Sector level climate planning for national and international policy making

A stepwise guide to policy makers on how to establish a sector level climate planning process

DECEMBER 2021

On behalf of:

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

of the Federal Republic of Germany





Sector level climate planning for national and international policy making

A stepwise guide to policy makers on how to establish a sector level climate planning process

Authors: Marie-Jeanne Kurdziel, Thomas Day, Frederic Hans, Sofia Gonzales-Zuñiga





Capacity development for climate policy in the countries of South East, Eastern Europe, the South Caucasus and Central Asia, Phase III

This project is part of the International Climate Initiative (IKI). The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) supports this initiative on the basis of a decision adopted by the German Bundestag.

On behalf of:



of the Federal Republic of Germany

SUMMARY

Context

In December 2015, representatives of 196 nations negotiated a global agreement for responding to the threat of climate change at the 21st Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in Paris. The objectives of the Paris Agreement are to strengthen the global response to climate change by keeping global temperature rise to well below 2°C above pre-industrial levels, pursue efforts to limit the temperature increase even further to 1.5°C, and to strengthen the ability of countries to deal with climate change impacts (UNFCCC, 2015).

Objective

Parties to the Paris Agreement are expected to develop Long-Term Strategies and regularly update their Nationally Determined Contributions.

The agreed objectives of the Paris Agreement are long-term in their nature but require shortterm action. Parties agreed to achieve the long-term targets of the Paris Agreement by peaking GHG emissions as soon as possible and achieving net-zero GHG emissions in the second half of the century. Parties were expected to communicate a first Long-Term Strategy (LTS) in 2020, outlining how the country can move to a net-zero emissions economy in the second half of the century. This vision can inform short- and medium-term targets manifested in Parties' Nationally Determined Contributions (NDCs).

Planning

Effective climate planning can support policy makers to guide climate policy making at the sectoral, national, and international level and to take informed decisions.

To deliver the Paris Agreement, all Parties must engage in effective climate planning that drives rapid and ambitious change on the ground. The climate planning process can be understood as a continuous, dynamic process at different levels of government that allows policy makers to make informed decisions about what to do, how to do it and when to do it in a transparent and inclusive way. If well aligned between sectoral, national and international processes, climate planning can enhance a country's response capacity towards the climate challenge, strengthen the efficient use of resources, ensure quick communication of financial and technological support needs, and improve the credibility of climate action.

Process

Low-carbon transitions at the sector level play a crucial role for the achievement of the Paris Agreement and require particular attention in climate planning.

Scientific evidence shows a need to initiate sector transitions towards a decarbonised economy as soon as possible. This process is likely to be led by the energy sector, with other sectors such as land use, infrastructure, and industrial systems needed to follow suit (IPCC, 2018). Sector level climate planning is a bottom-up process which is essential to give an indication of the situation in each sector and its expected development path. It supports robust mitigation planning and helps understand corresponding economic, social and environmental impacts. As such, it provides useful information to assist responsible decision making within and across sectors both at the national and international level, as it feeds into other planning and policy processes.

SUMMARY

Information

Effective sector level climate planning provides a tangible basis for well-informed development of NDCs, LTSs and international reporting documents.

The elaboration of both NDCs and LTSs depends on robust sector level projections and underlying data that inform mid- and long-term target setting. This foundation of national targets in sector level data ensures that overall targets are realistic and achievable and can be implemented at the sector and sub-sector level. Equally, international reporting on a country's progress with regards to its mid- and long-term targets is ideally informed by sector level data.



The alignment of climate planning processes at the sectoral, national, and international level offers many synergies.

Given that sector level data is a central component of all national and international climate planning processes, the temporal and institutional alignment of these processes can facilitate streamlining and ensure that synergies between the processes are maximised while the required financial and human resources for the planning process are kept to a minimum.



A stepwise approach offers guidance to policy makers on how to set up a sector level climate planning process.

Little guidance on sector level climate planning exists to date. Given the urgency of effective climate action and the need to mobilise all forces to this end, it is important to demonstrate how policy makers can set up effective sector level climate planning processes and help them understand the multiple benefits that arise from this for national and international climate policy making. This guidance starts with a general introduction to sector level climate planning (Section 1). It provides a definition of the term and an overview of the benefits of sector level climate planning for policy makers (Section 1.1). It then outlines the relevance of sector level climate planning for NDCs, LTSs and international reporting documents (Section 1.2) and highlights the potential for synergies from alignment of sector level climate planning with other climate planning processes (Section 1.3). In a second part, a stepwise approach to establishing a sector level climate planning process is introduced (Section 2). Four main steps are discussed with regards to each step's objective, the responsible actor, main activities and tasks to be implemented, and the expected results or outputs.

SUMMARY

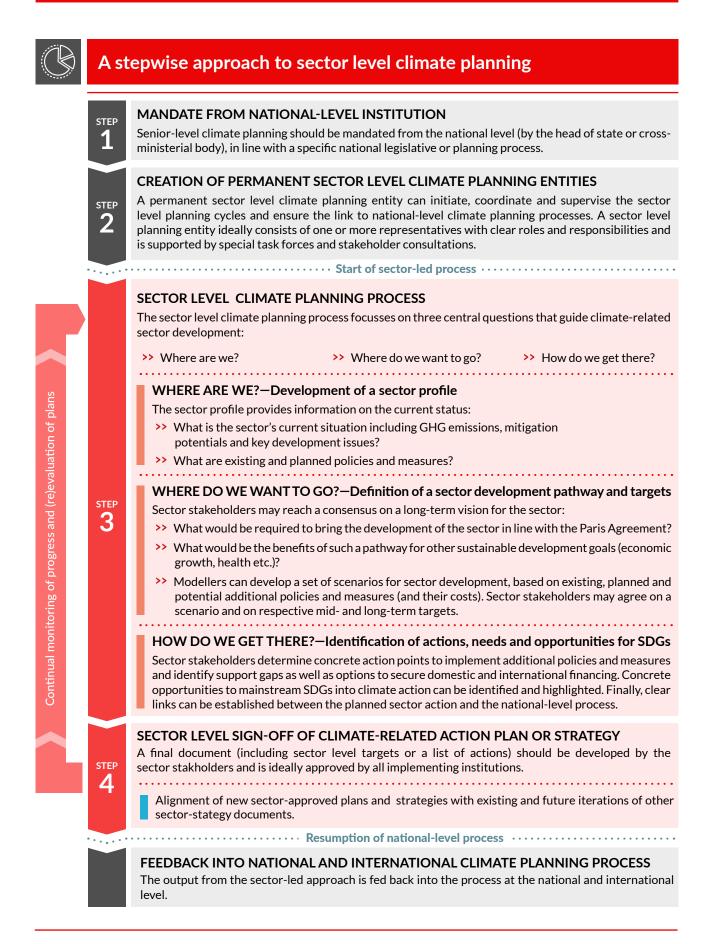


TABLE OF CONTENTS

SUMMARY			I
1	THE REL	EVANCE OF SECTOR LEVEL CLIMATE PLANNING	1
	1.1	Understanding sector level climate planning	1
	1.2	Sector level climate planning for the development of NDCs, LTSs and other international reporting documents	3
	1.3	Aligning national and sector level climate planning processes	4
2	STEPWIS	SE APPROACH TO SECTOR LEVEL CLIMATE PLANNING	6
	Step 1	Mandate from the national level	8
	Step 2	Creation of permanent sector-level climate planning entities	9
	Step 3	Sector level climate planning process	11
	Step 4	Sector level sign-off	18
3	MOVING	TOWARDS SECTOR LEVEL CLIMATE PLANNING	19
RE	FERENCE	5	20
BA	CKGROUI	ND OF THIS WORK	21

1 THE RELEVANCE OF SECTOR LEVEL CLIMATE PLANNING

1.1

Understanding sector level climate planning

Sector level climate planning can help policy makers to understand, communicate and act upon the climate change related challenges and opportunities in a sector. "Sector level" can be defined as a space in the governance architecture of a country which encompasses entities with planning and decision making authority and functions within a given sector (OECD, 2009). "Climate planning" is a continuous process that seeks to integrate climate change mitigation and adaptation action into a country's policies and programmes. The sector level climate planning process spans different stages from initial strategising, to resource allocation, to programme implementation and policy formulation.

Sector level climate planning can offer a number of benefits for policy makers and other relevant stakeholders in and outside of the sector and at several levels of decision making:

Increase stakeholder awareness and buy-in

A sector level climate planning process brings together policy makers and other stakeholders who combine complementary information and expertise on a specific sector. Such a bottom-up process ensures a common understanding and provides the opportunity to formulate a shared vision for the sector's development. This can increase buy-in and broaden support for policy implementation.

Promote local capacity development

Stakeholders and institutions participating in the sector level climate planning process can develop climate-related knowledge and experience (e.g. with regard to modelling, inter-institutional work, etc.) that can help reduce the country's reliance on international technical assistance. This can be further supported through the establishment of permanent institutions and by formalising certain roles and responsibilities.

Identify synergies with Sustainable Development Goals (SDGs)

The sector level climate planning process can help identify important synergies between climate action and sustainable development goals at a sector level. Understanding these potential benefits (such as opportunities for job creation, health benefits, energy security) can facilitate coherent policy planning and implementation in the sector and at a national level.

Assess sector level capabilities and needs

The collection of sector level data during the planning process helps to identify capabilities and needs with regards to finance, technology and know-how in the sector. For example, stakeholders can assess the appropriate use of existing technology and opportunities of new technologies available on the market. They can evaluate the financial situation and examine options to raise funds domestically. Where domestic capabilities and funds are restricted, opportunities for international support can be explored.

Inform national budget planning

Where a sector level climate planning process is established with recurring cycles, it can be linked to the national budgeting process and ensure earmarking of resources for sector level climate action. Identified gaps and support needs can be juxtaposed with available public and private finance resources and disclose requirements for international support.

Develop sector action plans and strategies

A sector level climate planning process can pursue two objectives: i) the provision of a regular update on the sector's situation and an outlook on its development path, and ii) the elaboration of a specific document, such as a climate action plan or a climate strategy for the sector. The existence of a formalised process can accelerate the formulation and adoption of a specific document and ensure its timely implementation. The development of the following documents may be supported through a sector level climate planning process:

>> Climate Action Plans

To provide guidance for the implementation of their NDCs, many countries develop national climate action plans and strategies. Although no formal guidelines exist, a Climate Action Plan (CAP), also referred to as National Climate Change Action Plan (NCCAP) or National Climate Change Strategy (NCCS), typically contains climate change mitigation targets for the future (i.e. 2030, 2050, etc.) and a proposed roadmap to achieve them. These plans ideally contain sector level details including sectoral emission reduction targets and implementation strategies for each sector.

>> Sector level climate strategies as integral parts of higher-level plans and strategies

Sector level climate strategies outline key directions in a specific sector, addressing priorities and development opportunities in response to climate change. Such strategies may outline the status of the sector in terms of emissions, existing and planned measures, and policies to realise the mitigation potential and the investment needed to implement them. Ideally, these sector level climate strategies are not managed as separate documents but integrated into a national level climate action plan or a single sector strategy, for example an Energy Sector Strategy.

>> Other horizontally and vertically linked strategies

Countries have various other national and subnational action plans and strategic documents tackling issues with transversal implications, whilst not necessarily focusing on climate (such as national development plans to achieve the Agenda 2030 goals). Often, such plans contain a great level of detail for a specific sector or subsector, which can be obtained through sector level climate planning processes in close alignment with national plans.

>> Nationally Determined Contributions and Long-Term Strategies

An efficient sector level climate planning process facilitates information to other climate planning processes relevant at the national and international level, such as the development of Nationally Determined Contributions (NDCs) and Long-Term Strategies (LTS) or the National Communications to the UNFCCC. The data collected and processed during the sector level planning process is readily available and can be accessed by policy makers that consolidate the sector level information for national documents. This way, synergies can be exploited, and the efficiency of different climate planning processes maximised.

Understanding the multiple benefits of regular sector level climate planning may motivate planners and policy makers to invest the time and resources needed to establish a sound process with respective institutions in the first place.

1.2

Sector level climate planning for the development of NDCs, LTSs and other international reporting documents

Sector level climate planning can support the elaboration of NDCs. The Paris Agreement established a five-year cycle for countries to communicate updated NDCs. In recognition of the insufficient ambition of NDCs updated in 2020 and 2021, Parties agreed at COP26 in November 2021 to prepare updated NDCs in 2022. The updated NDCs are meant to reflect highest possible ambition. Ideally, NDC targets are informed by robust sector level data, which is aggregated into economy-wide targets. A foundation of targets in sector level data helps ensure that overall targets are realistic and achievable and that they reflect the highest possible ambition based on realistic technical and financial capacities. It furthermore provides a basis for implementation of sectoral and sub-sectoral targets. A sector level climate planning process can facilitate the collection and processing of this data for the NDC process and ensure that overall targets and measures are regularly reassessed at a sector level to reflect the current situation.

Sector level climate planning can facilitate the development of LTSs. In November 2021, the Glasgow Pact reiterated the call of the Paris Agreement for all Parties to communicate long-term strategies (LTS) to the UNFCCC. These strategies – also known as Mid-century Strategies or Low Emission Development Strategies (LEDS) – entail a country's low-carbon development plan towards 2050, ensuring alignment with the Paris Agreement's goal of holding global average temperature increase to well below 2°C. Similar to the NDC, the LTS should also be founded in robust sector level data and ideally encompasses all sectors of the economy as specified in the IPCC reporting framework (Hans *et al.*, 2020).

Sector level climate planning is key for fulfilling international reporting requirements. To track progress of countries towards the global goals of the Paris Agreement and to identify ambition gaps and support needs, all Parties are requested to regularly disclose reliable, transparent and comprehensive information on their GHG emissions, mid- and long-term climate actions and support needs. The UNFCCC's framework for reporting has thereby evolved over the last decades: under the Kyoto Protocol, Annex I countries were asked to submit National Communications (NatComs), including national GHG inventories, every four years, and Biennial Update Reports (BURs) every two years. The Paris Agreement calls upon all Parties to submit a Biennial Transparency Report (BTR), including a national inventory report, with the first one being due in December 2024 (UNFCCC, 2018). The reporting to the UNFCCC follows guidelines from the IPCC that specify sectors and gases to be included in the respective reporting documents. In this context, the information needed for the BTR (and other reporting documents) can be sourced from sector level climate planning processes and be further aggregated based on the respective IPCC sector categorisation.

Aligning national and sector level climate planning processes

Governments should aim to fully align sectoral, national and international climate planning processes to maximise benefits and synergies between the processes. The following aspects are particularly important to improve alignment and facilitate implementation of different planning cycles:

Align timing of the cycles

In most cases, the cycles of international climate reporting documents, such as National Communications (NatComs) or Biennial Update Reports (BURs), are clearly defined by the UNFCCC. Governments can work to align the timing of their national and sector level climate planning processes around these, so that information is provided timely for the reporting while national and sector level plans or updates can be prepared in tandem.

Centralise data and information

Centralising all processes for collecting climate-related data and information under the responsibility of one coordinating institution can ensure that different actors in the planning process have access to the most up-to-date information available, while reducing the risk of duplicating technical efforts. The information collected can inform the development of well aligned sector and national level climate action plans and strategies and serve as a valuable input to international reporting, such as NatComs, BURs, or others.

Formulate a long-term vision and objectives

The formulation of a long-term vision should include commonly agreed objectives that are reflected coherently in all relevant sectoral, national, and international plans and strategic documents. This helps ensure consistency and predictability about the pathway a country pursues in the medium- to long-term future.

The NDC and LTS planning processes can and should be closely aligned and coordinated. The timeline defined by the UNFCCC for the submission of updated NDCs and the first submission of LTSs in 2020 provided a first opportunity for policy makers to align the NDC revision with a country's long-term vision outlined in the LTS: a long-term path towards 2050 can inform an update of the mid-term targets in the NDC. A sector level climate planning process which precedes the LTS and the NDC planning cycle can ensure that consistent data is being used in both processes. At the same time, the careful preparation of information in a sector level climate planning process can help to keep the financial and human resources required in the NDC and LTS planning cycle to a minimum.

In many countries, this opportunity was missed as the development of the first LTS did not happen in time to inform the NDC update in 2020. Looking ahead to future revision cycles, however, policy makers can proactively steer climate policy planning processes – including sector level climate planning – to align NDC revisions with updates to the country's LTS. Figure 1 shows how sector level climate planning can interact with the LTS and NDC process. Sector data is relevant to inform the definition of a long-term vision. This can, in turn, provide guidance for mid-term target setting in the NDC process. NDC targets can feed back into the sector level climate planning process, where means of implementation are defined.

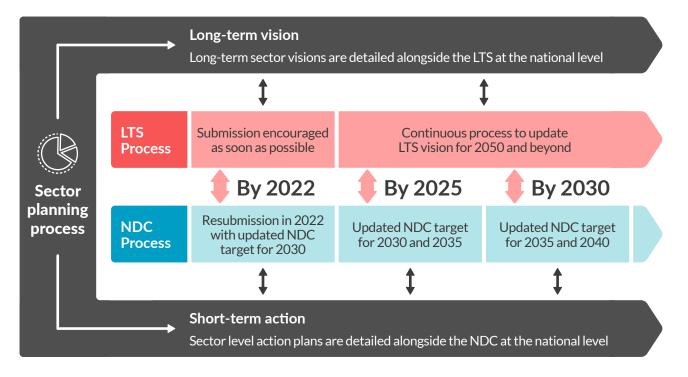


Figure 1:

Interaction of the sector level climate planning process with the LTS and NDC cycle.

The alignment of these climate planning processes at the sectoral, national and international level holds significant efficiency gains that can help a country to live up to its climate commitments at limited costs and to gradually increase its ambition.

2 STEPWISE APPROACH TO SECTOR LEVEL CLIMATE PLANNING

Sector level climate planning is key for policy and decision making processes at different governance levels. Directly at the sector level, it provides policy and decision makers with the information they need to develop a good understanding of the sector's situation and to take informed, forward-looking decisions that can drive progress and prosperity. At the national level, sector information provides a fundament for the formulation of both mid-term targets in the NDC and a long-term vision in a country's LTS, which can inform overall development planning. Beyond sector and national level policy making, sector level climate planning is an important component of international reporting and provides input to National Communications and Biennial Update Reports, as well as to Biennial Transparency Reports as provided for in the Paris Agreement's enhanced transparency framework. Against this backdrop, sector level climate planning can be carried out on a regular basis and/ or be induced by request from the national or international level.

Due to the far-reaching relevance and value of having a sound sector level climate planning process established in key sectors of a country's economy, this section proposes a stepwise approach to introducing such a process in the institutional architecture.

The approach consists of four major steps (see Figure 2) that can take different breadth and depth, according to a country's capabilities and capacities:

- >> Step 1: covering the mandate from the national level, and
- >> Step 2: about the creation of a permanent entity, guide the initial creation of a sector level climate planning process.
- Step 3: deals with the implementation of the planning process. This can be structured along three questions – Where are we? Where do we want to go? How do we get there? – with each question suggesting a set of actions to be taken to advance further in the planning process.
- >> Step 4: touches upon the sector level sign off needed to officially close the sector level climate planning process.

In the following, each step is explained in more detail with a focus on its specific objectives, the responsible actor to initiate and implement the step, main activities and tasks to be carried out and the expected results or outputs of the step.

A stepwise approach to sector level climate planning



STEP

2

MANDATE FROM NATIONAL-LEVEL INSTITUTION

Senior-level climate planning should be mandated from the national level (by the head of state or crossministerial body), in line with a specific national legislative or planning process.

CREATION OF PERMANENT SECTOR LEVEL CLIMATE PLANNING ENTITIES

A permanent sector level climate planning entity can initiate, coordinate and supervise the sector level planning cycles and ensure the link to national-level climate planning processes. A sector level planning entity ideally consists of one or more representatives with clear roles and responsibilities and is supported by special task forces and stakeholder consultations.



STEP 1

Mandate from the national level

A national level entity, for example the head of state or a cross-ministerial body with an equivalent authorisation, mandates the creation of a sector level climate planning process in line with a national legislative or planning process. The mandate is key to institutionalise the planning process and provides the fundament for its initialisation.

Objective	Creation of a robust legal basis for a sector level climate planning process and respective institutions.	
Responsibility	The head of state or other national level entity (with equivalent authorisation capacity).	
Activity/tasks	 The scope of the mandate can vary across countries but may cover the following aspects: >> Establishment of sector level planning entities, for example climate change focal points or sector level planning groups in each line ministry. >> Allocation of financial and human resources to the sector level planning entities, to ensure their successful operation. >> Granting of decision-making power to the sector level planning entities, for example for the creation of support units such as task forces or stakeholder consultations. >> Identification of one person with the responsibility to initiate and drive the process; this can be a single representative, for example of a climate change focal point, or the head of a sector planning group. 	
Result/ outputs	Mandate (law, decree, or another official document).	

Step 1: Mandate from the national level

STEP 2

Creation of permanent sector level climate planning entities

In line with the respective mandate, sector level climate planning entities of varying sizes can be created, for example climate change focal points or sector planning groups, which lead and guide the sector level climate planning process in each sector.

Objective	Creation of climate change focal points or sector planning groups , in line with the mandate (see Box 1).
Responsibility	Appointed officer in each line ministry to represent the focal point or lead the group.
Activity/tasks	 Main tasks of the sector level climate planning entities may include: Initiation, coordination, and oversight of the sector planning process, which can be carried out on a regular basis and/ or be based on a specific ad-hoc request from the national level. Establishment and convening of support units, such as round tables, task forces, or stakeholder consultations, where necessary and appropriate (see Box 2 and Box 5). Ensuring communication to other sectors and to the national level throughout the planning process. Development of a comprehensive workplan at the beginning of a planning process, including activities planned and resources needed for their implementation, to structure and kick-off the process.
Result/ outputs	Statute (if appropriate); work plan; process initialisation.

Step 2: Creation of permanent sector level climate planning entities

BOX 1: Forms of sector level climate planning entities

Climate change focal point

When newly introducing a climate planning process at the sector level, or in case of limited human and financial resources, it can be an option for a country to establish climate change focal points or climate change units within line ministries.

These climate change focal points can be represented and led by one officer per ministry. The role as a climate change focal point can thereby be integrated into the general assignment of this officer, allocating a certain amount of his or her time to this function. Ideally, the person entrusted with the task has a certain level of climate change expertise and awareness of its implications for the sector. Furthermore, this person should have some authority and decision-making power in his or her department, to be able to make the decisions necessary to drive the planning process.

The climate change focal point could maintain regular exchange with the national level climate planning entity and could establish links to climate change focal points in other sectors to align the planning processes.

Sector planning group

The establishment of a sector planning group can help to distribute the responsibility for the planning process across a larger number of people and potentially accelerate and deepen the process.

The mandate for the creation of a sector planning group ideally entitles one person who is responsible for assembling the group and for leading its work. In some sectors, previously existing working groups or platforms may provide a good starting point for recruitment. The group's members ideally represent the most relevant stakeholders in the sector, including national, subnational and non-state actors, to combine different expertise and experience. At the same time, it is important to strike a balance between breadth of expertise and number of members: the smaller the group size, the easier it is to facilitate rich and meaningful discussion.

Ideally, clear roles for each group member are defined and formalised, for example in a statute or similar document that lays down the individual responsibilities and rules of procedure. To ensure efficient execution of the group's mandate, it is beneficial if group members have sufficient time and resources to attend regular meetings and to fulfil the responsibilities assumed.

As is the case for climate change focal points, sector planning groups ideally maintain regular exchange with the national level climate planning entity, for example through admitting a representative from the national level as an observer to the group.

BOX 2: Targeted support for sector planning entity - round tables or task forces

Depending on the nature and objective of a planning process, the sector planning entity may require additional information and expertise to inform decision making or solve a problem. This can be particularly relevant where the sector planning entity consists of an individual person, or where a sector planning group has few members and thus little capacity to work on all relevant aspects in the planning process. In these cases, it can be efficient to establish a round table or task force which investigates a specific topic and reports back to the sector planning entity.

Ideally, the mandate for the sector planning entity covers the creation of round tables or task forces. The sector planning entity can appoint a chairman to head the unit and select its members. The selection should ensure that a broad base of information is represented, ideally comprising government and non-government members with strong expertise in the relevant field. The task of round table or task force members lies in conducting research, collecting data, discussing findings, and drafting recommendations on a specific topic for the sector planning entity. The creation of a round table or task force can be longterm to discuss a recurring topic of a regular planning process (e.g. facilitate data procurement for the update of the sector's greenhouse gas inventory) or more flexible to provide insights on one specific topic in a planning process (e.g. develop a list of mitigation measures for a sector action plan).

The objectives, agenda and expected outputs of each round table or task force should be agreed at the beginning with the sector planning entity and outlined in a workplan with a clear timeline for delivery of the outputs.

The work of the round table or task force may be complemented and/ or validated by regular stakeholder consultations (see Box 4).

STEP 3

Sector level climate planning process

Once the sector planning entity has been created and is operational, the planning process can be initiated. The sector level climate planning process is ideally established as a continuous and recurring process that revolves around three central questions¹ guiding climate-related sector development:

1. Where are we?

What is the sector's current situation regarding GHG emissions (i.e. climaterelated sector profile, incl. emissions, mitigation potentials, existing policies, and measures) and key development issues?

2. Where do we want to go?

What is a realistic and feasible trajectory for sector development and which targets can be set in the medium- and long-term to support sector level objectives as well as national and international commitments? Which impact have different sector development pathways on other sustainable development objectives?

3. How do we get there?

What policies and measures are needed to achieve the sector targets? How can these policies and measures be implemented with domestic resources? What are needs and gaps for international support?

The planning process in each sector can be structured along these three questions. Each question thereby suggests a certain set of actions to be taken to advance further in the planning process. These actions may not always be carried out in a chronological order but may happen – partly – in parallel. In particular activities under 'Where do we want to go?' and 'How do we get there?' may inform each other throughout the planning process.

¹ These questions are inspired by the Talanoa Dialogue approach, which aimed at convening a facilitative dialogue among Parties in 2018 to take stock of the collective efforts of Parties in relation to the targets set under the Paris Agreement and to inform the NDC update process (UNFCCC, 2017).

Where are we?

The development of a sector profile helps to gain a comprehensive and well-founded understanding of the sector's current situation, ideally based on up-to-date and robust data. Such an exercise may support the successful initiation, implementation, and completion of the planning process. It may furthermore provide useful information for sector level decision makers to take informed and forward-looking decisions in each of the subsequent activities of the planning process.

WHERE ARE WE? Development of a sector profile			
Objective	Gain a comprehensive overview of the sector situation and possible developments.		
Responsibility	Initiation: Sector planning entity, ideally in close coordination with its national level counterpart. Implementation: Sector planning entity, supported by specially designed task force, or external consultant.		
Activity/tasks	 Main tasks for developing a sector profile may include: >> Decision on implementing entity to develop the sector profile; this could be done by the sector planning entity with support from a specially designed task force, or by an external consultant (see Box 3). >> Information and data gathering for the sector profile may happen at various levels of detail, depending on data availability and accessibility in a sector. >> Consolidation of content and write up, considering several key aspects that should be covered in the sector profile (see Box 4). >> Stakeholder consultation for data and results validation, ideally involving a broad range of sector stakeholders that are affected by decisions and can contribute to the sector profile (see Box 5). 		
Result/ outputs	One-off sector scoping study or regularly updated document, for example, biannual or annual sector climate report.		

BOX 3: Outsourcing activities vs. building institutional capacity

The establishment of sector level climate planning processes can be a challenging undertaking and may involve the gradual development of necessary capacities, institutions and procedures within a sector. The sector planning entity has the responsibility to convene suitable executing entities that hold the right skills and expertise to carry out each respective task in the process.

Where a sector level climate planning process is being newly established and available resources and/ or capacities are limited, it can be advantageous for the sector planning entity to commission an external consultant to execute a specific task. The external consultant could be national or international and deliver targeted outputs for different steps of the planning process. While the external consultant ideally complements all activities with stakeholder consultations, the level of buy-in from sector stakeholders may be reduced and few new capacities built within the involved sector institutions that could be used in the next planning process.

Where the sector planning process has been formalised to a certain extent and resources and capacities are available, the sector planning entity may carry out more tasks with support from specially designed round tables or task forces, in combination with regular stakeholder consultations. This could ensure strong ownership and buy-in from different government and non-government actors and facilitate data collection and validation throughout the process. It could furthermore help to build up the necessary capacities for a recurring planning process in the sector.

BOX 4: Potential structure and content of a sector scoping study

1. Description of the sector situation

A description of the sector's development trends and challenges is useful for context and can serve as an input to any other sector or national level plan or strategy to be developed.

2. Compilation of key sector data

The gathering of up-to-date and robust sector data is the fundament for a successful planning process. The data overview should include, as a minimum:

- >> General statistical and economic data
- Emissions data (incl. emission sources and emissions per source)

3. List of existing and planned climate related policies in the sector

To assess the existing policy environment and its effectiveness to drive climate proof and sustainable development in the sector, a mapping of all climate related policies in the sector can be useful. The Actor and Policy Mapping Tool can support this exercise.

4. List of existing and planned decarbonisation actions and measures in the sector

In addition to the list of climate related policies, it can be useful to list all decarbonisation actions and measures in the sector that are being implemented or planned to be implemented as per different planning documents (at the national and sector level). This list can serve as a starting point for the identification of additional actions and measures in response to the third question (How do we get there?) and assist with the identification of key institutions and particularly affected stakeholders in the sector.

5. List of key institutions, stakeholders and existing groups or platforms in the sector

A list of key actors and stakeholders in the sector may enhance the inclusiveness of the sector planning process, ensuring that key institutions and particularly affected actors are being considered in the decisions taken. Such a list can furthermore be useful for the recruitment and composition of round tables, task forces or stakeholder consultations. The Actor and Policy Mapping Tool can support the elaboration of this list.

6. Overview of modelling tools in use and available for the sector

It is furthermore beneficial to the planning process to take stock of the modelling tools and methodologies that have previously been used and are available. This may include modelling frameworks and tools specifically developed for the sector as well as national level tools that account for the sector (for example, the aggregate modelling conducted in the NDC and LTS process). This overview can support a comparison of options and ensure an informed decision from the sector planning entity on which modelling tool to use in the ongoing process.

7. Overview of resources available for climate action in the sector

The sector scoping study may end with a brief overview of available human and financial resources in the sector to further drive climate proof and sustainable development through dedicated programmes and activities.

BOX 5: Ad-hoc input to sector planning process - stakeholder consultation

Stakeholder consultations are primarily intended to collect the opinions and views from citizens and stakeholders who may be affected by or have an interest in a certain topic discussed in the sector planning process. The early and regular involvement of key stakeholders may enhance trust and local ownership and increase the chances of broad support for the implementation of policies, strategies or measures that may result from the planning process.

Different from the round tables or task forces that collect data and information on a specific topic to provide targeted input to the planning process, stakeholder consultations may also be convened on an ad-hoc basis. Such ad-hoc consultations can complement and validate the information gathered in the planning process. It is important to note that several countries have legal requirements for when and how stakeholder consultations shall be performed.

The sector planning entity is responsible for convening stakeholder consultations during the sector planning process; however, under certain circumstances, it may also commission an external consultant to support or conduct the consultation. In both cases, the sector planning entity is responsible for defining a clear objective for the stakeholder consultation. Based on this objective, the stakeholders can be selected, using, for example, the actor mapping carried out during the scoping exercise. In general, it is appropriate to consult broadly and transparently among those stakeholders who may be directly affected by or have a stated interest in the issue at stake, or who have specific knowledge and expertise in the field. Equally important is the choice of the consultation method and tools; i.e. whether a consultation is open to the public or targeted to a specific group, and whether it includes questionnaires, surveys, hearings or other tools, depending on the degree of interactivity desired. Once the consultation has been carried out, the contributions received need to be thoroughly analysed by the sector planning entity and its results fed back into the planning process. Finally, it is important to provide feedback to the stakeholders involved on how and to what extent their input has been considered.

Stakeholder consultations may become relevant at different stages of the sector level climate planning process and complement the work of the sector planning entity and/ or round tables and task forces. They may help to close data gaps; validate and verify gathered information; and officially approve and accept the outcome of a sector planning process. The scope of the consultations may vary, with more regular and more intense consultation processes becoming necessary, for example, where several steps or sub-steps in the planning process are taken over by external consultants, or where strong parties are present in the sector that are likely to support or block certain planning decisions.

Where do we want to go?

Based on the insights gained in the scoping exercise, the application of specific models and tools can help to demonstrate different development pathways for the sector and find a consensus about realistic and achievable targets in line with one of these pathways.

WHERE DO WE WANT TO GO?

Definition of sector development pathways and targets

Objective	Develop a mid- and long-term vision and translate it into consensual sector pathways with realistic and achievable targets.
Responsibility	Initiation: Sector planning entity. Implementation: Sector planning entity together with internal group of modellers (within specially designed task force) or external consultant; both supported by stakeholder consultations.
Activity/tasks	 Main tasks for defining sector development pathways and targets: >> Decision on implementing entity to prepare and implement the modelling exercise; this could be done by the sector planning entity together with an internal group of modellers, or by an external consultant (see Box 3). >> Initial stakeholder discussions, involving sector stakeholders, policy makers and a modelling team, are important to prepare a foundation for the modelling exercise and to arrive at a consensus on the desired direction, by identifying: > Additional mitigation potentials in the sector, including an estimation of their respective costs and other relevant impacts; > Additional policies and measures to support the exploitation of the additional mitigation potential; > Potential for non-GHG targets, for example renewable energy and energy efficiency targets; deforestation bans; or coal phase out plans; > Priority areas for action as well as resource needs for implementation; > Available resources in the sector, based on historic data and assumptions on future policy circumstances. Key steps of scenario modelling may guide the process (see Box 6 and Box 7). >> Comparison of different sector development pathways can subsequently include additional cost-benefit analysis or the targeted assessment of specific sustainable development impacts. >> Discussion and consensus must finally be reached among sector stakeholders on the pathway to take forward and respective GHG and non-GHG targets.
Result/ outputs	Illustrative pathway for sector development; mid- and long-term GHG emissions targets for the sector (+ non-GHG target where desired).

BOX 6: Steps of scenario modelling

Review and selection of tools

In a first step, the existing modelling frameworks and tools that are available in the sector or at a national level should be reviewed. This can be informed by the information gathered through the scoping exercise, and ideally results in the selection of an appropriate tool. Several tools exist for use in different country and sector contexts. In general, it is important that the method and tool used in a specific sector planning process is as transparent as possible and allows stakeholders to understand the underlying assumptions to back up the results.

Data collection

Once a tool has been selected, it needs to be filled with robust and reliable data for the key parameters to be modelled. The data compilation can be informed by the results of the scoping exercise and the stakeholder consultations carried out in preparation of the modelling exercise. Based on data availability, a timeframe needs to be set. Ideally, mitigation scenarios are modelled through to 2050.

Modelling and comparison of different sector development pathways

Based on the data available, different scenarios can be modelled and compared with each other. It can make sense to include, as a minimum, a "Current policy scenario" and a "Paris compatible scenario" to demonstrate the divergence between current sector development and where the sector needs to go to be aligned with the Paris Agreement. In addition to that, scenarios that represent varying degrees of ambition may be calculated based on a quantification of potential additional policies and measures in the sector. This could include, for example, the calculation of a "realistic unilateral ambition scenario" as well as a "highest plausible ambition scenario". It must be considered in this context that the level of robustness, in particular of a "highest plausible ambition scenario", would depend on the discussion of technological solutions, learning curves, related costs, financing options and wider economic impacts. The scenarios developed can subsequently be used for additional cost benefit analyses, and/ or for the targeted assessment of the impact of different scenarios on certain sustainable development objectives, such as job creation or public health.

Communication across government levels and interest groups

A regular exchange between the modellers at the sector level with the modellers at the national level is important to ensure alignment of the data and tools used in different domestic planning processes. Furthermore, a continuous exchange between modellers, sector experts and policy makers on key assumptions and parameters can support understanding and acceptance of the results. Exchange within the modelling community and with different interest groups can help increase efficiencies and minimise costs.

How do we get there?

Once agreement has been reached on a development pathway to follow in a sector, concrete policies and measures must be identified to prepare for the implementation of the agreed pathway and facilitate the achievement of its targets.

HOW DO WE GET THERE? Identification of actions, needs and opportunities for SDG mainstreaming

Objective	Elaborate short- and medium-term action plans that set out a strategy of how to achieve the targets set.
Responsibility	Initiation: Sector planning entity. Implementation: Sector planning entity together with specially designed task force or external consultant, both supported by stakeholder consultations
Activity/tasks	 Main tasks for identifying actions, needs and opportunities may include: >> Decision on implementing entity to lead the discussions and prepare a draft document which reflects the results of the planning process; this could be done by the sector planning entity through a specially designed task force or by an external consultant (see Box 3). >> Stakeholder discussions which involve policy makers, sector experts and modelers help to identify: Activities needed to meet the desired and agreed sector pathways; Financial resources and technologies needed to implement the activities; National capabilities to mobilise finance and technology; Additional international support needs beyond domestic capabilities; Opportunities to mainstream SDGs in climate action; Link to other national climate planning processes, for example, NDC and LTS. >> Formal impact assessment of the proposed actions and respective measures, for example, through a government-led Regulatory Impact Assessment (RIA). This may require additional resources and lead to supplementary negotiation and planning loops before a final decision can be taken. >> Consolidation of content and write-up, in alignment with the purpose of the planning process (e.g. regular sector report; sector action plan; sector strategy; chapter for a national level document; other).
Result/ outputs	Illustrative pathway for sector development; mid- and long-term GHG emissions targets for the sector (+ non-GHG target where desired).



The final step of the sector level climate planning process completes the political approval process and may result in the publication of a specific sector level document.

Objective	Receive political approval for the results of the sector level climate planning process.
Responsibility	Sector planning entity, together with high-level political representatives.
Activity/tasks	 Main tasks in sector level sign-off of climate related action plans or strategies may include: >> Present the results (i.e. the respective document) to high-level political representatives to receive feedback. >> Revise and adjust the results, if needed (including repeated stakeholder consultation process to approve adjusted results). >> Ensure the results are reflected in national level climate documents as well as in non-climate specific sector level documents, strategies and plans. >> Make a public announcement of the decisions taken, if appropriate.
Result/ outputs	Official approval of the results of the sector level climate planning process.

Step 4: Sector level sign-off of climate-related action plans or strategies

3 MOVING TOWARDS SECTOR LEVEL CLIMATE PLANNING

As is illustrated in this report, sector level climate planning is key for effective climate planning and policy making at different governance levels. Through providing tangible sector targets and plans – based on accurate and robust data and information – to other important processes, such as the elaboration of Nationally Determined Contributions, Long-Term Strategies or Biennial Transparency Reports, sector level climate planning contributes to the realisation of the Paris Agreement's long-term temperature goals.

It is important to point out, however, that the creation of a sound sector level climate planning process can involve country specific challenges and barriers at different stages of the process. These can make it more difficult to set up a fully-fledged process from the start.

Political challenges: Countries may experience a lack of political leadership from the highest level needed to initiate the process. Furthermore, countries may have difficulties to find political consensus on sector pathways and respective mid- and long-term targets to guide sector development. Paramount is also the political willingness to sign off the outcomes of a sector level climate planning process and to make them available for other, for example, national level planning processes.

Resource challenges: Countries may struggle to find the necessary human and financial resources to create and implement a sector level climate planning process. Options to mobilise domestic and international finance for support may not always be straightforward. Closely linked to that, the availability of local capacity and expertise to drive the process and provide analytical input may be limited.

Organisational challenges: Some countries may struggle more than others with organisational challenges. This includes, but is not limited to, making the necessary provisions for consistent data collection and management, enabling intra- and cross-sectoral communication, or ensuring the consultative and cooperative nature of the process bringing together policy makers, modellers and relevant sector stakeholders.

While these challenges are important and need to be solved progressively, they should not prevent countries from starting to think about sector level climate planning. Sector level climate planning should be considered as an iterative process: once very basic foundations are laid, a country can build on these and gradually improve organisation and operation of the process.

The here proposed stepwise approach can provide a guideline and orientation towards starting a sector level climate planning process. Each step can be adjusted to a country's respective capabilities and capacities and be reduced in its complexity, or complemented by additional steps and activities as a country moves forwards.

Furthermore, as more and more countries embark on sector level climate planning, good practices and lessons learned will become available that can help to gradually improve and concretise individual country approaches to sector level climate planning and thereby steadily accelerate global, national and sectoral climate action.

REFERENCES

- Hans, F. et al. (2020) Making Long-Term Low GHG Emissions Development Strategies a Reality. Available at: https:// newclimate.org/wp-content/uploads/2020/05/GIZ_ NewClimate_LTS_GuideForPolicyMakers_2020.pdf.
- Ingram, J. and Hamilton, C. (2014) Planning for climate change: A strategic, values-based approach for urban planners. Nairobi, Kenya. Available at: https://www.uncclearn.org/sites/default/files/inventory/planning_for_climate_change.pdf.
- IPCC (2018) 'Summary for Policymakers', in Masson-Delmotte, V. *et al.* (eds) Global Warming of 1.5°C Summary for policy makers. Intergovernmental Panel on Climate Change (IPCC), p. 33. Available at: http://www.ipcc.ch/report/sr15/.
- OECD (2009) Integrating Climate Change Adaptation into Development Cooperation. A User Guide for Practitioners Working at the Sectoral Level. Available at: http://www.oecd.org/ dac/environment-development/48594915.pdf.
- UNFCCC (2015) Paris Agreement. Paris: United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/ sites/default/files/english_paris_agreement.pdf.

- UNFCCC (2017) Talanoa Dialogue Approach. Informal note by the Presidencies of COP22 and COP23. Available at: https://unfccc. int/files/bodies/cop/application/pdf/approach_to_the_talanoa_ dialogue.pdf#page=1.
- UNFCCC (2018) Draft decision -/CMA.1. Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement, Fccc/Cp/2018/L.23. Conference of Parties. doi: 10.4135/9781452234311.n318.
- UNFCCC (2019) 'Decision 4/CMA.1 Further guidance in relation to the mitigation section of decision 1/CP.21. Annex I: Information to facilitate clarity, transparency and understanding of nationally determined contributions, referred to in decision 1/CP.21.' Available at: https://unfccc.int/sites/default/files/resource/ cma2018_3_add1_advance.pdf.

BACKGROUND OF THIS WORK

This guidance provides recommendations to policy makers on how to approach climate change planning at the sector level. The guidance is an output of the regional programme *Capacity Development for Climate Policy in the Countries of South East, Eastern Europe, the South Caucasus and Central Asia, Phase III* implemented by GIZ and NewClimate Institute, with the support of the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

This guidance forms part of a series of outputs from the *Capacity Development for Climate Policy* (*CDCPIII*) programme, which aims to provide practical advice to policy makers, related to various aspects of the climate change planning process at different governance levels.

Figure 3 provides an overview of the series of guidance documents and tools for climate change planning processes, which this document relates to.

Guidance outputs for national climate planning processes

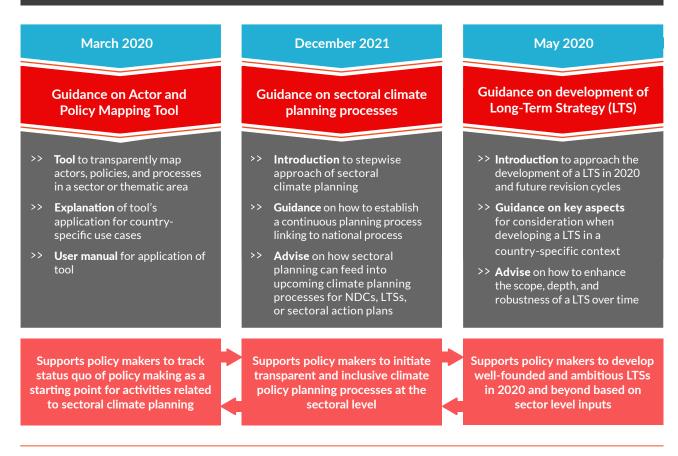


Figure 3:

Overview of CDCPIII guidance for national climate change planning processes

Further information related to this project can be found on the following webpages:

- >> Guidance on Actor and Policy Mapping Tool: here
- >> Guidance on development of LTS: here

Further information related to the broader activities of the CDCPIII programme, can be found on the following webpages:

- >> Project webpage on the homepage of the International Climate Initiative (IKI): here
- >> Project webpage on the homepage of GIZ: here
- >> Project webpage on the homepage of NewClimate Institute: here

On behalf of:

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety





Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

of the Federal Republic of Germany