

User Manual to:
ICAT Agriculture Capacity Building Module

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PREPARED UNDER

Initiative for Climate Action Transparency (ICAT) project supported by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, the Children's Investment Fund Foundation (CIFF), the Italian Ministry for Environment, Land and Sea Protection, and ClimateWorks.



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



1. Introduction

This document is a user manual to the Capacity Building Module for ICAT's [Agriculture Guidance](#). It provides (1) an overview of the Capacity Building Module and (2) an in-depth walkthrough of the Module structure and interactive functionalities, including examples and quizzes. This manual is intended to support ICAT implementing partners and other users and instructors to navigate through the Module and its features.

Lastly, this manual includes guidance on how trainers can adapt the modules to include specific examples and country- or project-specific information based on the ICAT Agriculture Guidance.

2. The Agriculture CB Module

The Agriculture Capacity Building (CB) Module, comprised of a deck of slides named "ICAT CB Agriculture", provides didactic presentations on key content within ICAT Agriculture Guidance in a self-paced format for each Part (total of 4 decks) of the Guidance (*May 2018 Draft Version*). The CB Module includes quizzes, exercises, examples, and templates to facilitate interactive learning. The CB Module Parts (I-IV) do not contain new content beyond the existing Agriculture Guidance. Users should refer to the Agriculture Guidance for complete and detailed content.



The ICAT CB Agriculture Module includes instructional materials in the following formats:

- PowerPoint Presentations: These files are only made available to ICAT Implementing Partners. The presentations can be tailored for specific countries' and projects' contexts and needs (see **Section 7** for instructions).
- Excel Examples and Templates: Detailed examples and reporting templates in Microsoft Excel format.

2.1 Interactivity

The Agriculture CB Module is equipped with clickable buttons embedded into its PowerPoint files to aid instructors and users (during self-paced learning) to navigate the content in a more interactive, modular, and/or focused way. It is envisioned that users can interact with the content more freely by jumping to specific examples and exercises while also being able to skip them and/or return to the main content track.

3. Module Structure

The Agriculture Guidance CB Module contains four Parts (see table below), corresponding to the four Parts of the Agriculture Guidance and its associated chapters. Each presentation is intended to last roughly 30-40 minutes.¹

¹ Part III is expected to last around one hour.

| Module Parts | Agriculture Guidance Chapters |
|--------------|-------------------------------|
| Part I | 1, 2, 3, & 4 |
| Part II | 5 & 6 |
| Part III | 7, 8, & 9 |
| Part IV | 10 & 11 |

Within each Part, key content within the methodologies are often paired with example boxes and step-by-step exercises. Users and instructors can tailor these slides in the presentation to showcase and exemplify content with information gathered from specific country projects and/or pilot studies (see **Section 7** for further instructions). Most of the examples and exercise slides are pre-filled with sample data and information found in the Agriculture Guidance.

4. Using the Module – stepwise

The following step-by-step overview of the CB Module uses example slides from Parts I and III of the CB Module. However, this overview is applicable to all Parts in the CB Module as they follow a similar structure and contain similar functionalities.

The first three slides (see **Figure 1**, **Figure 2**, and **Figure 3**) in all of the CB Module Parts provide an outline of the content. The presentation starts being interactive and with content-related material from slide 4 onward (see **Figure 4**).



Figure 1: Opening slide containing the name of the guidance and the presentation’s specific part

Series of ICAT Assessment Guides

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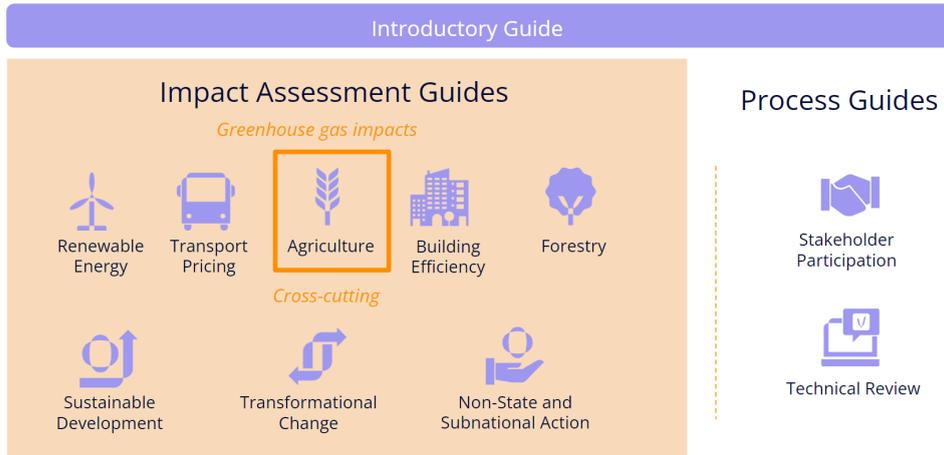


Figure 2: Overview of ICAT methodologies with an emphasis on the *Agriculture* icon for being the specific focus in the presentation.

Overview of the Agriculture Methodology

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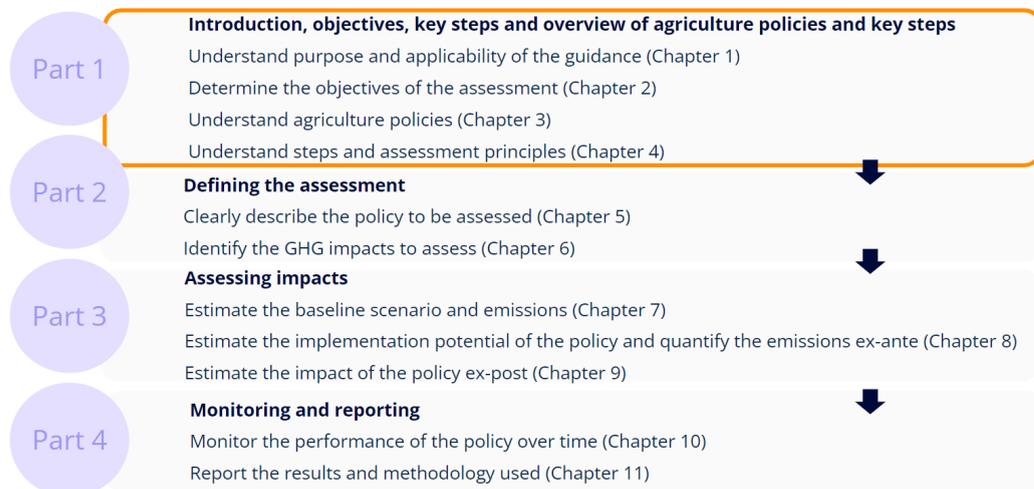
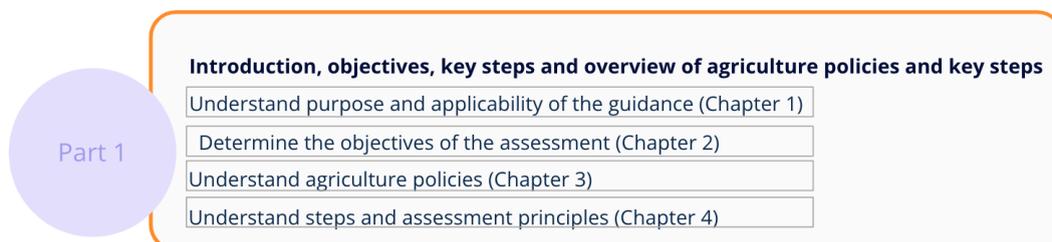


Figure 3: Overview of the full Agriculture Guidance outline and a highlight of the specific Part (Part I, in this example) this presentation is on.

Part I: Steps overview

This is an interactive panel: navigate by clicking on a particular step



This button indicates a key recommendation



Figure 4: Interactive table of contents of the presentation.

On slide 5 in both Parts II and III (**Figure 5**), you will find an Analysis map, which is a detailed layout of methodology steps contained in the Agriculture Guidance. These are referred to throughout the presentation to provide reminders of what has been covered and show the next steps.

Part III: Analysis map

PART III: Assessing impacts

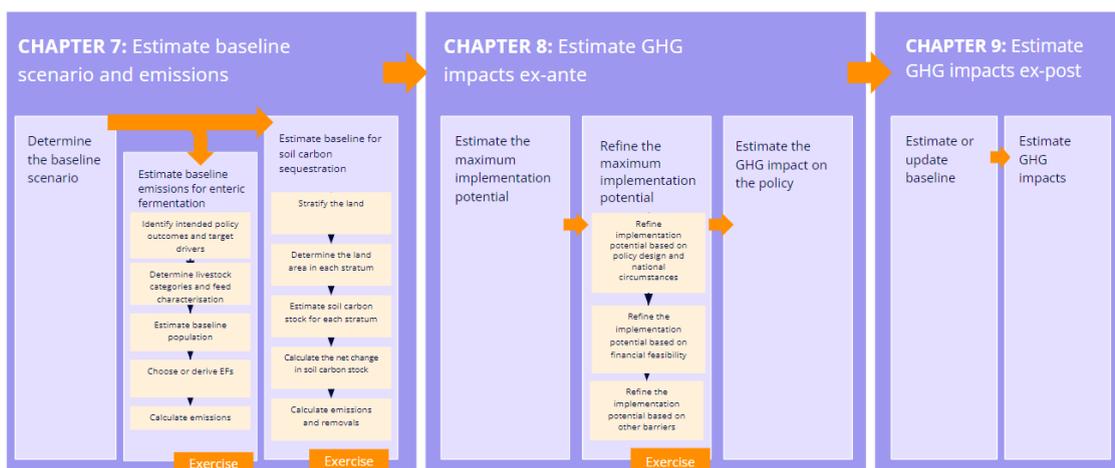


Figure 5: Summary of steps within the Agriculture Guidance for Chapters 7, 8, and 9 for assessing impacts.

After the introductory slides outlined above, the presentation begins introducing content by chapter. The presentation can be followed either in an interactive and dynamic way, as displayed in **Figure 6**, or linearly.

Chapter 7. Estimating the baseline scenario and emissions

The **baseline scenario** represents what would have happened in the absence of the policy intervention.

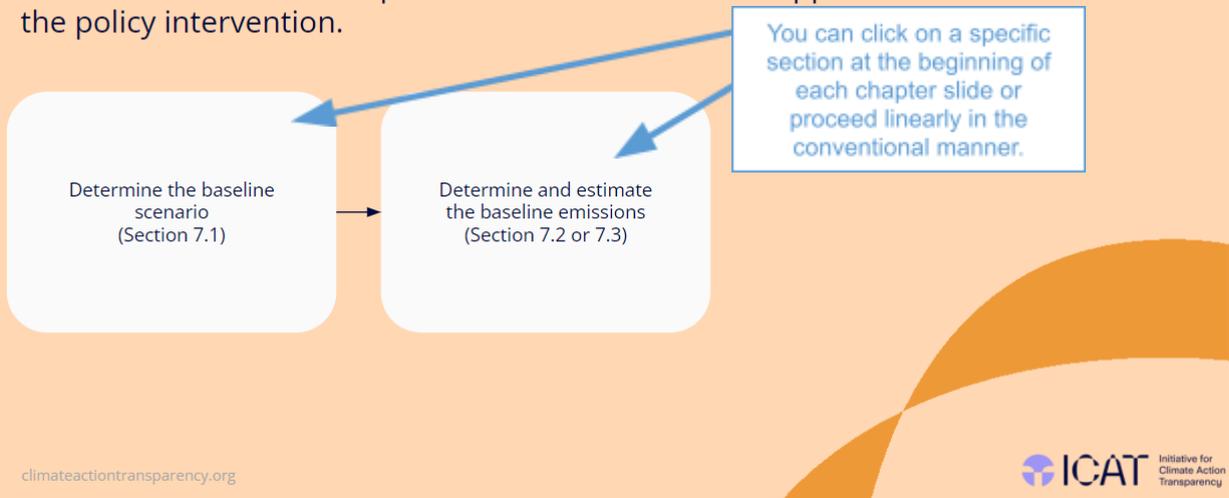


Figure 6: Each chapter contains the sequence of content by sections.

Slides are designed to contain the main content within each chapter’s sections and link to other resources, as applicable and where available. **Figures 7 and 8** provide detail on the main interactive elements that can be found within a content slide.

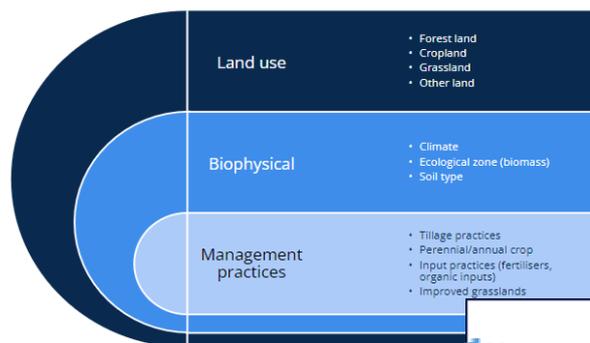
7.3.1 Stratify land

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- Stratification is the division of the total land area into similar units (homogeneous strata)

can increase the accuracy of and the ability to detect



This icon indicates a key recommendation that is displayed in full text. This can't be hidden (i.e., not interactive).



Buttons will indicate if other resources, exercises, or examples are available on the content presented. In this case, you can click to see the example on land stratification.

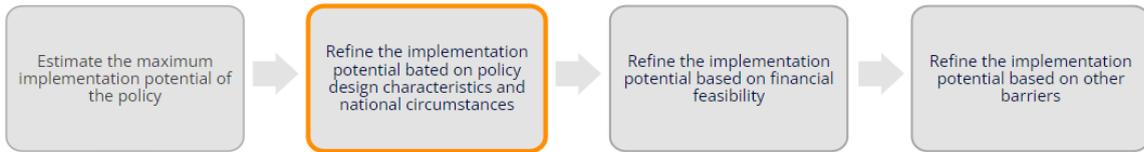
Example

Chapter 7 Chapter 8 Chapter 9

You can click on a Chapter button to navigate to the beginning of a chapter.

ent slide with interactive elements.

8.3 Account for policy design characteristics and national circumstances (1/2)



Step 1: Analyse policy design characteristics and national circumstances

- Compile information on the policy design characteristics and national circumstances using the questions provided in the template

Some slides will contain more details that are related to the content presented. In this example, you can click on "Questions for identifying policy design" for more information on policy design characteristics.

...erred through expert elicitations, desk reviews and
...ns
...nd score each response based on its potential to
...ve effect on the effectiveness of the policy (see
...template)

| Score | Effect |
|-------|---------------------------|
| | Likely to have a positive |

When the content is related to and/or supplemented by other ICAT Guides, a button will appear with a link to the relevant Guide. These buttons will take you outside of the presentation and launch ICAT's website.



Analyse policy design characteristics and national circumstances that may reduce the effectiveness of the policy, and account for their effect on the maximum implementation potential

Questions for identifying policy design

Stakeholder Participation

Chapter 7 Chapter 8 Chapter 9



Figure 8: Content slide with interactive elements.

When you click on an "Example" or "Exercise" button (as seen in **Figures 7 and 8**), you will navigate to either one slide or a series of slides containing additional content relevant to the section (placed after the core presentation). These additional slides contain a clickable arrow to bring the you back to the original slide for the presentation to continue in the Guidance's content order (see **Figure 9** for the "Example" linked in **Figure 7** above).

Example of land stratification

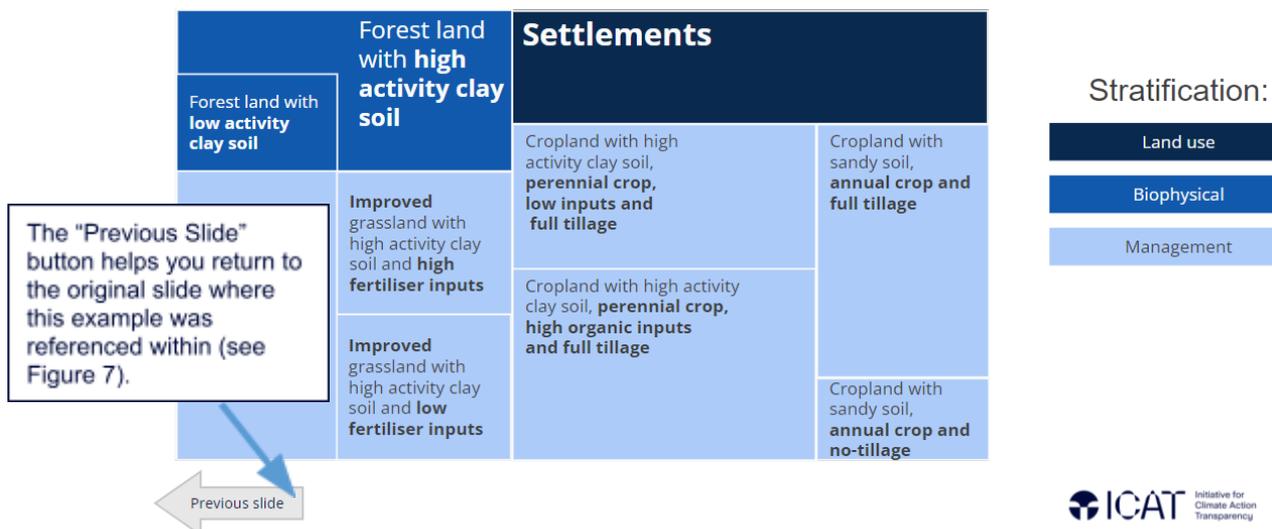


Figure 9: Example of land stratification, placed after the core presentation

4.1 Notes within the slide presentation

In the slides' notes section, presentation notes are provided as shown in **Figure 10**. There are three types of notes:

- **Presentation text** – is language a presenter can use when verbally presenting the content.
- **Slide functionality notes** – provide information on the interactive components or animations within the slide. These notes are in brackets and italics to indicate they are not text to be read out loud during the presentation.
- **Country-specific slide adaptation notes** – indicate areas where the slides can be adapted with country- or project-specific information when such information is available. These notes are also in brackets and italics.

The screenshot shows a slide presentation interface. The main slide is titled "7.3.2 Determine the area of land in each stratum" and contains a flowchart with five steps: "Stratify land", "Determine the area of land in each stratum" (highlighted with an orange box), "Estimate soil carbon stock for each stratum", "Calculate the net change in soil carbon stock", and "Calculate GHG emissions and removals". Below the flowchart, there is text: "Historical data can be used to estimate the hectares of land in each stratum for the baseline scenario". Three approaches are listed: "CONSTANT BASELINE APPROACH", "SIMPLE TREND BASELINE APPROACH", and "ADVANCED TREND BASELINE APPROACH", each with a small bar chart. At the bottom, there are buttons for "Estimate the area of land in each stratum", "Example of simple trendline", and "Simple trendline exercise". A callout box with a blue arrow points to the notes section at the bottom of the slide, containing the text: "You will find all available notes in the slide presentation's notes section." The presentation software interface includes a menu bar (Edit, View, Insert, Format, Slide, Arrange, Tools, Add-ons, Help) and a slide navigation pane on the left.

Figure 10: Example of notes within the slide presentation

4.2 Interactive Examples

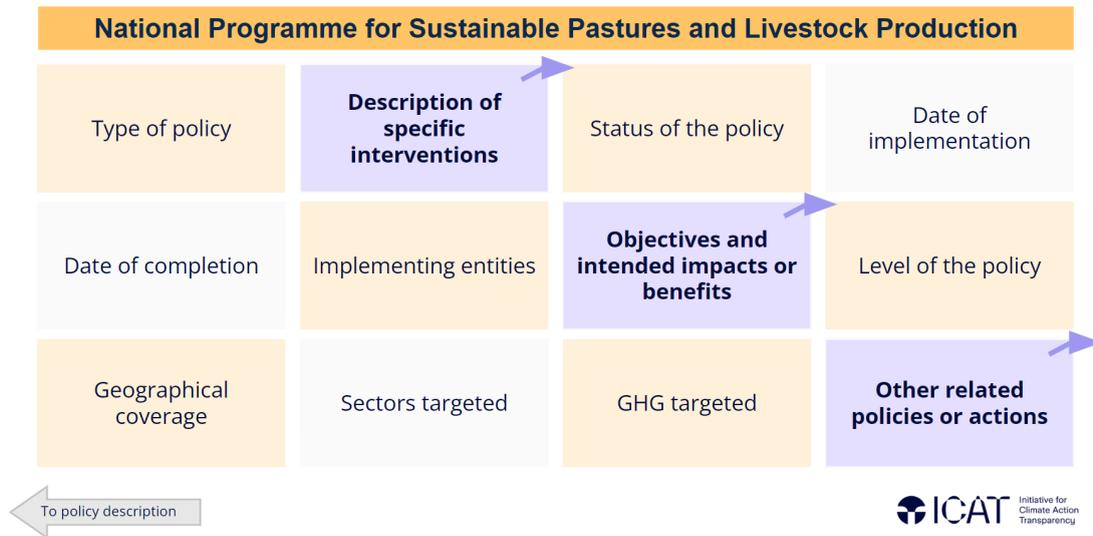
Interactive and dynamic examples are also present in Parts II and III. You can interact with the buttons and squares to reveal the complete example. See both examples demonstrated below:

a) Example of Policy Description (Part II)

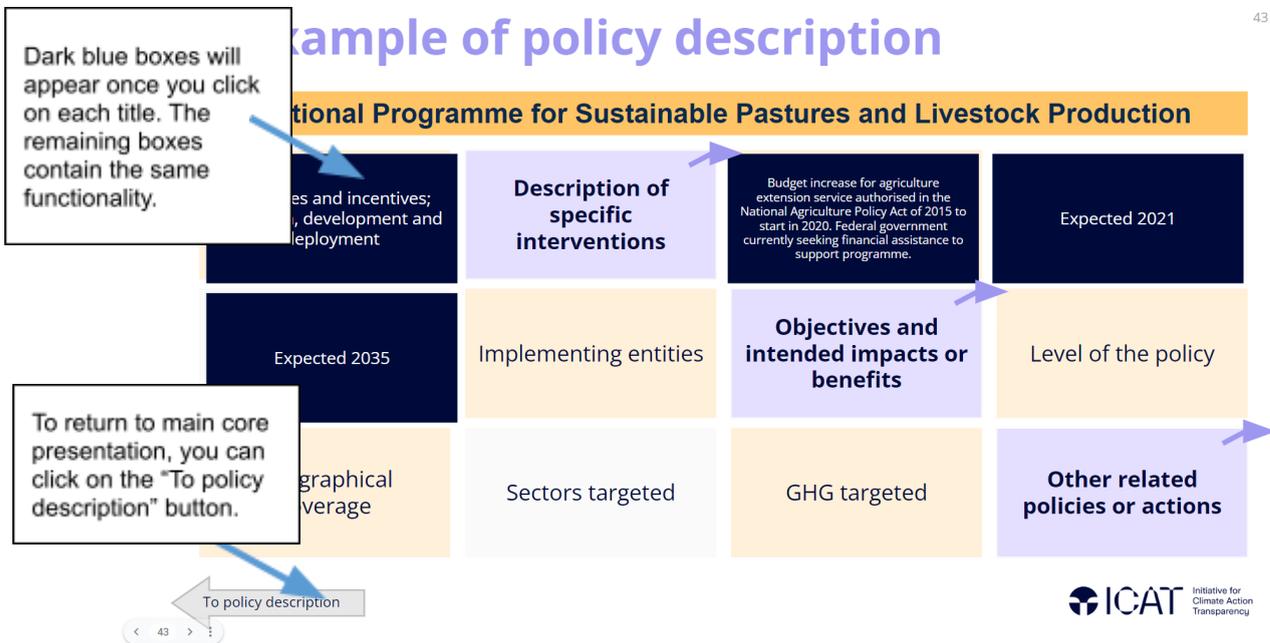
In this example, you can reveal each information component of the policy description one at a time from the Guidance's National Programme for Sustainable Pastures and Livestock Production policy example. Clicking on the text within each box will reveal the information text in this example. The blue arrow on some of the boxes indicates the information is in a separate slide and you will be taken to a new slide to see the full information example once clicked.

5.1 Example of policy description

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The image below shows the example for “Type of policy” and “Date of completion” being revealed. You can click on all of the remaining boxes to reveal the remaining content.



When you click on the boxes with an upper-corner arrow, for example, “Other related policies or actions”, you will be taken to a separate slide (see image below). To return to the slide with the complete “Example of policy description”, you can do so by clicking on the button “Back to policy example” and continue with the interactive exercise.

5.1 Example other related policies and actions

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- The regional Climate-Smart Agriculture programme, funded by a non-profit organisation, aims to reduce GHGs emissions from agriculture and deforestation through capacity building in a region containing 5 million hectares of pasture land eligible for the SPLP programme.

You can click on "Back to policy example" to return to the exercise. From the exercise slide, you can return to the main core presentation with "To Policy Description" button.

The Forest Protection Act (FPA) of 2010 improves enforcement of laws preventing illegal logging. Monitoring and evaluation of FPA indicates it has reduced illegal logging by approximately 5%. The FPA has the potential to discourage expansion of pasture land through deforestation.



b) Example of land stratification (Part III)

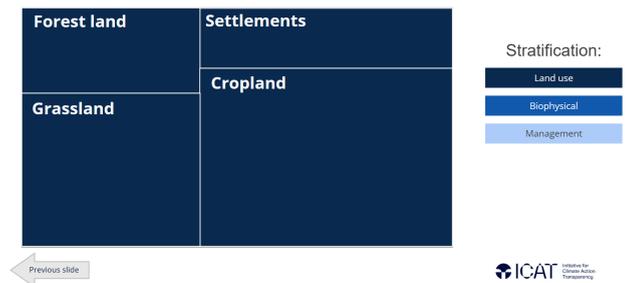
This interactive slide showcases a land stratification example (1-4 steps below). You will first see the plain example with a "Total land area" square. You can click on "Land use", "Biophysical", and "Management" buttons (on the right side of the screen) to reveal the various stratifications at a time.

Example of land stratification



1. Total land area displayed (base slide)

Example of land stratification



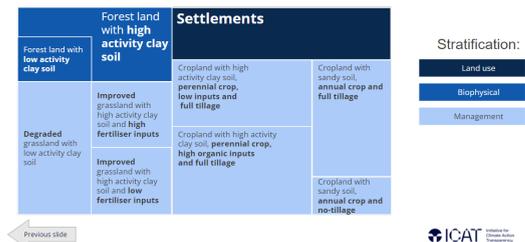
2. Land use displayed

Example of land stratification



3. Biophysical displayed

Example of land stratification

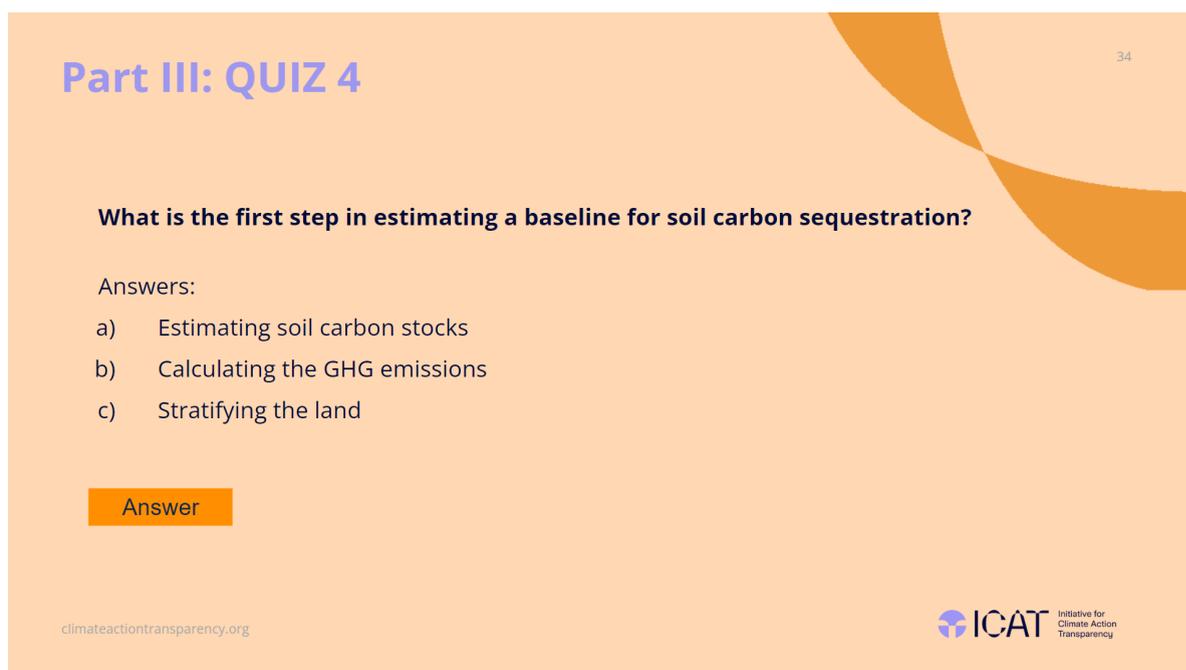


4. Management displayed

To return to the core presentation where land stratification is introduced, you can click on the “Previous slide” arrow button at the bottom of the slide.

5. Quizzes

Parts I, II, and III contain quizzes to secure knowledge absorption and to interact with the audience during a presentation. At the end of each chapter in these Parts, there is a set of questions tailored to the chapter’s content (see **Figure 10**).



The image shows a presentation slide with an orange background. The title 'Part III: QUIZ 4' is in blue text at the top left. The slide number '34' is in the top right corner. The main question is 'What is the first step in estimating a baseline for soil carbon sequestration?'. Below the question, it says 'Answers:' followed by three options: 'a) Estimating soil carbon stocks', 'b) Calculating the GHG emissions', and 'c) Stratifying the land'. At the bottom left, there is an orange button labeled 'Answer'. At the bottom left, the URL 'climateactiontransparency.org' is visible. At the bottom right, the ICAT logo and 'Initiative for Climate Action Transparency' are displayed.

Figure 10: Quiz question in Part III

For each question, you can reveal the correct answer by clicking on the “Answer” button (see **Figure 11**). These questions are not meant for graded testing (i.e., are formative not summative assessments). Presenters can also insert more questions in topic areas not currently covered by the quizzes provided.

Part III: QUIZ 4 34

What is the first step in estimating a baseline for soil carbon

Answers:

- a) Estimating soil carbon stocks
- b) Calculating the GHG emissions
- c) Stratifying the land**

Answer

You can reveal the correct answer to each quiz by clicking on the "Answer" button.

climateactiontransparency.org 

Figure 11: Quiz question with correct answer revealed

6. Spreadsheet Exercise and Templates

Parts II and III of the CB Module are also accompanied by spreadsheets with detailed examples and associated reporting templates for country- and/or project-specific input. Where detailed exercises exist, a slide will indicate when to interact with the spreadsheet material (as seen in **Figure 12**). In each spreadsheet, there is "Content" sheet providing an outline of all the examples and templates available within the spreadsheet.

Spreadsheet exercise

**Go to the excel spreadsheet for
the soil carbon sequestration
baseline emission calculation
exercise**

climateactiontransparency.org 

Figure 12: Slide reference to Excel spreadsheet exercises.

7. Tailoring the Presentation

The CB Module's Parts can be customized and tailored to specific audiences. For instance, when conducting a country pilot study, the Module examples and exercises can be completed and/or overwritten using data collected during the pilot study. A few examples where tailoring can happen are highlighted below.

STEP 3: Describe the intermediate effects (2/3)¹⁸

| | Detail/explanation | Geographic location of effect | Timing of effect |
|----------------------------------|--------------------|-------------------------------|------------------|
| INPUTS | | | |
| Input 1 | | | Example |
| Input 2 | | | |
| ADMINISTRATIVE ACTIVITIES | | | |
| Input 3 | | | Example |
| Input 4 | | | |
| Input 5 | | | |

Chapter 5 Chapter 6 ICAT Initiative for Climate Action Transparency

Example intermediate effects and descriptions

| Intermediate effect | Detail/explanation | Affected parameter | Direction of effect | Amount of effect | Geographic location of effect | Timing of effect |
|------------------------------------|---|---|---------------------|--|--|--|
| Improved access for pricing cattle | Management changes result in improved quality of forage on pasture. | Feed intake in terms of gross energy (GJ per day or 18.2GJ/tonne per day) | Increase | Approximately 1.08 million head (1.2 million ha of feed targeted by the policy with an average of 0.9 head/ha) | Regions where incentive payments are dispersed | Sometime after 2024 difficult to predict |
| Cattle gain weight faster | Higher quality diet caused animals to grow faster. | Average annual weight gain (kg/head/yr) | Increase | Unknown | Regions where incentive payments are dispersed | Sometime after 2024 difficult to predict |
| Dairy cattle produce more milk | | | | | | |
| Improved soil quality | | | | | | |
| More carbon stored in soils | | | | | | |
| Reduced pastoralist disturbance | | | | | | |
| Field soil increase | | | | | | |
| Nitrogen fertilization | Farmers may apply synthetic or natural fertilizers to promote growth of pasture for forage. | Nitrogen applied to soils (t/ha/year) | Increase | Unknown | Regions where incentive payments are dispersed | Sometime after 2024 difficult to predict |

ICAT Initiative for Climate Action Transparency

In Part II, the template above can be completed with a specific policy's inputs, activities, and related information.

In Part II, the template above can be completed with a specific policy's intermediate effects and related information.

Exercise to determine simple trend baseline⁷³

| | Strata | Area at time T_0 (million ha) | Area at time T_1 (million ha) | Average annual change over 20 yrs (million ha/yr) |
|-----------------|--------------------|---------------------------------|---------------------------------|---|
| Historical data | Forest land | 18 | 14 | ? |
| | Annual cropland | 9 | 15 | ? |
| | Perennial cropland | 5 | 5 | ? |
| | Improved grassland | 26 | ? | ? |
| | Total | ? | ? | 0 |

| | Strata | Area at time T_0 (million ha) | Area at time T_1 (million ha) |
|-------------------|--------------------|---------------------------------|---------------------------------|
| Extrapolated data | Forest land | ? | ? |
| | Annual cropland | ? | ? |
| | Perennial cropland | ? | ? |
| | Improved grassland | ? | ? |
| | Total | ? | ? |

Answer

Example of enteric fermentation monitoring parameters²³

| Parameter and unit | Potential source of data | Parameter type | Suggested monitoring frequency |
|--|---|--|---------------------------------------|
| All | | | |
| Average annual methane production in each category (tGHG per year) | Agriculture or livestock census Extrapolation from sample surveys Derived from economic balances of ruminants and beef demand | Activity data Key performance indicator | Periodically |
| Tier 1 | | | |
| Average annual weight per category (kg) | Agriculture or livestock census Extrapolation from sample surveys or measurements | GHG emission factor (needed to choose Tier 1 emission factor) Key performance indicator | Once per category |
| CH ₄ emission factor (tCH ₄ per head per year) | Tier 1: IPCC 2006-GL Table 10.11, 10. A.1 and 10. A.2 | GHG emission factor | Once per category |
| Tier 2 | | | |
| Average annual growth rate (weight gain) per category (kg per day) | Agriculture or livestock census Extrapolation from sample surveys or measurements | GHG emission factor (needed to derive feed intake parameter) Key performance indicator | Periodically |
| Feeding situation (unitless) | Agriculture or livestock census Extrapolation from sample surveys or measurements | Assumption | Periodically |
| Feed digestibility (percent) | IPCC 2006-GL Table 10.2 (example values as a guideline) | GHG emission factor (needed to derive feed intake parameter) | Once per feed type per livestock type |

Example for soil carbon ICAT Initiative for Climate Action Transparency

In Part III, this exercise template can be updated with historical land area data to demonstrate the calculation of extrapolated land data with the simple trend baseline.

In Part IV, you can use the template above to display parameters and units and related parameters with a policy-specific enteric fermentation monitoring plan.

8. Contact

Feedback, comments and request for further guidance/documents can be forwarded to the following email addresses:

Katie Goldman

Senior Fellow

support@ghginstitute.org

Greenhouse Gas Management Institute



ICAT Secretariat Team

icat@unops.org

Initiative for Climate Action Transparency

