

# Executive Summary: Agriculture Methodology

## *Assessing the Greenhouse Gas Impacts of Agriculture Policies*

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### DOWNLOAD THE GUIDE:

<https://climateactiontransparency.org/resources/agriculture-guide/>

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### AGRICULTURE AND CLIMATE CHANGE

Agriculture, forestry, and other land use account for approximately 25% of global greenhouse gas (GHG) emissions. 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.

There is an increasing need to assess and communicate the impacts of agricultural 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) *Agriculture Methodology: Assessing the Greenhouse Gas Impacts of Agriculture Policies* helps policymakers assess the GHG impacts of policies and improve their effectiveness. Assessing agricultural policies is further relevant in understanding their impact on sustainable development goals such as achieving zero hunger or supporting economic growth.

### PURPOSE OF GUIDANCE

Assessing the impacts of agriculture policies and actions supports evidence-based decision-making. This is achieved by enabling policymakers and stakeholders to understand the relationship between policies and their expected GHG and other impacts. Policymakers and other users can apply the guide to assess these impacts, pursuing one or several of the following objectives:

- Inform and improve policy design and implementation
- Inform goal setting and track progress
- Provide information for reporting domestically or internationally, including under the Paris Agreement's enhanced transparency framework
- Attract finance by demonstrating the results of effective policies
- Assess administrative and technical capacity required to implement policy activities

### SCOPE AND APPLICABILITY

The guide provides principles, concepts, and detailed procedures for quantitatively estimating the GHG impacts of agricultural policies and actions addressing the major GHG sources and carbon pools in the agriculture sector. The assessment approach covers the steps for planning the assessment, selection and description of typical mitigation measures in the agriculture sector, and calculation of GHG emissions associated with policy activities. Methodologies are demonstrated through hypothetical policy examples.

The guide is applicable to all countries and regions and policies implemented at any level of government (e.g., national, subnational, municipal). It can be applied to policies that are planned, adopted, or implemented, as well as extensions, modifications, or termination of existing ones.

Emission sources and mitigation measures covered in the guide are as follows:

Emission source	Mitigation measure example
Livestock including enteric fermentation and manure management	Improving feed quality for dairy cattle and changing manure storage duration/coverage
Fertilizer management	Splitting application of Urea fertilizer
Soil carbon pools	Transitioning to reduced-till or no-till practices
Rice cultivation	Changing water regime and adopting dry seeding

### INTENDED AUDIENCE

The primary intended audience are governments and their partners who are planning, implementing, and/or assessing the GHG impacts of agriculture policies in the context of developing and implementing their Nationally Determined Contribution (NDC), national or sub-national low carbon strategies, Nationally Appropriate Mitigation Actions (NAMAs), and other mechanisms.

### ASSESSMENT STEPS

The guide provides a stepwise approach to estimating the GHG impacts of agriculture policies. The assessment process includes the following three parts:

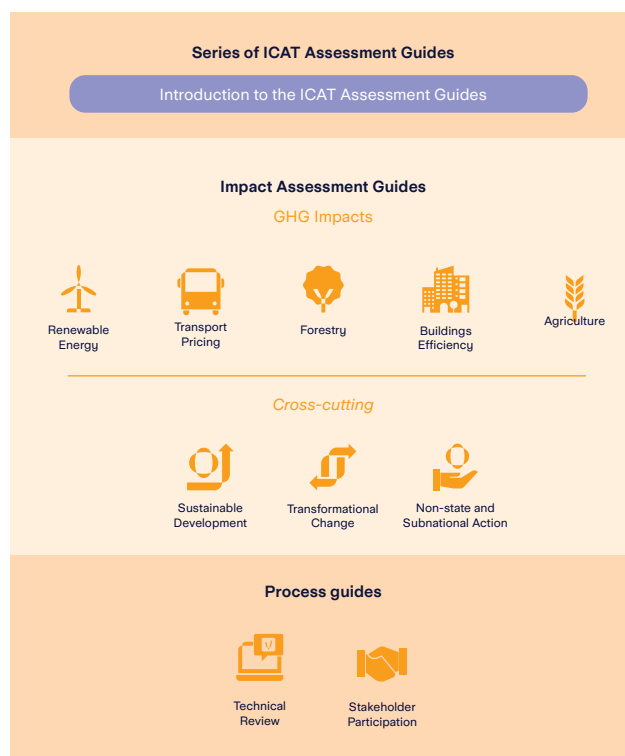
**Part I: Plan Assessment.** Provides fundamental information about GHG assessment and reporting frameworks, assessment planning steps, and how assessment results can be used.

**Part II: Select and Describe Policy.** Helps users understand agriculture policy instruments and measures that could be applied in their context, as well as describing the policy activities and outcomes being assessed.

**Part III: Assess policy.** Includes methodological chapters for each major GHG source/sink category.

### SERIES OF ICAT ASSESSMENT GUIDES

ICAT aims to help countries assess the impacts of their climate actions, and to support greater transparency, effectiveness, ambition and trust in climate policies worldwide. The Agriculture Methodology is part of the ICAT series of guides for assessing the GHG, sustainable development and transformational impacts of policies and actions in an integrated way. The guides are a result of collaboration with technical experts from around the world. The ICAT Agriculture Methodology can be used on its own or together with other ICAT guides.



The assessment guides have been used to support capacity-building for transparency in more than 20 countries. Case studies are available on the ICAT website. To learn more about how ICAT supports countries, visit [www.climateactiontransparency.org](http://www.climateactiontransparency.org) or email ICAT at [ICAT@unops.org](mailto:ICAT@unops.org).