1 Introduction

Agriculture, forestry and other land use account for approximately 25% of global greenhouse gas (GHG) emissions. Forestry sector emissions predominantly come from deforestation. A fundamental transformation is needed if the sector is to play its part in the transition to net zero global GHG emissions in the second half of the 21st century. Activities such as afforestation, sustainable forest management and reducing deforestation are often low-cost mitigation options, and can play an important role in reducing GHG emissions and enhancing carbon stocks. They can also be considered win–win activities because of the multitude of environmental, social and economic benefits they bring, including supporting a country or region in its adaptation efforts.

In this context, there is an increasing need to assess and communicate the impacts of forest policies to ensure that they are effective in mitigating GHG emissions, and helping countries meet their sectoral targets and national commitments. The Initiative for Climate Action Transparency (ICAT) Forest Methodology *helps policymakers assess the impacts of forest policies and improve the effectiveness of policies. It can play a critical role in providing the information needed for preparing reports under the Paris Agreement's enhanced transparency framework and for the United Nations Sustainable Development Goals (SDGs).*

1.1 Purpose of the methodology

This document provides methodological guidance for assessing the GHG impacts of forest policies that increase carbon sequestration and reduce GHG emissions by enabling or incentivizing:

- afforestation and reforestation
- sustainable forest management
- reduced deforestation and/or degradation activities.

This methodology is part of the series of ICAT guides for assessing the impacts of policies and actions. It is intended to be used in combination with any other ICAT documents that users choose to apply. The series of assessment guides is intended to enable users who choose to assess GHG impacts, sustainable development impacts and transformational impacts of a policy to do so in an integrated and consistent way within a single impact assessment process. Refer to the *Introduction to the ICAT Assessment Guides*[1] for more information about the ICAT assessment guides and how to apply them in combination.[2]

1.2 Relationship to other guidance and resources

This methodology uses and builds on existing resources mentioned throughout the document. These include volume 4 of the Intergovernmental Panel on Climate Change (IPPC) *2006 IPCC Guidelines for National Greenhouse Gas Inventories* (IPCC 2006 GL) – *Agriculture, Forestry and Other Land Use*.[3]

The methodology builds upon the Greenhouse Gas Protocol *Policy and Action Standard* (© WRI 2014; all rights reserved) (which provides guidance on estimating the GHG impacts of policies and actions, and discusses many of the accounting concepts in this document, such as baseline and policy scenarios), to provide a detailed method for forest policies.[4] The methodology adapts the structure, and some of the tables, figures and text from the *Policy and Action Standard*, where relevant. Chapters 1, 2, 4, 5, 6, 10 and 11, and the glossary include elements drawn from the *Policy and Action Standard*. Figures and tables adapted from the *Policy and Action Standard* are cited, but for readability not all text taken directly or adapted from the standard is cited.

A full list of references is provided at the end of this document.

[1] https://climateactiontransparency.org/wp-content/uploads/2020/01/Introduction-to-the-ICAT-Assessment-Guides.pdf

[2] https://climateactiontransparency.org/wp-content/uploads/2020/01/Forest-Methodology-Executive-summary.pdf

[3] Available at: www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.html.

[4] Available at: www.ghgprotocol.org/policy-and-action-standard.

1.3 Intended users

This methodology is intended for use by policymakers and practitioners seeking to estimate GHG mitigation impacts in the context of development and implementation of nationally determined contributions (NDCs), national low-carbon strategies, nationally appropriate mitigation actions (NAMAs) and other mechanisms. The primary intended users are developing country governments and their partners who are implementing and assessing forest policies. Throughout the document, the term "user" refers to the entity implementing the methodology.

The main emphasis of the methodology is on the assessment of GHG impacts. Impact assessment can also inform and improve the design and implementation of policies. Thus, intended users include any stakeholders involved in the design and implementation of forest policies, strategies, NDCs or NAMAs, including research institutions, businesses and non-governmental organizations (NGOs).

1.4 Scope and applicability of the methodology

This document provides general principles, concepts and procedures for estimating GHG impacts of forest policies[5] that increase carbon sequestration and/or reduce GHG emissions from the following activities (which are further described in Chapter 3):

- **afforestation and/or reforestation (A/R)** – increase carbon sequestration and/or reduce emissions by establishing, increasing or restoring vegetative cover through the planting, sowing or human-assisted natural regeneration of trees
- **sustainable forest management (SFM)** – increase carbon sequestration and/or reduce emissions on forest lands managed for wood products such as sawtimber, pulpwood and fuelwood by increasing biomass carbon stocks through improving forest management practices
- **reduced deforestation and/or degradation** – reduce net GHG emissions by reducing the conversion of forest lands with high carbon stocks to forest or non-forest lands with lower carbon stocks.

This document is organized into four parts (see Figure 1.1). It details a process for users to follow when conducting a GHG assessment of forest policies. It provides guidance on defining the assessment, an approach to GHG assessment including ex-ante (forward-looking) assessments and ex-post (backward-looking) assessments, and monitoring and reporting. Throughout the document, examples and case studies are provided to illustrate how to apply the methodology.

This methodology is applicable to users who have defined the individual policy instruments, and mitigation practices and/or technologies that could be implemented to reduce GHG emissions. Examples of relevant policy instruments, and mitigation practices and/or technologies are described in Chapter 3. Policies that are not well defined or have not undergone a policy development process can be difficult to assess, because the level of detail needed to estimate GHG impacts may not be available without further policy development.

The steps for estimating emissions reductions and removals are based on the IPCC 2006 GL.[6] Countries that have a GHG inventory for the forestry sector can use data used to compile the inventory to estimate emissions reductions.

The methodology is applicable to policies:

- at any level of government (national, subnational, municipal) in all countries and regions
- that are planned, adopted or implemented
- that are new policies; or extensions, modifications or eliminations of existing policies.

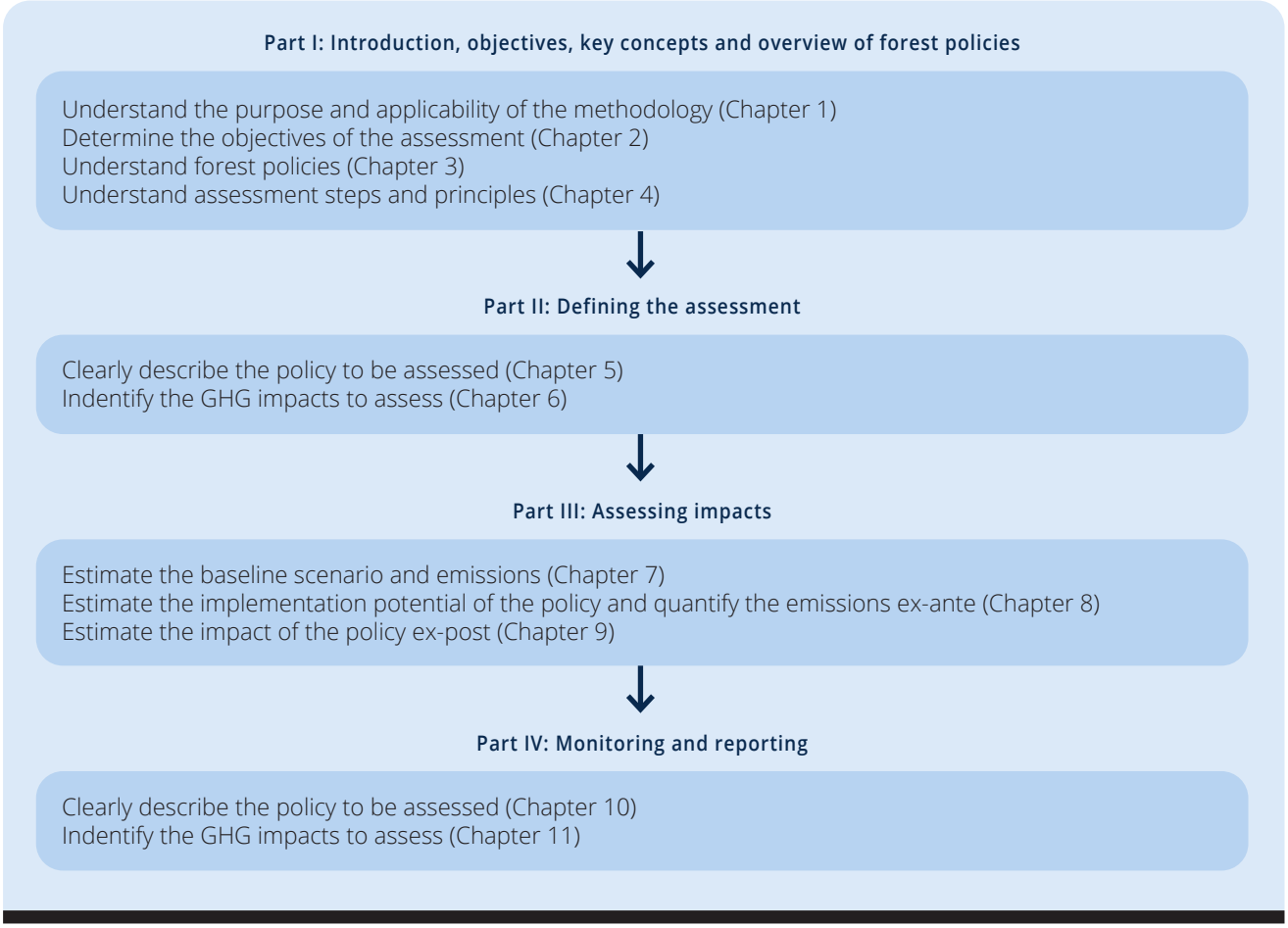
Appendix C lists the full criteria used to choose the scope of the methodology.

[5] Throughout this document, where the word "policy" is used without "action", it is used as shorthand to refer to policies and actions, and policies and measures. See Glossary for definition of "policy or action".

[6] Available at: www.ipcc-nggip.iges.or.jp/public/2006gl/index.html. As the IPCC guidelines are updated or refined, users may refer to subsequent versions to improve impact assessment estimation. Note that the enhanced transparency framework states that "Each Party shall use the 2006 IPCC Guidelines and any subsequent version or refinement of the IPCC Guidelines agreed upon by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA)".

FIGURE **1.1**

Overview of the methodology



1.5 When to use the methodology

The methodology can be used at multiple points throughout a policy design and implementation process, including:

- **before policy implementation** – to assess the expected future impacts of a policy (through ex-ante assessment)
- **during policy implementation** – to assess the impacts achieved to date, ongoing performance of key performance indicators, and expected future impacts of a policy
- **after policy implementation** – to assess what impacts have occurred as a result of a policy (through ex-post assessment).

Depending on individual objectives and when the methodology is applied, users can implement the steps related to ex-ante assessment, ex-post assessment or both. The most comprehensive approach is to apply the methodology before implementation, regularly during policy implementation and again after implementation.

1.6 Key recommendations

The methodology includes key recommendations that are recommended steps to follow when assessing and reporting impacts. These recommendations are intended to help users to produce credible and high-quality impact assessments that are based on the principles of relevance, completeness, consistency, transparency and accuracy.

Key recommendations are indicated in subsequent chapters by the phrase "It is a *key recommendation* to …". All key recommendations are also compiled in a checklist at the beginning of each chapter.

Users who want to follow a more flexible approach can use the methodology without adhering to the key recommendations. The *Introduction to the ICAT Assessment Guides* provides more information on how and why key recommendations are used within the ICAT assessment guides, and on following either the "flexible approach" or the "key recommendations approach" when using the documents. Refer to the *Introduction to the ICAT Assessment Guides* before deciding which approach to follow.

1.7 Alignment with the enhanced transparency framework of the Paris Agreement

This methodology can help countries to fulfil their accounting and reporting requirements under the enhanced transparency framework of the Paris Agreement. Specifically, the methodology can help countries understand the impacts of forest policies, estimate baseline emissions and GHG impacts, conduct projections, and monitor progress over time using indicators and parameters. This enables countries to account for their contributions and track progress towards implementation and achievement of their NDCs. Alignment of indicators and parameters (i.e. using the same indicators and parameters to assess the impacts of a forest policy and to meet reporting requirements of the transparency framework) is recommended for the following:

- Estimating baseline emissions and GHG impacts. Align input parameters used to estimate baseline emissions and GHG impacts of forest policies with the input parameters used for GHG accounting of NDCs (Chapter 7 and 8).
- Projections. Align the parameters and time frame used to develop projections for forest policies with the parameters and time frame used to meet reporting requirements of the transparency framework (Chapter 7).
- Monitoring and tracking progress towards NDCs. Indicators and parameters used in this methodology to monitor forest policy implementation can also be used to track progress towards implementation and achievement of an NDC. Some indicators suggested in this methodology can be used to track sustainable development impacts (Chapter 11).

1.8 Process for developing the methodology

This methodology has been developed through an inclusive, multi-stakeholder process convened by ICAT. The development is led by the Greenhouse Gas Management Institute (technical lead) and Verra (co-lead), who serve as the secretariat and guide the development process. The first draft was developed by drafting teams, consisting of a subset of a broader Technical Working Group (TWG) and the secretariat. The TWG consists of experts and stakeholders from a range of countries identified through a public call for expressions of interest. The TWG contributed to the development of the technical content of the methodology through participation in regular meetings and written comments. A Review Group provided written feedback on the first draft of the methodology. ICAT's Advisory Committee, which provides strategic advice to ICAT, reviewed the second draft.

The second draft was applied by ICAT participating countries and other non-state actors to ensure that it can be practically implemented. The current version of the methodology was informed by the feedback gathered from that experience and includes case studies from those applications.

More information about the methodology development process, including governance of the initiative and the participating countries, is available on the ICAT website.[7]

All contributors are listed in the Contributors section.

[7] https://climateactiontransparency.org

2 Objectives of assessing GHG impacts of forest policies

This chapter provides an overview of objectives users may have in assessing the GHG impacts of forest policies. Determining the assessment objectives is an important first step, since decisions made in later chapters should be guided by the stated objectives.

Checklist of key recommendations

- Determine the objectives of the assessment at the beginning of the impact assessment process

Assessing the GHG impacts of policies is a key step towards identifying opportunities and gaps in effective GHG mitigation strategies. Impact assessment supports evidence-based decision-making by enabling policymakers and stakeholders to understand the relationship between policies and expected or achieved GHG impacts. It is a *key recommendation* to determine the objectives of the assessment at the beginning of the impact assessment process.

Examples of objectives for assessing the GHG impacts of a policy are listed below. The ICAT *Sustainable Development Methodology* and *Transformational Change Methodology* can be used to assess the broader sustainable development and transformational impacts of forest policies, and users should refer to these methodologies for objectives for assessing such impacts.

2.1 Objectives of assessing impacts before policy implementation

- **Inform policy selection** by comparing policy options based on their expected future impacts.
- **Improve policy design and implementation** by understanding the impacts of different design and implementation choices.
- **Inform goal setting** by assessing the potential contribution of policy options to national goals, such as NDCs and NAMAs.
- **Report** on the expected future impacts of policies, domestically and/or internationally.
- **Access financing** for policies under consideration by demonstrating expected future results.

2.2 Objectives of assessing impacts during or after policy implementation

- **Assess policy effectiveness** by determining whether policies are delivering the intended results.
- **Improve policy implementation** by determining whether policies are being implemented as planned.
- **Learn from experience** and share best practices about the impacts of policies.
- **Track progress towards national goals** such as NDCs, the SDGs of the 2030 Agenda for Sustainable Development and national REDD+ (reduced emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests and enhancement of forest carbon stocks) strategies/action plans, and understand the contribution of policies towards achieving them.
- **Inform future policy design**, including reformulation of NDCs towards enhanced ambition, and decide whether to continue current actions, enhance current actions or implement additional actions.
- **Report**, domestically or internationally, including under the Paris Agreement's

enhanced transparency framework, on the impacts of policies achieved to date.

- **Meet funder requirements** to report on impacts of policies, if relevant.

Users should identify the intended audience of the assessment report. Possible audiences include policymakers, the general public, NGOs, companies, funders, financial institutions, analysts, research institutions, or other stakeholders affected by (or who can influence) the policy. For more information on identifying stakeholders, refer to the ICAT *Stakeholder Participation Guide* (Chapter 5).

Subsequent chapters provide flexibility to enable users to choose how best to assess the impacts of policies in the context of their objectives, including which impacts to include in the GHG assessment boundary, and which methods and data sources to use. The appropriate level of accuracy and completeness is likely to vary by objective. Users should assess the impacts of their policies with a sufficient level of accuracy and completeness to meet the stated objectives of the assessment.