

**Synthesis report of
ICAT activities
in Viet Nam**

Initiative for Climate Action Transparency – ICAT Synthesis report of ICAT activities in Viet Nam

AUTHORS

Marina Vitullo, ISPRA

Daniela Romano, ISPRA

July 2023

DISCLAIMER

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, photocopying, recording or otherwise, for commercial purposes without prior permission of UNOPS. Otherwise, material in this publication may be used, shared, copied, reproduced, printed and/ or stored, provided that appropriate acknowledgement is given of UNOPS as the source. In all cases the material may not be altered or otherwise modified without the express permission of UNOPS.

PREPARED UNDER

The Initiative for Climate Action Transparency (ICAT), supported by Austria, Canada, Germany, Italy, the Children's Investment Fund Foundation and the ClimateWorks Foundation.



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

The ICAT project is managed by the United Nations Office for Project Services (UNOPS)



Table of contents

Introduction	6
Approach and key results	9
MRV national system of Vietnam	17
Viet Nam’s current MRV system	17
Decree 06/2022 on GHG Emissions Reduction and Ozone Layer Protection	18
Impacts of ICAT project on Vietnam’s transparency systems	20
Communication and media activities	21

List of Acronyms

BUR	Biennial Update Report
BTR	Biennial Transparency Report
CBIT	Capacity Building Initiative on Transparency
CCOZONE	Centre for Ozone Layer Protection and Low Carbon Economy Development
COP	Conference of Parties in the framework of the United Nations Framework Convention on Climate Change (UNFCCC)
CRT	Common Reporting Tables
CTF	Common Tabular Format
ETF	Enhanced Transparency Framework (of the Paris Agreement)
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
ICAT	Initiative for Climate Action Transparency
IPCC	Intergovernmental Panel on Climate Change
IPPU	Industrial Processes and Product Use
ISPRA	Institute for Environmental Protection and Research
ITMO	Internationally Transferred Mitigation Outcomes
JICA	Japan International Cooperation Agency
LULUCF	Land Use, Land Use Change and Forestry
MARD	Ministry of Agriculture and Rural Development
MOIT	Ministry of Industry and Trade
MONRE	Ministry of Natural Resources and Environment
MPG Agreement	Modalities, Procedures and Guidelines for Article 13 of the Paris Agreement
MRV	Measuring, reporting and verification
NDC	Nationally Determined Contribution
QA/QC	Quality Assurance and Quality Control
PATPA	Partnership on Transparency in the Paris Agreement
PAMs	Mitigation policies and measures, actions and plans, including those with mitigation co-benefits resulting from adaptation actions and economic diversification plans

UNEP-CCC	UNEP Copenhagen Climate Centre
UNFCCC	United Nations Framework Convention on Climate Change

Introduction

Viet Nam¹ had been engaging with the Initiative for Climate Action Transparency (ICAT) since October 2019 to support the implementation of Viet Nam's domestic MRV/transparency system. The ICAT support covers development of a country-specific capacity building program, training on MRV/transparency concepts, methods and tools, including iterative testing and application of the ICAT Series of Assessment Guides, continued observation of future UNFCCC transparency requirements and development of a road map to sustain ICAT outcomes.

Activities started in April 2019 with a scoping mission with staff from UNEP Copenhagen Climate Centre (UNEP-CCC, formerly UNEP-DTU Partnership) and the *Istituto Superiore per la Protezione e la Ricerca Ambientale* (ISPRA), where national stakeholders were introduced to the scope of ICAT, preliminary information on new reporting requirements under the Enhanced Transparency Framework (ETF) of the Paris Agreement, and had the opportunity to express their challenges and needs in order to enhance national transparency capacities. The main scope of the mission was to establish contacts with the most important partners in the ministries, namely the Ministry of Natural Resources and Environment (MONRE, also ICAT focal point institution), the Ministry of Agriculture and Rural Development (MARD), and the Ministry of Industry and Trade (MOIT) and with other support partners such as the Capacity Building Initiative on Transparency (CBIT) and the German Agency for International Cooperation (GIZ). The mission was aimed to:

- Map synergies with other support initiatives, access to detailed information and confidence and fragmentation of knowledge and information
- Map ongoing policies and implementation status of government policies both by MONRE and by line ministries; access to information at a sufficient level of detail, issues of confidentiality
- Identify solutions, opportunities and a way forward: ICAT took a collaboration approach to share information on the draft ICAT work plan for comments and input with key partners such as CBIT, GIZ and line ministries under the leadership of MONRE.

The mission resulted in a draft work plan, associated budget, and timetable for ICAT activities. The work plan included support to develop Vietnam's sectoral MRV system focusing on the energy and agricultural sectors aligned with the national GHG inventory system. The two major activities were focused on tracking the progress of NDC implementation using ICAT methodologies and capacity building to set up data management systems and institutional arrangements at the sector level. In 2021, additional meetings took place online to discuss additional activities for the extension of the contract, resulting in a supplementary objective (n. 4).

The specific objectives of ICAT support to Viet Nam were identified as follows:

¹ The Agreement was ratified between the Center for Ozone Layer Protection and Low Carbon Economy Development (CCOZONE), Department of Climate Change, Ministry of Natural Resources and Environment of Viet Nam (MONRE) and the UNEP-CCC, still UNEP DTU Partnership at the time

- **Objective 1:** Needs and gap assessment for MRV/transparency in the energy and agriculture sectors incl. synergies with CBIT, GIZ and other support initiatives as needed.
- **Objective 2:** Impact assessment of selected policies and actions for tracking progress of NDC implementation using ICAT methodologies.
- **Objective 3:** Institutional arrangements and capacity developed for interlinked data management of GHG and SD impacts and tracking progress of NDC implementation.
- **Objective 4²:** Test the “dynamic baseline” approach for a selected subsector as a possible mean to increase mitigation ambition as the basis for attracting result-based carbon finance and the establishment of International Transferred Mitigation Options (ITMOs) adequate accounting system towards the NDC.
- **Objective 5:** Present and share ICAT results in a final national workshop.

For the coordination of ICAT activities, the main institutional partner was the Centre for Ozone Layer Protection and Low Carbon Economy Development (CCOZONE), within the Department of Climate Change at MONRE constituting the ICAT focal point of Viet Nam. MONRE coordinated and sub-contracted the work implemented by national experts in MOIT, and MARD, supported by UNEP-CCC and ISPRA.

The work plan covered support to develop Vietnam’s sectoral MRV system focusing on the energy and agricultural sectors aligned with the national GHG inventory system. The two major activities were tracking the progress of NDC implementation using the ICAT Series of Assessment Guides and capacity building to set up data management systems and institutional arrangements at the sector level.

Outcomes of the work plan were the following deliverables:

1. Deliverable #D1: Synthesis report covering mapping of ongoing CB initiatives for MRV/transparency and needs and gap assessment in the energy and agriculture sectors incl. synergies with CBIT and other support providers.
2. Deliverable #D2.1: Interim results of applying the Greenhouse Gas Abatement Cost Model (GACMO) model presented in a national workshop.
 - a. Deliverable #D2.2: Report on the impact assessment results and a table including relevant indicators for NDC tracking of progress in the energy sector.
 - b. Deliverable #D2.3: Report on the impact assessment results and a table including relevant indicators for NDC tracking of progress in the agriculture sector.
3. Deliverable #D3: Report on institutional arrangements incl. scheme/demo of data

² This objective has been included in the contract extension, as additional activity.

management system

- a. **Deliverable #D3.1²:** Report on 'dynamic baseline' of selected action (e.g., demonstration of ambition raising of E.17 on solar PV) integrated with sectoral MRV system in line with §77d of the ETF to attract results-based carbon finance for NDC ambition raising.
- b. **Deliverable #D3.2:** Report with table formats on how ITMOs are accounted when tracking progress of NDC implementation informed by the solar PV case study in D#3.1.

4. **Deliverable #D4:** National workshop and final report.

The outputs and related activities are reported in the following table:

Table 1: Outputs and related activities

Output	Activity	Description
1	1.1	Mapping of ongoing and past initiatives relevant to Viet Nam's MRV/transparency system at national and sectoral levels focusing on the energy and agriculture sectors. Literature review
	1.2	Needs and gaps analysis based on the mapping of ongoing and past initiatives. Consultation with key partners (MONRE, MOIT, MARD, CBIT, ADB, GIZ + others)
2	2.1	Apply the GACMO tool to assessment of mitigation potential by sector for NDC implementation (scope of the assessment TBD, avoid duplication of similar work by GIZ)
	2.2	Energy sector: Select an NDC policy or action of high priority for GHG and SD impacts based on the needs and gap assessment, in consultation and agreement with MONRE
	2.3	Energy sector: Apply the relevant ICAT or other tools and methodologies (e.g., GACMO) for tailor made impact assessment to meet the sector specific needs for tracking progress of NDC implementation
	2.4	Energy sector: Identify indicators to track progress of NDC implementation for the energy sector as required in the ETF Katowice decision and subsequent decisions based on the pilot case of the selected NDC policy or action, in consultation and agreement with MONRE
	2.5	Agriculture sector: Select an NDC policy or action of high priority for GHG and SD impacts based on the needs and gap assessment, in consultation and agreement with MONRE
	2.6	Agriculture sector: Apply the relevant ICAT or other tools and methodologies (e.g., GACMO) for tailor made impact assessment to meet the sector specific needs for tracking progress of NDC implementation
	2.7	Agriculture sector: Identify indicators to track progress of NDC implementation for the agriculture sector as required in the ETF Katowice decision and subsequent decisions based on the pilot case of the selected NDC policy or action, in consultation and agreement with MONRE
3	3.1	Support MONRE, MOIT and MARD to establish the entity responsible for greenhouse gas inventory and sustainable development evaluation of policies and actions for tracking progress of NDC implementation
	3.2	Consult with relevant stakeholders and support initiatives (CBIT, ADB, GIZ and others) in the energy and agriculture sectors to streamline and strengthen the data collection and management by the entity identified in A3.1
	3.3 ²	Report to present results on application of the 'dynamic baseline' approach to a selected action (e.g., demonstration of ambition raising of E.17 on solar PV or an EE action, TBD) integrated with sectoral MRV system in line with the ETF

	3.4 ²	Report with tables on how ITMO's are accounted when tracking progress of NDC implementation
4	4.1	Final report to evaluate the ICAT work, present the main outputs and outcomes, identify which barriers and gaps (from the initial assessment) were beyond the scope of ICAT and develop a roadmap to address outstanding issues in the future
	4.2	Final national workshop to present and discuss findings and discuss next steps ensure the sustainability of ICAT outcomes. Final report reflecting stakeholder feedback and outlook for use of the findings presented.

This report provides a synthesis of the outcomes of the implemented activities.

Approach and key results

The ICAT project in Viet Nam was largely affected by the COVID pandemic and the consequent restrictions in terms of travel and working mode. Therefore, ISPRA and UNEP-CCC were obliged to deeply restructure the working mode, to allow the project to be carried out and to effectively support the country in the selected activities.

In Table 2, the full list of workshops and training held by the ICAT project in Vietnam are listed; all the events were held virtually, except for the final hybrid workshop, where ICAT Secretariat, UNEP-CCC and ISPRA staff participated online but local stakeholder joined in person the event.

Table 2: Workshops and training of ICAT project in Viet Nam

Date	type	Aim
23-24/04/2020	Technical workshop	Training on the use of GACMO to assess the mitigation impact of PaMs by sector for NDC implementation
19/06/2020	Technical workshop	Discussion of the interim results from the application of GACMO tool
18/08/2020	Technical training	Training on the use of the ICAT Sustainable Development and the ICAT Renewable Energy methodologies
28-30/09/2020	Technical training	Training in the agriculture sector, Rice cultivation: IPCC estimation methodology for rice cultivation and N ₂ O emissions from soils
14/10/2020	Technical training	Training on indicators to track progress of climate action and NDCs for representatives of the Ministry of Industry and the Ministry of Agriculture
19/10/2020	Technical workshop	Follow-up meeting on outlines for D2.2 and D2.3 on impact assessment methods and indicators to track progress on NDC implementation
21/02/2022	Technical workshop	Discussion on the key outcomes of COP26, following the adoption of relevant decisions on reporting and accounting under the Enhanced Transparency Framework (ETF) and market mechanism under the Paris Agreement (Art. 6).
19/08/2022	Final workshop	Project key outcomes were presented, including the description of the produced deliverables. The lessons learned throughout the program were summarized. A total of 150 persons both online and in person attended the workshop. ICAT Secretariat, UNEP-CCC and ISPRA staff participated online.

The ICAT project started its activities with a 2-day virtual workshop on 23–24 April 2020.

At that event, ISPRA provided an overview of the reporting requirements under Article 13 of the Paris Agreement to Vietnamese experts and stakeholders, focussing on the mitigation impact of policies and measures (PaMs) to be included in the Biennial Transparency Reports (BTR). UNEP-CCC presented the ICAT methodologies to be used to assess the impact of selected policies and actions for tracking progress of NDC implementation, including also experience of ICAT project implementation in other countries.

The CCOZONE illustrated the main activities, outputs, work plan and organisation of the ICAT support to Vietnam and presented the needs and gaps to establish a domestic MRV/transparency system in Vietnam for implementation of the Enhanced Transparency Framework (ETF) of the Paris Agreement (PA) with a focus on tracking progress of NDC implementation in the energy and agriculture sectors.

ISPRA carried out an interactive session for the first steps in using the Greenhouse Gas Abatement Cost Model (GACMO) to assess the estimated mitigation impact of PaMs by sector for NDC implementation.

The discussion on the use of GACMO tool continued in the workshop on 19 June 2020, where

the first results, assessing the potential GHG emissions reductions for the energy and agriculture sectors, were presented.

The previous mentioned workshops, and consequent online discussions, supported the country in the drafting and releasing of the deliverables D2.1A and D2.1E, on the application of the GACMO tool to assess GHG mitigation potential for the Agriculture and Energy Sectors of Vietnam, respectively, as listed in table 3.

Table 3: List of deliverables

Deliverable	Responsible	Delivery date	Description
D1	CCOZONE	Oct. 2020	Synthesis report on need and gap assessment for MRV/Transparency systems in the energy and agriculture sector of Vietnam
D2.1A	CCOZONE	Jun. 2020	Application of GACMO tool to assess GHG mitigation potential for Agriculture Sector of Vietnam
D2.1E	MOIT	Jun. 2020	Application of GACMO tool to assess GHG mitigation potential for Energy Sector of Vietnam
D2.2E*	MOIT	Apr. 2021	Tracking progress of NDC implementation in Vietnam: Applying ICAT methodologies for impact assessment of an incentive mechanism for Solar and Wind power development
D2.2A*	MARD	Apr. 2021	Tracking progress of NDC implementation in Vietnam: Applying ICAT methodology for impact assessment of an alternative wetting drying and system of rice intensification
D3	CCOZONE	Sept. 2021	Report on Institutional arrangements for Vietnam's MRV/Transparency system – an example on energy and agriculture sectors
D3.1	CCOZONE	Oct. 2022	Dynamic baseline study for a solar PV policy in Vietnam: to attract carbon finance for NDC ambition raising
D3.2	CCOZONE	Sept. 2022	Report on the national accounting system for internationally transferred mitigation outcomes
D4	CCOZONE	Aug. 2022	Final workshop and report

**The deliverables are additional compared to what included in the original work plan*

In August 2020, a technical training was provided by UNEP-CCC on the use of the ICAT Sustainable Development and Renewable Energy methodologies.

In September 2020, ISPRA held a technical training on the IPCC estimation methodology for the agriculture sector, with a specific focus on the key categories: rice cultivation and N₂O emissions from soils.

The next step for the ICAT project was to support a needs and gap assessment for MRV and transparency systems in the energy and agriculture sectors in Viet Nam. This activity took a high-level view, focusing on the institutional arrangements needed to ensure a successful implementation of the ETF of the Paris Agreement. In October 2020, the Synthesis report on the need and gap assessment for MRV/Transparency systems in the energy and agriculture

sector of Vietnam (D1) was released by CCOZONE. It includes the existing institutional arrangements for GHG inventory preparation and a focus on the MRV system for the energy and agriculture sectors as implemented for the NDC's update in 2020. In addition, the full list of policies and measures planned for the above-mentioned sectors is reported with an ex-ante assessment of their mitigation potential. The assessment review on needs and gaps for the transparency systems in the energy and agriculture sectors pointed out the need to establish fully functioned MRV systems for the sectors and relevant sub-sectors using adequate institutional arrangements, supported by comprehensive laws and legal documents.

An additional technical training, carried out by ISPRA in October 2020, was provided to the Vietnamese experts and stakeholders from the Ministry of Industry and the Ministry of Agriculture on the reporting requirements and formats of the ETF under PA. The training was focused on identifying potential indicators to be used to track progress of climate action and NDCs, for the different sectors and categories. In that context, ISPRA also presented the report [Proposed indicators for domestic MRV purposes and tracking progress of NDCs](#), aimed to support countries with relevant examples of indicators, which may be used in pursuing domestic monitoring tasks as well as in reporting on progress towards implementation and achievement of Parties'NDCs.

On this basis, Vietnam started to work on tracking progress of NDC implementation in Vietnam, in the agriculture and energy sectors. A follow-up workshop on impact assessment methods and indicators to track progress on NDC implementation was held in October 2020, to support the elaboration of the deliverables D2.2E and D2.2A, published in the first quarter of 2021, on tracking the progress of NDC implementation using ICAT methodologies in the agriculture and energy sectors. These deliverables provided a step-by-step approach for estimating the effects of policy design and often complex economic factors and other barriers that affect the impacts of policies on GHG emissions. Importantly, these twin reports also provided country specific emissions scenarios for each sector, reducing Viet Nam's reliance on international guidance. Deliverable D2.2E *Tracking progress of NDC implementation in Vietnam: Applying ICAT methodologies for impact assessment of an incentive mechanism for Solar and Wind power development* was prepared by MOIT, while deliverable D2.2A, *Tracking progress of NDC implementation in Vietnam: Applying ICAT methodology for impact assessment of an alternative wetting drying and system of rice intensification* was prepared by MARD., with support from ISPRA and UNEP-CCC staff.

In particular, the deliverable D2.2E included the implementation of the Renewable Energy (RE) and Sustainable Development (SD) ICAT guide for assessing the impacts of policies and actions in the energy sector (i.e., solar PV and wind policies), allowing the assessment of GHG emissions reduction scenarios, related to electricity generation (figure 1).

Figure 1: Unconditional GHG Reduction Scenarios – Electricity Generation



The scenarios considered were part of the work done by Vietnam in the process of NDC updating in 2020. The GACMO tool was used to assess GHG emission reduction potential for Solar PV and Wind power.

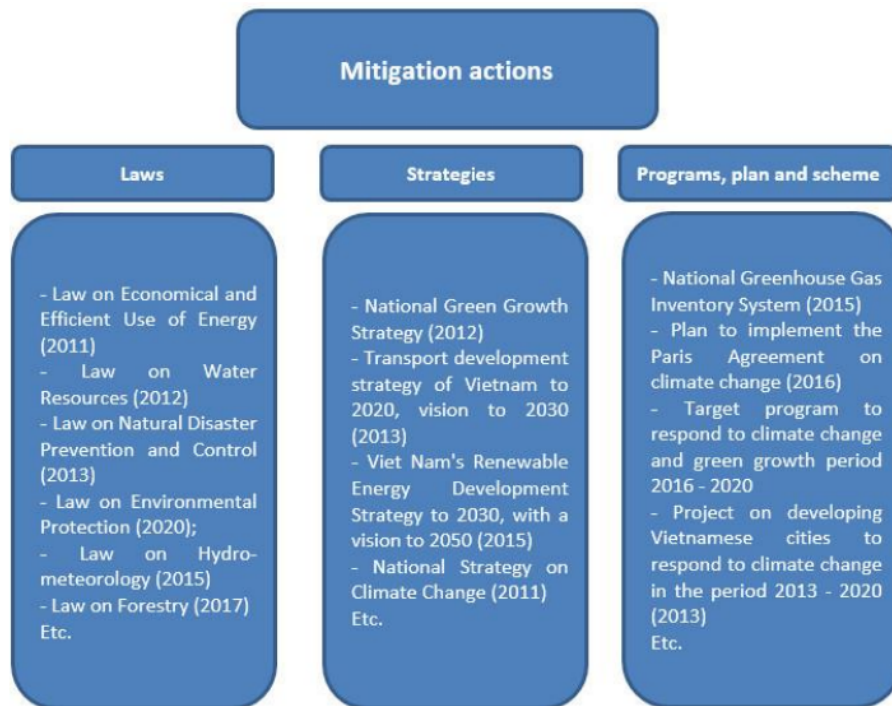
The deliverable D2.2A included the GHG emissions reduction scenarios for Agriculture, based on the application of the 2006 IPCC Guidelines, assessing the mitigation potential and costs for different mitigation options in the agriculture sector. The Agriculture ICAT Assessment Guide has been used to assess the impact of policy design features, economic and financial factors, and other barriers there might be for agricultural policies to reach their technical potential during the evaluation phase. The selected mitigation options were the Alternative Wetting and Drying (AWD) and System of Rice Intensification (SRI), which showed high potential mitigation in terms of reducing GHG emissions, and economic, social and environmental benefits.

In September 2021, the deliverable D3, *Institutional arrangements for Vietnam’s MRV/Transparency system – an example on energy and agriculture sectors*, was released by CCOZONE. It includes a detailed analysis of the status of the MRV and transparency system

in Vietnam, and highlights the need and gaps, from a transparency perspective, of the two selected sectors (i.e., Energy and Agriculture).

The above-mentioned report included information and data on the different mitigation laws, strategies, and plans, as summarised in Figure 2.

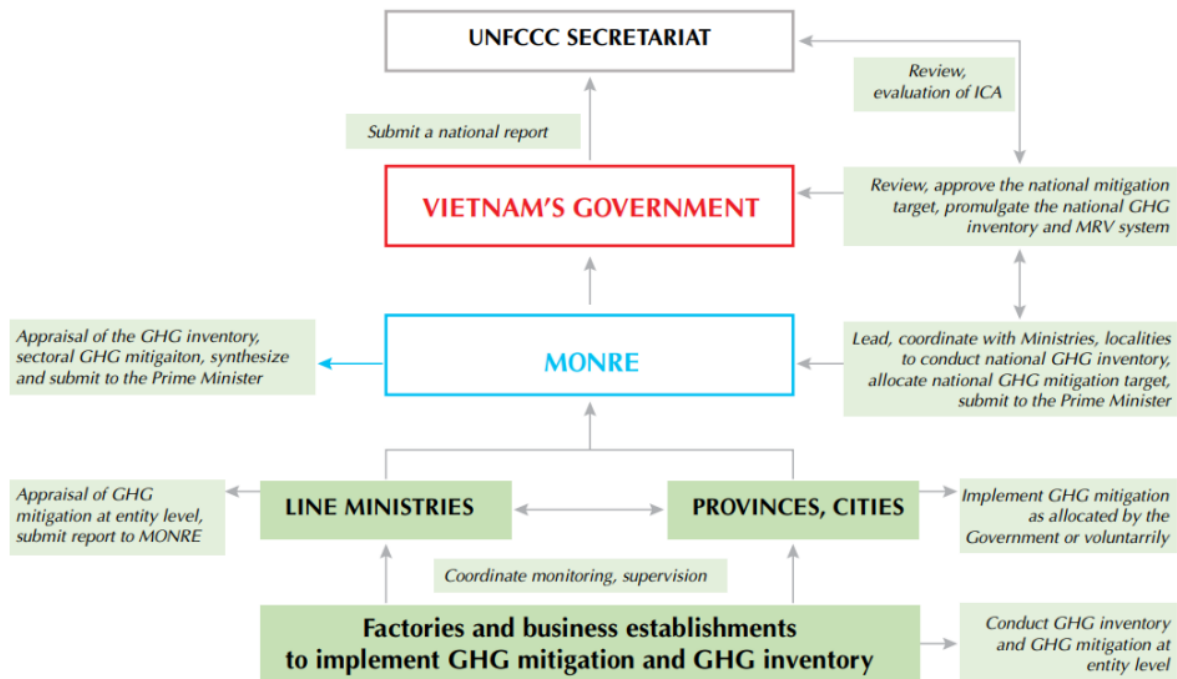
Figure 2: Laws, strategies, programs, plans and schemes indirectly/directly related to GHG emission mitigation of Viet Nam



The report found that, although various GHG mitigation projects had been implemented in Viet Nam, these had not followed similar methodologies and were not comparable. It also found that MRV systems were not being implemented consistently at state, provincial and sectoral levels. The report therefore identified the need for further work on improving data management systems across different interventions and levels of government. It concluded that for Viet Nam to sufficiently track NDC implementation, it needed to establish fully functioning MRV systems, develop adequate methodologies and guidelines to track the progress of significant energy and agriculture policies, and put in place sufficient reporting lines.

The analysis on the status of institutional arrangements of the MRV national system in Viet Nam, together with the need arising from the implementation of the ETF and its transparency requirements, triggers the proposal of an updated MRV national system (figure 3), that was introduced also in the BUR3 of Vietnam.

Figure 3: Proposed organisational chart of the MRV system



In the updated MRV system, these would be the roles and responsibilities of relevant agencies and organisations:

- MONRE is the national focal point of the national MRV system.
- MOIT, MOT, MOC, MARD, and MONRE are in charge of developing and implementing the sectoral MRV system under their management.
- Relevant ministries and the People’s Committees of provinces and centrally-run cities are coordinating agencies for the implementation of the national MRV system.
- Listed entities are required to conduct GHG inventory as prescribed by the law and relevant organisations are required to conduct MRV as per the guidelines of related ministries.

A detailed analysis of needs, requirements, data providers and deadlines were carried out for the energy and agriculture sectors, highlighting the need to update and streamline the existing set of roles and responsibilities of relevant agencies and organisations to address the challenging ETF requirements.

Covid-19 had a disruptive impact on the sequencing and continuation of activities, leading to some delays, but also unexpected savings in moving from expected in-person stakeholder consultations to virtual modalities. In addition, the expected expenses for national consultants were lower than anticipated. The achieved savings were used to implement additional activities, to enhance the impact of ICAT activities and the quality of the defined outputs. In this sense, and following a specific request by the Vietnamese experts, in February 2022, a technical workshop was organized by ISPRA and UNEP-CCC on the COP26’s outcomes in relation to transparency and to voluntary cooperation between countries to

achieve their NDCs (art. 6 of the Paris Agreement). In particular, the workshop aimed to support Viet Nam's preparedness to engage in cooperative approaches and carbon market mechanisms under Article 6 of the Paris Agreement, as included in the additional activities. These activities focus on accounting of Internationally Transferred Mitigation Outcomes (ITMOs) and new methodologies to set baselines aligned with the Article 6 rulebook. On this basis, Vietnam started to work on deliverables D3.1, *Dynamic baseline study for a solar PV policy in Vietnam: to attract carbon finance for NDC ambition raising*, and D3.2, *Report on the national accounting system for internationally transferred mitigation outcomes*, which were released in October and September 2022, respectively.

Deliverable D3.1 applies the dynamic baseline concept to Vietnam at national level and also to the Solar PV developments included in Vietnam's 2050 Net-Zero program. The dynamic baseline resulted from the combination of the Vietnam's business as usual (BAU) GHG emissions projections and an Ambition Coefficient (AC) calculated based on the 2050 Net-Zero emissions pathway. The calculated AC was then adjusted based on the NDC unconditional targets, the national GDP expected growth in the next decades and the energy demand estimations. Results show that while the ambition coefficient of Vietnam's net-zero target will gradually reduce to 0 by 2050 in line with the country's Net-Zero goal, the ambition coefficient of solar power development is not necessarily to be 0 since the development of solar power is just one among the many potential mitigation measures for the energy sector. The resulting dynamic baselines are expected to increase countries' NDC ambition as well as to highlight the potential of carbon credits.

Deliverable D3.2 simulated the accounting system for ITMOs used for NDC achievement, based on the Common Tabular Format (CTF) for the reporting of the information necessary to track progress towards NDC. The report introduces the ITMO concept and discusses the potential of cooperative approaches' contribution to Vietnam's NDC. It also describes the mitigation measures included in Vietnam's NDC and prospective mitigation options for carbon trading under Article 6. Finally, a study case for ITMO accounting in a Solar PV project is included. The results of the study case show that the planned Solar PV developments in Viet Nam will be able to produce some ITMOs from Solar PV even if a highly ambitious baseline, based on the new concept of a "dynamic baseline" is applied. The amount of ITMOs will increase over the years if the successive milestones towards the Net-Zero scenario mitigation goal are achieved. This shows that, despite the challenges, the "dynamic baseline" concept can be operationalized and eventually be used to impel Parties to enhance their mitigation contribution to the global stocktake and could play a role in attracting necessary financial mobilization for mitigation in developing countries.

The final workshop was held on the 19th of August 2022 in Hanoi. During this workshop, there were presented the results of the project as well as each of the completed deliverables. Furthermore, there were brief discussions about each of these outcomes. The workshop also included a summary of the lessons learned throughout the project. The event was attended by a total of 150 individuals, with participants joining both online and in person. ICAT

Secretariat, UNEP-CCC and ISPRA staff participated online. The final report was submitted just after the workshop, on 22nd of August. The main project results were described in terms of activity implementation, data gaps and barriers and further improvements.

Despite being impacted by the COVID-19 epidemic, the ICAT project is considered successful in achieving its objectives. Both implementing partners and country-based consultants highlighted that ICAT's capacity building activities were well aligned with the country's needs and priorities, providing support not only on the focus areas of the project, the energy and agriculture sectors, but broadly on the ETF framework.

MRV national system of Vietnam

Viet Nam's current MRV system

The monitoring, reporting and verification of GHG emissions has already been in place in Viet Nam for many years. Viet Nam submitted its first National Communication under the UNFCCC in 2003, which contained its first GHG inventory for the year 1994. Additional National Communications were submitted in 2010 and 2019. Viet Nam has also submitted three biennial update reports (BUR) under the UNFCCC in 2014, 2017 and 2020. These reports contain national GHG inventories for the years 2010, 2013 and 2016, respectively. The third Biennial Update Report is complemented by a report on the national GHG inventory, which provides details on methods, data sources and greenhouse gas emissions in all relevant sectors in 2016.

Viet Nam's overall policy framework for responding to climate change is summarised in Viet Nam's Third National Communication. The main legal documents related to MRV, before the below mentioned Decree 06/2022, was adopted include the Law on Environmental Protection No. 55/2014/QH13 and the Law on Meteorology and Hydrology No. 90/2015/QH13, which addresses the monitoring, impact assessment and response to climate change.

The National Climate Change Committee of Viet Nam was established in 2012 and is chaired by the Prime Minister. The Vice Chairmen of this Committee are a Deputy Prime Minister and the Minister of Natural Resources and Environment. Members of this Committee are leaders and representatives of related Ministries and agencies. MONRE is the permanent acting agency of this Committee. The Committee Office, the assisting body for this Committee is located in MONRE and chaired by the Director General of the Department of Climate Change (DCC).

As far as international climate action and reporting is concerned, MONRE has been assigned by the Government as the national focal point for the implementation of the UNFCCC, the Kyoto Protocol, the Paris Agreement, and other climate-related international commitments. The DCC has been appointed by MONRE as the executive agency to take the lead in implementing those climate-related international commitments, including the preparation of national reports under the UNFCCC. For the most recent national GHG inventory (for the year 2016), the DCC was responsible for developing the GHG inventory plan, taking the lead and cooperating with related agencies in the GHG inventory system as well as compiling the technical report. The General Statistics Office (GSO) under the Ministry of Planning and Investment (MPI) was responsible for collecting/controlling the quality of data from other focal points including ministries and People's Committees (PPCs) of provinces/cities and for providing the DCC with activity data and related information to compile the GHG inventory. Supplementary data is collected from agencies and organisations outside of the national GHG inventory system.

Specifically, the following line ministries provided information for the GHG inventory in the following sectors:

- Ministry of Industry and Trade (MOIT): Sectors Energy and Industrial Processes and Product Use (IPPU)
- Ministry of Transport (MOT): Subsector Transport
- Ministry of Construction (MOC): Sector IPPU
- Ministry of Agriculture and Rural Development (MARD): Sectors agriculture and Land Use, Land Use Change and Forestry (LULUCF)
- Ministry of Natural Resources and Environment (MONRE): Sectors LULUCF and waste

Decree 06/2022 on GHG Emissions Reduction and Ozone Layer Protection

In January 2022, Decree 06/2022 on GHG Emission Reduction and Ozone Layer Protection was adopted by the Vietnamese Government. It defines the responsibilities for GHG emission reductions, and for monitoring and reporting for sectors and facilities. The main responsibility for implementing Decree 06/2022 lies with the Ministry of Natural Resources and Environment (MONRE). Its tasks include the coordination with line ministries from various sectors, namely the Ministry of Industry and Trade (MOIT), the Ministry of Transport (MOT), the Ministry of Agriculture and Rural Development (MARD) and the Ministry of Construction (MOC).

Besides these ministries, MONRE coordinates with the Provincial People's Committees to review, synthesize, and develop the list of sectors and establishments which are subject to preparing a GHG inventory. These establishments include those with annual GHG emissions of 3,000 tons of carbon dioxide equivalent (CO₂eq) or more, thermal power plants and industrial production facilities with total annual energy consumption of 1,000 tons of oil equivalent or more, cargo transportation companies with total annual fuel consumption of 1,000 tons of oil equivalent or more, commercial buildings with total annual fuel consumption of 1,000 tons of oil equivalent or more and solid waste treatment facilities with annual operating capacities of 65,000 tons or more.

GHG emission reductions and enhanced removals by sinks are to be tracked in the national MRV System of GHG emissions reduction. MONRE is the focal agency of this system and is responsible for checking the compliance with MRV regulations and the development and operation of a national MRV database of greenhouse gas emissions reduction. Besides the MRV of GHG emissions reduction, the national GHG inventory is a key element of the national MRV system. MONRE is the focal agency for the national GHG inventory, and it is responsible for:

- taking the lead to organize the national greenhouse gas inventory;
- disseminating greenhouse gas inventory methods at national and sector level in accordance with guidelines of the Intergovernmental Panel on Climate Change (IPCC);

- coordinating with line ministries;
- publishing the list of emission factors for the national greenhouse gas inventory;
- conducting quality assurance and quality control (QA/QC) of the national greenhouse gas inventory, verifying greenhouse gas inventory results at sector level, and specifying greenhouse gas inventory verification process at establishment (i.e. facility) level; and
- developing and operating an online greenhouse gas inventory database, including the update of activity data.

The line ministries mentioned above are responsible for:

- organizing the implementation of the greenhouse gas inventory at sectoral level and sending inventory reports to MONRE;
- guiding and organizing the implementation of the greenhouse gas inventory at establishment level under the scope of their management; sending establishment-level greenhouse gas inventory results to MONRE;
- checking the compliance with regulations on greenhouse gas inventory by establishments specified within the scope of their management;
- providing additional activity data and relevant information for the national greenhouse gas inventory at the request of MONRE;
- developing and operating the online greenhouse gas inventory database within the scope of their management.

Further details of the line ministries' responsibilities were laid out in letter No. 4848/BTNMT-BDKH from MONRE to MOIT, MOT, MARD and MOC. According to this letter, line ministries will be responsible for developing technical regulations on GHG inventory and MRV for GHG emissions reduction. The letter specifies the contents for the development of these technical regulations, both for the GHG inventory and for MRV of GHG emissions reduction.

Various responsibilities relating to assessment and verification were laid out in Circular 01/2022/TT-BTNMT. Besides the assessment of climate change impacts, vulnerability, risks and loss and damage, the Circular lays out the requirements for the verification of GHG inventory results and GHG emission reduction. At the sector level, verification is to be carried out by verification councils which are to be established by the line ministries. At the establishment level, verification is to be carried out by specialised agencies.

Besides the requirements for national MRV, Decree 06/2022 sets out the requirements and responsibilities for the domestic carbon market, which is to be developed in the period up to 2027 and to be fully operational starting in 2028. The Decree also addresses the roadmap for the management and elimination of ozone depleting substances GHGs (hydrofluorocarbons) controlled under the Montreal Protocol.

Impacts of the ICAT project on Vietnam's transparency systems

Viet Nam's updated NDC and its efforts to strengthen its MRV system through improved data and tracking tools exemplify the country's commitment to emissions reduction and sustainable development.

The ICAT project has significantly enhanced Vietnam's ability to set up a functional transparency system, covering the definition of clear institutional arrangements, defining roles, responsibilities and providing data, information, and tools to track NDC implementation. Viet Nam's reports under the UNFCCC, such as its third Biennial Update report, showed that national collaboration worked well for collecting and comprehensive information on GHG emissions and climate change mitigation. However, these reports were organised at a project level, and arrangements for periodic reporting are not yet in place.

Particularly important was the deliverable of the report 'Institutional arrangements support to set up the MRV system, proposing institutional arrangements for tracking progress in the implementation of Viet Nam's NDC.

For the process of measuring emission reductions in the energy sector, the abovementioned report proposed that entities participating in emission reduction programmes and projects in the energy sector are responsible for hiring a third party to propose the method for measuring emission reductions in the program or project to the local management agency. This local management agency would make a preliminary assessment of the measurement method and submit the registration system to the MOIT, then notify approval or adjust the methodology and monitoring of the application of the method. The MOIT would then evaluate the measurement method, submit it to the national registration system, notify the approval or adjustment of the methodology and monitor its application.

For the agriculture sector, the report proposed the establishment of a specialised unit responsible for coordinating MRV activities for emissions reduction/enhancement of removals in the area under the management of MARD. It also proposed the development of a mechanism for coordination among sector agencies in providing information and reporting, and mechanisms for coordinating and monitoring from specialised agencies.

The report also recommended developing sector specific domestic MRV systems according to the principles recommended by the UNFCCC: make the most of existing methods, systems and information, and consider developing new systems and methods appropriately.

Finally, it suggested generating general guidance documents as the basis for the development of domestic MRV systems for each specific sector. It should be noted that these pilots were completed before the adoption of Decree 06/2022. Nevertheless, the following proposals are suitable for other sectors and for MRV as required by Decree 06/2022: The establishment of specialised units responsible for coordinating MRV activities, and the

development of a mechanism for coordination among sector agencies in providing information and reporting. However, any update of institutional arrangements and processes face constraints and challenges, such as staff limitations and lack of specialised knowledge. These constraints were also considered in this assignment, by differentiating between constraints to the information flow, personnel/expertise, and coordination between institutions. The capacities which need to be built to address these constraints were also addressed.

To maximize these efforts, Viet Nam must continue to enhance its MRV system at national, provincial, and sectoral levels. This includes the construction of emission scenarios at national level, for the key economic sectors, to help develop an accurate and transparent foundation for the implementation and evaluation of relevant mitigation actions. Further capacity building across all sectors is essential to improve and streamline data to be used in the GHG inventory. And lastly, appropriate indicators and methods, in line with the requirements set out by the Enhanced Transparency Framework of the Paris Agreement, which can track the progress of NDC implementation and achievement should be utilized.

It should also be noted that not all changes should only be attributed to ICAT support. Viet Nam has been supported by a number of international projects in the area of MRV of GHG emissions and climate change mitigation actions. In the following, selected projects are introduced briefly.

The project implemented by GIZ supports Viet Nam in the implementation of the Paris Agreement, in particular in establishing the general conditions needed to implement the NDCs in line with the Paris Agreement by advising MONRE on the further development and implementation of Viet Nam's contribution to combating climate change. The project also supports the development of sectoral MRV systems for the sectors of Waste, LULUCF, and Construction (building and building materials).

The project *Support for Planning and Implementation of the Nationally Determined Contributions in Viet Nam* by the Japan International Cooperation Agency (JICA) supports the Government of Viet Nam in the planning and implementation of the NDC in Viet Nam, including the development of performance indicators for tracking NDC progress, improvements in GHG inventory systems and proposals for facility-level GHG reporting systems.

The Capacity Building Initiative on Transparency (CBIT) project *Strengthen Viet Nam's capacities to manage data flows and report information adequately to fulfil the enhanced transparency framework of the Paris Agreement requirements* started in 2022, implemented by the United Nations Development Programme (UNDP). Activities in this project include a review of the institutional framework for MRV, the design of web-based platform and capacity-building activities.

Finally, no information on potential contribution of ICAT activities in BUR/NC is available. However, it is expected the identification of the gaps in terms of MRV and Transparency (output 1), and the exploration of a potential institutional arrangement to keep track of GHG emissions and NDC implementation (output 3) may lead to improvements in the reporting in the next future.

Communication and media activities

ISPRA supported Viet Nam, in the ICAT project, to present the strategy adopted for the reduction of emissions in the energy and agriculture sector.

The video is available here: <https://youtu.be/IMGAVF7hodI> and here: <https://www.isprambiente.gov.it/en/archive/news-and-other-events/ispra-news/2021/11/icat-project-ispra-technical-support-to-vietnam>

An article on the support provided by ISPRA and UNEP-CCC to Vietnam and the results of the activities were published is available [here](#).