng với khí hậu ở ĐBSCL trong ngắn hạn và dài hạn /1			Các hành động chính của Chính phủ nếu công cụ này được đưa vào áp dụng
	Ngắn hạn (0-2 năm)	Trung hạn (3-5 năm)	Dài hạn (5-10 năm)	
Quỹ đầu tư xanh chiến lược (SGIF) dành cho ĐBSCL	Thấp	Thấp	Trung bình	<ul style="list-style-type: none"> Thực hiện phân tích ngược một cách phù hợp và chi tiết về những vấn đề cơ bản Thay đổi tư duy về quản lý quỹ và lựa chọn dự án đầu tư Thành lập Quỹ đầu tư xanh chiến lược trên cơ sở quy định hiện hành phù hợp hoặc quy định đặc thù Thiết kế quản trị phù hợp cho Quỹ đầu tư xanh chiến lược (có đại diện của nhà nước trong cơ cấu sở hữu và tăng dần đại diện từ khu vực tư nhân trong Hội đồng quản trị và Ban điều hành) Quy trình lựa chọn dự án minh bạch

1/ Điều quan trọng cần lưu ý là “tính khả thi” ở đây không bao gồm đánh giá về quy mô vốn tiềm năng có thể huy động so với nhu cầu.

Báo cáo này đánh giá nhanh về một số công cụ/phương án sáng tạo và hiệu quả để huy động vốn cho ĐBSCL. Cam kết của Chính phủ trong việc huy động nguồn vốn riêng cho các đầu tư thích ứng với khí hậu tại ĐBSCL và với thiện chí thay đổi tư duy cần thiết hẳn sẽ giúp Chính phủ lựa chọn được công cụ phù hợp để triển khai và sau đó thực hiện các phân tích chi tiết hơn cho các phương án lựa chọn và cách thức thực hiện sao cho hiệu quả tại ĐBSCL. Tùy thuộc vào công cụ (hoặc kết hợp các phương án) được Chính phủ lựa chọn mà một lộ trình cụ thể hơn sẽ phải được xây dựng. Cho dù lựa chọn công cụ nào, Việt Nam, cũng giống như các quốc gia khác, cần cam kết thay đổi mô hình phát triển trong tương lai. Để chuyển đổi kinh tế thích ứng thông minh với biến đổi khí hậu tại ĐBSCL, Chính phủ cần giải quyết các vấn đề chính có tác động đến việc thiết kế các công cụ tài chính, lựa chọn công cụ, cùng với cơ cấu, thể chế và pháp lý có ảnh hưởng đến hiệu quả của những công cụ này. Chính phủ cũng bắt buộc phải cải thiện quản lý tài chính của các dự án đầu tư tới đây để thu hút được nguồn vốn từ khu vực tư nhân trong tương lai.

Introduction

1. **The Mekong Delta (MKD) is the southernmost region of Vietnam and one of six key regions of the country.** The MKD covers approximately 12 percent of the national area and is home to approximately a fifth of Vietnam's population. It is administratively governed by one city under central authority and by 12 provincial authorities. The region contributes 50 percent of the rice crop, 65 percent of aquaculture, 70 percent of fruit, 95 percent of exported rice and 60 percent of exported fish. The regional GDP growth rate for the Mekong Delta averaged 6.95 percent during the years 2016-18, close to the national average over the same period. Considerable opportunities for further development of the MKD region exist. However, unlocking these opportunities requires overcoming several key challenges, including weak interprovincial coordination, climate change, inadequate infrastructure for market access, and mobilization of finance.

2. **The MKD is globally identified as one of the most vulnerable deltas to climate change.** A dense network of rivers and canals cut across all the provinces in the region and several MKD provinces are coastal provinces, making them vulnerable to sea level rise and changes in precipitation. According to the 2016 climate change projections issued by the Ministry of Natural Resources and Environment (MONRE), the MKD faces high inundation risk (approximately 40 percent of the area). By 2050, as much as 60-75 percent of some provinces in the region may be inundated. Salinity intrusion into the delta estuary (due to sea level rise, storm surge, and drought) will also become a significant economic constraint, especially as the MKD agricultural production systems currently are one of the largest consumers of freshwater (more than 80 percent of freshwater consumption in MKD is for agriculture). Provinces like Ca Mau can be severely affected by salinity intrusion, with 90 percent of the province area affected in dry years, followed by the delta estuary provinces of Ben Tre, Bac Lieu and Soc Trang (60-79 percent). Erratic rainfall and salinity intrusion into groundwater sources will also make domestic freshwater supply less reliable. In addition, infrastructure will be exposed to increased tropical storm intensity, long-term sea level rise, and rapid fluvial and coastal flooding.

3. **Promoting and sustaining growth in the MKD will require rethinking future development pathways for the region.** Currently, development of the region is poorly coordinated with fragmented and discordant sectoral policies (agriculture, climate change, land use, water, transport, urbanization, etc.) and investment decisions that result in inefficiencies and hidden costs including from negative environmental externalities. Over time, these factors create a drag on growth and lower investor confidence for long-term investments. Going forward, policies and investments must better recognize and optimize the use of natural conditions that define the Delta to mitigate any unintended negative impact and seize opportunities created by exogenous factors such as climate

change. Future development options that are more resilient, climate smart, and green would be improved by rethinking the institutions, incentives/involvement of stakeholders, information, and investments. If successful, new approaches could transform current challenges, such as saltwater intrusion, into an opportunity as has been done in other parts of the world.

4. **The Government of Vietnam (GoV) recognizes the importance of working with the new normal created by the emerging natural conditions in the MKD.** Prime Minister Resolution 120 on the Sustainable Development of the MKD considering Climate Change, issued on November 17, 2017 (hereafter referred to as Resolution 120), charts out the Government's orientation and priorities for creating a climate smart and economically prosperous MKD. Resolution 120 calls for a significant rethink on development for MKD, advocating for economic transformation while "living with nature". The directions for growth identified in Resolution 120 aim to: (a) diversify agricultural production from low-value rice to higher value-added crops; (b) strengthen linkage of commodity chains and improve participation in the global value chains; (c) develop green industries with low emissions; and (d) develop services and nature-based tourism. Achieving the objectives in Resolution 120 will require addressing several fundamental challenges that exist in the MKD, two of which are poor coordination and insufficient financing for innovative and climate resilient investments.

5. **Operationalizing Resolution 120 requires two key actions related to mobilizing financing: (i) addressing the insufficiency of financing, and (ii) enhancing efficiency of**

BOX 1: **Financing Related Solutions in Resolution 120**

One of the five solution areas in Resolution 120 relates to mobilizing financing. It calls for establishing innovative mechanisms and policies to attract non-budgetary capital sources, especially private capital, and facilitating private sector investments where profitable (hereafter referred to as the financing solution). The tasks and responsible agencies associated with the financing solution include:

- To lead and coordinate, with concerned agencies, a study that will form the basis for reporting to the Prime Minister about establishment of a MKD Sustainable Development Fund (hereafter referred to as Fund). The Fund would aim to maximize the financing, especially non-state budget financing, available for investments in water security and responding to climate change. (Responsibility: Ministry of Finance, MOF);
- To encourage and attract private enterprises to invest in agriculture and rural areas in the MKD. (Responsibility: Ministry of Agriculture and Rural Development, MARD);
- To prioritize the development of low-carbon and green industries that do not harm the natural ecosystems. (Responsibility: Ministry of Industry and Trade, MOIT); and
- To develop a mechanism for mobilizing resources and encouraging the participation of enterprises and citizens to invest in infrastructure development including infrastructure necessary for tourism. The mechanism must comply with the law, and could consider capital borrowing, issuance of bonds and investments in the form of public-private partnership (PPP), and so on. (Responsibility: Ministry of Planning and Investment, MPI).

existing and proposed investments in the MKD. This report focuses primarily on addressing the need for additional financing. It examines options for mobilizing non-state financing for investments and activities that enhance climate resilience and lower greenhouse gas (GHG) emissions. The report also reviews possible instruments that can be used to incentivize more climate smart activities with available financing (e.g., through use of carbon pricing instruments or targeted transfers). This report does not cover the full scope of the elements on financing described in Resolution 120 (see Box 1) or the Government issued Directive 23¹ (see Annex A).

Scope of the Paper

6. **The aim of this report is to:** (i) share information from international experiences on mobilizing financing that could be applied in the MKD; and (ii) share information on instruments that could incentivize greening of existing financing. The scope of the report was modified from the original scope presented at concept note stage (i.e., to inform the actions and decisions of MOF by providing options and sharing international experiences that could inform their approach to establishing a Mekong Delta Sustainable Development Fund). The scope of the report was modified to the current scope following MOF's decision not to establish a new extrabudgetary fund as previously envisaged in Resolution 120.

7. **The report is divided into four parts.** Following the introduction, the paper presents an indicative estimate of financing required for climate resilient development in the MKD for the next 10 years as well as an estimate of the financing available. The third section presents options for mobilizing financing for climate smart investment drawing on lessons from international experiences. The fourth section summarizes the options and assesses their feasibility.

1 Directive to Accelerate the Implementation of Resolution No. 120/NQ-CP of the Government on Sustainable and Climate Resilient Development of the MKD issued in September 2019.

Financing Climate Resilience In The Mekong Delta: How Much Is Needed? How Much Is Available?

8. **Determining the most effective option for mobilizing financing for MKD requires a robust understanding of the level of financing required and what activities require financing** (i.e., whether these are activities that require long-term financing, and the financial and risk profile of the investments). Estimating the total amount of financing required for a climate smart economic transformation of the MKD is challenging for several reasons including the total estimate being, ideally, based on both growth and climate resilience targets for the MKD and an agreed approach to reach these targets. The determination of the growth and climate resilience targets is part of the ongoing formulation of the national master plans and Integrated Regional Master Plan for the MKD.

9. **In the absence of both the plans and specific targets, this section uses available information on financing required for climate smart investments, and expert opinion to generate estimates.** These estimates are wide-ranging in value as the information available is not always specific regarding what qualifies for climate smart investments – including what qualifies in key sectors such as transportation, agriculture, water supply and irrigation, and climate change adaptation. The approach used basically uses available estimations from the current planning periods (2011-2020 and 2016-2020) as a point of reference. These estimations are compared with estimations based on available information on financing needs for a subset of investments that are priority for the upcoming planning period, World Bank investments, and government estimation of financing needs. A similar approach is used to determine how much financing may be available.

Financing Needs for Climate Smart Investments in MKD – What We Know from 2010-2020

10. **For the previous planning period 2011-2020, the range of estimates for climate smart investments is from USD 5.5 billion to USD 6.74 billion.** These estimates are based on information extracted from existing plans and programs. The estimation of USD 5.5 billion is based on provincial level climate change action plans for a ten-year period (2011-2020). While the estimation of USD 6.74 billion for five years (2016-2020) is derived from analysis done by MPI's Department of Science, Environment and Natural Resources (DESENRE).

11. **Several provinces have drafted climate action plans for 2010-2020, in which they estimated their financing needs for augmenting their climate resilience.** The financing needs proposed are primarily for projects that are implemented within provincial boundaries and managed by the provinces (i.e., no multiprovincial climate resilience related measures). The investments in the provincial climate action plans are identified based on their connection to: sustainable development, sectoral and inter-sectoral coordination, gender equality, and hunger eradication and poverty reduction. The total estimated financing in the action plans was: VND 108,314.10 billion in Vietnamese dong (VND), or approximately USD 5.5 billion using 2011 average exchange rate (see Table 1).

12. **DESENRE estimated financing required from 2016-2020 for remedying climate change consequences, improving resilience and promoting green growth in the MKD was approximately VND 153,000 billion (approx. USD 6.74 billion).** ² The DESENRE estimate involves projects for meeting the climate change resilience³ including investments identified in the “no-regret investments” in the Mekong Delta Plan (prepared jointly by GoV and Government of Netherlands in 2014)⁴ and green growth investments.⁵ The DESENRE estimation is approximately 20 percent higher than the total estimated financing required by MKD provinces for climate resilience from 2010-2020.

TABLE 1: Provincial Action Plans on Response to Climate Change in MKD (source: UNDP, 2019)

No.	Province	Issued by	Document	Budget (billion VND) ⁶	Investment capital structure
1	An Giang	2010	Decision No. 2075/QD-UBND dated 4/11/2010	4,904.05	50 percent official development assistance (ODA), 30 percent central state budget, 10 percent local state budget and 10 percent enterprise and socialized capital
2	Bac Lieu	2012	Decision No. 2577/QD-UBND dated 26/10/2012	20,140.71	30 percent ODA; 50 percent central state budget and 20 percent local state budget and other social entities
3	Ben Tre	2011	Decision No. 1224/QD-UBND dated 27/5/2011	2,510.50	90 percent ODA and central state budget; 10 percent local state budget and other economic sectors

2 MPI presentation at MKD Conference, September 2017.

3 The damage due to climate change is estimated to be in the range of two to six percent of Vietnam’s GDP, and according to USAID Research, it is estimated to be three to four percent of GRDP for the whole Mekong region. It is therefore expected that the financing required to be resilient to climate change impacts is approximately equivalent to three percent of the GRDP, which for the period of 2016-2020 was estimated to be VND 105,000 billion (approximately USD 4.5 billion).

4 This includes the Mekong Delta Plan recommendation using the “no-regrets” scenario, which calls for 58 no-regret investment projects focused on agriculture and irrigation and aimed at restructuring the economic orientation of the Mekong Delta. The financing required is estimated to be VND 43,000 billion (approximately USD 1.9 billion) to cover investments in water supply, sewage treatment and irrigation.

5 The implementation of the Action Plan for Green Growth in the Mekong Delta provinces is estimated to require VND 5,000 billion (approximately USD 217 million) between 2016-2020.

6 The total estimated budget for climate change response activities.

TABLE 1: Provincial Action Plans on Response to Climate Change in MKD (source: UNDP, 2019) (Cont.)

No.	Province	Issued by	Document	Budget (billion VND)	Investment capital structure
4	Ca Mau	2012	Decision No. 1350/QD-UBND dated 25/9/2012	5,706.80	98.4 percent ODA; 1.4 percent central state budget and 4 percent local state budget
5	Can Tho	2011		708.01	This investment capital is prepared for the period 2011-2015. It will be sourced from the international support and central state budget for use by national target programs on climate change and contributions made by enterprises and individuals
6	Dong Thap	2011		2,549.55	Of which, VND 66.75 billion is for the period 2011-2015 and VND 2482.8 billion for the period 2016-2020
7	Soc Trang	2011	Decision No. 182/QD-UBND dated 22/7/2011 and Decision No. 242/QD-UBND dated 2/11/2011	2,466.23	Of which, VND 2466.23 billion is for the period 2011-2015 and VND 127.9 billion for the period 2016-2020
8	Tra Vinh	2010	Decision No. 264/QD-UBND dated 11/2/2010	78.70	This investment capital is prepared for the period 2011-2015 and does not show capital structure
9	Kien Giang	2013	Decision No. 1342/QD-UBND dated 30/5/2013	17,652.60	50 percent ODA; 30 percent central state budget; 10 percent local state budget and 10 percent non-state budget sources and contributions by individuals
10	Vinh Long	2012		49,340.96	No data
11	Long An	2013	Decision No. 1674/QD-UBND dated 14/5/2013 and Decision No. 34/QD-UBND dated 06/01/2016	2,256.00	Of which, VND 1296 billion is for the period 2013-2015 and VND 960 billion for period after 2015
12	Hau Giang	2011	Decision No. 1489/QD-UBND dated 16/9/2011	No data	
13	Tien Giang	2012	Decision No. 3569/QD-UBND dated 31/12/2012	No data	
Total (billion VND)				108,314.10	(approx. USD 5.5 billion [2011 avg. exchange rate])

13. **MPI's Department of Science Environment and Natural Resources (DESENRE) estimated financing required from 2016-2020 for remedying climate change consequences, improving resilience and promoting green growth in the MKD was approximately VND 153,000 billion (approx. USD 6.74 billion).**⁷ The DESENRE estimate is for projects to meet the cost of recovering from climate change⁸, of no-regret investments identified in the Mekong Delta Plan (prepared jointly by GoV and Government of Netherlands in 2014)⁹ and of green growth investments.¹⁰ The DESENRE estimation is approximately 20 percent higher than the total estimated financing required by MKD provinces for their climate change plans from 2010-2020. However, it is challenging to obtain details on all the investments in the provincial climate change plans and compare them with the investments included in DESENRE's estimation. The DESENRE estimation is, however, considered to be a more comprehensive benchmark as it considers climate smart investments that are also administered by the central agencies.¹¹

Financing Needs for Climate Smart Investments in MKD – Looking Ahead

14. **Looking ahead to the period of 2021-2030, it is evident that the needs for the region are evolving.** For example, investment in sustainable urban development, data systems, agriculture and fisheries experienced an increase in 2017, while investment in the areas that were previously prioritized declined. As a result, a linear extrapolation of the financing needs for 2010-2020 to 2021-2030 may not be representative of the financing needs.

15. **Three sources of information offer reliable estimations on the financing needs for climate smart investments during the next planning period (2021-2025).** These are:

- a. An extrapolation of the multisectoral portfolio of climate smart investments financed by World Bank loans in the MKD, including those proposed for the upcoming planning period;
- b. DESENRE's estimation of financing required for climate smart investments for 2021-2025; and
- c. The list of interprovincial projects¹² submitted by line ministries and provinces to the Local Economies and Territories Department for calendar year 2020. Interprovincial projects could

7 MPI presentation at MKD Conference, September 2017.

8 The damage due to climate change is estimated to be in the range of two to six percent of Vietnam's GDP, and according to USAID Research, it is estimated to be 3 - 4% of GRDP for the whole Mekong region. It is therefore expected that the financing required to be resilient to climate change impacts is approximately equivalent to three percent of the GRDP, which for the period of 2016-2020 was estimated to be VND 105,000 billion (approximately USD 4.5 billion).

9 This includes the Mekong Delta Plan recommendation using the "no-regrets" scenario, which calls for 58 no-regret investment projects focused on agriculture and irrigation and aimed at restructuring the economic orientation of the Mekong Delta. The financing required is estimated to be VND 43,000 billion (approximately USD 1.9 billion) to cover investments in water supply, sewage treatment and irrigation.

10 The implementation of the Action Plan for Green Growth in the Mekong Delta provinces is estimated to require VND 5,000 billion (approximately USD 217 million) between 2016-2020.

11 This estimation is not doubled to provide a benchmark for the value of 2011-2020 because it is assumed that both the estimations were aimed to achieve similar climate change related outcomes in line with the country's climate change strategy.

12 Interprovincial projects include projects that span more than one province or have implications for provinces other than the one in which the investment is made.

enhance efficient use of financial resources and help reduce unintended negative externalities of investments (including across administrative boundaries) in the investment design,¹³ reducing the vulnerability of the investment outcome to climate change and, in some cases, also reducing emissions. The financing required for the list of investments presents a useful reference regarding the investment financing proposed for the Mekong Delta that could be influenced to be more climate smart. A subset of the projects listed in the interprovincial projects (including those focused on agriculture, transport and natural resources) can provide a helpful indication of the financing required for climate smart investments.

16. The bank financing required for ongoing and planned projects focused on climate smart development in the MKD provides a reliable basis for estimating the financing need for climate smart investments in the MKD from 2021-2025. The estimation is based on extrapolating (in terms of area of impact and scale of impact) the value of ongoing or proposed projects to the whole MKD. It is also assumed that the implementation of these projects would require five years and therefore the funds are needed from 2021-2025. The resulting estimate of financing needs for climate resilient projects in transportation, agriculture, climate adaptation (including urban and environment) and water is USD 6.66 billion for projects that generate more than 30 percent climate co-benefits.¹⁴ This estimation is likely to underestimate the total financing required since the region is also urbanizing steadily at an annual rate of 25 percent (Pillai et al., 2019). Studies show that urbanization is taking place in flood prone areas.¹⁵ If the current pattern of urbanization continues, the investment needs for climate resilience services in urban areas (e.g., flood protection) and investments in climate smart secondary cities (e.g., climate smart infrastructure - roads, drainage, wastewater, sewerage connections) could be quite significant in the future, which is not reflected in the current portfolio.

17. DESENRE also estimated the financing required for climate smart investments in MKD from 2021-2025. This estimation uses the same three 'cost categories' that were identified for 2016-2020 – financing for addressing the impacts of climate change, financing for no-regret investments (from the Mekong Delta Plan prepared in 2014), and financing for green growth. In addition, for the period 2021-2025, the estimation includes financing needed to upgrade infrastructure. The estimation of financing need is approximately USD 4.65 billion (see Table B.2 for information on elements included in this estimation). This estimation is likely to underestimate the total investment as the investments listed in the Mekong Delta Plan reflected the proposed investments at the time.

13 It should be noted that there was limited information associated with the proposed interprovincial investments, making it difficult to determine the extent to which the projects are oriented towards addressing climate change. For a few of these projects the available information was limited to a few pages while for others the information was limited to a paragraph. The project proposals ranged from investments focused on agriculture (e.g., investing in upgrading high quality catfish breeding center in An Giang province) to transport (e.g., route connecting National Highway 91 and Long Xuyen City bypass). In addition, interprovincial investments, unless multisectoral in nature, will not necessarily address externalities across sectors (e.g., the impact of urban expansion on wetlands downstream from the expanded area).

14 The climate co-benefits are based on the information provided by the Climate Change group in the World Bank for existing projects using the methodology agreed by multilateral development banks. Details can be found in Annexes B and C of the following report: <http://www.ebrd.com/2018-joint-report-on-mdbs-climate-finance>

15 https://www.researchgate.net/publication/271378002_URBANIZING_MEKONG_DELTA_IN_VIETNAM_THE_CHALLENGES_OF_URBAN_EXPANSION_ADAPTING_TO_FLOODS

18. **In the interprovincial project list, information was available on the financing needed for 80 of the 227 proposed projects.** The total estimated investment value for these 80 projects is USD 22.1 billion. Of these 80 projects, 42 projects are led by line ministries - Ministry of Transportation (MOT - 10 projects) and Ministry of Agriculture and Rural Development (MARD - 32 projects) – two key ministries for climate smart investments. The total estimated value of the projects proposed by MOT and MARD is approximately USD 4.7 billion (see Table B.1 in Annex B). This figure provides a reliable approximation of financing required for climate smart interprovincial investments in the MKD for these two sectors. The financing need, while a robust approximation of what may be required in the two sectors, should not be considered a complete estimation.¹⁶

19. **Using available sources of information, it is estimated that approximately USD 4.7 billion to USD 6.7 billion could be needed for climate smart investments in the MKD in the next five years (2021-2025).** This is a reasonable, though conservative, estimation considering the approximated amount of financing required during the planning period from 2016-2020. It is also important to note that there is room to also make more climate smart the interprovincial investments that are proposed for the MKD. Based on a current list of interprovincial investments proposed by line ministries and provinces, this means about USD 22.1 billion of investment could be made more climate smart.

Financing Available for Climate Smart Investments in MKD

20. **The tracking of financing available for climate smart investments/activities is still in its nascent phase in Vietnam.** In July 2018, Ministry of Planning and Investment (MPI) issued Guidelines on Identification and Classification of Public Investment for Climate Change and Green Growth (No. 1085/QĐ-BKHDT). As per these MPI guidelines, UNDP, GIZ and USAID supported MPI to conduct a Climate Public Expenditure and Investment Review (CPEIR). The CPEIR examined the investment financing mobilized for climate smart development - adaptation, mitigation or both.¹⁷

21. **The CPEIR found that in 2015, a total of 927 climate-relevant projects were implemented in the MKD, with total climate change related expenditures of VND 8,210**

16 The financing need for a subset of the interprovincial investments is considered a more helpful approximation of the financing needed for climate smart investments in MKD for interprovincial projects because these are for investments in sectors that are key for addressing climate change. This subset however, would not be a comprehensive estimation because of the following shortcomings: (i) the list of investments proposed for fiscal year 2020 may not reflect the full set of investments needed for the period 2021-2025 and may include non-priority investments for the region (although they are viewed as priority investments by the proponents); (ii) the proposed interprovincial investments may not have the highest climate benefits and could require additional investments; (iii) the list does not include provincial investments that are not interprovincial in nature; and (iv) the financing needs do not reflect other key sectors associated with urbanization.

17 An investment is considered an “adaptation” investment if it explicitly aims to reduce the vulnerability of human or natural systems to the current and expected impacts of climate change, including climate variability, by maintaining or increasing resilience, through increased ability to adapt to, or absorb, climate change stresses, shocks and variability and/or by helping reduce exposure to them. There will need to be a clear and direct link between the climate change vulnerability context and the specific project or program activities. An investment would be considered a “mitigation” investment if it aims to promote efforts to reduce or limit GHG emissions or to enhance GHG sequestration. An investment would be coded as both “adaptation and mitigation” if its activities aim to achieve the objectives contained above for adaptation and mitigation.

billion, equivalent to USD 357 million. Total investment in climate change in the entire region in 2016 and 2017 was VND 19,555 billion, with an increase of 0.6 percent from VND 9,747 billion in 2016 to VND 9,808 billion in 2017.¹⁸ The percentage of investment in climate change versus total investments in the entire region declined from 33.3 percent in 2016 to 28.2 percent in 2017, showing that, whilst there was an increase in absolute terms in 2017, climate investment took a smaller share of total public investment.

22. **The sources of local capital used to finance the investments include land use revenue, constructive lottery capital and preferential loans and other sources.** Sources of central capital include capital from National Target Programs (NTPs) and Target Programs (TPs). ODA includes funding for the TP on climate change and green growth (CC&GG), which is fully financed by ODA, but also includes ODA funding for projects that do not come under this TP but make an implicit contribution to CC&GG. Some of the noteworthy points from the CPEIR when thinking about mobilizing financing are:

- At the current rate of CC&GG investment, it will take approximately 16 years to reach the level of investment that MPI estimate is required in the region (i.e., approximately VND 6.74 billion);
- Total public investment for CC&GG in the Mekong River Delta grew from USD 367 million in 2015 to USD 426 million in 2017. The number of projects, however, decreased from 1402 to 825, suggesting that CC&GG projects were becoming larger in value;
- The share of total public investment accounted for by CC&GG fell from 33.3 percent to 28.2 percent;¹⁹
- In all provinces, the majority of CC&GG investment was devoted to adaptation. For the whole region, 95.3 percent of CC&GG investment financed adaptation, with 1.1 percent for mitigation and 3.6 percent for both adaptation and mitigation;
- The CC&GG investment included investments on: sustainable urban development including urban flood protection (24 percent of total CC&GG investment), sustainable transport including roads (20 percent), irrigation (12 percent), water resources management and river strengthening (8 percent), agriculture (7 percent), coastal protection (7 percent) and water supply and drainage (6 percent). Ten further themes accounted for 15 percent of the total CC&GG investment;
- In the Medium-Term Public Investment Plan (MTIP), the key themes of CC&GG investment were sustainable urban development (30 percent of total CC&GG investment), sustainable transport (16 percent), irrigation (10 percent), agriculture (9 percent), water resources management (8 percent) and water supply (4 percent); and

18 The investment data used in the review has been compiled from two main sources: the Medium-Term Public Investment Plans (MTIPs) for 2016-2020 for each province; and capital disbursement reports for 2015, 2016 and 2017. Other sources of evidence used in the assessment include: the Climate Change Action Plan, the Green Growth Action Plan; and various strategies and resolutions on sustainable development in Mekong River.

19 The reason for this change is unclear – it could be a result of a deliberate policy or consequence of policy changes that are associated with routine development objectives.

- The main sources of funding for CC&GG investment varied greatly between provinces and between years. The lottery was the largest source of funding in six provinces and the local budget was the largest in six provinces. ODA funding was relatively small and less than 10 percent in all but three provinces.

23. **There are other sources of financing for development investment capital of the MKD region – from the central budget and provincial budget.** These resources, however, are not dedicated to climate smart investments, but overall social investment. A recent report from MPI indicates that the total social investment capital of provinces in the region has grown annually at a compound growth rate of 4.87 percent (including inflation) - going from about VND 261,000 billion (in 2017) to VND 301,000 billion (in 2020). In the period 2016-2020, the state budget capital was expected to reach approximately VND 200,000 billion, of which:

- Central budget capital is about VND 86,000 billion (accounting for 18 percent of the total of localities), including: VND 26,000 billion of Government bonds, VND 22,000 billion of foreign capital (ODA); and
- Local budget balancing capital of VND 114,000 billion (reaching 15.6 percent of the total localities).

24. **A review of extrabudgetary funds (EBFs) highlights that several of these also make resources available for the MKD provinces.** Several of the EBFs reviewed were established by state agencies with the aim of mobilizing additional resources to respond to specific financing needs²⁰ and allowed for the establishment of provincial sub-funds.²¹ However, of those reviewed (see Annex D), only a subset has been established by the provinces. These EBFs finance a wide range of investments, some with more sector specific (e.g., environmental protection fund, forest protection and development fund, housing development fund) orientations while others are more cross-cutting (e.g., local development investment fund). None of the funds include explicit mention of climate smart investments. The financing that the funds make available range from investment loans with preferential terms, credit guarantees, and post-investment interest rate support. Expert opinion was used to determine which EBFs may be contributing to climate smart development. Of these, it is evident that that the volume of funds they make available to the provinces, while meaningful, are modest to meeting the overall objective of climate smart development for the region.

25. **The Government has not yet committed financing for the period 2021-2030 that could be available for climate smart development in MKD.** Assuming the increase in financing

20 In general, they have been established to:

- Provide additional financing support in cases where programs funded by the state budget are subject to budget cuts;
- Attract private sector investment to mobilize additional financing to carry out tasks defined by the state; and
- Meet flexible targets in each period (EBFs, unlike the state budget, are not required to be approved by the National Assembly. Therefore, provinces, ministries and state-owned enterprises are entitled to mobilize, spend and manage this type of fund, but within the framework of the rules prescribed by the Government).

21 The funding sources for these EBFs vary, ranging from: direct allocation from state budget, fees (e.g., environmental protection fees, portion of land use fees), mandatory contributions from enterprises and citizens, and voluntary contributions from other domestic and international sources.

for climate change remains the same as the increase in financing available between 2016-2017 (i.e., 0.6 percent), then from 2021-2025, the government can be expected to commit USD 2.21 billion for climate smart investments. This amount falls short of the conservative estimation of financing needed for climate smart investments for the same period by a range of USD 2.5 billion to USD 4.5 billion. The insufficient financing for both the socioeconomic development of the MKD and climate smart development of the MKD, underscores the importance of: (i) creating synergies between the two agendas where possible (e.g., making investments related to agriculture, environment, land, natural resources, tourism, transport, urbanization, water more climate smart) and (ii) mobilizing additional financing. The former could be achieved by providing incentives for 'green' / climate smart development investments, while the latter would require mobilizing additional resources (ideally private financial resources).

Options For Financing Climate Smart Investments: Lessons From International Experiences For Vietnam

26. **Mobilization of long-term financing for green investments and climate resilience has gained increasing attention among countries across income levels.**²² Climate finance is often raised from public sources, such as government budgets, public sector companies, or public financial intermediaries such as bilateral aid agencies, climate funds, and development finance institutions such as national, bilateral, and multilateral development banks. Public climate finance may include some element of “concessionality”, i.e. financing offered on terms that are more concessional than the markets. Another option for the public sector is to put in place incentives or use fiscal instruments to direct available financing towards more climate smart outcomes.

27. **Resolution 120 and Directive 23 provide the orientation for mobilizing private and public financing for the MKD**, especially for sectors for which climate smart financing should be prioritized. Resolution 120 and Directive 23 call for the use of an existing extrabudgetary fund and mobilizing of non-state budget and private sector engagement. In the MKD, efforts to promote climate smart economic transformation will need to incentivize use of available public financing for more climate smart investments and mobilize additional financing for gaps mentioned in the previous section. The financing would be important for key sectors such as agriculture, energy, environment, erosion protection, transport, urban upgrading, and water. This could include financing for:

- a. Infrastructure for restructuring agriculture in subregions of the delta (e.g., upper Delta). This includes irrigation infrastructure, energy infrastructure, secondary and tertiary level transport infrastructure (waterways and roads), infrastructure for value-addition and processing;
- b. Flood protection infrastructure (both nature-based and grey infrastructure);
- c. Freshwater retention infrastructure;
- d. Monitoring stations – both for hydrometeorological monitoring and monitoring of groundwater and surface water, sediment load monitoring, etc.;
- e. Nature-based and grey infrastructure for river and coastal area erosion protection (e.g., mangrove forests in coastal areas, dykes and embankments, mixed systems for erosion control);

²² This is hereafter referred to as green finance and climate finance interchangeably since there is overlap in concepts.

- f. Port upgrades and storm shelters in coastal provinces where fisheries are a significant economic activity;
- g. Renewable energy; and
- h. Transport connectivity (both expressways and inland waterways).

28. **The financial and economic nature of such investments provide an indication of the type of non-state budget that may be most suited for these investments**, as well as the type of incentives that may be needed to shift the use of currently available resources. The international experiences provide useful insights for operationalizing Resolution 120 and Directive 23. The policy context and the maturity of capital markets in Vietnam, however, will influence the possibility of adapting international experiences to Vietnam.

29. **There are a host of instruments that can be deployed to mobilize financing for climate smart investments (both in terms of shifting how available resources are used and securing new financing)**. These different instruments can be classified in different ways, according to how they can be used. One way to classify the instruments is to distinguish them according to whether they:

- a. Shift existing financing to more climate smart investments;
- b. Use existing financing to leverage other sources of financing (public/private);
- c. Mobilize new/additional financing.

These categories are not mutually exclusive and provide a way of framing the use of the various instruments. In Table 2, below, the instruments reviewed in this note are classified in terms of whether they directly influence how existing financing is used for more climate smart investments and whether they directly influence mobilization of new/additional financing. The category of using existing financing to leverage other sources of financing is not specified as then all instruments that achieve this also mobilize new/additional financing. In this section we describe a set of key instruments and their relevance for the MKD.

TABLE 2: Classification of Instruments for Mobilizing Financing for Climate Smart Investments

Instrument	Shifts existing financing to climate smart investments	Mobilizes new/additional financing
Results-based climate finance (e.g., payments for ecosystem services, payment for reducing emissions)	√√√	√√
Results-based payments – Ecological Fiscal Transfers	√√√	
Carbon pricing	√√√	√
Risk sharing instruments		√√√
Green banking and green loans		√√√
Green bonds	√√	√√√
Public sustainable development/ climate funding facility	√√√	√√
Strategic investment fund (green)		√√√

√ = on occasion; √√ = most of the time; √√√ = definitely

Results-based Climate Finance

30. **Results-based climate finance (RBCF) is typically provided to achieve specific outcomes.** Most RBCF is typically provided for achieving emission reductions targets, measured in tons of carbon dioxide equivalent (tCO₂e). The financing is made available on performance – that is, for project operations that deliver specific levels of emission reductions. Typically, such financing also specifies the accepted methodologies with which the emission reductions from an identified project may be estimated or quantified. A design document with this estimate and the system for monitoring, reporting, and verifying the result parameters would be submitted for review to the financier or the manager of the financing. The financing is then disbursed at agreed intervals upon completion of verification by an independent consultant, thereby monetizing the climate asset generated by the project.

Relevance for Mekong Delta

31. **The concept of RBCF has been applied in Vietnam.** The GoV has prepared an emissions reduction program (ERP) for the upland forests in the central highlands with the aim of reducing emissions from deforestation and forest degradation. The ERP is an innovative and effective instrument since it can use climate finance to leverage private or public investments to achieve the agreed target. However, the financial viability of such an approach is very important since upfront investment costs can be significant. These upfront investments relate to direct reductions in emissions (e.g., planting of forests) and investments for monitoring, reporting and verification systems and capacity building. The total costs can cover monitoring costs of additional emissions reduction.

32. **While RBCFs have not been applied widely outside of the energy or forest sector, other forms of results-based financing (RBFs) have been applied in agriculture and transport (at a pilot scale).** These RBFs provide financing for implementing agricultural practices with lower environmental footprints or transport systems with lower per capita user-based emissions (e.g., bus service networks). Funds for rewarding performance on a pilot scale have often come through donor grants. With effective monitoring systems in place, such agriculture and transport sector RBFs could be adapted for investments in more climate smart outcomes in the MKD (e.g., reduce freshwater consumption in agriculture, or increase usage of inland waterways). Such modified RBFs would aim to reward upfront financing of appropriately designed and implemented investments and would also require investments in the appropriate measurement, reporting and verification (MRV) system. If the funds for rewarding the results are from ODA, it would be important to resolve other challenges currently observed in the ERP process on how the performance-based payments should be classified and which government regulations apply.

Ecological Fiscal Transfers

33. **Another form of results-based financing for positive environmental outcomes that is gaining popularity is ecological fiscal transfers (EFT).** Fiscal transfers among governmental levels generally aim to provide each level of government with enough funds for its public functions. For government systems with multiple levels, there are vertical fiscal transfers that are distributed among the different levels of government (e.g., between the national government and provinces

or from provinces to communes). By contrast, horizontal fiscal transfers distribute funds among administrations at the same level of government and aim to create an equal level of fiscal capacities.²³ Fiscal transfers can take many forms. For example, they can include: (i) general purpose transfers that can be characterized as grant lump sums without spending conditions; (ii) performance-oriented fiscal transfers that are conditional on the provision of a public function; and, (iii) specific-purpose transfers that are earmarked for specific public functions and/or projects (Boadway and Shah 2009). Ecological fiscal transfers (EFTs) are an example of performance-oriented fiscal transfers and can be used to integrate ecological or climate-based indicators into the fiscal transfer scheme.

34. **EFTs work on the premise that the benefits of converting natural ecosystems are local while the costs of environmental degradation affect the broader public.** Therefore, it is necessary to motivate environmental protection for a broader public benefit, and conditional payments for environmental benefits are one vehicle for providing the needed incentive. EFTs, unlike payments for ecosystem services and efforts to reduce emissions from deforestation and forest degradation, involve conditional payments from higher levels of a country’s government to lower levels. EFTs also mostly work with the already-established structures for fiscal transfers between levels of government, and do not require the design of new institutions or assigning new property rights. EFT incentives can both reward and penalize - that is, the payers can penalize environmental degradation with reduced transfers and reward environmental improvement with increased transfers.

TABLE 3: **Summary of EFT Schemes in Europe (Droste et al, 2018)**

Country/Region	Transfer between governmental level	Types of transfer	Status
France	National => Municipal	General purpose	Small-scale implementation
Germany	States => Municipal	Specific purpose	Implemented
		General purpose (PA)	Proposed
Germany	National => States	Performance-oriented	Proposed
Poland	National => Municipal	General purpose/ Performance-oriented (ecological subsidy)	Proposed
Portugal	National => Municipal	Performance-oriented	Implemented since 2007
Switzerland	National => Cantonal	Specific purpose	Implemented
		Performance-oriented	Proposed
European Union	European Union => Regions	Performance-oriented	Proposed

35. **EFTs have been used to reward investments in preserving forest cover for biodiversity corridors (e.g., Brazil).** They are also used to incentivize local governments to create landfills or composting plants. In such cases, the main idea is that there is need for additional financing

23 Such an equalization function can also be achieved within vertical fiscal transfers if tax revenue differentials of sub-national government levels are considered when the transfers are determined.

to maintain waste services in municipal territories even after the fees paid by the households. In such contexts, EFTs can be an appealing policy instrument to help local governments create landfills or composting plants. EFTs have also been applied in Germany to conserve water or meet national conservation goals. In Germany, the proposed approach for conservation goals is based on a yearly assessment of protected area (PA) provisions by federal states compared to the average. The annual amount of EFT would depend on yearly conservation performance in terms of PA per state compared to the others and is thus performance based (Droste et al., 2018). For climate resilience, investments in nature-based solutions, such as area of coastal forests protected/restored across provinces, could be the proxy measure for rewards.

Relevance for Mekong Delta

36. **Vietnam has a very decentralized fiscal system** – with significant devolution of powers and responsibilities to the provincial authorities, and accountability of communes, with regards to delivering public services such as education, health, and local infrastructure. As per the State Budget Law, provincial authorities have notable autonomy to determine their fiscal relationships with their provincial districts and communes. Provincial governments have three main sources of revenue:

- a. One hundred percent of locally collected revenue (e.g., collections to cover depreciation, taxes on the slaughter of livestock, and various fees and charges);
- b. Shared tax revenue with the central government (e.g., revenue from profits of central and local state-owned enterprises [SOEs] and industrial activities); and
- c. Conditional transfers to balance local governments' budgets. Vietnam uses intergovernmental fiscal transfers, which have been mostly rule-based both from the center down to provinces, but also from provinces down to local levels (districts/wards). These transfers are aimed to channel more spending to the poorest parts of the country where development needs and costs of service delivery are higher. They aim to reduce imbalances across provinces and across districts and promote equity and social inclusion across regions.

37. **The central government has also established a legal basis for the adoption of formula-based intergovernmental fiscal transfers.** Vietnam uses two formulas to calculate balancing transfers, one to calculate recurrent spending needs and one to estimate capital spending needs. The formulas are based on transfer norms, which are assigned based on criteria including population, development, geographic area, and number of district administrative units. At the provincial level, there are allocation norms for spending estimates for districts across 19 categories of expenditure, mostly various functional areas of spending such as education, health, and economic services. For each functional area, a per capita allocation norm is based on geographic location (e.g., urban, plain areas, mountainous areas, and highlands and islands). In addition to these transfers, there are conditional transfers through the target programs that had specific areas of focus. Aside from the two national target programs, other target programs are being phased out due to their shortcomings and challenges in managing these programs.

38. **Currently, the basis on which Vietnam's intergovernmental fiscal transfers are made does not include ecological criteria.**²⁴ If the government of Vietnam were to commit to ecological fiscal transfers (EFTs), it would require amending the fiscal code and introducing measurable indices for the ecological service (e.g., coastal mangrove forests as a proxy for erosion control) in the fiscal formula. There are investments required and running costs for such a change. The government would need to, at a minimum, conduct a feasibility study to reform the fiscal code and implement an advocacy campaign.²⁵ For fiscal transfers that are based on measures of forest cover, Vietnam has a data and information system – FORMIS – that can be used to determine baselines of forest cover and measure progress. For other parameters, it could require additional measures to determine baselines and build monitoring systems.²⁶

39. **EFTs could be relevant for more climate smart investments in the Mekong Delta if used to incentivize the restoration and protection of coastal protection forests or promote water conservation.** The use of EFTs for such a purpose in the MKD could be possible, initially at a pilot scale, because administrative and fiscal decentralization is quite advanced. Also, while the dependence on fiscal transfers is decreasing, local jurisdictions, on average, seem to still depend on fiscal transfers for a quarter of their revenue. Moreover, Vietnam also has some of the key characteristics of countries that have implemented EFTs, including having a share of domestic taxation to GDP that is higher than 10-15 percent of GDP.²⁷ Ideally the introduction of EFTs in MKD would occur when other fiscal and/or decentralization reforms are being carried out. An EFT program would also provide the opportunity to develop capacity and strengthen the monitoring framework.

Carbon Pricing Instruments

40. **Carbon pricing is increasingly recognized as an essential instrument to cost-effectively deliver the transition to low-carbon societies (see Annex D).** Explicitly pricing carbon helps internalize the societal costs of GHG emissions while leveling the playing field between polluters and non-polluters. Firms with low-carbon technologies or measures benefit from past and current mitigation investments while high-emitters are incentivized to efficiently reduce emissions for the avoidance of carbon payments, such as carbon tax, and penalty under the emission trading system. And like taxes, carbon pricing can be a source of revenue.²⁸

41. **Carbon pricing is being used in innovative ways by the private sector to identify greater opportunities for GHG mitigation and reduce climate-related financial risks.**

24 Ecological fiscal transfers have been proposed in several countries to compensate decentralized jurisdictions for the costs of providing ecological goods and services which generate spillover benefits beyond their boundaries – these can range from conservation to water conservation, indigenous land, fire control, and erosion control.

25 There are estimates that this could cost USD 200,000-300,000.

26 There is no information on specific running costs for monitoring such indices in the overall fiscal system.

27 Ecological fiscal transfers are less effective where the rate of domestic taxation is low. However, this should not be a concern in Vietnam, where the tax effort was approximately 18 percent of GDP in 2018.

28 In the past year, the Intergovernmental Panel on Climate Change (IPCC), the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD) all reiterated the need for strengthening and accelerating carbon pricing, and the IMF recently pushed for establishing a voluntary carbon price floor among large emitters.

Traditionally, companies have used internal carbon pricing in their investment decisions to evaluate risks from mandatory carbon pricing initiatives. New ways of using internal carbon pricing are being developed to manage long-term climate risks and align the private sector's investments with climate objectives. A successful carbon pricing instrument can catalyze private actors to mitigate emissions, stimulate clean innovation, create wider economic benefits through raised revenues and investments, and reduce technology costs as firms allocate its various assets and resources to optimize their investment to mitigate emissions.

42. **Carbon pricing has been used in several ways, such as through carbon taxes.** In the United Kingdom, coal use dropped significantly after the introduction of a carbon tax in 2013. In Colombia, the carbon tax came into force in 2017 and applies to the sales and imports of all fossil fuels except for coal. The tax covers 16 percent of Colombia's total emissions and 50 percent of the emissions from fossil fuels. Revenues from the tax are used to support the Sustainable Colombia Fund. In Mexico, a carbon tax is imposed on fossil fuels (gasoline, petroleum coke, carbon coke, propane, butane, kerosene and other jet fuels, fuel oil, and coal) and covers 40 percent of Mexico's emissions. Most recently, Singapore set its carbon tax at SGD 5/tCO₂ e (USD 4/tCO₂ e) in Singapore dollars (SGD) from 2019 to 2023. The government will review the carbon tax rate by 2023, with plans to increase the rate to SGD 10–15/tCO₂ e (USD 8-11/tCO₂ e) by 2030. The carbon tax applies to all facilities with annual GHG emissions over 25 ktCO₂ equivalent and is expected to raise revenue of nearly SGD 1 billion (USD 760 million) in the first five years. The tax revenue will help support initiatives to address climate change such as incentives for energy efficiency improvements, including in industrial areas.

Relevance for Mekong Delta

43. **When considering the application of carbon pricing instruments in the MKD (or Vietnam more broadly), it is important to recognize that there are several policies in key sectors of Vietnam, ranging from strategies, plans and pricing policies, that influence the feasibility of adopting carbon pricing.**²⁹ For example, the development and implementation of carbon pricing instruments are supported by the policies and plans for renewable electricity generation which allows for the incorporation of additional costs in electricity prices. In addition, pricing is supported by plans for revising Vietnam's financial and fiscal regulatory framework in line with green growth and low-carbon development ambitions and Paris Agreement obligations. In contrast, the least cost approach that is common in electricity-sector planning and electricity pricing policies, allows the government to set the prices. This role though limits the feasibility of carbon price being internalized in the pricing of electricity since the carbon price adds to the tariff. Accordingly, some policy reconciliation would be required to implement a carbon price.

44. **The potential for using carbon pricing to mobilize financing for the MKD would require additional analysis.** The additional analysis would need to identify which sectors are currently significant emitters and which are expected to be major emitters in the future. Carbon pricing would not be applied at a sub-national level only, and would also not be feasible for the MKD.

²⁹ All information related to carbon pricing is based on the work that has been done by the team working of the Partnership for Market Readiness (PMR) in Vietnam – Ashraf El Arini, Taisei Matsuki, Thu Thi Le Nguyen.

The latter is the case because based on available information, currently the MKD does not have a lot of heavy industry or carbon-intensive power generation. In contrast, in the MKD region, there are a diverse and large number of emitters who are relatively small (small and medium enterprises [SMEs], households). Moreover, emissions from the dominant sector – agriculture – can be methodological challenging to measure for various reasons.³⁰

45. **If the government wants to adopt carbon pricing instruments (at national level) to mobilize more revenue for climate smart investments in the MKD, it would be also be important to select an instrument that can earmark its revenue for reinvestment for these specific activities.** This is currently not possible with the environmental tax system in Vietnam, where revenue generated from environmental taxes cannot be earmarked for specific use. However, analyses have looked at the experiences from earmarking environmental taxes. If the government is interested in pursuing a carbon pricing approach, it could draw on the work being done in Vietnam through the Partnership for Market Readiness.

Instruments for Reducing Risks

46. **Investment risks can be a significant deterrent for private investors and private financing.** For private entities it is important to be able to estimate the occurrence of the uncertain event that could influence their investments. In sectors, such as agriculture, which are affected by climate change, estimating the risks can be challenging. As a result, having instruments that help reduce risks, share risks or, where possible remove the risk, are often important to motivate individual and institutional investors to engage in specific activities. The optimal approach to reducing the risks for private sources of financing depends on the relevant constraints to private financing (both domestic and foreign direct investment [FDI]) in the sector and range from access to credit to risks.

47. **There are several instruments that can assist with reducing risks.** Some of the wide-ranging tools that have been used include loan guarantees or insurance products that reimburse investors in the case of a default. For such products, public money is blended with private capital through a risk sharing mechanism. Risk sharing guarantee facilities, like the one established in Finland, aim to boost investments and improve the availability of financing to enterprises. They assist with obtaining loans at lower costs and reduce the collateral requirement and share the financing risk associated with the project. Partial credit guarantee acts as a partial substitute for conventional collateral, where if the borrower fails to repay, the lender can get partial repayment from a guarantor. This guarantee scheme shares credit risks with the partner financial institutions in exchange for the guarantee fee.³¹

48. **Insurance products are relevant for high-risk sectors such as agriculture.** Insurance enables the equitable transfer of a risk of loss from one entity to another in exchange for a premium or a guaranteed and quantifiable small loss to prevent a large and possibly devastating loss. Agricultural

30 Some of the reasons that make estimating carbon challenging include, among other things, the diverse sources, the challenge in estimating sequestration in areas that are not converted to agriculture, and carbon footprint of inputs.

31 Varangis, Panos, et al. 2019. Vietnam Agriculture Finance Diagnostic Report. Financial Inclusion Support Framework—Vietnam Country Support Program. World Bank.

insurance is not limited to crop insurance, it also applies to livestock, bloodstock, forestry, aquaculture, and greenhouses.³²

49. **More recently there has been the establishment of risk sharing facilities.** Through such facilities, commercial banks are selected to provide loans for specific sectors. The lending from the bank is supported by the risk sharing facility. Under this arrangement, the risk sharing facility provides partial first and second loss risk coverage to the partner banks, who in turn generate highly scalable and standardized loans for the risky sector. Such facilities can help financial institutions develop sustainable lending businesses for risky sectors.

Relevance for Mekong Delta

50. **To facilitate the mobilization of private sector finance it will be imperative for the Government of Vietnam to address risks through well-designed guarantee schemes and agriculture insurance.** A recent agrifinance diagnostic for Vietnam revealed that Vietnam has been trying to leverage guarantee mechanisms to reduce the individual credit risk from the perspective of lenders. Efforts to develop credit guarantee funds faced operating or funding issues. The credit guarantee fund under the Vietnam Development Bank (VDB) covered 100 percent of the loan amount and the fee to obtain a guarantee was 0.5 percent, not borne by commercial banks but channeled to lending projects. The full coverage of loan amounts by guarantee and the low fee cost can easily lead to moral hazard from financial institutions by overlooking risk management of guaranteed loans. Severe disputes between VDB and commercial banks arose on the contingency of payment when loans become overdue, and the government suspended the credit guarantee fund. With regard to the city or provincial level credit guarantee fund, though Decision No. 58/ 2013/QĐ-TTg provided legislative endorsement encouraging the establishment of funds, some provinces currently still face difficulties with limited provincial budget revenue to support the establishment and operation of those funds. It should also be noted that regional funds often are exposed to concentrated risks such as localized problems (for example, production, price, market access, and so forth) that impact many or most borrowers at the same time. Therefore, designing the credit guarantee fund in a way to ensure its sustainability in the long run is an essential issue to ensure the success of the program.

51. **In Vietnam, a non-sovereign credit risk sharing facility is being piloted in the energy sector.** The risk sharing facility provides partial credit guarantees to participating financial institutions to cover potential defaults on loans provided by the financial institutions to industrial enterprises and energy service companies. The risk sharing facility is being established by Vietnam as a government program and uses green climate fund financing to support the objective. Scaling this initiative to other sectors will require significant review of the ongoing efforts.

52. **Vietnam has piloted agricultural insurance programs to deal with systemic risks imposed on the agriculture sector, such as vulnerability to natural disaster or disease.** In the context of agribusiness, there are two main types of credit guarantee funds in Vietnam: (a) the national credit guarantee fund for SMEs established by VDB with state budget support and (b) the

32 Iturrioz, Ramiro. 2009. Agricultural Insurance. Primer series on insurance issue 12. World Bank: Washington, DC.

city or provincial level credit guarantee fund for SMEs. In Vietnam, a National Agricultural Insurance Pilot Program was conducted from 2011 to 2013 per Decision No. 315/QD-TTg, targeting three agricultural subsectors: rice, livestock, and aquaculture. In this pilot program a top-down approach was used with two insurance companies participating in the pilot program, and reinsurance provided by Vietnam National Reinsurance Corporation and SwissRe. An in-depth assessment of the pilot program has not been conducted. Yet, it is known that those who enrolled in the program paid subsidized premiums which were well below the compensation for losses, resulting in significant losses for participating insurance companies. Some of the challenges stemmed from the limited understanding of the risks in the agriculture subsectors, and low level of financial literacy (understanding of insurance) among farmers.

53. **For future applications of insurance, there is the need for better targeting, designing, and implementing the right insurance products for the targeted group.** It is a good idea to bundle insurance also with other services. Governments can promote insurance through improving data/information systems, financial education, risk management awareness raising among farmers, and well-designed and targeted financial support for insurance premiums.

Green Banking and Green Loans³³

54. **The banking sector has an important role in redirecting capital flows to activities that address challenges of climate resilient economic transformation.** Globally, banks are ratcheting up financing of and lending to such projects, including energy efficiency, renewable energy, low-carbon agriculture, low-carbon transport, sustainable water and waste management, etc. Regulators, including central banks, are playing a key role in enabling green financial instruments through regulation, taxation, or incentives. Not just the Bank of England and Banque de France, but emerging market regulators are also advancing policies and regulations to encourage green credits. For example:

- a. The China Banking Regulatory Commission (CBRC), for instance, has issued Green Credit Guidelines, and the People's Bank of China (PBC) has launched guidelines to establish a green financial system. The results have been very positive. Green credits such as loans to projects offering energy savings or emission reductions currently make up approximately 10 percent of the portfolios of China's top 21 banks.³⁴
- b. The Government of Malaysia introduced the Green Technology Financing Scheme (GTFS) in 2010, offering borrowers a rebate of 2 percent on the total interest charged by banks and a guarantee of 60 percent of the total approved loan for eligible green projects.³⁵ As of July 2018, 28 banks and financial institutions (FIs) participated and the Scheme successfully approved USD 875 million in loans for 319 projects, the bulk of which are in the renewable energy sector.

33 The information on green banking and green loans is based on a note prepared by Farah Imrana Hussein (Sr. Financial Specialist).

34 The Sustainable Banking Network (SBN) Global Progress Report reviewed the work of banks and their regulators: <https://www.ifc.org/wps/wcm/connect/ae589874-6578-4ca9-9b3c-caef967ed52c/SBN-GlobalProgressReport.pdf?MOD=AJPERES&CVID=md0nvNj>

35 GreenTech: <https://gtfs.my/FAQ#n34751>

- c. The central bank of Bangladesh set a minimum annual target for banks and other FIs to dedicate 5 percent of total loan disbursements and investments to green financing. As a result, green lending increased from BDT 24 billion in Bangladeshi takas (BDT) in 2015 (when the minimum annual target was established by Bangladesh Bank) to BDT 94 billion in 2018.

55. **Using loan finance to fund green projects is not new.** In December 2018, the Loan Market Association, in coordination with representatives from leading financial institutions, developed a standardized industry framework - Green Loan Principles³⁶ (GLPs) - to finance projects that provide clear environmental benefits. These Principles are closely modelled on the widely-recognized Green Bond Principles (GBPs) and promote the same expectations of transparency regarding project selection, fund allocation and reporting.

56. **By aligning with the GLPs, a green loan follows a globally consistent methodology to identify itself as “green”** and can satisfy unmet demand for investment products from investors with dedicated pools of funding for impact investment, as well as those seeking to hedge against climate risk on their portfolios. Green loans are particularly useful for small-sized projects that require smaller investments that cannot be funded through the capital markets. While still in its early days, green loan issuance amounted to around USD 60 billion in 2018.³⁷ The distinction for the first GLP-compliant green loan in the ASEAN region goes to ING for financing a portfolio of rooftop solar projects developed and owned by Sunseap Commercial Assets Pte. Ltd., a subsidiary of Sunseap Group.³⁸

57. **Another type of loan that is gaining traction is a sustainability-linked loan, which is also known as an environment social governance (ESG)-linked loan or positive incentive loan.** The proceeds of such loans are used for general corporate purposes, rather than “green” projects. But the pricing of the loan is based on the borrower’s environmental, social and governance (ESG) score or overall sustainability achievements, such as emission reductions. If the borrower achieves its sustainability target, they benefit from favorable interest rates on the loan. If the borrower fails, they pay a higher rate. These loans are also governed by standards developed by the Loan Market Association.³⁹

58. **A global agricultural firm Louis Dreyfus (LDC), which is headquartered in the Netherlands, has two loans with sustainability-linked pricing mechanisms to its credit** - a USD 750 million revolving credit facility (RCF) in North America⁴⁰ and a USD 650 million RCF in Asia.⁴¹ LDC benefits from a reduction in the interest rate on the RCFs each year it makes improvements in its sustainability performance. An independent auditor provides validation. Other companies like Nokia

36 https://www.lma.eu.com/application/files/9115/4452/5458/741_LM_Green_Loan_Principles_Booklet_V8.pdf

37 Institute of International Finance: <https://www.iif.com/Publications/ID/3331/PageID/3331/Sustainable-Finance-in-Focus-Green-LoansKickoff-Time>

38 <https://www.ingwb.com/themes/sustainable-finance-articles/ing-seals-first-green-loan-for-rooftop-solar-projects-in-asean>

39 https://www.lma.eu.com/application/files/8015/5307/4231/LMA_Sustainability_Linked_Loan_Principles.pdf

40 <https://www.ldc.com/global/en/investors-media/news/pre/louis-dreyfus-company-announces-its-first-sustainability-linked-revolving-credit-facility/>

41 <https://www.comunicaffe.com/louis-dreyfus-secures-first-asia-sustainability-linked-revolving-credit-facility/>

(EUR 1.5 billion in Euros [EUR])⁴² and US company CMS Energy (USD 1.4 billion)⁴³ have also signed sustainability-linked loans. As global demand for sustainable finance continues to surge, the supply of these types of loans is expected to increase, especially from companies committed to reducing their carbon footprint and achieving positive impact.

Relevance for Mekong Delta

59. **Systematic scale up of green loans and green banking could be very beneficial for Vietnam, and the MKD more specifically.** Initiatives that could be implemented in the short-term would be more pilot initiatives. Examples of such pilots include the recent (January 2020) effort from Prosperity Joint Stock Commercial Bank (VPBank) which secured a financing package amounting to USD 212.5 million to help expand its lending to small and medium enterprises and boost financing especially for climate-friendly projects. The green financing that will be available through VPBank will mostly be for near-term climate investments, such as those in renewable energy and infrastructure. The loan will qualify as per the Green Loan Principles – a widely accepted set of voluntary guidelines that specify the use of proceeds, monitoring, and reporting. VPBank will also establish a management system to track, manage and report on the use of proceeds of a loan for dedicated green projects through third-party verification.

60. **A more systematic scale up of green banking and green loans, than the current voluntary basis on which green financing is made available through the banking sector, would require overcoming some of the existing challenges in the banking sector.**⁴⁴ In addition, if the State Bank of Vietnam (SBV) is committed to mobilizing green financing through commercial banks, they will need to issue specific regulations to the banks in this regard. In 2015 the State Bank of Vietnam issued the Directive on Promoting Green Credit Growth and Environmental and Social Risks Management in Credit Granting Activities. This encourages credit institutions to “give funding priority to projects in the economic sectors which conserve, develop and utilize natural resources efficiently.” Commercial banks have traditionally been the main funding supplier in Vietnam and Vietnamese banks can capture green finance opportunities in the MKD if bankable projects can be identified.

61. **Before further engaging in green credit, there should be an assessment on the demand for green financing to ensure there is not unnecessary competition between green financing and regular financing.** SBV should also assess the cost and transaction costs of establishing access to green financing, including the cost and time required to build the capacity within existing commercial banks (e.g., to establish credit processes and procedure, determine credit rating, loan classification, and so on). Should GoV decide to pursue such options, they could leverage the sustainability-linked loan or bond structure to scale up financing for MKD, i.e., they

42 <https://www.nokia.com/about-us/news/releases/2019/06/19/nokia-signs-revolving-credit-facility-with-its-pricing-mechanism-linked-to-the-companys-sustainability-targets/>

43 <https://www.cmsenergy.com/investor-relations/news-releases/news-release-details/2018/CMS-Energy-Becomes-First-US-Company-to-Enter-Sustainability-Linked-Loan/default.aspx>

44 The challenges to the banking sector are succinctly summarized in the 2019 Taking Stock Report which is on Finance in Transition - <http://documents.worldbank.org/curated/en/971881576078190397/pdf/Finance-in-Transition-Unlocking-Capital-Markets-for-Vietnam-s-Future-Development.pdf>

could link the coupon of the loan or bond to the achievement of environment-related sustainability targets in the region.

Green Bonds⁴⁵

62. **Growing global interest in mobilizing long-term financing can help scale up investments dedicated to mitigate and adapt to climate change and other environmental challenges.** This interest is driven by the realization that to overcome the challenges from climate change, it is necessary to rethink how resources are used and reduce the cost of climate risks on finance. The International Finance Corporation (IFC) estimated that by 2030 the climate smart business investment potential in Vietnam could reach an estimated USD 753 billion. Various sources of private financing could be mobilized through efforts to attract foreign capital, mobilize funds from corporates (national/international) or mobilize savings from households. The financial instruments for mobilizing the private sector could include fixed-income instruments (conventional bonds, green bonds) issued by the sovereign or the provinces, lines of credit for private sector investment and potential investment through private equity or project finance. These instruments do not require sovereign guarantees⁴⁶ however the projects will need to be financially viable.⁴⁷

63. **The popularity of green bonds for making climate financing available is increasing.** Since the World Bank issued the first labeled green bond in 2008, the market for green bonds has surged, resulting in USD 175 billion of new issuances in 2018 and more than USD 152 billion of issuances in 2019. The green bond is a fixed-income instrument that finances environmentally-friendly projects and appeals to an expanding pool of investors who are interested in making measurable, beneficial social and environmental impact at commercially appealing returns. It does not necessarily offer concessional financial terms.

64. **Green bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or refinance in part or in full new and/or existing eligible green projects** (e.g., renewable energy, clean river projects, waste management, forestry and biodiversity, agriculture, water treatment and public transportation). For a bond to be green, an issuer must comply with three requirements:

- a. Assign bond proceeds solely for the financing or refinancing of projects to improve or protect the environment;

45 For the discussion on green and impact bonds, it is important to note that the report does not present information on the risk and creditworthiness of the MKD provinces. If green or impact bonds are going to be issued, such information would be necessary as it provides comfort to the investors of these bonds. Even though a MKD bond will most likely need to be issued at the central government level, it is important to demonstrate good financial management and prudence at the provincial level. Therefore, if the Government decides to pursue the options involving bonds, it will be important to collect information on risks and creditworthiness of the MKD provinces.

46 This may not apply for bonds issued by provinces. These may need sovereign guarantees.

47 “[F]inancially viable” here requires that the projects are deemed technically and financially viable before they are considered for green bond support. The projects do not need to be “revenue-generating”. Most green bonds are “general obligation bonds”; bond holders do not rely on revenues from the projects to repay the bond obligation. The issuer could also issue “green revenue bonds”, i.e. bonds that are repaid with the revenue generated from the projects that are financed with the bond. An assessment should be done on the different types of projects in the portfolio and how the different types of projects could be financed.

- b. Declare the bond to be green (before issuance);
- c. Commit to a level of transparency and reporting on the bond's use of proceeds.

65. **The green bond issuer must develop a green framework to document the usage of the proceeds from the issuance.** The framework describes how the issuer intends to use the proceeds of the green bond issuance, for eligible green projects in a sustainable manner with appropriate transparency and disclosures to investors.⁴⁸ In addition, the issuer would have to seek an external review from a third party on the proposed issuance. While this is an optional step, investors are increasingly expecting this as a norm. The third party could include groups such as CICERO, Climate Bonds Certification, RAM, Moody's Green Assessment, etc. Lastly, the issuer would need to prepare an impact report post-issuance. While the latter is also an optional step, investors are increasingly expecting this.

66. **A wide range of countries have issued sovereign green bonds,** including Poland (in 2016), followed by France (which issued the largest sovereign green bond to date and has had 3 issuances), Fiji (which was the first emerging market sovereign green bond issuance), Nigeria, Indonesia (already had 2nd issuance) and Lithuania. The bulk of the sovereign green bonds finance has been for renewable energy (25 percent), land use (25 percent) and transport (25 percent).

67. **A MKD Green Bond would send a strong signal to the international community regarding the GoV's commitments to financing climate change actions in the region and Paris Agreement pledges.** It may lead to greater investor demand, especially in the international market, and would also pave the way for corporate and sub-national entities to enter this space as issuers and as investors, giving the domestic green bond market a strong boost. International investors are increasingly scrutinizing issuers' Environmental Social and Governance-related credentials and a highly visible green bond would help establish GoV's commitment to sustainable development.

68. **Most green bonds are use-of-proceeds or general obligations bonds that are backed by the "full faith and credit" of the issuer who makes interest and principal payments using any source of revenue available to them.** The revenue from the underlying MKD projects could be used to repay the bond obligations.

69. **If the Government of Vietnam were to proceed with a MKD Green Bond issuance, it could involve the following:**

- a. Potential issuer: The MKD green bonds can be issued either by MOF as a sovereign green bond or by the Fund (though the latter is less likely⁴⁹). A sovereign green bond could also be privately placed with select investors with a special interest in/focus on Environment Social Governance issues. MOF can issue a sovereign green bond to raise financial resources:

48 The framework usually includes information on: (i) use of proceeds, (ii) how the proceeds managed prior to investment, (iii) "eligible green projects", (iv) how the "eligible green projects" are selected and evaluated, (v) reporting by the issuer to the investors on: use and management of proceeds and environmental benefits achieved.

49 The fund will have to be rated in order to issue the bonds. Given that they will not likely be investment grade, it is not clear how much external funds can be attracted to these bonds. There may perhaps be domestic investors that are interested, but that would raise a host of other issues that need to be considered.

- 1) For projects in the MKD (MKD Green Bond), or
 - 2) As part of a larger portfolio of green projects.
- b. A non-government entity, like the Bank for Investment and Development of Vietnam (BIDV) which has a BB- credit rating from S&P and issues bonds in the domestic market. If BIDV runs the Fund's operation, it may be able to issue bonds on behalf of the Fund.⁵⁰ The requirements and processes below apply to both a sovereign green bond and a green bond issued by the Fund.

70. **To issue bonds the following would need to be in place:**

- a. Green bond framework;
- b. Green project portfolio;
- c. Independent external verification of green projects;
- d. Annual investor reporting (on allocation of proceeds and expected environmental impact).

There is ongoing work to support the Government of Vietnam on the four key requirements for bond issuance by various development partners. One area that needs further work for a MKD Green Bond is the development of a green project portfolio that a green bond could finance or refinance. The projects in the MKD for this portfolio could include projects on:

- a. Renewable energy;
- b. Energy efficiency (including efficient buildings);
- c. Sustainable waste management;
- d. Sustainable land use (including sustainable forestry and agriculture);
- e. Biodiversity conservation;
- f. Clean transportation;
- g. Sustainable water management (including clean and/or drinking water);
- h. Climate change adaptation.

71. **While considering the use of green bonds to mobilize the additional financing needed for climate smart investments in the MKD, an important consideration is who will buy the bonds.** If the green bonds are issued internationally, there is a large pool of funds dedicated to buying green bonds. Based on the Ministry of Finance's current focus, it is assumed that the sovereign green bond will be issued in the domestic market. While it is uncertain whether international green bond/impact investors would buy Vietnamese Dong denominated bonds issued in the domestic market, demand is expected to come from traditional government bond buyers (local banks and institutional investors such as pension funds and insurance companies) in the domestic market, as seen from the experience of Fiji and Nigeria which issued sovereign green bonds in their domestic markets.

⁵⁰ Though this would face the same point raised in the previous footnote.

72. **In parallel to developing the green bond framework, it is important to develop the portfolio of green investments in the MKD.** This would require ensuring that the project information includes robust analysis on the financing requirements and the potential income stream of the investment. A review of four randomly selected projects from the list of interprovincial investments, submitted by central ministries and provinces, points to the need to strengthen the development of project proposals that could be suitable for green bond financing. The information provided in the project proposals (which were 2-4 pages) made it hard to discern the technical and financial feasibility of the prospective project.

73. **Other than green bonds, local corporates with Corporate Social Responsibility programs as well as high net worth individuals (potentially targeted through wealth managers) may also be tapped to provide grants, below-market loans or invest in unlisted bonds through private placements to support this important region.** The money raised by the Fund could be on-lent to eligible projects. This has been done most recently for a Woman's Livelihood Bond in India that enables women to transition from subsistence living towards sustainable livelihoods by accessing credit at reasonable rates.⁵¹ In the above case, the investors (local corporates with Corporate Social Responsibility programs as well as high net worth individuals) agreed to take a 50 percent cut in the coupon due to their interest in and support for the cause. The reduced return was guaranteed by the UK Department for International Development (DFID). Although a different sector altogether, the same concept could be applied in Vietnam for the MKD's sustainable development.

Public Fund Facilities and Strategic Investment Funds

74. **Several instruments, such as aggregation vehicles or funds can be used to raise financing depending on the nature of financing required and the investment objective to be met.** The establishment of an extrabudgetary fund is a widely used approach for bringing together financing for a specific purpose and would be beneficial for the Mekong Delta. The establishment of new extrabudgetary funds (EBF), however, is not a priority for Ministry of Finance (MOF). Moreover, if an EBF were to be established, it must comply with the State Budget Law of 2015. More specifically, any EBF that is established must comply with Clause 11, Article 8 of the State Budget Law of 2015. The latter states that *"the state budget shall not support operating costs for state budget funds outside of the budget. In cases where the state budget supports the charter capital according to the provisions of law, this must comply with the state budget's capacity and can be realized only when the following conditions are fully met: establishment and operation are in accordance with the provisions of the law; financially viable; having revenues and expenditures different from revenues and expenditures of the state budget"*. Therefore, the MKD Sustainable Development Fund (MDF), if established, would need to operate with non-state budget sources, the state budget shall only allocate charter capital (if any) and its revenue and expenditures shall not be identical to revenues and expenditures of the state budget.

51 <https://www.worldbank.org/en/news/press-release/2019/02/19/world-bank-signs-agreement-to-launch-new-social-impact-bond>

75. **Within GoV it has been decided, as noted in Directive 23, that the MDF should be part of an expanded and modified version of the Vietnam Environment Protection Fund (VEPF).** The mandate of the VEPF includes key issues related to climate resilience and water security (which are also the identified focus areas of the proposed MDF), making it a strong candidate fund for including the MDF objectives. Moreover, the VEPF currently has five local environmental protection funds operating in the provinces of Kien Giang, An Giang, Long An, Ca Mau and Tien Giang. However, for the VEPF to deliver on the scale of investments envisaged in Resolution 120 would require a significant transformation in how the VEPF is governed and administered.

76. **Independent of whether the GoV is going to pursue modifying the scope and financing of the VEPF to include the objectives of the MDF, the creation of a dedicated financing source could optimize the use of limited public resources and leverage private sector financing** by blending resources from international financial institutions (ODA), donors (new grants and concessional sources of funding, foundations, philanthropic bodies) and, in the case of some funds, the private sector (mostly non-concessional funding). Two types of funds could be considered for meeting the objectives of Resolution 120: (i) a public sustainable development and climate resilience funding facility, and (ii) a green investment fund. Some international experiences such as the experience with strategic investment funds and public fund facilities could be useful for GoV as it thinks through how to reform the VEPF.

Public Sustainable Development/ Climate Funding Facilities

77. **There are several examples of public sustainable development and climate resilience funding facilities, which are funds that use public sector sources and are managed by government authorities.** These funds, depending on their purpose, have different eligibility criteria and access modalities for reviewing and approving fund requests. Projects covered by public funds are expected to include both revenue-generating and non-revenue-generating public goods projects and the resource mobilization strategy should dictate the use of suitable financial instruments based on targeted project types. Finances from public funds tend to include some element of “concessional”, i.e. financing offered on terms that are more attractive than the markets. There are several experiences and lessons from other countries, as mentioned in the earlier section. These are further elaborated in Annex D. An example is also the Dutch Delta Fund (see Box 2). Other relevant experiences include:

- China Clean Development Mechanism (CDM) Fund;
- Namibia Environmental Investment Fund;
- Ethiopia Climate-Resilient Green Economy (CRGE) initiative;
- Bangladesh Climate Change Trust.

BOX 2: Dutch Delta Fund

Another type of public sustainable development fund is the Dutch Delta Fund. The Delta Programme forms the Government of Netherlands' strategy for managing flood risk, freshwater supply, and the impact of climate change. To enable the Delta Programme to operate successfully it was incorporated into legislation in the Delta Act. The Act became effective on January 1, 2012 and is the legal basis for the Delta Programme to carry out its objectives and responsibilities. The Delta Act also outlines the role of the Delta commissioner, who manages the programme, and the Delta Fund, which finances it. Overall responsibility lies with the Ministry of Infrastructure and Water Management. The Delta Fund finances all the Delta Programme's activities. It is under the control of the minister for infrastructure and water management. The Delta Fund is capitalized using tax revenues collected nationally in the Netherlands. Until 2050, the estimated cost of the program is EUR 1.2 to EUR 1.6 billion annually, of which EUR 1 billion is designated for flood prevention and freshwater supply. This amount is divided into EUR 600 million for investment and EUR 400 million for "management, maintenance and organizational expenditure". Between 2050 and 2100, the predicted costs are between EUR 900 million and EUR 1.5 billion per year.

Strategic Investment Funds⁵²

78. **Since the global financial crisis, governments across the globe have increasingly adapted the investment fund model to further development goals.** These vehicles, known as strategic investment funds (SIFs), are a subset of the sovereign wealth fund (SWF) universe. They are typically capitalized by the sponsoring government to pursue a dual objective: targeting financial and development goals simultaneously by investing in unlisted strategic assets such as infrastructure and SMEs that fuel economic growth. These vehicles are professionally managed, and also used to catalyze private capital to strategic sectors. SIFs exhibit the properties of SWFs (since they are an investment agency of the government); SOEs (since they pursue a public policy purpose); and private equity funds (since they invest in unlisted assets, and can be active investors, taking board seats). The mandate of a SIF must be long term, but both the mandate and strategy need to be flexible and adaptable to align with national priorities.

52 This section is drawn from a note by Shanthi Divakaran (Sr. Financial Sector Specialist), team leader and co-author of an upcoming World Bank publication on strategic investment funds.

TABLE 4: **Comparison of SIFs and Other Financing Instruments**

Instrument	Availability of Capital	Pipeline Origination	Structuring & Execution	Risk Mitigation	Project Operations	Market Exit
1. Green Banks	?	√	√	?	?	√
2. Private Equity (PE) Investments	√	√	√	x	x	√
3. PE Fund of Funds (FoF) Investments	√	√	√	x	x	√
4. Direct Investments	?	√	√	x	?	√
5. Guarantees	?	x	?	√	x	x
6. Green Bonds	√	x	x	x	x	x
7. Blended Climate Finance	?	x	x	√	x	√
8. Other Concessional Finance	?	?	√	?	?	x
9. SIFs	√	√	√	√	√	√

79. **There are over 30 SIFs today set up at the national level, with almost 20 of these emerging after the financial crisis.** They pursue a variety of policy purposes, including economic development through investment in SMEs/infrastructure; attracting co-investment; and diversifying from oil and gas reliance. Several more are underway. For instance, in August 2019, the Financial Times reported that the EU is considering plans for a EUR 100 billion sovereign wealth fund, supported by member states, to finance European “industrial champions” to compete with multinational companies. Similarly, in February 2019, Kenya’s government released a draft law to establish a new sovereign wealth fund that would channel petroleum and mineral revenues to savings, budget stabilization and domestic spending and investment.

80. **SIFs bring implicit commercial advantages to the table that make them good partners for the private sector as well as for strategic alliances between governments**

BOX 3: Examples of Global SIFs

FONSIS (Senegal) (2011)

- Approx. USD 17 million from state budget + commercial credit line and donor funds;
- Investments to stimulate economic growth and job creation, infrastructure, SMEs.

Ireland Strategic Investment Fund (2014)

- USD 8 billion, sourced by share of assets from National Pension Reserve Fund;
- Investments to support Irish economy through infrastructure, housing, etc.

Khazanah Nasional (Malaysia) (1993)

- More than USD 40 billion, sourced by gov’t share of privatized national agencies; issues Islamic bonds;
- Investments to promote development of strategic industries and for long-term economic interests.

and with other sovereign wealth funds. Given their proximity to the government and access to both commercial and government networks, they typically have the local knowledge to manage complexities; the ability to unlock a pipeline of strategic assets; the capacity to mitigate regulatory risk by providing a feedback mechanism to the government; and can therefore reduce the cost of doing business. Such advantages can be useful in securing commercial capital. For example, India's National Investment and Infrastructure Fund (NIIF)⁵³ signed an investment agreement in October 2017 worth USD 1 billion with Abu Dhabi Investment Authority (ADIA) to invest in infrastructure in India.⁵⁴ And in September 2018, Singapore's SIF, Temasek, also agreed to invest as much as USD 400 million in NIIF.

81. **SIFs' affiliation with the government also allows them to deploy more patient capital to meet strategic challenges or riskier investments in underdeveloped sectors.** For example, Ireland's Strategic Investment Fund (ISIF) has an investment horizon that can extend to 25-30 years; and the fund can invest across capital structure, from senior debt to start up equity. Senegal's SIF, FONSI, acts as project developer or co-developer for greenfield projects. The Green Growth Equity Fund, established by NIIF and DFID, invests in renewable energy, clean transport, water treatment, and waste management.

82. **However, SIFs can also face challenges because they straddle both the commercial and public sectors.** The central governance challenge of a SIF is that they must simultaneously maximize a policy objective while also maximizing financial returns/ commercial orientation. The risk of pursuing such a dual objective is that if policy objectives are prioritized over commercial objectives, the SIF could fund politically motivated projects outside the rigor of the country's budget system. On the other hand, if commercial incentives are overly prioritized, the SIF could risk crowding out private investors. A few principles are therefore important to note:

- a. SIF should support policies that cannot be more efficiently implemented through government budget/ existing institutions (e.g., national development banks/ guarantee facilities);
- b. SIFs should generally not invest in projects justified primarily by social or economic returns alone. Such investments should be funded through regular budget process;
- c. SIF activities should be complementary/ additional to private capital.

83. **SIFs can also be subject to complex authorizing environments.** They could potentially be regulated by the Ministry of Finance (which is the typical owner of the SIF); the agency that oversees SOEs; as well as capital markets regulators and other regulatory bodies (depending on their sector of intervention). This can potentially subject SIFs to conflicting messages (e.g., to pursue the principle of capital preservation vs. the ability to take risk), reduce their competitiveness, or blur their strategic objectives.

84. **Since SIFs are set up in a heterogeneity of contexts with varying legal traditions, they can be set up by multiple legal frameworks and use multiple legal structures (see Annex D).** Often SIFs are set up by ad hoc law passed by parliament (e.g., ISIF or Nigeria's SWF) and may either not

53 A SIF set up by the government of India to boost infrastructure financing in the country.

54 One of the largest sovereign wealth funds (SWFs) in the world.

have a legal identity or be statutory corporations. But they could equally be set up under a company (e.g., Senegal's FONSI) and use trusts or even limited partnerships as legal structures. An evolution in the SIF model is exhibited by India's NIF, which was set up under India's Alternative Investment Fund regulation and is therefore subject to supervision by the capital markets regulator. See Annex D for examples of these SIFs.

85. SIF governance ideally focuses on government representation at the ownership level and increasingly private sector representation at the board and management levels.

The board of the SIF should be independent from political influence/cycles, but accountable to the government and other investors, as well as committed to the double bottom line. Government should typically not be represented, particularly at the investment committee level of the SIF, since this could risk the perception of politically motivated investments. Ideally the CEO should have the discretion to select and hire his/her team.

86. An example of a SIF which a focus on green investments is sometimes referred to as a strategic green investment fund (SGIF).⁵⁵

Like other SIFs, it is a special purpose investment fund, often with private equity or venture capital strategy. It can also be fully or partly capitalized by a government or several governments. It focuses on double bottom line returns, and focuses on long-term capital, primarily equity. The positive aspects of a SGIF is that the government can set the strategic direction. At the same time, the fund is professionally managed. Also, the fund can leverage private capital at multiple levels (fund and project level). However, governance of a SGIF can be a challenge. (See Annex D for a proposed structure for a SGIF in China).

Relevance for Mekong Delta

87. The VEPF was established under the Prime Minister's Decision No. 82/2002/QD-TTg of June 26, 2002 and is organized and operated under Decision No. 78/2014/QD-TTg dated December 26, 2014 of the Prime Minister (hereinafter referred to as Decision 78/2014/QD-TTg). The VEPF is the National Environment Protection Fund, a state financial institution under the Ministry of Natural Resources and Environment (MONRE). It has legal status, charter capital, its own stamp and balance sheet, and may open accounts at the State Treasury and credit institutions lawfully operating in Vietnam in accordance with the provisions of law. The function of the fund is to lend capital with preferential interest rates, grants, and interest rate support for loans on environmental protection and climate change response. Until June 30, 2019 the Fund has been granted operating capital from multiple sources, amounting to VND 1,661.45 billion. They have used VND 1,132.53 billion as of June 2019.

88. A potentially feasible change to the VEPF may be to convert it to a public sustainable development/ climate funding facility to bring together different sources of public financing targeted for the Mekong Delta. This could be an effective approach for coordinating financing for transformational climate resilient investments in the Integrated Regional Master Plan for the Mekong Delta and, if needed, similar investments in the MKD province's provincial master plans. Compliance with the current Budget Law, however, would require that such a facility be managed by an entity with budget authority (i.e., ministries or provinces). As the type of climate resilience-oriented

⁵⁵ This section draws on work led by FCI colleagues on strategic green investment funds for China.

investments requiring financing in the MKD span multiple sectors and different administrative units, effective management of such a facility would require oversight by a multi-stakeholder entity. An entity that could potentially play this role in Vietnam is the Regional Coordination Council (RCC),⁵⁶ once established.

89. **In compliance with the Law on Governmental Organization and the Law on Public Investment, there are a couple of feasible options to grant the RCC oversight over the sustainable development and climate resilience funding facility.** The first is by declaring a special mechanism (“Cơ chế đặc thù”); the National Assembly Standing Committee would promulgate and assign the Government to implement a pilot regulation on the RCC. As a special mechanism, the RCC would be authorized to make regional investment decisions that are interprovincial and climate resilient and approve budget proposals for such investments from the financing facility. Another option would be for the RCC to be given the mandate of recommending allocations of the funds in the facility to the budget authority overseeing the facility. In both arrangements, the RCC would use a set of criteria⁵⁷ for prioritizing the investments and ensuring the selected investments are aligned with the Mekong Delta Regional Master Plan and climate smart.

90. **The sources of financing for such a facility could include:**

- a. International financial institutions (IFI) loans: Loans from the World Bank (IBRD), Asian Development Bank (ADB), and bilateral donors such as the Japan International Cooperation Agency (JICA) can be channeled through MOF to support the Fund. The IBRD loan for instance can be structured as a credit line or a financial intermediary loan. The facility authority could on-lend the funds to eligible projects that are financially viable and can repay the loan with an on-lending fee to MOF;
- b. Donor grants: These could be from the public sector and be offered in the form of grants at the project or the program level to address a specific barrier or to reduce overall cost. Grants can be used to close funding gaps, especially for non-revenue-generating projects. Grants can also be used to buy down the principal and/or interest of non-concessional loans from IFIs (IBRD, ADB, etc.) to lower the overall financing cost for specific projects. The grants could be from the Global Environment Facility, Green Climate Fund, or UK Prosperity Fund, especially for non-revenue-generating projects;
- c. Local budgets of provinces involved; and
- d. Budget from central budget.

56 The Ministry of Planning and Investment (MPI) has proposed for the Prime Minister’s decision the creation of an institution called the Regional Coordination Council (RCC) for the Mekong Delta. The RCC’s main responsibility will be to support the development and implementation of interprovincial activities that promote climate smart and sustainable economic transformation of the region. The RCC will include representation from all provinces and key sectors, and will base its recommendations on evidence and critical data and information.

57 The criteria used by the RCC could be the climate smart investment selection criteria for the Mekong Delta that MONRE is developing as part of their tasks under Resolution 120 and the regional linkage investment selection criteria for the Mekong Delta that MPI developed under Decision 593 (and is subjected to be revised for the new socio-economic development period). The criteria could also include a measure on alignment with the Mekong Delta Regional Master Plan, augmenting the likelihood that the financed regional investments are both climate smart and contribute to economic transformation.

91. **There are several benefits to a public sustainable development/ climate funding facility in Vietnam.** These include:

- Act as a one-stop-shop for international and domestic sustainable finance, climate finance, environmental finance;
- Channel domestic investments towards sustainable activities by mainstreaming climate change in development planning and investment programming (e.g., climate risk screening, climate finance tracking, GHG accounting, etc.);
- Leverage multilateral and bilateral climate financing;
- Leverage RBCF through carbon markets if the portfolio of investments includes mitigation investments;
- The facility could also leverage capital markets financing through issuance of sovereign green bonds.

92. **To modify the VEPF to internalize on the objectives of the MDF and be structured as a SGIF would require several significant changes.**⁵⁸ GoV would need to first conduct robust analysis to develop the concept. The government should ideally conduct a preliminary analysis that considers the desired objectives and identifies the other relevant policy instruments which aim to achieve the same objectives, and review the desired role, mandate and objectives of the fund. The analysis should also consider the market failure the fund will address and the investor landscape in which it will operate. After this preliminary analysis, a feasibility study can be conducted to clarify the fund's key policy features; refine the mandate; outline the design of the fund's operational features; and the most effective governance and legal arrangements. Rushing the process towards establishing the fund (e.g., driven by political/electoral considerations) could hamper the functionality and sustainability of the fund.

93. **There are several positive elements to upgrading the VEPF to a public financing facility.** For example, the VEPF could leverage, as the focal point for the Global Environmental Facility (GEF), financing available through GEF to meet international climate conventions and agreements covering the incremental costs for measures that deliver on climate resilience in the MKD. Furthermore, the VEPF already collects and manages the fees for certified greenhouse gas emissions reduction (CERs) for CDM projects implemented in Vietnam. Moving forward, VEPF could leverage the next generation of climate markets under Article 6 of the Paris Agreement.⁵⁹ In general, readiness conditions for becoming a financing facility are easier to meet, however financial sustainability will require a mindset shift in the operation of the VEPF. The challenge with a public sustainable development and climate resilience financing facility includes the low long-term certainty of public finance provisions due to scarcity of public funds. There also is a risk of crowding out private spending, if there is no detailed analysis on how the public expenditure addresses market failure.

58 See Annex E for information on elements of MONRE's proposal for modification of the VEPF.

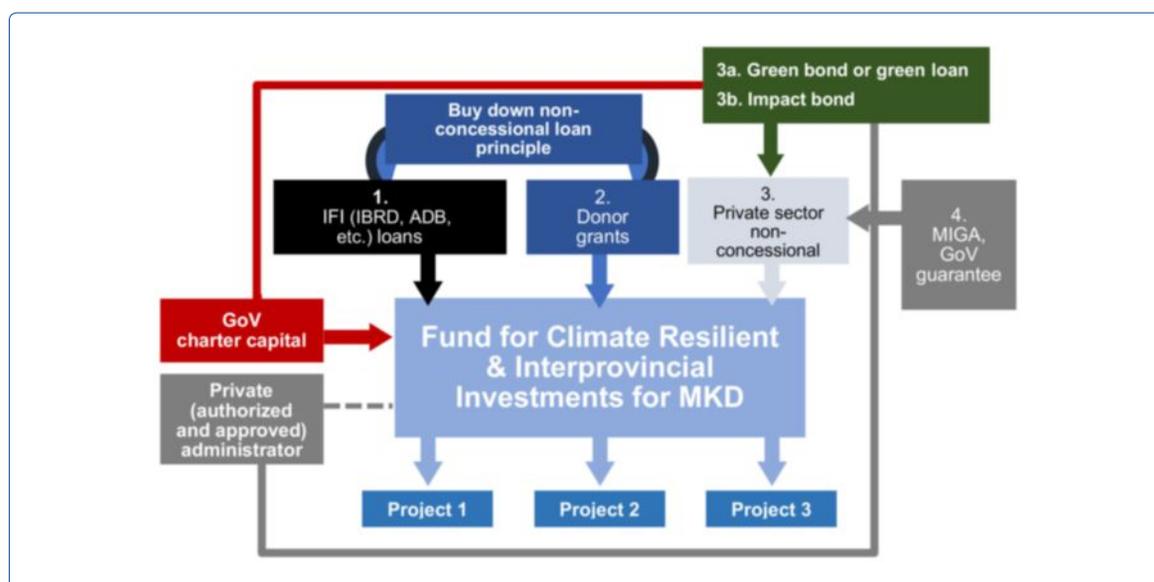
59 The rules and guidance for Article 6 of the Paris Agreement remain unclear, which could create uncertainty for accessing RBCF through post-2020 carbon markets.

94. **A sustainable development and climate resilience financing facility, while an effective way to enhance efficiencies in investments, will require the highest level of commitment from Vietnam’s National Assembly and Government through the approval of a special mechanism.** Effective use of these public funds to also leverage other non-state sources of financing could help address some of the challenges posed by insufficient funding. A key element of the effective operation of the facility will be the overall governance structure, the criteria for project selection, and the monitoring, evaluation and reporting mechanism.

95. **The pathway to creating a sovereign owned SGIF hinges on the strategic objective that the government articulates, and the commercial orientation of the proposed fund.** The double bottom line mandate of the SIF – that is, the simultaneous objective to seek both financial and development returns – is its distinguishing characteristic. Therefore, the government must first clarify its intention in setting up the fund and assess whether a commercial orientation is indeed both viable and desired. Based on a clear intention and the findings of the assessment, the structure of the fund can be determined. The structure should allow for a commercial orientation and robust governance structure (details in Annex D). In addition, for a well-functioning SGIF, the government must commit to a governance structure that ensures that the SGIF board is independent from political influence/cycles, but accountable to the government and other investors, as well as committed to the double bottom line. This often means, as mentioned earlier, that the government should not be represented, particularly at the investment committee level of the SGIF, and there should be no interference in staff recruitment.

96. **A potential structure for a such a fund is presented in Figure 1.** Projects financed by the fund could include both revenue-generating and non-revenue-generating public goods projects and the resource mobilization strategy could dictate the use of suitable financial instruments based on targeted project types.

FIGURE 1: Structure for a Fund Focused on the Climate Resilient and Interprovincial Investments for MKD



97. **The sources of financing for such a Fund could include:**

- a. Donor grants for climate finance, same as those listed above;
- b. Project equity: Equity offers long-term capital, and may offer an opportunity to leverage investors' expertise, in addition to financing. Climate finance in the form of early stage equity investment may be raised from venture capital funds focused on impact investments, or private equity funds. Public sector sources such as the Green Climate Fund also make equity investments;
- c. Debt: Project debt may be low-cost or market-rate, depending on the type of project and source of financing. For example, debt financing from public sector sources may include some element of "concessionality". Debt may also be raised on various terms (e.g., senior or subordinated debt, or mezzanine financing). Debt may be raised directly from financial institutions; for example, through loans. It may also be raised from institutional investors; for example, through green bonds or other type of impact bonds;
- d. IFI loans: IFI loans from IBRD, ADB, and bilateral donors such as JICA can be channeled through MOF to support the Fund. The IBRD loan for instance can be structured as a credit line or a financial intermediary loan. The fund would then on-lend the financing to eligible projects that are financially viable and can repay the loan with an on-lending fee to MOF;
- e. Risk mitigation instruments: Risk mitigation instruments are off-balance sheet financing instruments that strengthen the project to enable it to raise financing from other sources. For example, a partial loss guarantee could offer to cover a part of the debt repayments for a project, thereby increasing the availability or reducing the cost of commercial finance;
- f. Private sector financing: Includes conventional loans, guarantees and bonds, and green loans and bonds. The Fund may have to establish a track record of project revenues before it can access private sector financing. Guarantees from the Multilateral Investment Guarantee Agency (MIGA), Green Climate Fund, or the GoV can be used to credit enhance the loan or bond in order to catalyze the participation of the private sector. The private-side funding could include: institutional investors, National Security Fund Council, securities companies, private equity/venture capital funds, sovereign investment funds, corporates, entrepreneurs, or high net-worth individuals as per GoV laws. Investors are already participating in green growth-oriented funds in regions with a high share of private economy. The key drivers for their participation are the commercial viability of the investments, diversification of sectors and geographies, and sound governance and robust decision-making processes; and
- g. MIGA coverage: MIGA's non-honoring of financial obligations (NHFO) coverage could provide credit enhancement in cross-border transactions involving sovereign and sub-sovereign entities, as well as state-owned enterprises. The primary beneficiaries that can benefit from this coverage are commercial lenders that provide loans to these public sector entities for infrastructure and other productive investments. A GoV transaction does not need credit enhancement. Cross-border loans or bond transactions from the proposed Fund could benefit from MIGA NHFO coverage.

98. **There are several benefits to considering a SGIF, including: the potential to leverage large amounts of private sector investments, including many institutional investors, particularly for financially profitable projects.** It also brings commercial advantages that enable strategic alliances with the private sector. However, establishing a SGIF is complex both in terms of ensuring it is based on suitable upstream analytics, has the right governance structure and transparent functioning. It also can be difficult to mobilize investments for non-revenue-generating projects, which including certain types of climate resilience and adaptation projects. Meeting the readiness conditions (policy, institution, financing) for a SGIF will require more time and effort, assuming there is political commitment, to meet.

Conclusion

IV

99. **High level commitments to the Mekong Delta have enabled some significant advancements in the implementation of Resolution 120.** MPI has been leading the drafting of the Integrated Regional Master Plan for the Mekong Delta and has developed proposals for improving the existing regional coordination mechanisms. MARD leadership has made progress in developing the strategy and orientations for master planning of agricultural development for the entire Mekong Delta, covering issues of crop diversification. They have also advanced the thinking on modernizing irrigation in the region and preventing natural disasters. Similarly, MONRE has been leading the establishment of an interdisciplinary database on the Mekong Delta for sustainable development and adaptation to climate change. MONRE is also working on updating the climate scenarios for the MKD to put in place a common understanding of the climate threats to the region. These efforts need to be complemented by the GoV commitment to operationalize suitable instruments to mobilize financing for climate smart investments in the MKD.

100. **The future financing needs for climate smart economic transformation can be indicatively estimated using various sources of available information.** It is expected that between 2021-2030 the Mekong Delta could require, at a minimum, between USD 4.7 billion and USD 6.7 billion of financing for climate smart investments. Depending on the definition used for climate smart and the infrastructure investments included, the amount could be significantly higher. Mobilizing such volumes of financing will require making available financing for investments more climate smart and securing additional funds for the prioritized investments, especially from non-state financing sources.

101. **The Government's commitment to mobilizing dedicated financing for climate smart investments in the MKD and willingness to make the needed mindset shifts should inform its selection of the suitable suite of instruments it could deploy.** Table 5, below, presents the possible instruments that could be used for financing of prioritized climate smart interprovincial investments in the Mekong Delta. It also provides information on the likelihood of being to operationalize each of the proposed instruments in the short, medium and long term. Depending on the instrument (or combination of options) the Government selects, a more elaborate roadmap would need to be developed, and there are resources and expertise that can be mobilized to assist the government in such an endeavor.

102. **Independent of the instruments selected, Vietnam, as has been done in other countries, will need to commit to a paradigm shift in how business is conducted going forward.** To achieve results, such as climate smart economic transformation in the MKD, the Government will need to address key issues that inform design of financing instruments, choice of financing instruments, and the structure, institutions and regulations that influence the effectiveness of these financing instruments. It will also be imperative to improve government’s financial management of their investment projects going forward in order to attract private capital in the future.

TABLE 5: Summary of Options for Mobilizing Financing for the MKD

Instrument	Feasibility of operationalizing the proposed instrument for climate smart investments in Mekong Delta in the short to long term /1			Key actions by Gov't if the instrument is to be operationalized /2	Key areas for which the instrument could incentivize use of existing financing or mobilize funds /2,3
	Short Term (0-2 years)	Medium Term (3-5 years)	Long Term (5-10 years)		
Results-based Climate Financing	Low	Medium	High	<ul style="list-style-type: none"> Expand the use of RBCFs beyond forest sector Determine feasibility of monitoring the climate smart action, and processing of the payment Develop MRV system (including data and information needed), and conduct baseline analysis for emissions 	<ul style="list-style-type: none"> Energy infrastructure (renewable energy) Nature-based infrastructure for river and coastal erosion
Ecological Fiscal Transfers	Low	High (for pilot)	High	<ul style="list-style-type: none"> Conduct a feasibility study to amend the fiscal code Introduce measurable indices for the ecological service Determine baseline and measure progress 	<ul style="list-style-type: none"> Nature-based infrastructure for river and coastal erosion Floodwater retention infrastructure
Carbon Pricing	Low	Low	Medium	<ul style="list-style-type: none"> Complete analysis to select between carbon tax or ETS – includes conducting the analysis on impact (distributional and financial) of carbon pricing and selecting suitable carbon price Reform tax code to allow earmarking carbon tax revenue for specific purposes 	<p>All areas needing financing unless earmarked for specific areas. If earmarked, could be focused on climate smart investments such as:</p> <ul style="list-style-type: none"> Renewable energy infrastructure Flood protection infrastructure Freshwater retention infrastructure Nature-based river and coastal erosion control

TABLE 5: Summary of Options for Mobilizing Financing for the MKD (Cont.)

Instrument	Feasibility of operationalizing the proposed instrument for climate smart investments in Mekong Delta in the short to long term /1			Key actions by Gov't if the instrument is to be operationalized /2	Key areas for which the instrument could incentivize use of existing financing or mobilize funds /2,3
	Short Term (0-2 years)	Medium Term (3-5 years)	Long Term (5-10 years)		
Instruments for Reducing Risks (e.g., guarantees, insurance, risk sharing facility)	Low	Low	Medium	<ul style="list-style-type: none"> Assessment of key risk constraints to private financing (both domestic and foreign direct investment [FDI]) in the sectors of interest For a sovereign guarantee, work with MOF to establish a credit guarantee fund. For non-sovereign guarantee/ partial guarantee, a non-sovereign fund would be needed. For both need to do analysis to design the fund to ensure its sustainability – for example limit exposure to concentrated risks For insurance – need to ensure good understanding of risk in the sectors of concern. Have improved targeting, design of right insurance product for the target group identified 	<ul style="list-style-type: none"> Infrastructure for agricultural restructuring Port upgrades Value added infrastructure Energy infrastructure
Green Banking and Green Loans	Medium (established on a voluntary basis)	Medium (based on issuance of SBV regulations)	High (based on issuance of SBV regulations)	<ul style="list-style-type: none"> While specific actions are listed below, it is also important to address the current challenges in the overall banking sector Assess demand for green financing and ensure there is not unnecessary competition between green financing and regular financing Determine capacity building required within existing commercial banks to meet SBV issue-specific regulations for commercial banks on green financing Leverage the sustainability-linked loan or bond structure to scale up financing for MKD. 	<ul style="list-style-type: none"> Renewable energy Energy infrastructure (focused on efficiency) Transport and connectivity infrastructure (e.g., inland waterways) Infrastructure for agricultural restructuring Value chain infrastructure

TABLE 5: Summary of Options for Mobilizing Financing for the MKD (Cont.)

Instrument	Feasibility of operationalizing the proposed instrument for climate smart investments in Mekong Delta in the short to long term /1			Key actions by Gov't if the instrument is to be operationalized /2	Key areas for which the instrument could incentivize use of existing financing or mobilize funds /2,3
	Short Term (0-2 years)	Medium Term (3-5 years)	Long Term (5-10 years)		
Green Bond for MKD	Medium (if Gov't issuance)	Medium (if Gov't issuance)	Medium (for international issuance)	<ul style="list-style-type: none"> Green bond framework Green project portfolio (if the sovereign issued green bond is for MKD, it would need to identify financially viable green investments in MKD) Independent external verification of green projects Annual investor reporting (on allocation of proceeds and expected environmental impact) 	<ul style="list-style-type: none"> Transport and connectivity infrastructure (e.g., inland waterways) Renewable energy infrastructure Value-added infrastructure (if includes sustainable/green elements) Transport infrastructure (if lowers emissions) All climate adaptation-oriented investments
Public Financing Facility for MKD	Low	Medium	High	<ul style="list-style-type: none"> Conduct detailed analysis on how public expenditure from a public financing facility would address market failures If proceeding, consider converting the VEPF to a public sustainable development/ climate funding facility to bring together different sources of public financing targeted for the Mekong Delta Review the governance regime required for the public finance facility and consider declaring a special mechanism ("Cơ chế đặc thù") to allow proposed Regional Coordination Council to oversee the public financing facility 	<ul style="list-style-type: none"> Infrastructure for agricultural restructuring (irrigation infrastructure and value addition) Energy infrastructure (including renewable) Transport infrastructure (including inland waterways) Flood protection infrastructure Freshwater retention infrastructure Erosion control infrastructure (nature-based and grey) Monitoring stations

TABLE 5: Summary of Options for Mobilizing Financing for the MKD (Cont.)

Instrument	Feasibility of operationalizing the proposed instrument for climate smart investments in Mekong Delta in the short to long term /1			Key actions by Gov't if the instrument is to be operationalized /2	Key areas for which the instrument could incentivize use of existing financing or mobilize funds /2,3
	Short Term (0-2 years)	Medium Term (3-5 years)	Long Term (5-10 years)		
SGIF for MKD	Low	Low	Medium	<ul style="list-style-type: none"> • Suitable and detailed upstream analytics on range of key issues • Mindset change on fund management and investment selection • Establishment of SGIF through appropriate regulation or ad hoc law • Design suitable governance for SGIF (government representation at the ownership level and increasingly private sector representation at the board and management levels) • Transparent project selection process 	<p>Only the areas of financing that are profitable:</p> <ul style="list-style-type: none"> • Transport infrastructure • Infrastructure for value-added in agriculture • Port upgrades • Renewable energy infrastructure

- 1/ Important to note that the assessment of “feasibility” does not include an assessment of the potential volume of financing in comparison to the needs. The latter would depend on numerous parameters that could be assessed in a deep dive or a specific option.
- 2/ The key actions and key areas for financing listed in these columns provide an indicative list of the actions and areas for financing respectively and should be used more to obtain an indication of how different instruments compare with each other. A more thorough and in-depth analysis of the selected instrument would be needed to provide a more robust and comprehensive list of actions and areas for financing.
- 3/ The key areas of financing are from the list presented in paragraph 27 of the report (key areas of financing identified in Resolution 120). It should be noted that this column does not indicate that the instrument can mobilize enough financing for the listed investment areas. It indicates that the funds mobilized could be used for the listed investment areas but does not indicate if the financing would be sufficient to meet the needs.

Annex A:

Key Elements of Directive 23

Directive 23 urges ministries to accelerate the implementation of financing related actions. More specifically, it calls for:

- Ministry of Planning and Investment (MPI) to lead and coordinate with the Ministry of Finance (MOF) and, the Ministry of Natural Resources and Environment (MONRE) to develop financial mechanisms and mechanisms to attract resources for the Mekong River Delta region. The mechanisms could involve provinces and central level actors. It also mandated MPI to lead and coordinate with concerned ministries and sectors to mobilize an additional USD 2 billion for the period 2021-2025 to complete investment programs and projects in the Overall Action Program for Resolution 120 (No. 417/QD-TTg dated April 13, 2019) and any prioritized new investment in intra-regional and inter-regional projects in the fields of transportation, agriculture, water supply, irrigation, and climate change adaptation which are in accordance with the MKD Regional Master Plan of period 2021 - 2030, with a vision to 2050;
- MONRE to supplement the functions of and increase charter capital and resources for Vietnam Environment Protection Fund (VEPF) in the direction of adding additional tasks related to sustainable development of the MKD and submit to the Prime Minister in 2019;
- MOF to allocate budget for recurrent expenditures to carry out the Overall Action Program to implement Resolution No. 120/NQ-CP and improve the mechanism to regulate and share benefits and allocate revenues from inter-regional and multi-objective projects;
- Ministry of Construction (MOC) to lead and coordinate with the State Bank of Vietnam and concerned ministries and sectors to promote the implementation of mechanisms and policies on housing support credit for poor households and ethnic minority people; and
- Business, professional associations, and investors to participate in the transformation process, increase investment in financial resources and high technology, develop brands for regional products, innovate promotional activities and product consumption, and proactively participate in global value chains.

Annex B:

Estimating Financing Need and Financing Available

TABLE B.1: Regional Coordination Projects Proposed by MOT, MARD and MONRE

Sectors	MOT		MARD		MONRE		Total	
	Number of proposed projects	Proposed Budget						
Transport	10	96,286					10	96,286
Agriculture			32	11,508			32	11,508
Natural resources					11	Unknown	11	Unknown
Total	10	96,286	32	11,508	11	-	53	107,794

Total number of projects proposed by provinces and ministries: 227 (53 from MOT, MARD, MONRE)

Total number of projects approved in MTIP: 18

Total number of projects proposed but not approved: 209

To determine whether the estimated financing need for interprovincial investments submitted by MARD can be considered robust, the amount was triangulated using information on estimated financing needs for specific programs being applied in the Mekong Delta. For example, the total estimated financing required for the Agricultural Transformation Program in the MKD is about VND 17,500 billion (approximately USD 760 million), of which VND 5,500 billion (approximately USD 239 million) would be from the state budget, and the remaining from other sources.⁶⁰ This indicative estimate is based on summing up financing needs of different programs and proposals of the government that are focused on the objectives of agricultural transformation – which include more than generating climate smart outcomes. Moreover, the agricultural sector requires more than the estimated financing for the Agricultural Transformation Program, as there are also other key programs that are relevant for climate resilience of the agricultural sector in the MKD, including irrigation modernization. The estimated value of interprovincial investments in the agriculture sector, therefore, likely provides a lower end estimate of the financing required for climate smart agriculture in the MKD.

⁶⁰ This estimation may include some of the investment projects that are listed in the proposed list of interprovincial investments, but it was not possible to confirm this.

TABLE B.2: **Estimation of Financing Needs for 2021-2025 (DESENRE 2017)**

Area for financing	Amount needed (trillion VND)	Amount available (trillion VND)
Addressing impacts of climate*	112	100
Mekong Delta Plan (2014) no-regret investments	23.8	-
Large-scale transport and inland waterways	63.1	-
Green growth	10	2

* The amount is based on a cost estimation of the impacts of climate change.

Annex C: Review of Extrabudgetary Funds in Vietnam That Have Use in MKD

Fund Name	Who Manages/ Decides the Establishment	Geographic Coverage in the Mekong	Fund Sources	Financing Instruments	Eligible Expenditures	Contribution to Climate Resilient/Smart Growth	
						Current	Potential
Supporting Funds for Farmers⁶¹	The Standing Committee of the Farmers' Association of the same level shall issue a decision on establishment; Farmers Association at the same level manages the Fund	Provincial Funds established in all Mekong provinces	State budget, contributions from cadres of farmers, cadres of civil servants, professional soldiers in the armed forces, non- agricultural households, enterprises, organizations, individuals, international organizations	Loans without interest, but with fees	Support and assist farmer members in the development and replication of economic development models for poverty reduction; to raise the scale of production and goods production, industry development contributing to the economic restructuring and the development of collective economic forms in rural areas; job creation, promotion of advanced technological practices; support for Vietnam Farmers' Associations	MEDIUM	HIGH (if oriented towards climate smart production systems and economic development models)

61 Financing available for Mekong Delta provinces: 1. An Giang: VND 20 billion (Feb 2018); 2. Bac Lieu: VND 2.41 billion at provincial level; VND 1,821 billion at district level (April 2017); 3. Ben Tre: VND 22,405 billion (May 2018); 4. Ca Mau: VND 4.4 billion (2015-2016); 5. Can Tho: VND 19.2 billion (early 2018); 6. Dong Thap: VND 37.4 billion (end of 2017); 7. Hau Giang: VND 26,072 billion (May 2018); 8. Kien Giang: VND 32,522 billion (2017); 9. Long An: VND 26 billion (2016); 10. Soc Trang: VND 19.4 billion (end of 2017); 11. Tien Giang: VND 62 billion (end of 2017); 12. Tra Vinh: VND 15.7 billion (end of 2017); 13. Vinh Long: VND 20.87 billion (end of 2017)

Fund Name	Who Manages/Decides the Establishment	Geographic Coverage in the Mekong	Fund Sources	Financing Instruments	Eligible Expenditures	Contribution to Climate Resilient/ Smart Growth	
						Current	Potential
Environmental Protection Fund⁶²	<p>1. The Prime Minister shall decide on the establishment, organization and operation of the national Environmental Protection Fund, Environmental Protection Funds of ministries, ministerial-level agencies, corporations, state corporations</p> <p>2. The provincial People's Committee shall decide on the establishment, organization and operation of the local Environmental Protection Fund</p> <p>3. The Ministry of Natural Resources and Environment manages Vietnam Environment Protection Fund</p> <p>4. The Department of Natural Resources and Environment manages the local Environmental Protection Fund</p>	Provincial Funds established in An Giang, Kien Giang, Tien Giang, Long An and Ca Mau	State budget; Environmental protection fee; compensation for environmental damage; and voluntary contributions (domestic and international)	Preferential loans for environmental protection projects; interest support for environmental protection projects borrowing capital from credit institutions; Financing, co-financing for environmental protection activities	Projects and plans in the fields of environmental pollution management, natural resource management, biodiversity, prevention of pollution, degradation, environmental incidents, climate change response and clean agriculture	HIGH	HIGH

⁶² The charter capital of the Vietnam Environment Protection Fund (VEPF) increased from VND 500 billion to VND 1 trillion during 2015-2017 as prescribed in the Prime Minister's Decision No. 02/2014/QĐ-TTg of January 13, 2014. In December 31, 2014, the total operating capital of the Fund is VND 844.2 billion; of which the state budget is VND 758.28 billion.

Fund Name	Who Manages/ Decides the Establishment	Geographic Coverage in the Mekong	Fund Sources	Financing Instruments	Eligible Expenditures	Contribution to Climate Resilient/ Smart Growth	
						Current	Potential
Forest Protection and Development Fund ⁶³	Central funds managed by the Ministry of Agriculture and Rural Development. Funds established at the provincial level are decided by the provincial People's Committee. Funds at the provincial level are managed directly by the provincial People's committee or by the Department of Agriculture and Rural Development	Provincial Funds established in Tra Vinh and Kien Giang	State budget, voluntary contributions; Capital entrusted from organizations and individuals (domestic and international)	Payment for environmental services to forest service providers	Forest protection and development; awareness raising; capacity building for forest management, utilization and protection	HIGH	HIGH
Fund for Scientific and Technological Development ⁶⁴	The National Science and Technology Development Fund is established by the Government and managed by the Ministry of Science and Technology. Ministries, People's Committees of provinces are competent to set up funds in ministries and provinces. Provincial funds are managed by the Department of Science and Technology	Provincial Funds established in An Giang (established but not yet operational), Tien Giang, Ben Tre, Tra Vinh and Bac Lieu	State budget; revenues from the fund's operation, profit from scientific research and technological development funds; voluntary contributions (domestic and international)	100 percent or partial financing, lending, loan guarantee	Activities that improve science and technology capacity and research including loans for projects for the application of research results to production and life; activities to improve the capacity of science and technology within ministries or provinces and to support, talented young scientists.	MEDIUM	MEDIUM (depends on the areas of science and technology that are prioritized)

63 The Fund is forecast to collect approximately VND 2.5 trillion (USD 106.4 million) from payments of environmental services in 2018. During the 10-year operation of the Vietnam Forest Protection and Development Fund (VNFF), the fund has mobilized an average of over VND 1.3 trillion (USD 55.3 million) a year from environment service fees.

64 There are two sub-national funds in Mekong Provinces - For Bac Lieu and Ben Tre: the initial charter capital is VND 10 billion.

Fund Name	Who Manages/ Decides the Establishment	Geographic Coverage in the Mekong	Fund Sources	Financing Instruments	Eligible Expenditures	Contribution to Climate Resilient/ Smart Growth	
						Current	Potential
Cooperative Assistance Fund (CAF) ⁶⁵	The Cooperative Development Assistance Fund is set up by the Prime Minister and managed by the Vietnam Cooperative Alliance. The provincial Cooperative Development Assistance Fund is established by the provincial People's Committee and managed by the provincial Cooperative Alliance.	Provincial Funds established in An Giang, Long An, Hau Giang, Dong Thap, Vinh Long, Tra Vinh, Soc Trang, Bac Lieu and Ca Mau	State budget; voluntary contributions (domestic and international)	Investment loans; credit guarantee; and post-investment interest rate support	New investment activities that expand production and business capacities of cooperatives and cooperative alliances	LOW	LOW
Road Maintenance Fund ⁶⁶	Central funds established by the Government. The Prime Minister shall decide on the organizational structure and apparatus of the Fund's management and promulgate the operation regulation of the Central Fund Management Council. Central funds are managed by the Ministry of Transport. Local funds are established and managed by the provincial People's Committee.	Provincial Funds established in all Mekong provinces	State budget, road tolls	Non-refundable.	Expenses for maintenance and management of road works; and other relevant expenses	LOW	HIGH (if includes climate resilient maintenance)

⁶⁵ The charter capital of the CAF at the central level will be VND 500 billion from the state budget for development investment in 2018 and up to VND 1,000 billion by 2020. Information was not available for provincial funds.

⁶⁶ From 2013 to 2017, the fund has earned VND 29,497 trillion from road tolls, of which in 2017, the estimated amount collected is VND 7,047 billion. The Fund's capital was estimated at VND 10,747 billion in 2017 (additional state budget allocations account for the remaining VND 3,700 billion – these are budget allocations for maintenance)

Fund Name	Who Manages/ Decides the Establishment	Geographic Coverage in the Mekong	Fund Sources	Financing Instruments	Eligible Expenditures	Contribution to Climate Resilient/ Smart Growth	
						Current	Potential
Local Development Investment Fund ⁶⁷	Local funds are established by the provincial People's Committee in accordance with the Decree of the Government. Provincial People's Committee (PPC) directly manages the development fund.	Provincial Funds established in An Giang, Kien Giang, Long An, Can Tho, Tra Vinh, Ca Mau, Tien Giang, Dong Thap, Hau Giang, Vinh Long, Bac Lieu	State budget, voluntary contributions (domestic and international)	Investment loans	Direct investment in projects and establishment of enterprises operating in the fields of developing socio-economic infrastructure	LOW	MEDIUM (depending on revisions in the criteria for the Local Development Investment Fund (LDIF) infrastructure selection or standards used for the socioeconomic infrastructure)
Small and Medium Enterprise Credit Guarantee Fund ⁶⁸	The People's Committee of the province decides to set up the establishment in accordance with the Decree of the Government. The provincial People's Committee shall decide on the establishment of an independent executive management organization or entrust the local finance fund in the locality to organize the management and administration of the operation of Credit Guarantee Funds.	Provincial Funds established in An Giang, Dong Thap, Bac Lieu, Ca Mau, Can Tho, Kien Giang and Soc Trang	State budget	Credit guarantee	SMEs that are not sufficiently qualified to credit access in priority areas may receive borrowing capital in (a) areas where credit priority is given under the guidance of the State Bank of Vietnam in each period; (b) areas or projects in priority socio-economic development areas in each period.	LOW	MEDIUM (if priority is given to SMEs that promote climate smart enterprises)

68 Information on financing available for Mekong Delta provinces includes: 1. An Giang: charter capital is VND 130 billion; 2. Bac Lieu: charter capital is VND 50 billion; 3. Can Tho: charter capital is VND 70 billion; 4. Dong Thap: charter capital is VND 90 billion; 5. Soc Trang: charter capital is at VND 30 billion; 6. Ca Mau (no capital); 7. Kien Giang: information not available.

Fund Name	Who Manages/ Decides the Establishment	Geographic Coverage in the Mekong	Fund Sources	Financing Instruments	Eligible Expenditures	Contribution to Climate Resilient/ Smart Growth	
						Current	Potential
Land Development Fund ⁶⁹	Local funds are set up by the provincial People's Committee in accordance with the Decree of the Government. Land Development Fund is directly managed by the provincial People's Committee, or entrusted to the Development Investment Fund or another fund.	Provincial Funds established in An Giang, Kien Giang, Long An, Can Tho, Tra Vinh, Ca Mau and Can Tho. (Note: Tien Giang Land Development Fund merged into Tien Giang Development Investment Fund)	Portion of land use levies, land rents, and land use right auction amounts	Advance for investment	Land Fund Development Organizations; for land fund and resettlement fund; land recovery, compensation and ground clearance, education and training, vocational training, physical training and sports, the environment and other local needs; construction of resettlement areas; construction of infrastructure works where land is recovered; and supporting the difference for households and individuals in resettlement areas	MEDIUM	MEDIUM (unlikely to change significantly)
Housing Development Fund ⁷⁰	Local funds are set up by the provincial People's Committee in accordance with the Decree of the Government. Housing development funds may be set up separately or entrusted to the Development Investment Fund.	Provincial Funds established in Tien Giang, Kien Giang, and Long An	Portion from land use fee; portion of sale and lease from state-owned housing; voluntary contributions	Direct capital investment, loans for social housing projects	Housing development	LOW	MEDIUM (if design of houses is more climate smart)

69 Could not access information on available financing.

70 Could not access information on available financing.

Fund Name	Who Manages/ Decides the Establishment	Geographic Coverage in the Mekong	Fund Sources	Financing Instruments	Eligible Expenditures	Contribution to Climate Resilient/ Smart Growth	
						Current	Potential
(Trade-Investment Promotion Fund)⁷¹	Provincial People's Committee decided to establish. Department of Finance and The Centre of Investment Center - Trade – Tourism Promotion manage the Fund.	Provincial Funds established in Tien Giang, Long An and Ca Mau	Provincial budget support; national investment promotion, trade and tourism funds; voluntary contributions (domestic and international)	Partial financing	Varies by province. Includes support for activities that attract investment in province – including promotion of investment preferential policies, conditions; support to creating conditions for enterprises to access export markets, raise competitiveness of export products, improved marketing knowledge and skills in export activities; diversifying goods, improving the commodity structure, expanding domestic consumption market and export.	LOW	MEDIUM (if there is a focus on climate resilient crops)
Industrial Promotion Fund⁷²	Provincial People's Committee decided to establish. Department of Industry and Trade manages the fund.	Provincial Funds established in Tien Giang, Ben Tre (inactive since 2015) and Dong Thap (inactive)	Provincial budgets; support from the national industrial promotion fund; voluntary contributions (domestic and international)	Interest rate support	Industrial promotion services including activities and services in training consultancy, technology transfer research, information provision, trade promotion, energy efficiency and other activities related to industrial production	MEDIUM	HIGH (if greater focus on energy efficiency and clean industrial production)

71 Could not access information on available financing.

72 Could not access information on available financing.

Fund Name	Who Manages/ Decides the Establishment	Geographic Coverage in the Mekong	Fund Sources	Financing Instruments	Eligible Expenditures	Contribution to Climate Resilient/ Smart Growth	
						Current	Potential
SME Development Fund (national-level) ⁷³	Prime Minister decided to establish. The Ministry of Planning and Investment manages the fund	Since it is a national fund, all provinces in the Mekong are eligible.	State budget	Preferential loans	SMEs with projects and feasible production and business plans in priority fields. The Funds aim to improve the competitiveness of enterprises, thus contributing to increasing income and creating jobs for laborers.	LOW	MEDIUM (same reason as previous row)
Enterprises Development and Restructure Fund ⁷⁴	Prime Minister decided to establish. State Capital Investment Corporation (SCIC) manages the fund.	Since it is a national fund, all provinces in the Mekong are eligible.	Revenues from the equitization of state-owned enterprises; Revenues from other forms of conversion, such as assignment, sale, dissolution, and bankruptcy; Profits and dividends from state-owned enterprises	Provides financial support for redundant laborers and laborers who lose their jobs when state-owned enterprises are restructured. In case proceeds from the business restructuring are not enough; supplementary charter capital is provided to the parent company	Support redundant and dismissed laborers when state-owned enterprises are restructured	LOW	MEDIUM (if the SOEs that are restructured are prioritized to include those that through more efficient management could contribute to climate resilience or lower GHG emissions)

73 Charter capital is VND 2,000 billion.

74 Fund balance at the beginning of 2017 is VND 13,254 billion. In 2017, the fund collected VND 130,093 billion, paid to the state budget in accordance with the Resolution of the National Assembly of VND 60,000 billion and the balance of VND 80,488 billion at the end of 2017.

Fund Name	Who Manages/ Decides the Establishment	Geographic Coverage in the Mekong	Fund Sources	Financing Instruments	Eligible Expenditures	Contribution to Climate Resilient/ Smart Growth	
						Current	Potential
National Employment Fund ⁷⁵	Government established the Fund. The Ministry of Labour, War Invalids and Social Affairs shall perform the state management over funds. The Social Policy Bank manages the Fund.	Since it is a national fund, all provinces in the Mekong are eligible.	State budget; Assistance from domestic and foreign organizations and individuals	Preferential loans	Small and medium enterprises, cooperatives, cooperative groups, business households and laborers to create jobs, maintain and expand jobs; laborers going to work overseas under contracts	LOW	LOW
Provincial Disaster Response Fund ⁷⁶		Provincial Funds established in all Mekong provinces	Required contributions from enterprises and their employees, official/ civil servants, private citizens, and voluntary contributions	Financial support, food and water support, healthcare support	Disaster relief and support; disaster response activities, disaster preparedness; transfers to other localities suffering losses due to natural disasters	HIGH	HIGH

- LOW: does not have any direct or indirect contribution to climate resilience or reducing GHG emissions
- MEDIUM: Supports activities that contribute indirectly to climate resilience or reducing GHG emissions (e.g., makes credit available to those who could implement climate smart or low-carbon activities, or creates the possibility of using the funds for climate smart activities)
- HIGH: Supports activities that contribute directly to climate resilience or reducing GHG emissions (e.g., the funds are only for activities that sequester carbon or enhance resilience)

75 Up to September 2018, according to the report of the Social Policy Bank, loans from the National Employment Fund reached over VND 4,497 billion in the period of 2016 to June 2018, the annual loan amount is about VND 2500-3000 billion. In the first six months of 2018, lending activities from the National Employment Fund have seen remarkable progress, with loans of around VND 2,500 billion.

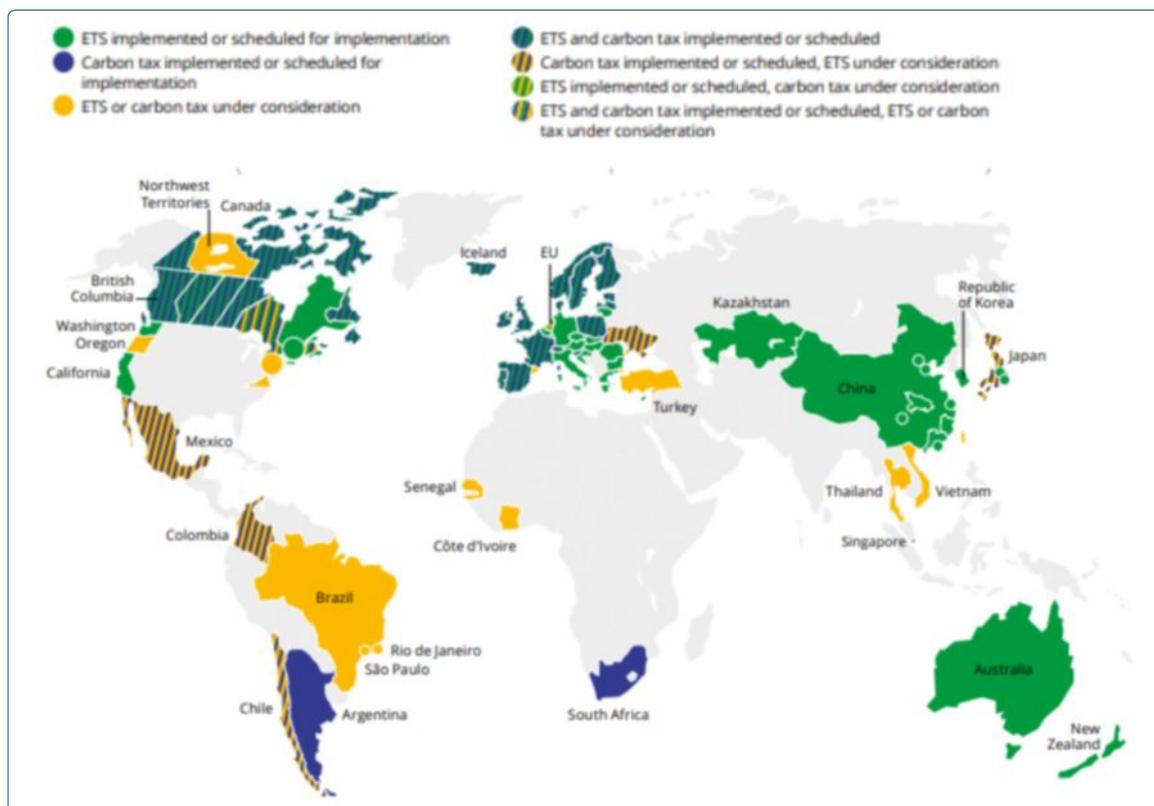
76 Could not access information on available financing.

Annex D: Additional Information on Instruments for Incentivizing or Mobilizing Additional Financing for Climate Smart Activities

Carbon Pricing Instruments

By April 2019, 40 governments worldwide had adopted some form of carbon pricing, either through direct taxes on fossil fuels or through cap-and-trade programs. Figure A presents the wide-ranging initiatives on carbon pricing.

FIGURE A: Ongoing and Planned Initiatives for Carbon Pricing



Source: <http://documents.worldbank.org/curated/en/191801559846379845/pdf/State-and-Trends-of-Carbon-Pricing-2019.pdf>

Structural Features of SIFs⁷⁷

Below are three examples of sovereign-sponsored SIFs and their structural features. As these examples show, and as discussed above, the government may choose ad hoc law or commercial law to create the fund. The examples also show a variety of ways in which the government chooses the management structure for the fund such that there is an identified professional manager who can invest the fund's assets in a commercial manner to meet its strategic objective.

SIF	Legal Framework	Legal Structure
Ireland Strategic Investment Fund 2014 [Ireland]	<u>Set up by Act of Parliament: NTMA (Amendment) Act, 2014:</u> sets up the fund under state agency, transferring assets/ liabilities of NPRF into Fund; Complies with EU State Aid rules (no market distortion)	Not a separate legal entity Fund is a collection of assets managed by NTMA
<p>The Ireland Strategic Investment Fund (ISIF) is a fully state-owned EUR 8.8 billion fund (as of December 31, 2018) with the double bottom-line mandate to invest (i) on a commercial basis and (ii) in a manner designed to support economic activity and employment in Ireland. It was established by an act of parliament, specifically the NTMA (Amendment) Act, 2014.⁷⁸ ISIF is not a separate legal entity; it is a fund comprising a collection of assets, owned by the Ministry of Finance and managed and controlled by the National Treasury Management Agency (NTMA) (subject to the direction of the Minister for Finance in respect of the directed portfolio element of the ISIF). The NTMA is a public agency that provides a range of asset and liability management services to the Irish government. ISIF does not include third-party capital.</p>		
Nigeria Infrastructure Fund (NIF – NSIA) 2011	<u>Set up by ad hoc parliamentary law: NSIA Act, 2011</u> Exempt from securities law, bank/ financial institutions legislation	“Body corporate” (but <u>not</u> governed by corporate law)
<p>The Nigeria Infrastructure Fund (NIF or the “Fund”) is a fund established by the Nigeria Sovereign Investment Authority (NSIA or the “Authority”) to boost the development of the country’s infrastructure, with the double bottom-line goal of realizing a commercial return and investing in infrastructure that might otherwise not be financed and developed. The fund size was USD 650 million as at June 2018. NSIA is an agency of the Nigerian Federation. NSIA is funded with hydrocarbon revenues in excess of Nigeria’s budgetary requirements, allocated to central and local governments and then partially channeled to the Authority. Nigeria’s federal constitution allocates oil revenues to central and sub-national governments in pre-determined ratios. In turn, these recipients allocate funds to NSIA according to the same ratios, which are reflected in their ownership stakes in the Authority. NSIA’s current ownership structure is as follows: federal government 45.8 percent, state governments 36.2 percent, local governments 17.8 percent, federal capital territory 0.2 percent. NSIA was established by ad hoc parliamentary law – the NSIA Act – in May 2011, as a “body corporate.” NIF is a ring-fenced pool of capital managed by NSIA under its own distinct investment policy. It is a fund without a separate legal identity.</p>		

77 This section is drawn from a note by Shanthy Divakaran, team leader and co-author of an upcoming World Bank publication on strategic investment funds.

78 NTMA (Amendment) Act, 2014. Link: <http://www.irishstatutebook.ie/eli/2014/act/23/enacted/en/pdf>

SIF	Legal Framework	Legal Structure
FONSIS 2012 [Senegal]	<u>Established by Senegal National Assembly with Law 2012-34,</u> ratified by President of Republic Complies with OHADA legislation, system of corporate law for West/ Central African nations	Limited liability company (governed by and subject to all provisions of corporate law)
National Investment and Infrastructure Fund (NIIF) 2014 [India]	<u>Set up under commercial legislation: India's Alternative Investment Fund (AIF) Regulation</u>	Trust (governed by Trust Law under common law model) to mimic class GP/LP structure
<p>The National Investment and Infrastructure Fund (NIIF) was set up by the Government of India to catalyze foreign institutional equity capital for the Indian infrastructure sector and related businesses. NIIF is governed by certain select core principles, including that the Government would be a minority investor in each fund, with a stake of 49 percent and the rest of the capital would be provided by commercial investors; and each fund invests on a full commercial basis. The Government's capital towards NIIF is currently allocated across three funds – the Master Fund, the Fund of Funds and the Strategic Opportunities Fund (together referred to as “NIIF”) – all managed by the same investment manager (NIIF Limited). NIIF Limited was intentionally set up by the Government as a company (not a state-controlled development agency) to emphasize its role as a manager of commercial investments and the independence of investment decisions from policy objectives. As an independent, commercial entity, NIIF has no formal right to any infrastructure project that the Government may consider divesting, nor obligations to invest in policy-driven projects. All three NIIF funds are AIF Category II funds under India's alternative investment funds (AIF) regulations and do not have any special dispensations under the law. NIIF funds are unit trusts under the common law model which are set up to mimic the classic private equity GP/LP structure. Given the principle of government as minority investor, NIIF currently has both external sovereign investors, such as Abu Dhabi Investment Authority (ADIA) and Singapore's Temasek investing in the NIIF Master Fund, as well as pension funds (Australian Super and Ontario Teachers), investing alongside the Government of India's capital in infrastructure assets in India.</p>		

Strategic Green Investment Fund⁷⁹

Discussions are underway in China on the creation of a SGIF. The rationale for the investment fund was to address the financing gap in China's economy. The objectives of the fund would be to attract private capital in the financing of green investments. It would contribute to the establishment of a green financial system in China – with clear standards for green assets and investment, transparent and professional selection of investments, reporting and information disclosure, and compliance mechanisms. The Fund would create an innovative financing structure to serve the growing investment needs. The comparison of SGIFs with other instruments for mobilizing financing reveals its comparative advantage (see Table 4 comparing SIFs with other instruments)

The investment focus is proposed to cover six priority green finance sectors:

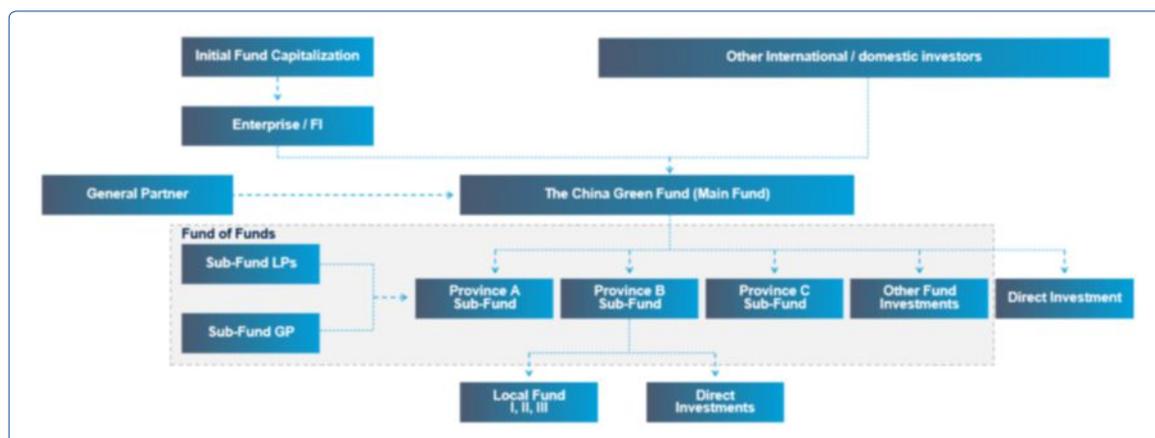
- a. Energy efficiency;
- b. Renewable energy;
- c. Pollution control and prevention;
- d. Resource efficiency and recycling;

⁷⁹ This section draws on work led by FCI colleagues on strategic green investment funds for China.

- e. Cleaner transport;
- f. Ecological protection and climate adaptation,

The aim would be investments with a double bottom line. This implies both financial returns (IRR) and social and economic returns (ERR). For the latter, the World Bank Group shadow-price cost-benefit analysis would be applied. The SGIF could also adopt ESG Standards. The proposed structure is described in Figure B.

FIGURE B: **Proposed Structure and Features of a SGIF in China**



Examples of Public Sustainable Development/ Climate Funding Facility

Fund	Governance	Funded Activities	Funding Source	Sustainability
China CDM Fund (CCDMF)	<ul style="list-style-type: none"> - Governed by a board. The board is inter-ministerial, comprised of NDRC, MOF, MOFA, Ministry of Science and Technology, MEE, Ministry of Agriculture and China Meteorological Administration - Managed by the CCDMF Management Center, which is responsible for raising and managing funds - Uses World Bank & ADB social and environmental safeguards 	<ul style="list-style-type: none"> - Mainly used to finance investment programs to leverage additional private resources and test innovative financial instruments for climate change - Investments resulted in a direct reduction of over 7 m tCO₂e - CCDMF focuses on grants - The fund also supported policy studies, capacity building and outreach 	<ul style="list-style-type: none"> - Revenue from CDM projects in China; operating revenue; donations from domestic and international institutions/ individuals - There is more than USD 81 million in grants committed to support over 200 projects 	<ul style="list-style-type: none"> - CCDMF develops wealth management activities through bank deposits and purchase of treasury bonds, financial bonds and corporate bonds - Revenue from CDM revenues is the main source of finance. This could become a challenge in the long term given the transition from CDM to post-2020 climate markets. However, CCDMF is the accredited entity for the GCF

Examples of Public Sustainable Development/ Climate Funding Facility (Cont.)

Fund	Governance	Funded Activities	Funding Source	Sustainability
Namibia Environmental Investment Fund	<ul style="list-style-type: none"> - In 1995, the Ministry of Environment and Tourism (MET) was asked to identify the implementing agency independent of the government to manage the Fund. The Fund was considered to complement but not substitute government actions. The fund was officially launched in 2012. - Governance consists of the Board of Directors, technical advisory and staff team (office of the CEO, finance & administration, operation) 	<ul style="list-style-type: none"> - Financial instruments include grants (for adaptation, tourism etc.), concessional loans (for low-carbon development pathways), subsidies (private sector, individuals) 	<ul style="list-style-type: none"> - Created by the Act 13 of 2001 of the Parliament of the Republic of Namibia. - Currently funded by the Government budget with mandates to tap on local conservation fees and environmental levies. 	<ul style="list-style-type: none"> - Primarily depends on government budget availability. However, the 2018-2022 business strategy highlights the need to identify financing from private sector and development partners - EIF is the national implementing entity of GCF and GEF
Ethiopia Climate-Resilient Green Economy (CRGE) Initiative	<ul style="list-style-type: none"> - Directed by the Ministerial Steering Committee and Technical Committee. - There are sub-technical committees for different sectors (electric power supply, agriculture, transport, industry etc.) - Overall responsibility lies with Ethiopia's Environmental Council. The council is chaired by the Prime Minister and comprises of members drawn from Federal Ministers, Presidents 	<ul style="list-style-type: none"> - Follows a sectoral approach and has identified more than 60 initiatives based on their feasibility and relevance to government targets - Focuses on four pillars: (a) crop and livestock production; (b) forestry; (c) electricity generation from renewable sources for domestic and regional markets; (d) leapfrogging to modern and energy efficient technologies in transport, industrial sectors and buildings 	<ul style="list-style-type: none"> - Government budget - Identified that a funding pool of at least USD 20 billion a year should be obtained through various climate finance schemes, including: bi/multilateral grants; bi/multilateral pay-for-performance deals (e.g., results-based finance); and offset markets/ETS 	<ul style="list-style-type: none"> - Three types of financing required: (a) those with positive return and only require short-term financing; (b) those with positive return but require long-term financing, and (c) those that do not yield a positive (financial) return and hence require grants or performance payments - The fund would fund more than half of its expenditure on initiatives with positive financial

	<p>of National Regional States and representatives from non-governmental bodies, private sector and trade unions. The Environmental Council can approve environmental standards and directives independently. The Council can also install a subsidiary body to directly oversee the CRGE. This could be governed under the co-responsibility of the EPA and the Ministry of Finance and Economic Development</p>	<ul style="list-style-type: none"> - Four initiatives for fast track implementation: exploit hydropower potential large-scale promotion of rural cooking technologies; efficiency improvements to livestock value chain; REDDD 		<p>returns (more than 20 percent of the expenditure will already have positive returns and be paid back in the short run)</p>
<p>Bangladesh Climate Change Trust</p>	<ul style="list-style-type: none"> - Governed by the board - Managed by the Ministry of Environment and Forest (MOEF) - Established under the Climate Change Trust Act (2010)⁸⁰ - Supported by a Technical Committee headed by the Secretary of the MOEF, which is responsible for examining projects. The Palli Karma Sahayak Foundation (a government-owned company) is overseeing non-governmental projects 	<ul style="list-style-type: none"> - 66 percent of budget for funding projects and 34 percent for responding to emergencies⁸¹ - As of 2014, 218 government and 63 non-governmental projects 	<ul style="list-style-type: none"> - USD 400 million allocated by the national budget 	<ul style="list-style-type: none"> - Depends on government budget availability

80 <http://www.iccad.net/introduction-to-the-bangladesh-climate-change-trust-fund-2/>

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Annex E: Elements of MONRE's Proposal for Modifying the VEPF to Include Objectives of the MDF

The current submission from MONRE to Vietnam's Prime Minister for drafting of the Prime Minister's Decision on organization and operation of VEPF (replacing Decision No. 78/2014/QĐ-TTg dated December 26, 2014) proposes various changes to the VEPF. This includes the following requests:

- a. Amend and supplement the principle that the Fund is subject to examination, inspection and audit by competent state management agencies in accordance with provisions of law; and revenues and spending tasks of the Fund do not overlap with revenues and spending tasks of the State budget;
- b. Supplement the task of financial support for activities related to sustainable and climate resilient development of the MKD;
- c. Supplement the fund powers to: i) inspect the organizations using the Fund's capital to implement climate change response activities nationwide and activities on sustainable and climate resilient development of the MKD; ii) recover loan capital before maturity for investors that violate commitments; iii) directly accept the entrustments of domestic and foreign organizations and individuals;
- d. Keep the current Fund's operating model, organizational structure, management and administration apparatus for the following reasons:
 - i. The Fund's operating results in recent years have proven that the current operating model is appropriate and effective and contributed to reducing environmental pollution; at the same time, for the past 17 years, the Fund has not used the state budget to spend on regular activities;
 - ii. The current operating model is suitable for the specific task of providing financial support for environmental protection activities nationwide, and it is also more convenient for emergency assistance to address environmental pollution caused by natural disasters and environmental incidents. If moving to a 100 percent state-owned limited liability company, it will operate under the Enterprise Law, and then be difficult for the Prime Minister and the Minister of MONRE to directly assign tasks to the VEPF, while in reality,

there are many tasks on addressing the incidents, environmental protection with specific characteristics, which need to be handled and solved immediately;

- iii. The current management and administration apparatuses of the Fund ensures participation of state management agencies right from the beginning (representatives of the MONRE, MOF, MPI and SBV); helping to maximize the role of the state in managing financial support activities, ensuring that capital sources are used for the right purposes, right subjects and efficiently.
- e. Supplement the Fund's capital sources to include the charter capital and annual supplementary capital. Increase the Fund's charter capital from VND 1,000 billion to VND 3,000 billion; by 2022, fully granted with VND 3,000 billion. The Fund's charter capital is supplemented by the state budget and the Fund's Development Investment Fund and there would be annual supplementary capital from the following sources: the state budget's spending on the environmental cause to provide funding, support for the environmental protection projects and tasks performed annually and to offset the amounts spent by the Fund for implementation of programs and projects assigned by the Prime Minister and the Minister of MONRE; fees for selling and transferring CERs; grants, supports, voluntary contributions and entrusted investments of domestic and foreign organizations and individuals; the Fund's capital sources lawfully created before the effectiveness date of this Decision;
- f. Do not change the responsibilities of concerned Ministries and sectors.

