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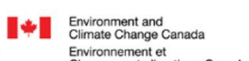


# REPORT

## IDENTIFICATION OF KNOWLEDGE AND CAPACITY GAPS REGARDING GREEN FINANCE WITHIN MOF AND DEVELOPMENT OF A CAPACITY-BUILDING PLAN

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Prepared by:



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## Executive Summary

Effective capacity building in green finance is essential for ensuring that MOF staff can develop, implement, and oversee sustainable financial policies and instruments. This report identifies critical knowledge and capacity gaps within the MOF regarding green finance and proposes a structured capacity-building plan to address these gaps. The plan focuses on three key areas: Training and Skills Development, Technical Assistance and Advisory Support, and Institutional Strengthening, aiming to enhance MOF's ability to integrate green finance principles into policy and operations.

Findings are based on a literature review, international benchmarking, document analysis, online surveys (170 respondents), and in-depth interviews (10 participants). The assessment evaluates MOF staff's familiarity with green finance concepts, challenges in implementation, and training needs. By comparing current capacity with the best practices of the global, this report provides a targeted strategy to strengthen MOF's role in advancing sustainable finance.

### CURRENT KNOWLEDGE AND CAPACITY GAPS IN GREEN FINANCE

The assessment of **training and skills development** within MOF reveals several critical gaps that limit staff capacity in green finance including:

- Limited specialization in green financial instruments such as green bonds, sustainability-linked bonds (SLBs), and carbon markets;
- Insufficient hands-on learning opportunities, leading to a disconnect between theoretical knowledge and practical application in financial policymaking and regulation;
- Lack of structured, progressive training programs, making it difficult for staff to build long-term expertise in green finance and adapt to evolving industry standards;
- Weak ESG assessment skills, which are increasingly critical for policymaking, investment screening, and regulatory oversight in sustainable finance.

In terms of **Technical Assistance and advisory support**, the evaluation identifies the following constraints that hinder MOF's ability to develop a globally aligned green finance strategy. These include:

- Limited understanding of international compliance frameworks, making it difficult to attract foreign investment and align with global sustainability standards;
- Weak carbon accounting methodologies and sustainability data verification, particularly in the areas of greenhouse gas (GHG) measurement, reporting, and verification (MRV), hinder MOF's ability to accurately assess the impact of green finance initiatives. Ministry of Finance lacks capacity in GHG MRV, as these tasks are primarily handled by environmental regulatory bodies. However, in Vietnam, there is the lack of standardized MRV frameworks results in inconsistencies in emissions data collection, challenges in tracking financed emission reductions, and difficulties in aligning with international reporting standards. Strengthening MRV capacity will be

critical for enhancing transparency, regulatory compliance, and investor confidence in Vietnam’s green finance sector;

- Lack of technical expertise in climate risk modeling and stress testing, leaving Vietnam’s financial system vulnerable to climate-related disruptions;
- Limited access to international experts and mentorship programs, restricting MOF’s ability to adopt best practices and accelerate green finance capacity development.

The assessment of **institutional strengthening** for green finance within MOF reveals several structural and coordination challenges that must be addressed. These include:

- Unclear regulatory guidance and inconsistent enforcement mechanisms, limiting market confidence in green finance policies;
- Weak inter-agency coordination, leading to fragmented policy development and inefficient resource allocation;
- Insufficient funding and human resources, restricting Vietnam’s ability to scale sustainable finance initiatives;
- No formalized system for capacity-building and knowledge retention, reducing the long-term sustainability of green finance expertise within MOF.

### KEY RECOMMENDATIONS FOR ENHANCING GREEN FINANCE CAPACITY WITHIN MOF.

This structured categorization highlights training gaps, technical challenges, and institutional weaknesses that hinder MOF’s ability to effectively implement and oversee green finance policies. By prioritizing specialized training, expert advisory support, and institutional reforms, MOF can develop a highly skilled workforce capable of aligning Vietnam’s green finance sector with international best practices.

To enhance MOF’s green finance capacity, training programs must transition from general knowledge to specialized skill-building in areas such as climate risk modeling, ESG reporting, and carbon market operation; Incorporate real-world case studies, interactive workshops, and mentorship programs with international experts; Establish a long-term, structured learning framework with progressive courses, refresher modules, and certification programs.

The below table proposes a structured roadmap with short-term (0-1 year), medium-term (1-3 years), and long-term (3-5 years) actions. This roadmap is designed to build technical expertise, improve regulatory enforcement, and strengthen institutional capacity, ensuring that MOF staff and policymakers are equipped with the necessary knowledge and skills to support Vietnam’s sustainable finance transition.

#### *Implementation Roadmap*

Timeframe	Category	Actions
Short-Term (0-1 Year)	Training & Capacity Building	Launch Core Training Program on <b>Green Finance Fundamentals</b> , including global frameworks (Paris Agreement, SDGs, EU Taxonomy), green financial instruments (bonds, SLBs, carbon markets, impact investing), and ESG integration. Conduct in-person workshops, mentorship programs, and webinars with international experts. Expanded to include quantitative tools (e.g., ESG scoring), qualitative frameworks (e.g., governance assessments), sector-specific risk metrics (e.g., emissions, water usage), and integration into financial

		risk assessments and investment screening. This addresses the weak ESG assessment skills noted in the gap analysis, enhancing decision-making and compliance.
	Technical Support & Data Infrastructure	Provide technical training on <b>carbon accounting, disclosure standards (TCFD, ISSB), and sustainability-related risk analysis</b> . Collaborate with development partners to build <b>knowledge-sharing platforms</b> for emissions tracking and compliance. Added specificity to training by including scope definitions (Scope 1, 2, 3), verification mechanisms (e.g., audits), and alignment with GHG Protocol and ISSB standards. These address the gap in weak carbon accounting methodologies identified in the report, ensuring staff can measure and verify emissions effectively.
	Institutional Coordination	Establish <b>Green Finance Coordination Task Force</b> with MOF, MPI, MONRE, and SBV to align regulatory efforts and strengthen policy coordination Outlined a structured governance framework with defined roles (e.g., MOF for fiscal policy), data-sharing protocols (e.g., standardized emissions data), and policy alignment mechanisms (e.g., regular meetings). This addresses weak inter-agency coordination, ensuring cohesive green finance strategies.
<b>Medium-Term (1-3 Years)</b>	Advanced Training & Specialization	Introduce <b>Advanced Training Modules</b> for policy analysts on climate risk modeling, ESG integration, and financial resilience planning. Expand workshops on <b>policy incentives for green finance</b> , including green subsidies and environmental tax reforms
	Enhancing Regulatory Oversight	Develop a <b>national carbon accounting framework</b> and an integrated ESG and climate finance data platform. Implement real-time tracking for <b>green investments, sustainable finance market trends, lending practices, and risk mitigation strategies</b> .
	Strengthening Public-Private Partnerships	Strengthen <b>public-private partnerships (PPPs)</b> to attract green finance investments. Align Vietnam's green finance regulations with international standards to increase foreign investor confidence and market credibility Incorporated clear guidance on de-risking green investments through blended finance (public-private capital blending), sovereign guarantees (government-backed risk mitigation), and risk-sharing facilities (e.g., guarantees). This tackles the challenge of mobilizing private investment, enhancing market attractiveness.
<b>Long-term (3-5 years) actions</b>	Institutionalizing Green Finance	Create a <b>Green Finance Knowledge Hub</b> for centralized learning and regulatory updates. Develop a <b>formal certification program</b> for MOF staff in collaboration with universities and global finance institutions.
	Global Market Integration	Expand the <b>green bond market and carbon trading mechanisms</b> . Establish a <b>Green Finance Advisory Panel</b> with global financial experts. Vietnam should pursue a combination of sovereign green bonds and private sector-driven green investments to create a resilient and impactful green finance strategy. Sovereign bonds provide leadership and credibility, while private investments drive innovation and scale. With strong frameworks, incentives, and capacity-building, Vietnam can align its financial system with sustainability goals, attract diverse investment, and accelerate its transition to a green economy. This balanced approach ensures both sectors contribute effectively to Vietnam's environmental ambitions.

	Climate Risk Management	Implement <b>mandatory ESG and climate risk disclosure requirements</b> for financial institutions. Develop <b>automated climate risk stress testing tools</b> for financial stability assessments. Detailed scenario analysis with NGFS climate scenarios (e.g., orderly vs. disorderly transitions), stress testing methodologies (e.g., physical and transition risks), and regulatory expectations (e.g., disclosure mandates). This strengthens the limited expertise in risk modeling identified, aligning with global financial stability requirements.
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By following this phased approach, MOF will gradually build expertise, enhance regulatory effectiveness, and institutionalize sustainability considerations into financial planning, securing long-term economic resilience and environmental sustainability.





# 1. Introduction

## Background

There are several factors contributing to the knowledge and capacity gaps regarding green finance, both generally and specifically within the Ministry of Finance (MOF) of Vietnam. Traditional financial education rarely incorporates environmental sustainability, as the environment has often been treated as an external factor in economic models.

Furthermore, the development of green finance has been rapid in recent years, characterized by the ongoing dissemination and updating of standards, initiatives, and green finance products. However, these advancements are primarily concentrated in OECD countries and a few emerging economies like China or India. For emerging markets and developing economies, external assistance typically comes in the form of project financing from multilateral development banks. Thus, greater emphasis should be placed on enhancing the capacity to integrate green finance principles into domestic financial systems.

## Need of knowledge and capacity building regarding green finance

Vietnam's MOF plays a crucial role in shaping the country's fiscal policies and financial regulations. As Vietnam progresses towards a green economy and carbon neutrality by 2050, MOF must integrate green finance principles into its public financial management (PFM), investment policies, and tax frameworks. However, the transition to sustainable finance requires specialized knowledge and institutional capacity to develop and implement effective policies, mobilize private sector investments, and align with international best practices. The need for enhanced expertise in green finance within MOF is critical to ensure that Vietnam's financial system supports long-term sustainability and climate resilience.

One of the key drivers for strengthening MOF's green finance knowledge is the evolving global regulatory landscape. International frameworks such as the EU Taxonomy for Sustainable Finance, the Task Force on Climate-Related Financial Disclosures (TCFD), and the ASEAN Green Finance Guidelines are setting new standards for financial risk management, disclosure, and sustainable investment criteria. Without a deep understanding of these regulations, MOF may struggle to align Vietnam's financial system with international requirements, potentially limiting access to green investment flows and climate finance from development partners. Additionally, carbon pricing mechanisms and emissions trading systems (ETS) are becoming essential tools for climate mitigation, but MOF lacks the necessary expertise in designing and managing carbon credit markets and fiscal incentives for emissions reduction.

Capacity-building in green finance is also essential for strengthening Vietnam's domestic financial market. The issuance of green bonds, sustainability-linked bonds, and climate-resilient financial instruments require technical expertise in structuring, verification, and reporting to ensure market credibility. While Vietnam has begun to develop its green bond market, the lack of a standardized regulatory framework and limited capacity within MOF to assess green financial risks and opportunities hampers its full potential. Furthermore, financial institutions and investors require clear guidelines and incentives to shift capital towards environmentally sustainable projects. Without MOF's leadership in green fiscal policy and

financial regulation, Vietnam's transition to a green economy may face delays and inefficiencies.

In addition, climate-related financial risks pose a significant threat to Vietnam's economy, particularly as the country is highly vulnerable to climate change impacts. MOF must integrate climate risk assessment into public budgeting, debt management, and infrastructure financing to ensure long-term fiscal sustainability. This requires enhanced knowledge in environmental, social, and governance (ESG) factors, climate risk modeling, and sustainability reporting standards. Strengthening inter-ministerial collaboration with the Ministry of Planning and Investment (MPI), the State Bank of Vietnam (SBV), and the Ministry of Natural Resources and Environment (MONRE) is also crucial to ensure policy coherence and effective implementation of green finance strategies.

Finally, MOF must build institutional capacity to mobilize international climate finance and green investment flows. Multilateral development banks (MDBs) and climate finance institutions such as the Green Climate Fund (GCF), the World Bank, and the Asian Development Bank (ADB) offer funding opportunities for sustainable development. However, without specialized expertise in green finance project structuring, MOF may not fully leverage these financial resources. Strengthening MOF's technical capacity will enable Vietnam to attract more international green finance, develop effective policy incentives, and accelerate the transition towards a low-carbon, climate-resilient economy.

Hence, the knowledge and capacity gaps in green finance within MOF Vietnam must be addressed to enhance policy effectiveness, attract investment, manage climate risks, and align with global standards. Investing in capacity-building initiatives, developing clear regulatory frameworks, and strengthening inter-agency coordination will be essential to ensure that Vietnam's financial sector supports sustainable economic growth and environmental sustainability.

### **Objectives of the report**

The objective of this report is to identify the current gaps of knowledge and capacity within the MOF regarding green finance and develop a targeted capacity-building plan to address these gaps, strengthening MOF's ability to implement and manage green finance initiatives effectively.

In addition, in this phase, the findings from the gap analysis will be used to design a structured, actionable capacity-building plan that addresses the identified knowledge and capacity gaps within the MOF regarding green finance. The plan will outline specific activities, training modules, and technical assistance needed to enhance MOF's capacity to effectively integrate green finance principles into its operations. The capacity-building plan will be structured around three core components:

- **Training and Skills Development:** Formal training programs and workshops tailored to MOF staff to enhance understanding of green finance.
- **Technical Assistance and Advisory Support:** Provision of expert guidance, technical tools, and advisory services to support MOF's integration of green finance in policy-making and financial operations.

- **Institutional Strengthening:** Recommendations for strengthening MOF's internal systems, processes, and collaboration to support long-term green finance capacity.

## **Methodology**

Based on literature review and using inputs from reports of international organizations such as IFS (2023), IFC (2019), ADB (2019), the key knowledge and capacity in green finance is identified and suggested.

The online surveys with questionnaires (see Appendix 2), in-depth interviews (see Appendix 3), and document analysis are used for gathering information about the current knowledge and capacity in green finance and current capacity building initiatives in MOF Vietnam (see Appendix 1). The survey and in-depth interviews were conducted among MOF staff to assess their familiarity, engagement, and training needs in green finance. The key areas covered include current job roles and responsibilities related to green finance; understanding of green finance concepts; challenges faced in green finance implementation; training needs and preferred learning methods. A total of 170 respondents participated in the survey and 10 in-depth interviews, providing insights into MOF's readiness in implementing and advancing green finance policies.

By comparing current knowledge and capacity in green finance and current capacity building initiatives in MOF Vietnam with the key knowledge and capacity in green finance and international benchmarking, the knowledge and capacity gaps regarding green finance within mof and development of a capacity-building plan.

## 2. Key Knowledge and Capacity in Green Finance

According to ADB (2019), the key knowledge areas of green finance can be categorized into the following themes: Identifying financial barriers to green energy and climate finance; developing financial strategies like green bonds, carbon pricing, and risk-sharing mechanisms; leveraging fiscal and central banking policies to integrate green finance into mainstream economic planning; encouraging private-sector participation through fintech, investment funds, and community-based finance; strengthening international cooperation through financial and technology transfer mechanisms.

IFC (2019) highlighted green finance involves financial instruments, policies, and investment strategies that support environmental sustainability, climate action, and green economic transformation. Accordingly, the key knowledge areas essential for understanding green finance includes:

- **Fundamentals of Green Finance:** Definition and scope of green finance, global trends and frameworks for the development of green finance, such as Paris Agreement (2015) – Commitments to limit global warming below 2°C; Sustainable Development Goals (SDGs) – Particularly SDG 7 (clean energy), SDG 13 (climate action), SDG 12 (sustainable consumption & production); EU Taxonomy for Sustainable Finance – Defines which economic activities are environmentally sustainable.
- **Green Financial Instruments:** Definition, scope, characteristics, etc. of several types of green financial instruments, including green bonds, sustainability-Linked Bonds (SLBs), green loans, green credit lines, carbon markets and emissions trading, cap-and-trade systems, voluntary carbon markets, blended finance, green private equity and impact Investment.
- **Climate Risk and Financial Stability:** Understanding climate-related financial risks and climate risk assessment in finance, such as Task Force on Climate-Related Financial Disclosures (TCFD), scenario analysis, such as stress testing financial portfolios against climate change impacts.
- **Greening and ESG Integration:** Understanding Environmental, Social, and Governance (ESG) Finance, ESG factors integrated into financial decision-making and investment strategies, Global Reporting Initiatives (GRI), ISSB Sustainability Standards, EU SFDR (Sustainable Finance Disclosure Regulation), Green financing and Sustainable Lending such as financial institutions incorporating ESG risks in credit assessments, development of green financial products (e.g., green mortgages, electric vehicle insurance, etc.).
- **Policy and Regulatory Frameworks for Green Finance:** Knowledge about green fiscal policies, such as carbon taxes, green subsidies, and environmental tax reforms, public finance strategies for green infrastructure (e.g., climate-resilient transport, renewable energy); Knowledge about international green finance policies such as aligning financial policies with climate goals (EU Green Deal), Regional framework for sustainable investment (ASEAN Green Finance Guidelines), developing green credit, bonds, and insurance (Green Finance Principles in China).
- **Green Finance Market Development and Mobilizing Private Investment:** Public-Private Partnerships (PPPs) for green investments, government collaboration with



private investors for large-scale green projects, combining concessional (public) finance with commercial investments for green initiatives.

- **Incentives for Private Sector Participation:** Green tax credits, risk-sharing mechanisms, and regulatory support.
- **Measuring and Reporting Green Finance Impacts:** Classifying economic activities based on sustainability criteria (e.g., EU Taxonomy, China's Green Bond Catalog); International Sustainability Standards Board (ISSB), Global Reporting Initiative (GRI), Principles for Responsible Banking (PRB); Impact Measurement & Verification, such as quantifying emissions reductions, energy savings, and social benefits, use of third-party verification (e.g., Climate Bonds Initiative certification).

According to IFS (2023), based on lessons and experiences from jurisdictions that have successfully developed their sustainable finance markets, capacity in the following six areas is critical: taxonomies, disclosure, product innovation, risk analysis and management, policy incentives, and origination of sustainable projects.

Developing green finance requires knowledge in financial instruments, risk assessment, policy frameworks, and investment mobilization to drive sustainable economic transformation.

Table 1 presents a comprehensive framework of key topics essential for green finance knowledge capacity building within the MOF of Vietnam. This structured approach covers critical pillars such as fundamentals of green finance, financial instruments, disclosure regulations, risk analysis, policy frameworks, and market development. Given the rapid evolution of sustainable finance, this table can be expanded and customized to integrate emerging areas such as transition finance, biodiversity financing, and sustainable supply chain finance.

As transition finance gains importance in global climate action, it is crucial to incorporate additional expertise beyond the listed skills, particularly in developing transition plans, setting emission reduction targets, and implementing sector-specific decarbonization strategies. These competencies are fundamental for firms, financial institutions, and policymakers to effectively navigate the transition towards a low-carbon and sustainable future. Moreover, enhancing institutional capacity in risk analysis, incentive design, and regulatory alignment will support MOF's role in mobilizing green investments, integrating ESG frameworks, and ensuring the credibility of Vietnam's sustainable finance ecosystem.

The selected topics in Table 1 provide a holistic approach to strengthening MOF's capacity in green finance policy implementation, regulatory oversight, and investment mobilization. Given the increasing demand for sustainable financial products and the necessity for robust risk management mechanisms, the integration of science-based transition targets, structured public-private partnerships (PPPs), and incentives for private sector participation will be critical. As Vietnam continues to advance its green finance strategy, inter-ministerial coordination, global knowledge exchange, and engagement with development partners will be essential to ensure alignment with international best practices and effective implementation of sustainable finance initiatives.

Table 1: Selected Topics for Green Finance Knowledge- Capacity Building for MOF

Pillars	Skills Needed
Fundamentals of Green Finance	Understanding green finance concepts, global frameworks (Paris Agreement, SDGs, EU Taxonomy)
	Green Financial Instruments: Knowledge of green bonds, SLBs, green loans, carbon markets, blended finance, and impact investing
Disclosure	Regulation and Guidance
	Carbon Accounting
	Disclosure against international frameworks and national regulatory requirements (e.g. TCFD, ISSB)
	Sustainability-related risk, climate risk, environmental risk analysis, Data collection, analysis and verification
Incentives	Policy incentives design (monetary, fiscal, and other non-pricing tools)
Risk analysis and mitigation	Identify, quantify and manage climate and environment related risks, including physical and transition risks for climate.
	Assessing climate-related financial risks (physical & transition), stress testing, TCFD scenario analysis
Greening and ESG Integration	Integrating ESG factors into financial decision-making, ESG disclosure frameworks, sustainable lending practices
Policy and Regulatory Frameworks for Green Finance	Designing carbon taxes, green subsidies, environmental tax reforms, and regulatory alignment with global policies
	Regulation and guidance on product and market development
Green Finance Market Development	Building green financial markets, mobilizing private investment, designing sustainability-focused policies
Cross-cutting	Public-Private Partnerships (PPPs) for Green Investments: Structuring PPPs, risk-sharing mechanisms, and mobilizing capital for large-scale green projects
	Developing science-based net zero targets and implementation plans

Source: Authors

### 3. Current knowledge and capacity in green finance in MOF Vietnam

The online surveys get 170 responses, with the following characteristics of respondents with characteristics are shown in Table 2. Majority of respondents (50%) are specialists or analysts in various departments, while a smaller proportion are at managerial levels. A significant portion (30%) have been working in MOF for over 10 years, indicating an experienced

workforce. Engagement with green finance varies, with 25% reporting that over half of their workload involves green finance, while 40% indicated a low involvement (0-25%).

*Table 2: Respondents of the surveys*

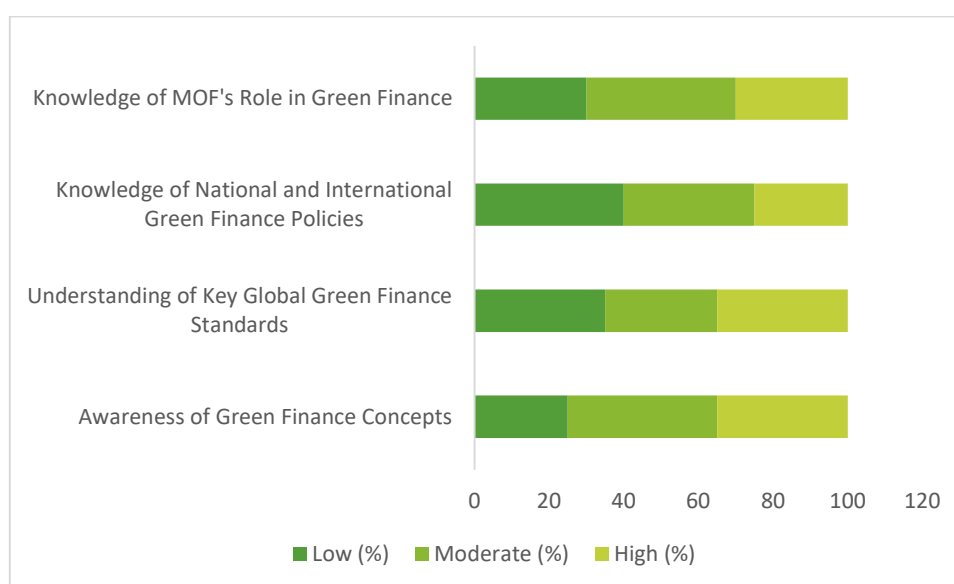
	Accountings (%)
<b>Positions</b>	
Leaders of Agencies Department belongs to MOF	5.8
Department and intermediate level leaders	11.8
Staff, employees	82.4
<b>Time of working in MOF</b>	
Under 1 year	0
From 1-3 years	29.4
From 3-10 years	41.2
More than 10 years	29.4
<b>What extend works related to green finance</b>	
0-25%	52.9
26-50%	23.5
51-75%	17.6
>75%	6.0

*Source: Author*

### **The respondents rated their familiarity with key knowledge and capacity in green finance**

Figure 1 presents an assessment of respondents' familiarity and understanding of key green finance concepts, international standards, national policies, and the Ministry of Finance's (MOF) role in green finance. The data is categorized into three levels: Low, Moderate, and High Knowledge, based on responses from the survey. Basing on the responses from the questions on awareness of green finance concepts, understanding of key global green finance standards, knowledge of national and international green finance policies, knowledge of MOF's role in green finance, categorized knowledge levels into 3 groups: Low (%): Respondents who indicated "Not Familiar" or "Limited Knowledge."; Moderate (%): Respondents who indicated "Partially Familiar" or "Some Knowledge."; High (%): Respondents who indicated "Very Familiar" or "Strong Knowledge.".

Figure 1: Evaluation of Green Finance Knowledge Levels



Source: Author

The results indicate that 25% of respondents have a low awareness of green finance concepts, while 40% have a moderate understanding, and 35% possess high knowledge. This suggests that while a significant proportion of participants are familiar with basic green finance principles, there remains a need for further awareness-building initiatives, particularly for those with limited knowledge.

The level of understanding of global green finance standards (e.g., TCFD, ISSB, EU Taxonomy) is relatively low, with 35% of respondents indicating limited knowledge. Only 35% reported a high level of familiarity, highlighting a gap in expertise regarding international regulatory frameworks and best practices. Strengthening training on global standards can help align Vietnam's financial sector with international sustainability practices.

The survey reveals that 40% of respondents lack adequate knowledge of Vietnam's national green finance policies and international initiatives (such as the Paris Agreement and the Sustainable Development Goals). While 35% have moderate familiarity, only 25% possess in-depth knowledge. This signals a need for targeted training programs and policy dissemination efforts to improve understanding and implementation.

Respondents demonstrated a relatively better understanding of the MOF's role, with 30% having low knowledge, 40% moderate knowledge, and 30% high knowledge. Although awareness is higher compared to other areas, a substantial proportion still lacks clarity on the Ministry's strategic initiatives, financial tools (e.g., green bonds, carbon pricing), and policy interventions in promoting sustainable finance.

### Analysis and Assessment of MOF Staff's Self-Evaluation of Green Finance Capacity

#### *Limited Confidence and Familiarity in Green Finance Tools and Concepts*

The survey results indicate that a significant proportion of MOF staff lack confidence in using tools for green finance and environmental impact assessment. Most respondents (70.6%) reported being only somewhat confident, while 23.5% stated that they are not confident in

managing green finance data and assessment tools. This aligns with the observation that most staff have only partial familiarity with connecting financial data to environmental impacts, with 64.7% indicating limited knowledge in this area.

Furthermore, specific green finance-related analytical tools such as ESG databases, quantitative risk modeling, and sustainability metrics remain underutilized. Only a small fraction of respondents indicated familiarity with software like SPSS, STATA, MSCI ESG Manager, or ESG data analytics platforms, reinforcing the technical skill gap in financial sustainability analysis and impact measurement frameworks.

#### *High Demand for Capacity-Building in Quantitative Analysis and Risk Assessment*

The survey responses reveal a strong demand for additional training in key technical areas, particularly in quantitative research methods, climate risk management, and financial impact assessment. Staff members expressed interest in: Enhancing their skills in risk assessment related to climate change and environmental policy; Improving their understanding of green bond issuance and sustainable investment instruments; Developing proficiency in ESG data collection, analysis, and reporting. The fact that “Quantitative analysis for sustainability indicators” received the highest priority for training (76.5%) suggests that MOF staff recognize the need for data-driven decision-making but currently lack sufficient expertise to apply these concepts effectively.

#### *Divergent Perspectives on Regulatory Barriers*

A notable proportion of respondents identified green finance policies and regulations as a key area requiring more training. Topics such as: Understanding green finance policy frameworks and regulatory compliance; Legal aspects of sustainable finance, including ESG standards; Impact evaluation of green investment projects and fiscal instruments. This reflects the growing need for MOF staff to enhance their knowledge of global best practices in sustainable finance governance, particularly as Vietnam moves towards implementing carbon pricing mechanisms, green bonds, and climate-related financial disclosures.

Interestingly, 35.3% of respondents stated that they did not perceive policy or regulatory challenges as significant barriers. This suggests that while some officials recognize regulatory hurdles, others may feel that current regulations are sufficient but require better execution rather than further policy development. Additionally, 11.8% of respondents did not provide a definitive response, indicating that awareness and engagement levels regarding green finance policies vary across different departments.

#### *Gaps for Data and Impact Assessment Skills*

The survey highlights a clear gap in staff capacity for impact assessment and data-driven sustainability reporting. Many respondents expressed interest in training on: Collecting and analyzing ESG data for financial reporting, assessing the environmental and social impact of green projects, integrating climate risk factors into financial decision-making. Given Vietnam’s ongoing efforts to develop green taxonomies, carbon markets, and sustainability-linked financing frameworks, strengthening data infrastructure and analytical capabilities will be essential for MOF staff to effectively oversee and implement these policies.



### Scoring the general level of capacity

The capacity levels (Low, Moderate, High) were assigned based on the analysis of survey responses from MOF staff and shown in Table 3. Below is the methodology used to determine each level for different skills under the green finance framework.

- **Familiarity and Confidence Levels in Key Green Finance Areas:** Responses indicating low familiarity with green finance concepts, ESG frameworks, and financial instruments resulted in a Low capacity score. Responses showing partial familiarity or confidence resulted in a Moderate capacity score. If responses indicated strong familiarity and expertise, a High capacity score would have been assigned (though none met this criterion).
- **Survey Data on Training Needs and Knowledge Gaps:** Areas where respondents requested additional training (e.g., quantitative sustainability analysis, policy guidance, ESG risk assessment) were marked as Low capacity. If respondents showed some capability but still expressed a need for improvement, it was marked as Moderate.
- **Challenges Faced in Implementing Green Finance:** Barriers such as lack of access to data, unclear policies, and resource constraints were considered when assessing the institutional capacity for policy, disclosure, and financial instruments. Higher percentages of respondents highlighting these challenges indicated a Low capacity score.
- **Use of Analytical Tools:** Respondents showed low familiarity with ESG-related tools (SPSS, STATA, MSCI ESG Manager, Green Bonds Analysis, etc.), suggesting limited technical capacity in risk analysis and data collection. This led to Low scores in Data Collection, Risk Analysis, and ESG Integration.

*Table 3: Justification for Capacity Level in Green Finance*

Pillars	Skills Needed	Capacity Level	Justification Based on Respondent Feedback
<b>Fundamentals of Green Finance</b>	Understanding green finance concepts, global frameworks (Paris Agreement, SDGs, EU Taxonomy)	<b>Moderate</b>	Some familiarity exists, but a majority requested additional training.
	Green Financial Instruments: Knowledge of green bonds, SLBs, green loans, carbon markets, blended finance, and impact investing	<b>Low</b>	Many respondents lacked knowledge of green bonds and sustainable financial instruments.
<b>Disclosure</b>	Regulation and Guidance	<b>Low</b>	Responses highlighted unclear regulatory frameworks as a challenge.

Pillars	Skills Needed	Capacity Level	Justification Based on Respondent Feedback
	Carbon Accounting	Low	Lack of confidence in using data-driven approaches and accounting tools.
	Disclosure against international frameworks and national regulatory requirements (e.g. TCFD, ISSB)	Low	Respondents struggled with ESG reporting and data collection.
	Sustainability-related risk, climate risk, environmental risk analysis	Moderate	Some awareness exists, but technical guidance is still lacking.
	Data collection, analysis, and verification	Low	Many respondents highlighted data inaccessibility as a major barrier.
Incentives	Policy incentives design (monetary, fiscal, and other non-pricing tools)	Moderate	Respondents showed some policy awareness but lacked advanced expertise.
Risk Analysis and Mitigation	Identifying, quantifying, and managing climate and environmental risks	Low	A lack of knowledge about stress testing, risk modeling, and scenario analysis.
	Assessing climate-related financial risks, stress testing, TCFD scenario analysis	Low	Respondents expressed a lack of technical skills for such risk assessments.
Greening and ESG Integration	Integrating ESG factors into financial decision-making, ESG disclosure frameworks, sustainable lending practices	Low	Low familiarity with ESG reporting and decision-making frameworks.
Policy and Regulatory Frameworks	Designing carbon taxes, green subsidies, environmental tax reforms, and regulatory alignment with global policies	Moderate	Some understanding of policies exists, but implementation remains a challenge.
	Regulation and guidance on product and market development	Low	Many respondents cited regulatory uncertainty as a major challenge.

Pillars	Skills Needed	Capacity Level	Justification Based on Respondent Feedback
<b>Green Finance Market Development</b>	Building green financial markets, mobilizing private investment, designing sustainability-focused policies	<b>Low</b>	Limited understanding of financial market mechanisms for green finance.
<b>Cross-cutting</b>	Public-Private Partnerships (PPPs) for Green Investments	<b>Low</b>	Limited exposure to structuring green PPPs.
	Developing science-based net zero targets and implementation plans	<b>Low</b>	Few respondents demonstrated familiarity with net-zero target setting.

*Source: Author*

In general, the capacity of MOF staff in green finance is predominantly low to moderate, with no skills reaching a high level of expertise. The following key trends emerged from the assessment, more detail:

- Limited knowledge of financial instruments for green finance: Low capacity in understanding green bonds, sustainability-linked bonds (SLBs), green loans, and carbon markets. Limited technical skills in applying blended finance and impact investing strategies. Hence, training is required to enhance expertise in designing and issuing green financial instruments.
- Weak technical capacity in disclosure and data analysis: Limited knowledge of ESG reporting frameworks (e.g., TCFD, ISSB, EU Taxonomy); Low capacity in carbon accounting, sustainability risk analysis, and financial disclosure; Lack of access to necessary ESG and sustainability-related data for financial decision-making.
- Moderate understanding of policy incentives and regulatory frameworks: Some familiarity exists with policy tools such as green subsidies, environmental tax reforms, and incentive mechanisms. However, a lack of clarity in regulations and policy implementation remains a key challenge.
- Limited expertise in risk analysis and climate finance modeling: Low capacity in assessing climate-related financial risks, stress testing, and scenario modeling. Weak understanding of how to integrate transition and physical risks into financial decision-making. Hence, training is needed to enhance risk modeling and mitigation strategies for climate finance.
- Weak integration of ESG principles in financial decision-making: Low awareness of ESG disclosure frameworks and sustainable lending practices; Limited technical knowledge on incorporating ESG factors into investment and credit analysis.
- Challenges in market development and mobilizing private investment: Limited expertise in structuring Public-Private Partnerships (PPPs) for green investments; Lack of familiarity with mechanisms to mobilize private finance for sustainability-focused projects. Hence, need for stronger capacity in developing green financial markets and engaging with investors.

## **Challenges in Green Finance Implementation**

This section analyzes the key challenges faced by the Ministry of Finance (MOF) staff in implementing tasks related to green finance. The analysis is based on survey responses, which highlight critical barriers that impact the effective execution of green finance initiatives within the organization. The findings provide insights into the areas requiring strategic focus and capacity-building efforts.

### *Lack of Technical Expertise in Green Finance*

One of the primary challenges identified by MOF staff is the lack of specialized technical skills in green finance. Approximately 64.7% of respondents indicated that lack of technical expertise in green finance hinders their ability to effectively perform their duties. This finding underscores the need for targeted training programs to enhance competencies in areas such as ESG data management, climate risk assessment, and green bond issuance.

### *Insufficient Technical Guidance*

The survey results show that 70.6% of respondents reported insufficient technical guidance as a significant barrier. This suggests that the existing support structures and resources for green finance implementation are inadequate. Staff require clear technical guidelines and standard operating procedures to navigate the complexities of green finance regulations and practices.

### *Resources and Financial Constraints*

Another major challenge identified is limited resources or financial constraints, with 64.7% of respondents acknowledging this issue. The development and implementation of green finance projects often demand substantial investments in technology, data systems, and capacity-building. Limited access to funding and resources restricts the ability of MOF staff to execute comprehensive green finance initiatives.

### *Ambiguous Policies and Regulations*

The survey highlights that 52.9% of respondents perceive a lack of clear policies or regulations as a barrier. This reflects the need for more robust and coherent policy frameworks to support green finance activities. Clear regulations are essential to ensure consistency in implementation and to provide guidance on compliance with international standards.

### *Lack of Alignment with International Standards*

A significant proportion of respondents (52.9%) also cited lack of alignment with international standards as a challenge. This indicates that current practices and policies may not fully align with global green finance norms, such as those related to ESG criteria, carbon markets, and sustainable investment frameworks. Enhancing alignment with international best practices is crucial for attracting international investments and ensuring credibility in the global financial market.

### *Limited Access to Data and Relevant Tools*

The most frequently reported challenge, with 76.5% of respondents, is limited access to data or relevant tools. This barrier significantly impacts the ability of MOF staff to conduct data-driven analysis and make informed decisions in green finance. Access to accurate and comprehensive data is vital for effective risk assessment, impact measurement, and monitoring of green finance projects.

The survey results indicate a growing awareness of green finance within MOF, but significant knowledge gaps remain in carbon markets, climate risk assessment, and ESG integration. A strategic approach to training and capacity building will be essential to empower MOF staff in driving Vietnam's green finance agenda effectively.

## 4. Snapshot of current capacity building initiatives

The Ministry of Finance (MOF) of Vietnam has been actively engaging in various capacity-building initiatives to enhance its ability to manage green finance, climate risks, and sustainable investment mechanisms. In recent years, MOF has partnered with international organizations such as the World Bank (WB), International Monetary Fund (IMF), Global Green Growth Institute (GGGI), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and the French Development Agency (AFD) to develop technical expertise, regulatory frameworks, and market-based mechanisms for green finance. These initiatives primarily focus on public financial management (PFM), sustainable debt management, carbon pricing, and the integration of environmental, social, and governance (ESG) considerations into financial decision-making.

One of the notable capacity-building efforts includes MOF's collaboration with GGGI in the Green Bond Readiness Program, which aims to enhance Vietnam's green capital market by providing technical support for issuing green bonds and MOU with AFD in the green fiscal policies (Box 1). This program has helped develop guidelines for green bond issuance and facilitate knowledge-sharing on international best practices. Similarly, through its partnership with the World Bank's Joint Capital Markets Program (J-CAP), MOF is strengthening the regulatory framework for sustainable finance, market transparency, and supervision mechanisms to attract more private investments into green projects. Meanwhile, collaboration with AFD has focused on issuance of green sovereign bond, and carbon emission trading to support Vietnam's net-zero commitment by 2050. These programs have significantly improved MOF's technical capacity in designing and implementing green financial instruments, but further efforts are needed to scale up green finance initiatives across sectors.

*Box 1: Capacity-building and technical assistance of AFD and MOF Vietnam in 2023-2024*

The MOU between MOF Vietnam and AFD serves as a framework for technical cooperation between the Ministry of Finance (MOF) of Vietnam and the French Development Agency (AFD) to enhance MOF's capacity in developing green financial policies through technical assistance in the following areas:

- Strengthening analytical and policy assessment capacity for green taxation.
- Supporting the development of a legal framework and enhancing the capacity for issuing green government bonds in the financial market;



- Enhancing research capacity in managing and utilizing revenues from the carbon market;
- Other areas of cooperation as mutually agreed upon in writing by the Parties.

The technical cooperation for 2023 and 2024 has been materialized through the implementation of initiatives related to three key topics: environmental taxation, carbon markets, and green bonds. Notable activities include:

- November 2023: An online working session with French experts to exchange experiences and best practices from France and internationally on environmental taxation, carbon markets, and green bonds.
- January 2024: A coordination and implementation meeting for executing the cooperation agreement.
- March 2024: A consultation workshop and specialized training program on environmental taxation, carbon markets, and green bonds to present analytical reports on the current status of these three topics by French experts and provide recommendations for Vietnam.
- May 2024: Completion of the Analytical Report and submission to the Ministry of Finance.
- June 2024: A follow-up implementation meeting for the cooperation agreement.
- September 2024: A training and knowledge exchange program on environmental taxation, carbon markets, and green bonds in France and Belgium.

*Source: Documents of AFD*

In addition to market development, MOF has taken steps to integrate climate-related financial risk management into public finance strategies. Through its engagement with the IMF, MOF has received technical assistance on incorporating climate risk assessments into fiscal policy and debt sustainability analysis. Meanwhile, collaboration with AFD has focused on environmental taxation. This includes training on carbon pricing, green taxation, and fiscal incentives for climate action. These efforts have enhanced MOF's ability to formulate climate-responsive financial policies, though challenges remain in mainstreaming climate risk into national budgeting and expenditure planning.

Recognizing the importance of institutional capacity-building, MOF has also participated in regional and global sustainability initiatives.

*Table 4: Examples of capacity building initiatives and platforms*

<b>Types of Sponsors</b>	<b>Name of the initiative/Platform</b>	<b>Descriptions</b>	
		<b>Topic coverage</b>	<b>Key features</b>
<i>Initiatives from development partners</i>	AFD, GIZ, EU-GIZ, GGGI, IFC, WB...	Sustainable finance roadmaps/Strategy; Green Tax, Green bond, Green Fiscal policy, Management and disclosure of ESG risks; Others	Providing peer-to-peer exchanges, such as study tours, virtual knowledge exchanges, and learning events, among members. Providing toolkits and research materials.

<i>Types of Sponsors</i>	<i>Name of the initiative/Platform</i>	<i>Descriptions</i>	
		<i>Topic coverage</i>	<i>Key features</i>
			Providing high-level intergovernmental country and/or regional experience exchanges in developing green finance. Facing national regulators, big financial firms and other international organizations.
<i>Annually course, training workshop by international organizations</i>	IMF STI, IMF Capacity Development Office In Thailand (CDOT), The IMF Institute for Capacity Development (ICD)	Macroeconomics of Climate Change - Green Public Finance, Inclusive Growth - Climate Change, Climate Risks for the Financial Sector...	Providing toolkits and research materials in hybrid format. Providing high-level intergovernmental country and/or regional experience exchanges in developing green finance. Special focus on senior employees of MOF and SBV
<i>Workshops, conferences by academic institutions, newspapers, governments</i>	MOF, MPI, MONRE,... Investment Magazine, Financial Magazine,...	Various topics on green and sustainable finance Following latest trends	Providing a series of capacity building events facing regional and international audience. Aiming to both provide general knowledge on green and sustainable finance and addressing some country-specific sustainability challenges

*Source: Authors*

## **SWOT analysis of capacity-Building between MOF Vietnam and development Partners**

### ***Training and Skills Development***

**Strengths:** MOF has engaged in structured training initiatives, such as the collaboration with GGGI on green bond readiness and technical training. Programs like IMF's training on green public finance and ESG compliance have enhanced MOF's technical capacity ; Workshops and study tours with Luxembourg and international experts on sustainable finance have contributed to practical learning

**Weaknesses:** According to the information received from the departments of MOFs in the meeting, the feedback from training is often theoretical, with fewer hands-on applications in MOF's daily operations. Surveys show that while some MOF staff are familiar with green finance, others lack expertise in ESG reporting, carbon pricing, and sustainable finance frameworks.

**Opportunities:** International partners can provide more technical workshops tailored to MOF's green finance needs. Enhancing training to integrate green finance concepts into budgeting and policy-making.

**Threats:** There are fast-changing global standards. Keeping up with evolving ESG standards and international taxonomies require continuous capacity building. MOF has limited funding for continuous, large-scale training initiatives.

### ***Technical Assistance and Advisory Support***

**Strengths:** International partners such as IMF, WB, GGGI, GIZ and AFD provide ongoing advisory services to MOF on green fiscal policies, carbon markets, and green taxation.

**Weaknesses:** Assistance from multiple partners lacks a centralized framework, leading to potential inefficiencies. The lack of robust data infrastructure for green finance tracking hinders policy effectiveness.

**Opportunities:** There is opportunity for enhanced technical integration. Aligning advisory support with MOF's policy-making processes can optimize implementation. Other is implementing digital platforms for emissions tracking and financial transparency.

**Threats:** A lack of internal expertise could create long-term dependency on external consultants. Vietnam's evolving regulatory landscape could slow down the integration of advisory recommendations.

### **Institutional Strengthening**

- **Strengths:** The past and present initiatives, such as the SHIFT project by GIZ, IMF's fiscal reform programs, and AFD's green fiscal initiatives have helped MOF align with national sustainability goals. Merge of MOF and MPI will be completed in March in 2025 and coordination between MOF, SBV, and MONRE on green and sustainable finance policies has improved.
- **Weaknesses:** Lack of a centralized governance mechanism leads to inefficiencies in implementing green finance policies.
- **Opportunities:** Establishing dedicated teams within MOF to oversee green finance strategies. Aligning financial policies with global ESG frameworks to enhance regulatory compliance.
- **Threats:** External macroeconomic factors could shift priorities away from green finance.

## 5. Gaps and Challenges for knowledge and capacity building regarding green finance within MOF

### Training and Skills Development

#### **Limited Depth and Specialization in Training Programs**

Current training programs primarily cover basic green finance concepts, with limited focus on advanced, specialized topics such as: Green bond structuring and verification; Carbon market operations and emissions trading mechanisms; Sustainability-linked financial products (e.g., SLBs, green loans, transition finance); Green insurance. This lack of specialized training limits MOF staff's ability to design, implement, and regulate complex green finance instruments, which are becoming critical to Vietnam's sustainability transition. Without deeper expertise, staff may struggle to align policies with global best practices, making it more difficult to attract international investment into Vietnam's green financial market. Survey results and feedback in the meeting with MOF's departments indicate that the majority of respondents identified a need for further training on policy development for green finance, especially green tax, green bond issuance, green insurance. This suggests that there is strong demand for more targeted and specialized training content.

#### **Insufficient Integration of Practical, Hands-on Learning**

The past training programs are heavily theoretical, with limited hands-on learning opportunities such as: Workshops on green bond issuance and verification; Simulations of carbon trading and ESG risk assessments; Case studies on green project financing and climate-related financial disclosures. Without scenario-based exercises, MOF staff lack the opportunity to apply theoretical knowledge to real-world financial structures. This leads to gaps in skill translation, where staff members may understand concepts but struggle to implement them effectively. Survey results show that 76.5% of respondents prefer in-person training workshops, while 47.1% favor practical, hands-on training sessions. This underscores a strong demand for more interactive and experiential learning rather than traditional lecture-based formats.

**Lack of Continuous and Progressive Training Structure:** Capacity-building efforts within MOF are often short-term or conducted on an ad hoc basis, with no structured learning pathway that allows staff to progress from fundamental to advanced expertise. As a result, there are no refresher courses to help staff retain or update knowledge. Training programs do not offer skill progression, meaning employees often take the same introductory courses without advancing to higher levels. Given the rapidly evolving landscape of green finance, MOF staff must keep pace with new international regulations, financial instruments, and market developments. Without a structured, long-term approach to training, there is a risk of knowledge gaps widening over time. Survey data shows that 41.2% of respondents prefer biannual training, while another 41.2% favor monthly training, indicating a need for more frequent and structured learning opportunities rather than one-off training events.

#### **Limited Focus on ESG and Environmental Impact Assessment Skills**

A major deficiency in current training programs is the lack of emphasis on ESG (Environmental, Social, and Governance) assessment and environmental impact evaluation. ESG compliance and risk reporting are becoming essential in green finance, yet many MOF staff lack the technical ability to assess ESG performance in financial projects. Without strong ESG evaluation skills, MOF faces challenges in monitoring the environmental and social impacts of green finance initiatives, which is critical for investor confidence and policy credibility.

## Technical Assistance and Advisory Support

### **Inadequate Training in International Green Finance Standards and Compliance**

MOF currently lacks structured training and advisory support for understanding and implementing international green finance regulations and best practices, such as: EU Green Bond Standards and Climate Bonds Initiative (CBI) criteria for sustainable investment; Task Force on Climate-related Financial Disclosures (TCFD) guidelines for climate risk transparency; International Sustainability Board (ISSB) reporting frameworks for corporate ESG disclosure. Without proper guidance on global compliance requirements, MOF faces barriers to securing foreign investment, as international investors expect regulatory alignment with recognized green finance frameworks. Survey responses indicate that over 64.7% of respondents identified a need for training on green finance policy and regulatory development, while only a small proportion of MOF staff currently engage with international compliance frameworks. This gap suggests that MOF's green finance policies may not fully meet global investor expectations, reducing Vietnam's competitiveness in sustainable finance markets.

### **Inadequate Carbon Accounting Methodologies and Data Verification Systems**

Carbon accounting and sustainability data collection are essential for green finance policy effectiveness, yet MOF lacks standardized methodologies for emissions measurement, carbon credit tracking, and environmental impact reporting. Without robust carbon accounting frameworks, MOF faces challenges in verifying emissions reductions linked to green finance initiatives. A lack of standardized ESG and climate data limits MOF's ability to assess sustainability risks and integrate green finance into national economic planning. Survey data indicates that only 52.9% of respondents feel familiar with ESG performance measurement and reporting, highlighting the need for structured advisory support in emissions tracking, carbon pricing mechanisms, and sustainability impact assessments.

### **Weak Understanding of Financial Risk Modeling for Climate-Related Risks**

MOF currently lacks technical support for climate-related financial risk modeling, including: Physical risk assessment (e.g., extreme weather events impacting financial stability); Transition risk analysis (e.g., policy shifts affecting carbon-intensive industries and financial assets); Stress testing and scenario modeling to evaluate green finance risks under different climate scenarios. Without strong risk assessment capabilities, MOF faces difficulties in integrating climate risk into financial policy frameworks, leading to uncertainties in long-term green finance strategies. Training preferences indicate that 64.7% of MOF staff prioritize financial policy development for green finance, while many lack exposure to scenario-based risk analysis and financial stress testing methodologies.

### **Insufficient Access to International Experts and Mentorship Programs**

MOF's training programs lack direct engagement with global green finance practitioners, limiting exposure to practical experiences and successful case studies from other countries. Without mentorship opportunities, MOF staff miss out on firsthand insights from professionals who have implemented green finance policies successfully. Limited access to international advisory networks slows down MOF's adoption of best practices in carbon finance, green bond certification, and sustainability-linked investment models. Survey data reveals that only 5.9% of respondents currently participate in structured mentorship programs, while 76.5% prefer in-person training and expert consultations, suggesting a strong demand for direct engagement with international green finance specialists.

## Institutional Strengthening

### **Lack of Clear Regulatory Guidance and Enforcement Mechanisms**

MOF faces challenges in defining regulatory guidelines for green finance, leading to inconsistent policy enforcement and market uncertainty. Key issues include: Absence of a unified green finance regulatory framework, resulting in ambiguity for financial institutions, investors, and project developers; Limited mechanisms for monitoring green finance implementation, making it difficult to ensure compliance with sustainability standards. Lack of standardized reporting requirements for green investments, reducing transparency and investor confidence. Stakeholder feedback indicates that MOF staff recognize the need for stronger regulatory frameworks to align Vietnam's green finance policies with global standards. Additionally, the lack of formalized compliance structures limits the effectiveness of enforcement mechanisms.

### **Weak Coordination Between MOF, Financial Regulators, and Environmental Agencies**

Green finance policy implementation requires coordination across multiple government agencies, including: Ministry of Planning and Investment (MPI) for integrating green finance into national development plans. Ministry of Natural Resources and Environment (MONRE) for ensuring alignment with environmental and climate commitments. State Bank of Vietnam (SBV) and other financial regulators to oversee green banking practices and financial incentives for sustainability. However, current coordination efforts are fragmented, leading to policy misalignment and inefficiencies in resource allocation, regulatory enforcement, and data-sharing between agencies.

### **Insufficient Funding and Human Resources for Green Finance Initiatives**

Despite growing global investment in green finance, MOF faces challenges in mobilizing resources for sustainability-driven financial policies due to: Limited government funding for capacity-building green finance programs and climate resilience initiatives. Lack of skilled personnel within MOF to oversee green finance policies, regulations, and market development. Inadequate technical expertise in mobilizing private investment for green projects, restricting Vietnam's ability to scale sustainable financing mechanisms. Interviews results indicate that most respondents believe MOF requires greater capacity-building efforts in mobilizing private sector investment and PPPs.

### **Fragmented Approach to Green Finance Implementation**



MOF lacks a structured system for knowledge retention and capacity-building, leading to: Inconsistent policy application, where sustainability knowledge is not embedded into institutional processes; Limited mechanisms for tracking progress and evaluating green finance effectiveness, making it difficult to assess the impact of sustainability investments. Without a centralized approach to capacity-building, there is a risk that green finance expertise remains scattered and fails to support long-term institutional strengthening. Interviewees feedback indicate recognize gaps in structured policy implementation, emphasizing the need for more institutionalized knowledge retention mechanisms.

## 6. Recommendations for Capacity-Building Plan

### Training and Skills Development

The survey results indicate key training priorities and topics that MOF staff believe would be most beneficial for enhancing their knowledge and skills in green finance. The findings highlight areas requiring capacity-building, including fundamental green finance concepts, ESG performance measurement, risk integration into public finance, and policy development. This analysis identifies high-priority training areas and provides recommendations on structuring effective capacity-building programs.

The following topics received the highest responses regarding priority training needs:

- Integration of Climate Risk into Public Finance and Budgeting (88.2%): MOF staff recognized a strong need for training on incorporating climate risks into fiscal policies and national budgeting processes.
- Basic Knowledge of Green and Sustainable Finance (64.7%): Many respondents highlighted the importance of foundational knowledge, suggesting a need for structured introductory courses on green finance.
- Advanced Quantitative Analysis and Risk Modelling (64.7%): A substantial proportion of respondents emphasized the need for capacity building in climate risk assessment, financial risk modeling, and scenario-based projections.
- ESG Performance Measurement and Reporting (52.9%): Many staff require training on ESG data collection, sustainability performance reporting, and compliance with global disclosure frameworks (TCFD, ISSB, EU Taxonomy).
- Building Climate Resilience into Financial Planning (47.1%): Some respondents expressed interest in learning about financial planning for climate resilience, which is crucial for long-term economic sustainability.

In addition to broad priority areas, respondents identified specific training topics that would enhance their green finance expertise, such as considering green bonds and sustainable finance instruments, training needed on structuring, issuing, and managing green bonds and sustainability-linked loans, emphasizes policy design, incentive mechanisms, and financial regulations to support green investment, training on structuring risk-sharing mechanisms and attracting private sector investment for green finance initiatives.

Based on the analysis of training needs, the following structured approach is recommended:

- *Core Training Program: Foundations of Green Finance (Essential for All MOF Staff)*
  - ✓ Basic Principles of Green Finance and Sustainable Investment
  - ✓ Introduction to Global Sustainability Frameworks (SDGs, Paris Agreement, TCFD, ISSB, EU Taxonomy)
  - ✓ Overview of Green Financial Instruments (Green Bonds, SLBs, Carbon Pricing Mechanisms)
- *Advanced Training Modules (Specialized for Policy and Financial Analysts)*
  - ✓ Quantitative Risk Assessment and Financial Modeling for Climate Resilience
  - ✓ Scenario-Based Stress Testing for Climate-Related Financial Risks
  - ✓ Integration of ESG Factors into Financial Decision-Making
- *Policy and Market Development Training (For Regulatory and Market Strategy Teams)*
  - ✓ Designing Policy Incentives for Green Finance (Carbon Taxes, Green Subsidies, Fiscal Incentives)
  - ✓ Developing National Green Finance Strategies and Regulatory Alignment with Global Standards
  - ✓ Mobilizing Private Capital and Structuring PPPs for Sustainable Finance
- *ESG Data and Performance Measurement Training (For Compliance and Reporting Teams)*
  - ✓ Carbon Accounting and ESG Disclosure Requirements. Training on scope definitions (Scope 1: direct emissions; Scope 2: indirect emissions from purchased energy; Scope 3: value chain emissions), verification mechanisms (e.g., third-party audits), and alignment with the GHG Protocol and ISSB disclosure requirements.
  - Introduction to quantitative tools (e.g., ESG scoring models), qualitative assessment frameworks (e.g., governance evaluations), sector-specific ESG risk metrics (e.g., emissions for energy sector), and integration into financial risk assessments and investment screening.
  - ✓ Developing Climate-Related Financial Reporting Mechanisms
  - ✓ Compliance with ISSB, TCFD, and National ESG Regulations

### **Proposed Training Methods for Enhancing Green Finance Capacity**

To effectively strengthen MOF's green finance capacity, it is essential to implement a variety of targeted training methods that cater to different learning styles and professional needs. These methods should focus on practical application, continuous skill development, and direct engagement with industry experts to ensure that MOF staff can apply green finance principles effectively in real-world policy and regulatory environments. The following training approaches are recommended:

#### ***In-Person Workshops, Webinars, and Job-Shadowing with Green Finance Experts***

One of the most effective ways to enhance MOF staff capacity in green finance is through interactive, expert-led training sessions that allow for direct knowledge exchange, case-based learning, and peer discussions.

#### Key Training Methods:

✓ **In-Person Workshops:** These sessions would provide structured training on critical green finance topics, such as: Green bond issuance and certification processes, Carbon market operations and emissions trading mechanisms, ESG risk assessment and sustainability reporting frameworks

✓ **Webinars and Virtual Training Sessions:** Online expert-led discussions covering: Latest global trends in green finance and sustainable investment; Best practices from international financial institutions and green finance regulators; Updates on emerging regulatory frameworks, including TCFD, ISSB, and EU Taxonomy

✓ **Job-Shadowing with Green Finance Experts:** MOF staff should have opportunities to shadow professionals working on real-world green finance projects, allowing them to Observe best practices in structuring and managing sustainable finance instruments; Gain firsthand experience in environmental risk assessment, carbon pricing mechanisms, and ESG compliance; Develop practical skills through mentorship and direct engagement with global experts

The above methods are effective because they allow for direct engagement with green finance professionals and allow for hands-on learning, ensuring that theoretical concepts are translated into practical applications. Workshops provide an interactive environment where MOF staff can ask specific policy-related questions, share experiences, and receive immediate feedback from experts. Job-shadowing immerses participants in real-world green finance initiatives, bridging the gap between theoretical training and policy implementation.

#### *Access to Online Courses and Practical Training Through Specific Projects*

To support continuous learning and long-term skill development, MOF staff should have access to online training platforms and practical, project-based learning opportunities.

#### Key Training Methods:

✓ **Online Training Platforms and E-learning Modules:** MOF staff should have access to high-quality online courses on platforms such as Coursera, edX, or specialized green finance training hubs. Topics should include: Climate finance policy frameworks; ESG risk management and sustainable investing; Carbon credit markets and emissions reduction strategies

✓ **Project-Based Learning:** Staff should participate in real-world projects focused on designing green financial policies, issuing green bonds, or integrating ESG into investment strategies; Training should be structured around active problem-solving, requiring participants to apply their learning in a policy development setting; MOF can collaborate with development partners, financial institutions, and international organizations to provide mentored project-based training opportunities.

The benefit of this way is that online courses provide flexibility, allowing MOF staff to learn at their own pace while balancing work responsibilities. Project-based learning ensures that training leads to concrete outcomes, such as policy recommendations, sustainability reporting improvements, or enhanced financial market regulation. Combining digital learning with hands-on projects builds technical competency while providing practical experience in policy design and regulatory enforcement.

## Technical Assistance and Advisory Support

### **Enhancing MOF's Capacity in Global Green Finance Standards and Compliance**

Develop specialized training or offer technical assistance on global green finance standards, ensuring MOF staff are equipped with knowledge of international compliance frameworks and investor expectations. A deep understanding of international green finance standards is crucial for MOF staff to effectively regulate and promote sustainable finance in Vietnam. Currently, limited training exists on compliance frameworks and investor expectations, which can hinder MOF's ability to facilitate capital flows into green projects. To address this, specialized training programs should be developed, covering key international frameworks such as: EU Green Bond Standards (GBS) and Climate Bonds Initiative (CBI) criteria to ensure alignment with global best practices in sustainable debt issuance; Task Force on Climate-related Financial Disclosures (TCFD) to improve climate risk reporting and transparency; International Sustainability Standards Board (ISSB) frameworks, which define ESG disclosure requirements for financial markets. Some activities are suggested as collaborate with international financial institutions, regulatory bodies, and training academies to provide technical expertise and certification programs; Conduct regular capacity-building workshops to ensure that MOF staff stay updated with the evolving landscape of international sustainable finance.

Provide technical guidance on regulatory enforcement, allowing Vietnam's financial policies to align with global sustainability reporting and investment criteria. Strong regulatory enforcement mechanisms are essential for ensuring that green finance policies are effectively implemented and aligned with global sustainability reporting and investment criteria. Some activities are suggested as providing technical guidance and legal clarity for financial institutions on green finance regulations and enforcement procedures; developing digital tools and automated monitoring systems to track green investment flows, ESG compliance, and climate risk disclosures.

Strengthen MOF's capacity in climate risk disclosure and sustainable investment regulation, facilitating greater participation in global green capital markets: Develop technical capacity-building programs focused on climate risk assessment, scenario modeling, and financial stress testing; Implement mandatory climate risk disclosure requirements for banks, insurers, and investment funds to enhance financial market transparency; Align Vietnam's sustainable investment regulations with global best practices, ensuring that MOF staff can monitor, assess, and enforce ESG compliance effectively.

### **Enhancing ability to measure and report the impact of green finance initiatives effectively**

It is crucial to establish a national carbon accounting framework. Currently, the absence of a standardized system limits the ability of financial institutions and policymakers to assess

emissions reductions, track climate-related investments, and ensure compliance with international sustainability commitments. A well-defined carbon accounting framework would provide clear methodologies for calculating, reporting, and verifying greenhouse gas emissions, ensuring that Vietnam's financial sector aligns with global best practices in sustainable finance. This framework should be institutionalized within MOF and linked to national and international reporting requirements, enabling accurate impact assessment of green finance policies and ensuring that investments contribute effectively to Vietnam's climate goals.

In addition to a carbon accounting framework, technical assistance on emissions tracking methodologies is essential for strengthening Vietnam's financial system. The lack of reliable and consistent emissions data presents a challenge in attracting international investment and ensuring that green financial instruments, such as green bonds and carbon credits, meet global verification standards. By providing technical support and training on advanced emissions tracking techniques, MOF can build institutional capacity to monitor sustainability claims effectively and mitigate the risks of greenwashing. This will also enhance Vietnam's ability to participate in carbon markets and international climate finance mechanisms, improving access to climate-focused funding opportunities.

To support data-driven decision-making in green finance, developing an integrated ESG and climate finance data platform is necessary. A centralized, transparent data system would allow policymakers to analyze environmental, social, and governance (ESG) factors alongside financial data, ensuring that investment decisions are aligned with sustainability objectives. Currently, the fragmentation of ESG-related information makes it difficult for financial regulators, investors, and policymakers to assess risks, measure impacts, and enforce compliance standards. A comprehensive platform integrating emissions data, green finance investments, and climate risk assessments would improve policy coherence, financial market transparency, and investor confidence in Vietnam's sustainable finance initiatives.

### **Enhancing capacity of managing the financial risks posed by climate change**

To effectively manage the financial risks posed by climate change, developing climate financial risk modeling tools is essential for assessing its economic impact on Vietnam's financial markets. The increasing frequency and severity of climate-related disasters, such as flooding, typhoons, and prolonged droughts, pose significant risks to various sectors, including banking, insurance, and infrastructure investments. Without robust modeling tools, financial institutions and policymakers struggle to quantify the potential losses, credit risks, and asset vulnerabilities associated with climate change. By integrating scientific climate projections with financial risk assessments, the further capacity building activities can enhance its ability to design resilient financial policies that mitigate climate-induced economic instability. These models should be tailored to Vietnam's specific economic structure, considering the vulnerabilities of key industries such as agriculture, energy, and manufacturing, ensuring that financial planning adequately accounts for long-term climate challenges.

Beyond financial risk modeling, technical guidance on stress testing and scenario-based financial planning is crucial to evaluating climate risk exposure across industries. As global financial regulators increasingly mandate climate stress testing for banks and investment

firms, Vietnam must adopt similar measures to ensure its financial system remains stable under various climate scenarios. Stress testing will enable the further capacity building activities to analyze the resilience of financial institutions against extreme weather events, carbon pricing shifts, and regulatory changes aimed at decarbonization. By incorporating scenario-based financial planning, the further capacity building activities can explore the potential macroeconomic effects of transitioning to a low-carbon economy, allowing policymakers to adjust financial strategies accordingly. Providing the further capacity building activities staff with training and technical support on these methodologies will strengthen Vietnam's capacity to integrate climate risk considerations into financial decision-making, ensuring that economic policies align with global best practices in sustainable finance.

To further enhance financial resilience, implementing early warning systems and climate resilience strategies is necessary for Vietnam's financial sector to anticipate and respond to climate-induced economic disruptions. Given the growing risks associated with climate-driven supply chain disruptions, asset devaluation, and insurance market volatility, early warning systems will provide data-driven insights for proactive financial planning. The further capacity building activities should collaborate with climate scientists, risk analysts, and financial regulators to develop real-time risk monitoring systems that assess climate-related threats to investments, public finances, and banking stability. Additionally, integrating climate resilience strategies into financial sector regulations, such as promoting green lending policies and climate risk-adjusted capital requirements, will enhance Vietnam's ability to withstand economic shocks caused by environmental changes. These measures will not only protect Vietnam's financial system from climate risks but also strengthen its positioning in global sustainable finance markets.

#### **Enhancing technical expertise and practical understanding of green finance among MOF staff**

To strengthen the expertise of MOF staff in green finance, establishing a structured mentorship program that connects them with experienced professionals from multilateral organizations, international banks, and financial regulators is essential. While traditional training programs provide theoretical foundations, mentorship allows staff to gain practical insights, real-world problem-solving experience, and direct exposure to global best practices. By pairing MOF personnel with experts who have extensive experience in structuring green financial instruments, implementing carbon pricing mechanisms, and developing ESG regulations, Vietnam can accelerate its adoption of sustainable finance strategies. This mentorship initiative should include one-on-one advisory sessions, technical deep dives, and collaborative discussions on policy implementation, ensuring that MOF staff are equipped with the practical skills and decision-making frameworks needed to integrate green finance effectively into Vietnam's financial system.

Beyond mentorship, facilitating knowledge-sharing partnerships with institutions specializing in climate finance policy, carbon trading markets, and sustainable investment strategies will provide MOF with direct access to innovative models and technical expertise from global leaders in green finance. Countries with well-established green financial markets, such as the EU, Singapore, and Japan, have developed robust regulatory frameworks, carbon market mechanisms, and investment incentives that Vietnam can learn from and adapt to its specific

context. Establishing formal partnerships with more international financial institutions will enable MOF to stay informed on emerging green finance regulations, align with global compliance standards, and attract international investors seeking sustainable investment opportunities in Vietnam. These collaborations should include joint research projects, expert-led training sessions, policy exchange programs, and participation in global sustainable finance summits, strengthening Vietnam's institutional capacity in green finance development.

To ensure that global best practices are effectively integrated into Vietnam's policy environment, ongoing advisory support from international green finance practitioners should be improved for enabling continuous learning and policy refinement. As the field of green finance evolves rapidly, regular consultation with experts will allow MOF to stay ahead of emerging trends, adapt regulatory frameworks to align with international standards, and fine-tune financial instruments for sustainability. Establishing a technical advisory panel composed of international climate finance specialists, policy advisors, and investment strategists will create a structured mechanism for MOF to receive guidance on regulatory adjustments, risk management frameworks, and market incentives for green finance expansion. This ongoing advisory support will ensure that Vietnam's sustainable finance policies remain dynamic, investor-friendly, and aligned with global sustainability goals, positioning the country as a regional leader in green finance development.



## Institutional Strengthening

Considering establishing or assigning a dedicated green finance unit responsible for policy oversight, compliance monitoring, and enforcement of sustainability-related financial requirements. This unit would play a critical role in coordinating with financial institutions, regulatory bodies, and international organizations to ensure that green finance policies are consistently applied and regularly updated to reflect evolving global standards. Additionally, it would oversee the development of incentives for green investment, monitor financial risks related to climate change, and enforce penalties for non-compliance. By creating a specialized regulatory unit within MOF, Vietnam can enhance institutional capacity, streamline policy implementation, and improve accountability in the financial sector, ensuring that green finance initiatives contribute effectively to the country's climate goals and sustainable economic development.

To enhance policy alignment and inter-agency decision-making, it is necessary to establish a Green Finance Coordination Task Force in collaboration with the Ministry of Natural Resources and Environment (MONRE), the Ministry of Planning and Investment (MPI), and the State Bank of Vietnam (SBV). Green finance policies require coherent implementation across different sectors, yet the current system is fragmented, with financial, environmental, and economic regulators operating under separate mandates without strong coordination mechanisms. By forming a dedicated task force, these agencies can streamline policy development, share data on climate risks, and align financial regulations with sustainability objectives. This structure would ensure that monetary policies, fiscal incentives, and climate finance strategies are integrated, allowing Vietnam's financial system to support low-carbon economic growth. The task force should also facilitate public-private collaboration, ensuring that policies incentivize private sector investment in green finance initiatives while maintaining regulatory oversight.

A crucial step in strengthening institutional capacity for green finance is to develop joint training programs for financial and environmental policymakers, enhancing mutual understanding of sustainability-linked finance and cross-sector collaboration. Financial regulators and policymakers in MOF and SBV often focus on risk management, financial stability, and capital markets, while MONRE oversee climate action, environmental regulations, and sustainable development planning. Without structured capacity-building initiatives, these agencies may struggle to integrate financial policy frameworks with national environmental and climate goals. By organizing joint training programs, workshops, and study exchanges, policymakers can develop a shared knowledge base, allowing them to coordinate more effectively. This initiative would also ensure that financial and environmental policies are developed in tandem, preventing regulatory inconsistencies that could slow down the growth of sustainable finance in Vietnam.

To institutionalize this coordination, it is necessary to implement an inter-ministerial green finance strategy, ensuring that sustainability considerations are embedded across all key economic sectors. This strategy should include sector-wide knowledge-sharing platforms where different ministries, financial institutions, and industry stakeholders can exchange best practices in green finance implementation. Additionally, public-private partnerships (PPPs)

should be actively promoted, allowing banks, investors, and corporate entities to participate in climate finance initiatives, green bond programs, and carbon market mechanisms. Vietnam has a growing interest from global investors in sustainability-focused projects, but without a structured PPP framework, private capital remains underutilized in green finance expansion. By fostering greater private sector engagement, ensuring sector-wide collaboration, and maintaining consistent policy frameworks, Vietnam can accelerate the transition to a more sustainable financial system while ensuring that public and private financial flows are aligned with national climate goals.

## 7. Implementation Roadmap

To effectively address the knowledge and capacity gaps in green finance within MOF, a structured roadmap is proposed with short-term (0-1 year), medium-term (1-3 years), and long-term (3-5 years) actions. This roadmap is designed to build technical expertise, improve regulatory enforcement, and strengthen institutional capacity, ensuring that MOF staff and policymakers are equipped with the necessary knowledge and skills to support Vietnam’s sustainable finance transition.

Table 5: Implementation Roadmap

Timeframe	Category	Actions
Short-Term (0-1 Year)	Training & Capacity Building	Launch Core Training Program on <b>Green Finance Fundamentals</b> , including global frameworks (Paris Agreement, SDGs, EU Taxonomy), green financial instruments (bonds, SLBs, carbon markets, impact investing), and ESG integration. Conduct in-person workshops, mentorship programs, and webinars with international experts. Expanded to include quantitative tools (e.g., ESG scoring), qualitative frameworks (e.g., governance assessments), sector-specific risk metrics (e.g., emissions, water usage), and integration into financial risk assessments and investment screening. This addresses the weak ESG assessment skills noted in the gap analysis, enhancing decision-making and compliance.
	Technical Support & Data Infrastructure	Provide technical training on <b>carbon accounting, disclosure standards (TCFD, ISSB), and sustainability-related risk analysis</b> . Collaborate with development partners to build <b>knowledge-sharing platforms</b> for emissions tracking and compliance. Added specificity to training by including scope definitions (Scope 1, 2, 3), verification mechanisms (e.g., audits), and alignment with GHG Protocol and ISSB standards. These address the gap in weak carbon accounting methodologies identified in the report, ensuring staff can measure and verify emissions effectively.
	Institutional Coordination	Establish <b>Green Finance Coordination Task Force</b> with MOF, MPI, MONRE, and SBV to align regulatory efforts and strengthen policy coordination Outlined a structured governance framework with defined roles (e.g., MOF for fiscal policy), data-sharing protocols (e.g., standardized emissions data), and policy alignment mechanisms (e.g., regular meetings). This addresses weak inter-agency coordination, ensuring cohesive green finance strategies.

<b>Medium-Term (1-3 Years)</b>	Advanced Training & Specialization	Introduce <b>Advanced Training Modules</b> for policy analysts on climate risk modeling, ESG integration, and financial resilience planning. Expand workshops on <b>policy incentives for green finance</b> , including green subsidies and environmental tax reforms
	Enhancing Regulatory Oversight	Develop a <b>national carbon accounting framework</b> and an integrated ESG and climate finance data platform. Implement real-time tracking for <b>green investments, sustainable finance market trends, lending practices, and risk mitigation strategies</b> .
	Strengthening Public-Private Partnerships	Strengthen <b>public-private partnerships (PPPs)</b> to attract green finance investments. Align Vietnam's green finance regulations with international standards to increase foreign investor confidence and market credibility Incorporated clear guidance on de-risking green investments through blended finance (public-private capital blending), sovereign guarantees (government-backed risk mitigation), and risk-sharing facilities (e.g., guarantees). This tackles the challenge of mobilizing private investment, enhancing market attractiveness.
<b>Long-term (3-5 years) actions</b>	Institutionalizing Green Finance	Create a <b>Green Finance Knowledge Hub</b> for centralized learning and regulatory updates. Develop a <b>formal certification program</b> for MOF staff in collaboration with universities and global finance institutions.
	Global Market Integration	Expand the <b>green bond market and carbon trading mechanisms</b> . Establish a <b>Green Finance Advisory Panel</b> with global financial experts. Vietnam should pursue a combination of sovereign green bonds and private sector-driven green investments to create a resilient and impactful green finance strategy. Sovereign bonds provide leadership and credibility, while private investments drive innovation and scale. With strong frameworks, incentives, and capacity-building, Vietnam can align its financial system with sustainability goals, attract diverse investment, and accelerate its transition to a green economy. This balanced approach ensures both sectors contribute effectively to Vietnam's environmental ambitions.
	Climate Risk Management	Implement <b>mandatory ESG and climate risk disclosure requirements</b> for financial institutions. Develop <b>automated climate risk stress testing tools</b> for financial stability assessments. Detailed scenario analysis with NGFS climate scenarios (e.g., orderly vs. disorderly transitions), stress testing methodologies (e.g., physical and transition risks), and regulatory expectations (e.g., disclosure mandates). This strengthens the limited expertise in risk modeling identified, aligning with global financial stability requirements.

This structured roadmap provides a clear pathway for MOF to address knowledge and capacity gaps in green finance, ensuring that Vietnam's financial system is equipped to support climate-aligned economic growth. By prioritizing training, technical assistance, regulatory enhancements, and institutional strengthening, MOF can establish a robust green finance framework that meets international standards, attracts global investment, and positions Vietnam as a leader in sustainable finance. By following this phased approach, MOF will gradually build expertise, enhance regulatory effectiveness, and institutionalize sustainability considerations into financial planning, securing long-term economic resilience and environmental sustainability.

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# Appendix

## Appendix 1: Methodology

- **Literature Review:** Review internal MOF documents, policies, and international best practices in green finance.
- **Surveys & Interviews:** Conduct surveys and in-depth interviews with MOF staff and relevant departments to assess their current understanding of green finance.

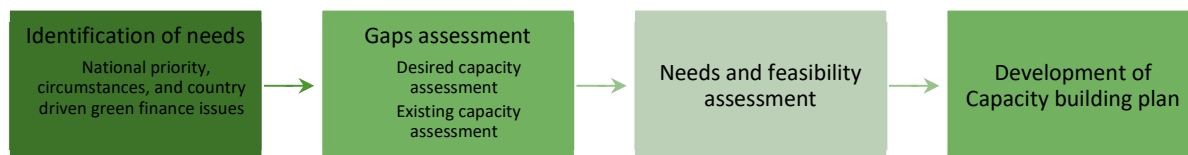
### **Surveys:**

- ✓ Objective: Collect quantitative data on the level of awareness, knowledge, and capacity related to green finance among MOF staff across various departments.
- ✓ Target Groups: Key departments in the MOF (e.g., tax, public debt, budgeting, and investment). Technical and management-level staff.
- ✓ Design: Develop a questionnaire with both closed-ended and open-ended questions covering key areas such as knowledge of green finance principles, familiarity with green bonds, green taxonomies, and experience with green project financing. Questions should measure both self-assessed and demonstrated knowledge.
- ✓ Distribution: Online or paper-based surveys, ensuring representation from different levels and departments within MOF.
- ✓ Outcome: Quantitative data that can highlight knowledge gaps and areas for targeted capacity building.

### **Interviews:**

- ✓ Objective: Gather qualitative insights into the specific challenges and opportunities faced by the MOF staff in integrating green finance principles.
  - ✓ Target Groups: Senior officials and decision-makers within MOF.
  - ✓ Technical experts involved in the financial policy-making process.
  - ✓ Approach: Conduct semi-structured interviews to allow for open discussion while ensuring that key topics (e.g., policy implementation challenges, technical expertise in green finance) are covered. Explore perceptions on the role of green finance, barriers to its integration, and potential areas of capacity development.
  - ✓ Outcome: In-depth qualitative data to complement the survey findings and provide context to the knowledge gaps identified.
- **Workshops:** Organize workshops to engage with stakeholders and discuss key challenges and opportunities in green finance.

- **Capacity Gap Analysis:** Analyze the information collected and identify critical knowledge gaps.
- **Capacity-Building Plan:** Based on the findings, draft a comprehensive plan that includes timelines, required resources, and specific training modules.



## Appendix 2: Online Questionnaire (English version)

### Section 1: General Information

#### 1. Position and Department

- What is your current position?
- Which department do you work in?

#### 2. Years of Experience

- How many years have you worked in the Ministry of Finance?
  - 0-2 years
  - 3-5 years
  - 6-10 years
  - Over 10 years

#### 3. Experience in Green Finance

- What percentage of your role involves working on green finance or sustainability-related tasks?
  - 0-25%
  - 26-50%
  - 51-75%
  - Over 75%

### Section 2: Current Knowledge and Understanding of Green Finance

#### 1. Awareness of Green Finance Concepts

- How would you rate your understanding of the following concepts?
  - Green Bonds
  - Carbon Pricing and Emissions Trading
  - Sustainable/ESG Investments

- Climate Risk Assessment
- Environmental, Social, and Governance (ESG) Standards
- Rating Scale: Not familiar, Somewhat familiar, Moderately familiar, Very familiar

## 2. Understanding of Key Global Green Finance Standards

- Are you familiar with global standards and frameworks related to green finance (e.g., Task Force on Climate-related Financial Disclosures - TCFD, EU Taxonomy, International Sustainability Standards Board - ISSB)?
  - Not familiar
  - Somewhat familiar
  - Very familiar

## 3. Knowledge of National and International Green Finance Policies

- Are you familiar with Vietnam's Green Growth Strategy and relevant green finance policies?
  - Not familiar
  - Somewhat familiar
  - Very familiar
- Are you aware of international frameworks and initiatives (e.g., Paris Agreement, UN SDGs) related to green finance?
  - Not familiar
  - Somewhat familiar
  - Very familiar

## 4. Knowledge of MOF's Role in Green Finance

- To what extent do you understand MOF's role in supporting green finance initiatives in Vietnam?
  - Not at all
  - Limited understanding
  - Moderate understanding
  - Strong understanding

## Section 3: Skill and Capacity Gaps

### 1. Areas Needing Improvement



- Which of the following areas do you feel would benefit from additional training?
  - Climate and Environmental Risk Assessment
  - Quantitative Analysis for Sustainability Metrics
  - Green Bond Issuance and Management
  - ESG Data Management and Reporting
  - Sustainable Investment Portfolio Management
  - Integrating climate risk into financial decision-making

## **2. Technical Skills Related to Green Finance**

- Do you feel equipped with the technical skills necessary to develop and manage tasks related green finance?
  - Yes
  - No
- Which specific practical skills or tools would you need more training in to feel confident? (Open-ended)

## **3. Data and Analysis**

- How familiar are you with linking financial data with environmental impacts?
  - Not at all familiar
  - Somewhat familiar
  - Confident
  - Very confident
- Which tools or types of data analysis are you familiar with? (Open-ended)
- How confident are you in using specific tools for assessing environmental impact or managing green finance data?
  - Rating Scale: Not confident, Somewhat confident, Confident, Very confident

## **Section 4: Challenges and Barriers**

### **1. Challenges in Implementing Green Finance Tasks**

- What challenges do you face in implementing green finance tasks? (Select all that apply)
  - Lack of specific green finance skills
  - Insufficient technical guidance

- Limited resources or funding
- Lack of clear policies or regulations
- Lack of clear alignment with international standards
- Limited access to relevant data or tools
- Other (Please specify)

## 2. Policy and Regulatory Gaps

- Are there specific regulatory or policy-related challenges that hinder your work in green finance?
  - Yes (Please specify)
  - No

## Section 5: Training and Capacity-Building Needs

### 1. Preferred Training Focus

- Which of the following focus areas for training would be most beneficial for you? (Select all that apply)
  - Fundamentals of Green Finance and Sustainability
  - Advanced Quantitative Analysis and Modeling for Climate Risk
  - Measuring and Reporting ESG Performance
  - Integrating Climate and Financial Risks into Budgeting and Policy
  - Building Climate Resilience in Financial Planning
  - Green Bonds Issuance and Management
  - Developing Green Finance Policies and Regulations
  - Measuring and Reporting on Environmental Impact
  - Public-Private Partnerships in Green Finance
- Do you think training on international standards (e.g., TCFD, ISSB) would be beneficial for your role?
  - Yes
  - No

### 2. Preferred Training Methods

- What types of training would be most effective for you?
  - In-person workshops
  - Online courses

- Webinars or learning labs focusing on international green finance case studies
- Job shadowing or mentorship with green finance experts
- Hands-on training with real tasks

### 3. Frequency and Duration of Training

- How often would you prefer training sessions to be held?
  - Weekly
  - Monthly
  - Quarterly
  - Semi-annually

## Section 6: Open-Ended Questions

### 1. Suggestions for Improvement

- In your view, what could be done to better support green finance capacity within MOF? (Open-ended)

### 2. Identifying Knowledge Gaps

- Are there any specific areas of green finance that you feel MOF lacks knowledge or capacity in? (Open-ended)
- Are there any advanced concepts or tools in green finance that you would like to be trained in? (e.g., ESG reporting standards, green taxonomy, climate-related risk modeling) (Open-ended)

### 3. Additional Comments

- Do you have any additional comments or suggestions regarding green finance training or capacity-building needs? (Open-ended)

## Submission Section

Thank participants for their time and encourage them to reach out with any questions or further input.

This questionnaire will help to identify specific knowledge gaps, skill needs, and preferred training methods to inform the development of a comprehensive capacity-building plan for green finance within MOF. By targeting key areas and gathering input from MOF staff, the results can be used to develop a focused and effective training program that aligns with MOF's green finance objectives.

### Appendix 3: In-depth interviews (English version)

These questions are designed to clarify and expand upon the report's findings, covering strategic alignment, technical skills, stakeholder engagement, governance and transparency, and data infrastructure.

#### Section 1: Understanding of Green Finance and Strategic Alignment

1. **Can you describe your understanding of Vietnam's current green finance policies, such as the National Green Growth Strategy and Decision No. 1658/QĐ-TTg?**
  - Objective: Assess staff's knowledge of strategic policies supporting green finance to evaluate the current level of strategic alignment.
2. **In your daily work, do you find the strategic objectives for green finance at the Ministry of Finance to be clear and consistent?**
  - Objective: Identify consistency in the application and communication of strategic objectives from leadership to departments.
3. **In your opinion, are there areas within current green finance initiatives where closer coordination is needed between the Ministry of Finance and international partners to ensure strategic alignment?**
  - Objective: Identify gaps in coordination between departments and partners to ensure projects are strategically oriented.

#### Section 2: Technical Skills and Expertise

4. **Do you feel equipped with the technical skills needed to carry out green finance tasks effectively? If not, which skills do you think are necessary?**
  - Objective: Assess the technical skills gap, particularly in specialized areas such as carbon markets, data management, and green insurance.
5. **Are there specific tools or data that you find challenging to use in current green finance projects?**
  - Objective: Identify challenges in accessing and using tools and data for green finance projects to guide capacity-building efforts.
6. **Have you participated in any green finance capacity-building programs? Are there specific areas in green finance that you feel require further training?**
  - Objective: Identify additional training needs and gaps in current programs, especially in areas such as green bond issuance, ESG management, and environmental risk assessment.

#### Section 3: Stakeholder Engagement and Inclusivity

7. **How do you find collaboration with internal and external entities in implementing green finance projects? Are there any challenges in collaborating with external stakeholders?**

- Objective: Explore challenges in collaborating with external parties, such as the private sector, local governments, and international organizations.
- 8. **Are there any groups or communities that you think should be more involved in green finance projects?**
  - Objective: Evaluate the inclusivity of projects and determine the need to broaden engagement to include marginalized or underserved groups.
- 9. **Do you think there is a need to improve stakeholder engagement mechanisms, such as holding workshops or conferences to share information on green finance?**
  - Objective: Identify potential communication channels to enhance participation and alignment in green finance initiatives.

#### **Section 4: Governance, Transparency, and Accountability**

- 10. **Do you think current green finance projects have transparent reporting and monitoring processes? If not, could you elaborate?**
  - Objective: Assess the level of transparency in reporting and managing green finance projects to identify gaps in oversight and accountability.
- 11. **Are the decision-making processes in green finance projects communicated clearly to you?**
  - Objective: Determine the clarity of governance and decision-making processes and assess the effectiveness of communication among stakeholders.
- 12. **Do you have any suggestions to improve transparency and accountability in the Ministry of Finance's green finance initiatives?**
  - Objective: Gather staff suggestions to improve governance transparency and maintain stakeholder trust.

#### **Section 5: Data Infrastructure and Green Finance Monitoring**

- 13. **Do you think it is necessary to have a centralized platform for tracking green finance projects and related outcomes?**
  - Objective: Evaluate the need for a centralized data system to manage and monitor green finance metrics effectively.
- 14. **In your work, do you encounter difficulties in finding the data needed for green finance reporting or evaluation?**
  - Objective: Identify data-related challenges to inform IT and infrastructure solutions for green finance.
- 15. **Do you have suggestions for improving data infrastructure to better support green finance monitoring and evaluation?**
  - Objective: Explore potential initiatives to improve data infrastructure for green finance activities.

## Section 6: Suggestions and Improvement

### 16. Do you think having a periodic training plan on green finance would help improve your capacity? If so, what frequency would be appropriate?

- Objective: Evaluate the need for continuous training and identify the optimal frequency to maintain and update knowledge.

### 17. Could you share any additional challenges or unmet needs you've experienced in working on green finance?

- Objective: Identify further gaps and unmet needs to guide comprehensive training and capacity-building strategies.

### 18. Do you have any ideas or suggestions to strengthen collaboration with international organizations to promote green finance?

- Objective: Seek ideas for more effective collaboration strategies with international development partners in green finance.

These questions will help explore the Ministry of Finance staff's level of understanding, skills, and training needs, as well as identify any existing gaps in capacity. This will facilitate a well-rounded capacity-building plan tailored to MOF's green finance goals in Vietnam.

## Appendix 4: Lessons from China

Drawing from the insights presented in the G20 Sustainable Finance Working Group's report on "Building Green Finance Capacity Through Reform and Innovative Pilot Zones," several key lessons can be applied to identify and address knowledge and capacity gaps within Vietnam's Ministry of Finance (MOF) concerning green finance.

### 1. Learning by Doing and Pilot Initiatives

The report emphasizes the effectiveness of "learning by doing," where pilot zones serve as controlled environments to test and refine green finance strategies before broader implementation. This approach allows for the development of region-specific models that can be scaled nationally. For Vietnam's MOF, initiating pilot projects in select regions can provide practical insights and help tailor green finance policies to local contexts. This hands-on experience is invaluable for building institutional knowledge and capacity.

### 2. Establishing Quantitative and Qualitative Targets

Setting clear performance metrics, such as targets for green loan growth and assessments of local financial risk profiles, is crucial for monitoring progress and motivating stakeholders. The Chinese experience highlights the importance of these targets in driving the development of green finance. Vietnam's MOF can adopt a similar approach by defining specific, measurable objectives for green finance initiatives, ensuring that progress can be tracked and strategies adjusted as needed.

### 3. Leveraging Think Tanks and Industry Associations

The collaboration with think tanks, research institutions, and industry associations has been instrumental in disseminating green finance concepts and developing financial instruments in China's pilot zones. These partnerships facilitate knowledge exchange and capacity building. For Vietnam, fostering relationships with academic institutions, international organizations, and industry bodies can

enhance the MOF's expertise in green finance and support the development of innovative financial solutions.

#### **4. Enhancing Environmental Information Disclosure**

Improving the quality of environmental information disclosure is a key aspect of building green finance capacity. Pilot zones in China have been guided to enhance transparency, leading to a higher percentage of companies and financial institutions disclosing environmental information compared to non-pilot areas. Vietnam's MOF can prioritize the development of robust frameworks for environmental reporting, ensuring that financial institutions and corporations adhere to high standards of transparency.

#### **5. Mobilizing Resources and Strengthening Coordination**

The success of China's pilot zones is partly attributed to the mobilization of sufficient manpower and capital, as well as the establishment of leading groups responsible for planning and implementation. For Vietnam, the MOF can benefit from creating dedicated teams focused on green finance initiatives, ensuring adequate resources are allocated, and enhancing inter-departmental coordination to effectively implement green finance policies.

#### **6. International Cooperation and Talent Cultivation**

Engaging in international cooperation and focusing on professional talent cultivation have significantly enhanced theoretical and practical policy research outputs in China's pilot zones. Vietnam's MOF can pursue similar strategies by participating in international forums, collaborating on research projects, and investing in training programs to build a workforce proficient in green finance.

By integrating these lessons into a structured capacity-building plan, Vietnam's MOF can effectively address existing knowledge and capacity gaps, fostering a robust green finance ecosystem aligned with both national priorities and global sustainability standards.