

Agriculture Guidance

Guidance for assessing the greenhouse gas impacts of agriculture policies

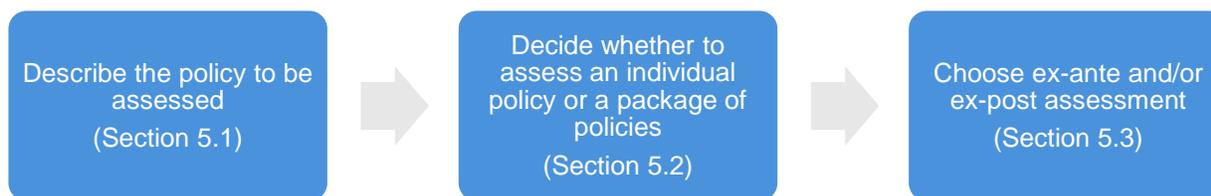
May 2018

How to describe the policy or action being assessed

5. DESCRIBING THE POLICY

This chapter provides guidance on describing the policy. In order to assess the GHG impacts of a policy, users need to describe the policy that will be assessed, decide whether to assess an individual policy or a package of related policies, and choose whether to carry out an ex-ante and/or ex-post assessment.

Figure 5.1: Overview of steps in the chapter



Checklist of key recommendations

- Clearly describe the policy (or package of policies) that is being assessed

5.1 Describe the policy to be assessed

In order to effectively carry out an impact assessment in subsequent chapters, it is necessary to have a detailed understanding and description of the policy being assessed. It is a *key recommendation* to clearly describe the policy (or package of policies) that is being assessed. Table 5.1 provides a checklist of recommended information that should be included in a description to enable an effective assessment.

Table 5.2 outlines additional information that may be relevant depending on the context.

If assessing a package of policies, these tables can be used to document either the package as a whole or each policy in the package separately. The first two steps in this chapter (Sections 5.1 and 5.2) can be done together or iteratively.

Users that are assessing the sustainable development and/or transformational impacts of the policy (using the ICAT *Sustainable Development Guidance* and/or *Transformational Change Guidance*) should describe the policy in the same way to ensure a consistent and integrated assessment.

Table 5.1: Checklist of recommended information to describe the policy being assessed

Information	Description	Example
Title of the policy	Policy name	National programme for Sustainable Pastures and Livestock Production (SPLP)
Type of policy	The type of policy, such as those presented in Table 3.1, or other categories of policies that may be more relevant	Subsidies and incentives Research, development and deployment
Description of specific interventions	The specific mitigation practice and/or technology carried out as part of the policy, such as those presented in Box 3.1.	<p>Livestock feeding strategies: improve the quality of forage for livestock on pasture, through:</p> <p>(a) Improved herd management strategies: adjusting stocking density, avoiding overgrazing (including through fencing), and optimising grazing rotations.</p> <p>(b) Improved pasture management: maintaining growth of preferred grazing species, removing weed invasions and bare ground, restoring livestock paths to control soil compaction, improving ground water absorption and reducing runoff, fertiliser management to promote quality forage)</p> <p>(c) Improved silvopastoral systems: planting shrubs and trees in pastures or alleys interspersed with food crops to provide additional sources of high quality forage and improve animal nutrition.</p> <p>Under the SPLP, the national government will pay participating pastoralists annual fees for five years to improve management of grasslands and, increase funding to the agriculture extension service by USD 2 million per year for 15 years to provide training and support to participating pastoralists.</p> <p>Agriculture extension specialists will develop a training programme in herd and pasture management and silvopastoral systems for participants, and assist participants with developing management plans appropriate for their land and livestock. Management plans must consist of a combination of practices/ technologies listed above.</p> <p>Upon approval of management plans, participants will receive a start-up payment dispersed annually over five years to cover costs of capital and labour needed to implement the management plan and offset the potential risks involved in changing management. Total value of payments will range from USD 50/ha to USD 100/ha, an estimated increase in income of about 5-10%. Participation will be capped to keep the programme costs under USD 400 million over 15 years.</p> <p>Agriculture extension specialists will conduct routine site visits to assist with and monitor implementation of management plans.</p>
Status of the policy	Whether the policy is planned, adopted or implemented	Budget increase for the agriculture extension service was authorised in the National Agriculture Policy Act of 2015 to start in 2020. The federal government is currently seeking financial assistance to support payment programme for pastoralists.

Date of implementation	The date the policy comes into effect (not the date that any supporting legislation is enacted)	Expected 2021
Date of completion (if relevant)	If relevant, the date the policy ceases, such as the date a tax is no longer levied or the end date of an incentive scheme with a limited duration (not the date that the policy no longer has an impact)	Expected 2035
Implementing entity or entities	The entity or entities that implement(s) the policy, including the role of various local, subnational, national, international or any other entities	National Agriculture Agency
Objectives and intended impacts or benefits of the policy	The intended impact(s) or benefit(s) the policy intends to achieve (for example, the purpose stated in the legislation or regulation)	<p>Introduce and promote adoption of sustainable livestock production methods to pastoralists to improve the environment, economy, and food security of the nation. Specifically:</p> <ul style="list-style-type: none"> • Reduce GHG emission from livestock production. • Increase economic output for pastoralists by improving livestock productivity and possibly adding revenue sources (e.g., from wood cutting in silvopastoral systems). • Halt expansion of land degradation through agricultural intensification, which may also reduce deforestation pressure in some regions. • Improve water quality as a result of better water retentions and reduced runoff. • Accelerate adoption of improved pasture management on a widespread basis (i.e., by non-participating pastoralists) by demonstrating economic benefits of improving pasture management practices.
Level of the policy	The level of implementation, such as national level, subnational level, city level, sector level or project level	National
Geographic coverage	The jurisdiction or geographic area where the policy is implemented or enforced, which may be more limited than all the jurisdictions where the policy has an impact	All non-federally owned pasture in the country are eligible (approximately 34 million hectares)
Sectors targeted	Which sectors or subsectors are targeted	Agriculture - Interventions will target small to medium scale beef and dairy producers, where herds are managed on <500 hectares (small) or 500-2500 hectares (medium)
Greenhouse gases targeted	Which GHG the policy aims to control, which may be more	Reduce CH ₄ emissions from enteric fermentation

	limited than the set of GHG that the policy affects	
Other related policies or actions	Other policies or actions that may interact with the policy being assessed	<p>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.</p> <p>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.</p>

Table 5.2: Checklist of additional information that may be relevant to describe the policy being assessed

Information	Description	Example
Intended level of mitigation to be achieved and/or target level of other indicators (if relevant)	If relevant and available, the total emissions and removals from the sources and carbon pools targeted; the target amount of emissions to be reduced or removals to be enhanced as a result of the policy, both annually and cumulatively over the life of the policy (or by stated date); and/or the target level of key indicators (such as hectares of land to conserve)	<p>Improve pasture management on 3.5% of eligible land under the programme (approximately 1,200,000 hectares).</p> <p>Improve animal feed intake in terms of gross energy (e.g., megajoules (MJ) per day per animal) or dry matter (e.g., kilograms (kg) per day per animal) of herds managed by participating pastoralists</p> <p>Increase output (kg of meat or milk/animal unit or per year) of herds managed by participating pastoralists</p> <p>Slow or cease the rate of pasture land degradation</p>
Title of establishing legislation, regulations, or other founding documents	The name(s) of legislation or regulations authorising or establishing the policy (or other founding documents if there is no legislative basis)	The National Agriculture Policy Act of 2015
Monitoring, reporting and verification procedures	References to any monitoring, reporting and verification procedures associated with implementing the policy	Annual farm visits conducted by agricultural extension specialists to all ranches receiving payment. Specialists to verify implementation of practices according to annual reports submitted by participants. See “enforcement mechanisms” for more information on reporting.
Enforcement mechanisms	Any enforcement or compliance procedures, such as penalties for noncompliance or requirements for reporting	Participation in the programme is voluntary. However, to continue receiving payments, pastoralists must submit an annual report providing at a minimum data on average stocking density (# animals/ha), forage species abundance estimates (percent cover), and average annual output of milk and/or beef. Reports are submitted to the Agriculture Agency and can be filled out and submitted with assistance from agriculture extension specialists.
Reference to relevant documents	Information to allow practitioners and other interested parties to access any guidance documents	

	related to the policy (for example, through websites)	
The broader context or significance of the policy	Broader context for understanding the policy	Livestock production makes up <2% of national GDP. Twenty-five percent of all land in the country is pasture land used for livestock (beef and dairy) production. In general, livestock productivity is low compared to neighbouring countries and land degradation as a result of overgrazing and mismanagement is prominent and spreading. These trends contribute to 35% of national total annual GHG emissions.
Outline of sustainable development impacts of the policy	Any anticipated sustainable development benefits other than GHG mitigation	Economic productivity, land-use change, water quality, food security
Key stakeholders	Key stakeholder groups affected by the policy	Pastoralists, agricultural extension services
Other relevant information	Any other relevant information	If this policy is successful, the number of livestock will increase overall (# of head will increase nationally) and more intensively (# head/hectare will increase). Net GHG benefits are expected to occur as a result of reducing GHG intensity (i.e., kg CH ₄ / kg of beef or milk) relative to continuing with current common pasture management practices to meet demand for beef and milk. This may result in increasing absolute CH ₄ emissions trend in the national GHG inventory.

5.2 Decide whether to assess an individual policy or a package of policies

If multiple policies are being developed or implemented in the same timeframe, users can assess the policies either individually or together as a package. When making this decision, consider the assessment objectives, the feasibility of assessing impacts individually or as a package, and the degree of interaction between the policies.

In subsequent chapters, users follow the same general steps, whether they choose to assess an individual policy or a package of related policies. Depending on the choice, the impacts estimated in later chapters will either apply to the individual policy assessed or to the package of policies assessed.

5.2.1 Types of policy interactions

Policies can either be independent of each other or they can interact with each other. Policies interact if their total impact, when implemented together, differs from the sum of their individual impacts had they been implemented separately. Policies interact if they affect the same GHG source or carbon pool. For example, national and subnational policies in the same sector are likely to interact since they likely affect the same GHG sources and carbon pools. Two policies implemented at the same level may also interact. Policies do not interact if they do not affect the same GHG sources and carbon pools, either directly or indirectly.

Policies can be independent, overlapping, reinforcing, or both overlapping and reinforcing. Table 5.3 and Figure 5.2 provide an overview of four possible relationships between policies and further information is available in the *Policy and Action Standard*.

Table 5.3: Types of relationships between policies

Type	Description
Independent	Multiple policies do not interact with each other. The combined effect of implementing the policies together is equal to the sum of the individual effects of implementing them separately.
Overlapping	Multiple policies interact, and the combined effect of implementing the policies together is less than the sum of the individual effects of implementing them separately. This includes policies that have the same or complementary goals (such as national and subnational energy efficiency standards), as well as counteracting policies that have different or opposing goals (such as increasing food production and reducing emissions from agriculture).
Reinforcing	Multiple policies interact, and the combined effect of implementing the policies together is greater than the sum of the individual effects of implementing them separately.
Overlapping and reinforcing	Multiple policies interact, and have both overlapping and reinforcing interactions. The combined effect of implementing the policies together may be greater than or less than the sum of the individual effects of implementing them separately.

Source: WRI 2014.

Figure 5.2: Types of relationships between policies



Source: Adapted WRI 2014.

5.2.2 Determining whether to assess an individual policy or package of policies

To assess the extent of policy interactions when deciding whether to assess an individual policy or a package of policies, follow these steps:

- Step 1: Characterise the type and degree of interaction between the policies under consideration
- Step 2: Apply criteria to determine whether to assess an individual policy or a package of policies

Step 1: Characterise the type and degree of interaction between the policies under consideration

Potentially interacting policies can be identified by identifying activities targeted by the policy, then identifying other policies that target the same activities. Once these are identified, assess the relationship between the policies (independent, overlapping or reinforcing) and the degree of interaction (minor, moderate or major). The assessment of interaction can be based on expert judgment, published studies of similar combinations of policies, or consultations with relevant experts. The assessment should be limited to a preliminary qualitative assessment at this stage.

Step 2: Apply criteria to determine whether to assess an individual policy or a package of policies

Where policy interactions exist, there can be advantages and disadvantages to assessing the interacting policies individually or as a package (see Table 5.4). To help decide, apply the criteria in

Table 5.5. In some cases, certain criteria may suggest assessing an individual policy, while other criteria suggest assessing a package. Users should exercise judgment based on the specific circumstances of the assessment. For example, related policies may have significant interactions (suggesting a package), but it may not be feasible to model the whole package (suggesting an individual assessment). In this case, a user can undertake an assessment of an individual policy (since a package is not feasible), but acknowledge in a disclaimer that any subsequent aggregation of the results from individual assessments would be inaccurate given the interactions between the policies.

Users can also conduct assessments for both individual policies and packages of policies. Doing so will yield more information than conducting only one option or the other. Undertaking both individual assessments and assessments for combinations of policies should be considered where the end-user requires information on both, resources are available to undertake multiple analyses and undertaking both is feasible.

Where users choose to assess both an individual policy and a package of policies that includes the individual policy assessed, define each assessment separately and treat each as a discrete application of this guidance in order to avoid confusion of the results.

Table 5.4: Advantages and disadvantages of assessing policies individually or as a package

Approach	Advantages	Disadvantages
Assessing policies individually	Shows the effectiveness of individual policies, which decision makers may require to make decisions about which individual policies to support May be simpler than assessing a package in some cases, since the causal chain and range of impacts for a package may be significantly more complex	The estimated impacts from assessments of individual policies cannot be straightforwardly summed to determine total impacts, if interactions are not accounted for
Assessing policies as a package	Captures the interactions between policies in the package and better reflects the total impacts of the package May be simpler than undertaking individual assessments in some cases, since it avoids the need to disaggregate the effects of individual policies	Does not show the effectiveness of individual policies May be difficult to quantify

Source: Adapted from WRI 2014.

Table 5.5: Criteria for determining whether to assess policies individually or as a package

Criteria	Questions	Guidance
Objectives and use of results	Do the end users of the assessment results want to know the impact of individual policies, for example, to inform choices on which individual policies to implement or continue supporting?	If “Yes” then undertake an individual assessment
Significant interactions	Are there significant (major or moderate) interactions between the identified policies, either overlapping or reinforcing, that will be difficult to estimate if policies are assessed individually? Policies that target other sectors can co-exist and reinforce agriculture policies. For example, these can include policies that that focus on: <ul style="list-style-type: none"> • Reducing drivers of deforestation and/or degradation • Improving food security • Expanding the use of biofuels 	If “Yes” then consider assessing a package of policies
Feasibility	Is it possible (e.g., is data available) to assess a package of policies?	If “No” then undertake an individual assessment
	For ex-post assessments, is it possible to disaggregate the observed impacts of interacting policies?	If “No” then consider assessing a package of policies

Source: Adapted from WRI 2014.

5.3 Choose ex-ante or ex-post assessment

Choose whether to carry out an ex-ante assessment, an ex-post assessment, or a combined ex-ante and ex-post assessment. Choosing between ex-ante or ex-post assessment depends on the status of the policy. Where the policy is planned or adopted, but not yet implemented, the assessment will be ex-ante by definition. Alternatively, where the policy has been implemented, the assessment can be ex-ante, ex-post, or a combination of ex-ante and ex-post. The assessment is an ex-post assessment if the objective is to estimate the impacts of the policy to date; an ex-ante assessment if the objective is to estimate the expected impacts in the future; or a combined ex-ante and ex-post assessment to estimate both the past and future impacts. An ex-ante assessment can include historical data if the policy is already implemented, but it is still an ex-ante assessment (rather than an ex-post) if the objective is to estimate future effects of the policy.