INITIATIVE FOR
Climate Action
Transparency

NewClimate Institute, World Resources Institute, CDP, The Climate Group

Non-State and Subnational Action Guidance

Guidance for integrating the impact of non-state and subnational mitigation actions into national greenhouse gas projections, targets and planning

July 2018

What are the various steps and underlying principles?

---

3. KEY CONCEPTS, STEPS AND ASSESSMENT PRINCIPLES

This chapter introduces key concepts contained in this guidance, an overview of the steps involved, and describes principles to help guide the assessment.

Checklist of key recommendations

- Base the assessment on the principles of relevance, completeness, consistency, accuracy, comparability and transparency

3.1 Key concepts

This section provides an overview of key concepts used throughout the guidance.

Non-state and subnational actors

Actors that are distinct from the central government of a nation-state are defined using a wide variety of terminology. Within the UNFCCC, the terms, "*non-Party stakeholder*" or "*observer organisation*" distinguish individual national government authorities that are signatories (party) to the Convention from other actors and groups of actors including entities within the United Nations system, intergovernmental organisations, and non-governmental organisations. Within the literature, and throughout the broader climate action community, many categorisations are used for individual actors as well as groups of actors. The term "*non-state actor*" is particularly common and may cover the broad landscape of actors including civil society, economic actors, and also subnational or sub-state actors. The Non-State Actor Zone for Climate Action (NAZCA) uses the following categories: cities, regions, companies, investors, civil society organisations and cooperative initiatives. In some cases, non-state is used synonymously with non-governmental, and may be interpreted to exclude all government actors including those at the level of nation, cities, regions, local municipalities and other jurisdictions. Common categorisations include: non-state; subnational; municipalities; non-federal; intergovernmental organisations, cities and city networks; local governments; public sector; business; private sector; trade unions; research institutions and

universities; financial institutions; activist groups; tribes; indigenous peoples; youth or women's groups; and faith-based communities. Varying definitions for non-state actors mean these categories do not have clear boundaries and often overlap. Furthermore, collaborative efforts may involve actors from different categories.

For the purposes of this guidance, the phrase "*non-state and subnational actor*" refers to the broad range of individual or collective climate actors other than an individual central government authority of a nation-state (see Section 4.1). Non-state actors include economic actors such as companies, business, trade unions, and investors; civil society, and international organisations. Subnational actors include any form of government which is not a national government, such as in cities, states, provinces and regions.

Non-state and subnational action

This guidance is specifically focused on mitigation action, and uses the generic term "action" for all mitigation effort by non-state and subnational actors. In that regard, non-state and subnational action is any kind of activity that reduces GHG emissions, and is led by non-state and subnational actors. Actions can be put forward and pursued individually (by *one* subnational or non-state actor) or cooperatively in the form of initiatives (by a *group* of actors, including non-state and/or subnational actors, and with or without national governments).

A huge variety of individual and collaborative actions exist (Table 3.1), including general statements calling for action, political declarations, quantifiable targets for reducing emissions, commitments, pledges, plans, initiatives, strategies, and concrete policies and programs.

Table 3.1: Examples of individual and collaborative actions

Individual actions
Non-state action
• Iberdrola, a Spanish utility, aims to reduce direct CO_2e emissions by 91% from 2007 to 2050 through increased energy efficiency and renewable energy installations • ACC, India (a cement company) aims to reduce operational CO_2e emissions intensity by 35% per tonne of product from 1990 to 2017 through increased energy efficiency • ANZ Bank of Australia issues green bonds worth USD 470 million for projects in renewable energy and energy efficiency in buildings • 3M sets an internal carbon price by 2017 • BNP Paribas sets aside EUR 100m for investment in start-ups working on innovative solutions for energy transition • Mahindra Lifespace Developers Limited (an Indian investor) aims to reduce operations CO_2e emissions intensity by 10% per square meter from 2012 to 2020 through increased energy efficiency and solar energy installations
Subnational action
• The city of Glasgow aims to reduce CO_2e emissions from government operations by 30% from 2005 to 2020

- The province of Alberta is committed to reduce methane emissions from the oil and gas sector by 45% by 2025
- The Oriental Region of Morocco has pledged to increase the share of renewables for the community to 42% by 2020
- The state of California sets a goal to reduce petroleum consumption by cars and trucks by 50% by 2030
- Uppsala County in Sweden aims to reduce CO_2 emissions from government business travel, patient travel, and commuting by 10% by 2018 based on 2014

Collaborative action – national or international, non-state and/or subnational action

- The RE100 initiative where a group of companies from different countries commits each to procure 100% of their electricity consumption from renewable energy[1]
- The CCAC Agriculture Initiative where several international organisations and countries aim at reducing methane and black carbon emissions from key agricultural sectors by sharing and implementing best practices[2]
- The New York Declaration on Forests endorsed by national and subnational governments, companies, indigenous peoples, and civil society organisations calls for halving the loss of natural forests globally by 2020, and striving to end it by 2030
- The Cement Sustainability Initiative aims to reduce CO_2 emissions from cement production and report annually on progress including independent third-party assurance
- The Alliance of Energy Efficiency Financing Institutions, led by the European Bank for Reconstruction and Development (EBRD) and United Nations Environment Programme Finance Initiative (UNEP FI), aims to scale up energy efficiency financing and work with institutional and public financiers to deploy climate finance to clients

Source: UNFCCC's NAZCA platform. For more information, see: http://climateaction.unfccc.int/

Given the wide range of quality seen in these actions, it is important to develop criteria to determine suitability of actions for inclusion in the assessment (see Chapter 6). Many of these actions are voluntary for the actor(s), in particular those led by non-state actors. In other cases, action may be in the form of, or in response to, a policy or regulatory mandate which is one way that can result in overlaps between actions. While the examples above highlight actions that have been publicly announced[3] and are in an implementation phase, some commitments may still be in development. For instance, under the "Science Based Targets Initiative," companies commit to develop a science-based target within 24 months after

[1] Further information on RE100 is available at: http://there100.org/re100

[2] Further information on the CCAC Agriculture Initiative is available at: http://www.ccacoalition.org/fr/node/76

[3] Some actors may not publicly announce their actions, in which case it will not be possible to include them in the assessment.

their public announcement.[4] This guidance applies to both existing actions that are underway and planned actions.

Further, actions can also be categorised in terms of targets and policies – which can be either economy-wide or sector-specific (see Section 4.3). Further, these can pertain to GHGs or non-GHGs. Targets can be represented as base year absolute target, fixed level target, base year intensity target, and baseline scenario target (Table 3.2). Policies refers to interventions by a government or other entity, and can include laws, directives and decrees; regulations and standards; taxes, charges, subsidies and incentives; information instruments; voluntary agreements; implementation of new technologies, processes or practices; and public or private sector financing and investment (Table 3.3).

Table 3.2: Types of targets and their metrics

Target type	Description	Common metrics
Base year or absolute emissions	A target that aims to reduce, or limit the increase of, emissions by a specified quantity relative to emissions in a historical base year.	GHG emissions relative to historical emissions of a specified year.
Fixed-level	A target that aims to reduce, or limit the increase of, emissions to an absolute emissions level in a target year.	Absolute GHG emissions for a target year
Base year intensity	A target that aims to reduce emissions intensity by a specified quantity relative to a historical base year.	GHG emissions per unit of another variable (typically GDP, but may also be population, energy use, or a different variable)
Baseline scenario	A target that aims to reduce emissions by a specified quantity relative to a projected emissions baseline or business-as-usual (BAU) scenario.	GHG emissions relative to a reference case that represents emissions in the absence of activities taken to meet the target
Non-GHG	Targets framed in terms of energy efficiency, renewable energy, or other objectives not directly expressed in terms of GHG emissions or emission reductions.	Varied
Specific policies, and actions	Interventions such as laws, directives, and decrees; regulations and standards; taxes, charges, subsidies, and incentives; information instruments; voluntary agreements; implementation of new technologies, processes, or practices; and public or private sector financing and investment.	Varied

Source: Adapted from WRI 2014b.

[4] Further information on the Science Based Targets Initiative is available at: http://sciencebasedtargets.org/

Table 3.3: Types of policies taken by national governments

Type of policy or action	Description
Regulations and standards	Regulations or standards that specify abatement technologies (technology standard) or minimum requirements for energy consumption, pollution output, or other activities (performance standard). They typically include penalties for noncompliance.
Taxes and charges	A levy imposed on each unit of activity by a source, such as a fuel tax, carbon tax, traffic congestion charge, or import or export tax.
Subsidies and incentives	Direct payments, tax reductions, price supports or the equivalent thereof from a government to an entity for implementing a practice or performing a specified action.
Voluntary agreements or actions	An agreement, commitment or action undertaken voluntarily by public or private sector actors, either unilaterally or jointly in a negotiated agreement. Some voluntary agreements include rewards or penalties associated with participating in the agreement or achieving the commitments.
Information instruments	Requirements for public disclosure of information. These include labeling programmes, reporting programmes, rating and certification systems, benchmarking, and information or education campaigns aimed at changing behaviour by increasing awareness.
Emissions trading programmes	A programme that establishes a limit on aggregate emissions of various pollutants from specified sources, requires sources to hold permits, allowances, or other units equal to their actual emissions, and allows permits to be traded among sources. These programmes are also referred to as emissions trading systems (ETS) or cap-and-trade programmes.
Research, development, and deployment (RD&D) policies	Policies aimed at supporting technological advancement, through direct government funding or investment, or facilitation of investment, in technology research, development, demonstration, and deployment activities.
Public procurement policies	Policies requiring that specific attributes (such as social or environmental benefits) are considered as part of public procurement processes.
Infrastructure programmes	Provision of (or granting a government permit for) infrastructure, such as roads, water, urban services and high-speed rail.
Implementation of new technologies, processes or practices	Implementation of new technologies, processes or practices at a broad scale (e.g., those that reduce emissions compared to existing technologies, processes or practices).
Financing and investment	Public or private sector grants or loans (e.g., those supporting development strategies or policies such as a development policy loans (DPL) or development policy operations (DPO) which includes loans, credits and grants).

National actions

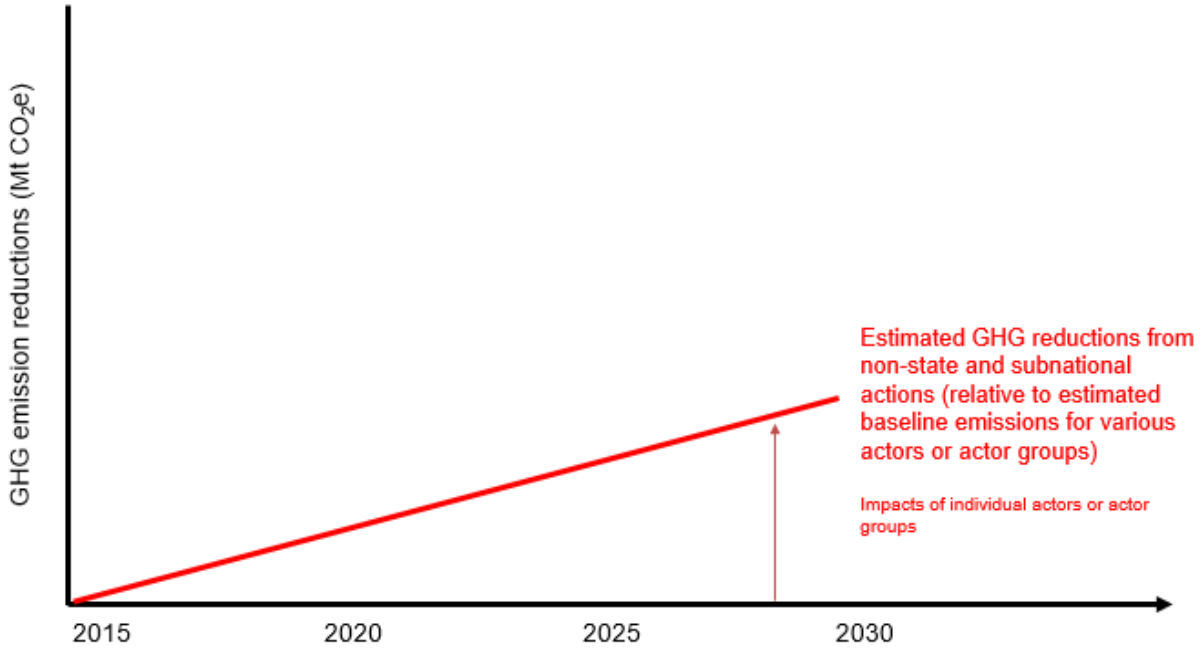
National actions are interventions taken or mandated by a national government, which may include policies, laws, directives, decrees, regulations, standards, incentives and other types of policy instruments aimed to achieve a specific target.[5] These also apply to non-state and/or subnational actors within the national jurisdiction.

Bottom-up aggregation

Bottom-up aggregation is the process of adding the individual impacts of non-state and subnational actions to determine total potential impact of the actions included within the assessment. It involves estimating GHG reductions from each action relative to individual baseline scenarios that represent what would have happened in the absence of the action, then aggregating the resulting GHG reduction estimates. This method can be used to estimate the collective impact of a group of non-state and/or subnational actors – for example, a certain number of leading cities or companies are taking action that combined will reduce emissions by X t CO_2e by a given year. GHG reductions can either be calculated on a cumulative basis over a defined time period or an annual basis for a given year. The aggregation should include adjustments to avoid any overlaps between non-state and subnational actions, to avoid overestimating the collective impact. The aggregated GHG reduction estimate can be presented without comparison to any reference scenario or can be compared to national GHG emissions, historical or projected, or a national GHG target (Figure 3.1). However, it is important to note that this result cannot simply be assumed to be additional to national action as potential overlaps have not been determined. An important methodological challenge is selecting and estimating the baseline scenario for each individual action so as not to overestimate the resulting GHG reductions.

[5] WRI 2014b

Figure 3.1: Bottom-up aggregation of estimated GHG reductions from non-state and subnational action



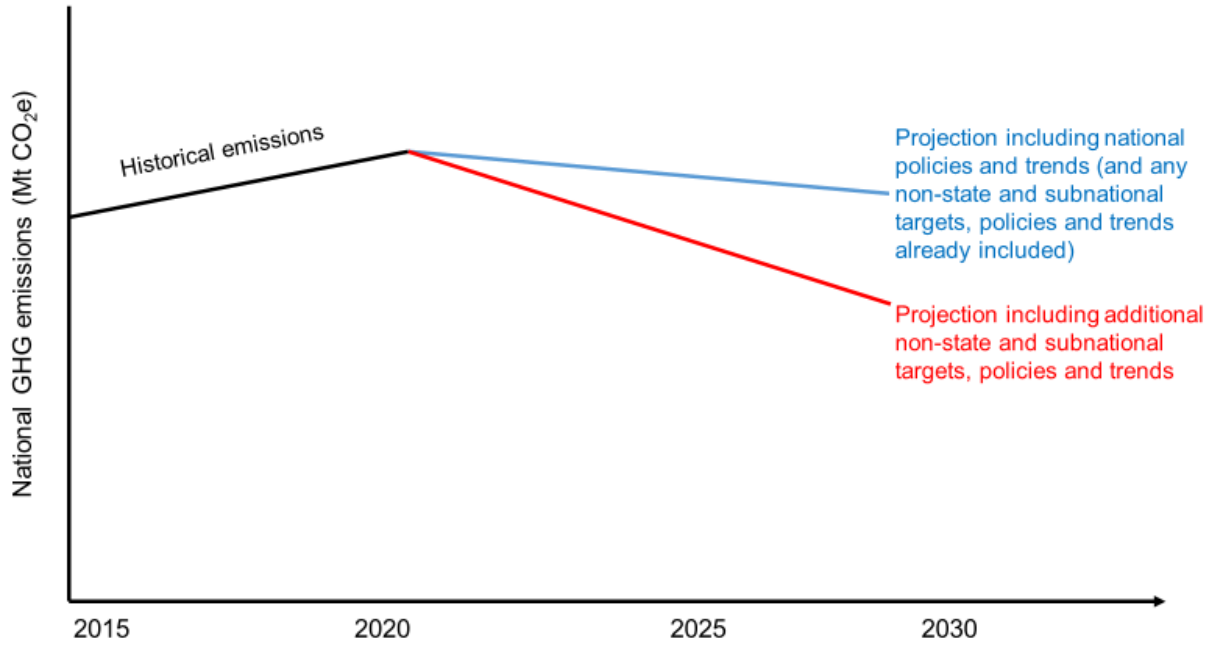
Top-down integration

Top-down integration is the process of incorporating the impact of non-state and subnational actions into national projections and scenarios. The starting point for the analysis is an up-to-date national GHG emissions projection or scenario. An important first step is to review which policies, targets and drivers are already included in the projection. The projection may only reflect the impacts of national policies and targets as well as various socioeconomic drivers and trends, such as GDP, population, and energy prices. In addition, it may already include the impacts of selected non-state and subnational actions and trends. Users should review which non-state and subnational actions are already included, then follow the same steps in the guidance as for bottom-up aggregation to identify and estimate the impacts of additional non-state and subnational actions that should be reflected in the projection. The national emissions projection should be adjusted to reflect the impacts of non-state and subnational actions not already included in the original projection. The result is a revised GHG emissions projection that incorporates the impacts of non-state and subnational action (Figure 3.2).

The difference between the original projection and the updated projection reveals the potential impact of non-state and subnational action in the country. The updated projection can be used to set a more ambitious national mitigation target that builds on the additional GHG mitigation efforts undertaken by non-state and subnational actors.

This approach requires that the national GHG projection or scenario is available in a transparent format where the underlying assumptions can be adjusted to reflect the impacts of additional actions. This approach is not feasible if the user does not have access to the underlying calculations or assumptions.

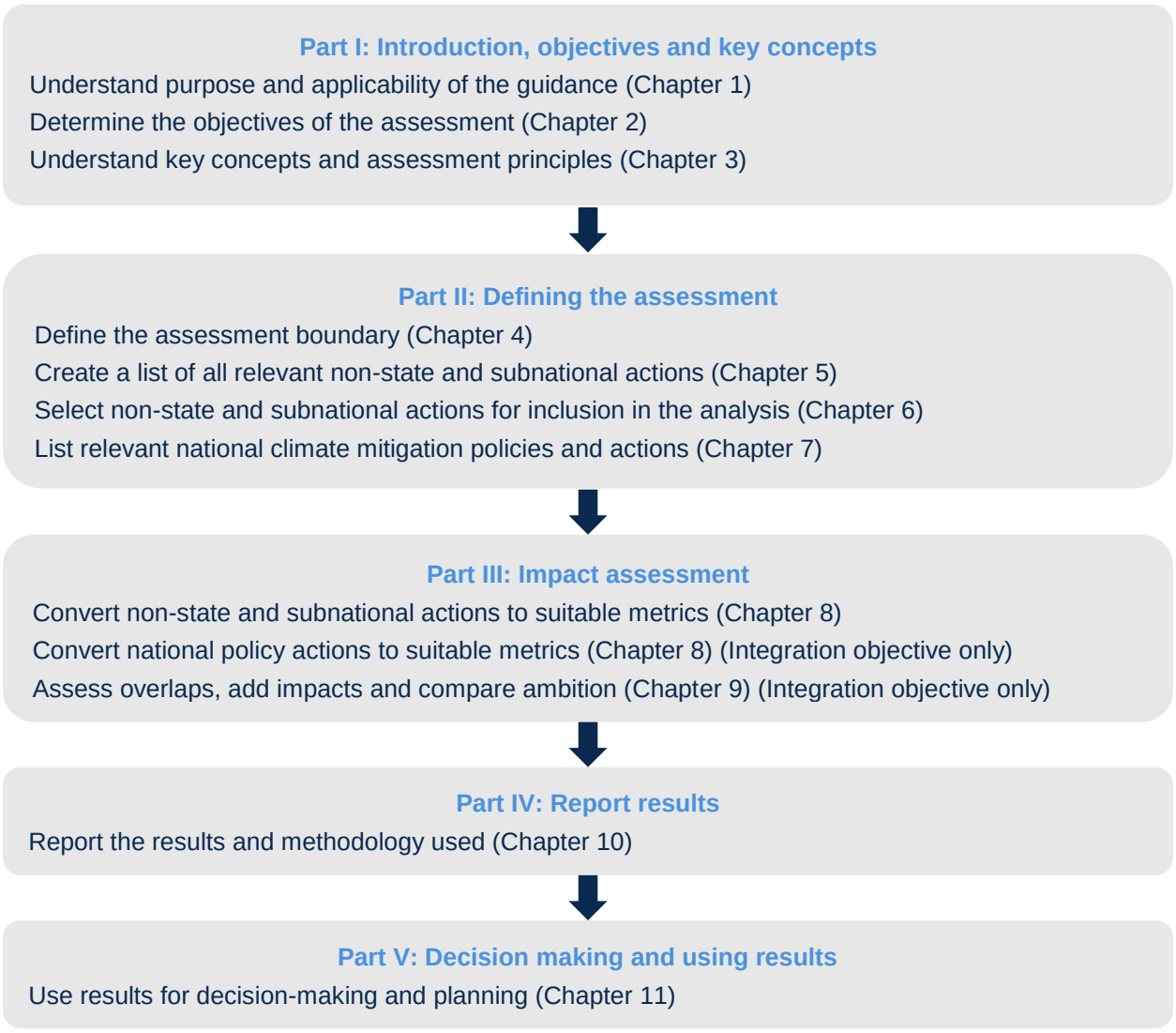
Figure 3.2: Integrating the impacts of non-state and subnational action into national GHG emissions projections



3.2 Overview of steps

This guidance is organised according to the steps a user follows in assessing the impacts of non-state and subnational action (Figure 3.3). Steps are organised by chapters. Depending on when the guidance is applied and the assessment objectives, users may skip certain steps. For instance, some steps are only applicable when the assessment objective is to integrate the impact of non-state and subnational actions into national greenhouse gas projections, targets and planning (see Chapter 2). These are indicated in Figure 3.3. Unless specified, the step is applicable for both categories of assessment objectives – aggregating and integrating. Detailed guidance on which steps users can skip is provided in individual chapters in Part II.

Figure 3.3: Overview of key steps



3.2.1 Planning the assessment

It is important to plan the steps, responsibilities and resources needed to meet the objectives for assessing non-state and subnational impacts. The time and human resources required to use the guidance in its entirety depend on a variety of factors, such as whether it is a national or sectoral assessment, the range of non-state and subnational actions selected, the extent of data collection needed and whether relevant data has already been collected.

Planning stakeholder participation

Stakeholder participation is recommended in many steps throughout the guidance although it may apply differently depending on the user, the objective, and the scope of the assessment. In general, stakeholder participation can strengthen the assessment in many ways, including by:

- Providing a mechanism through which stakeholders who are engaged in non-state and subnational actions can share information that may help determine the likelihood (see Chapter 6) or any possible overlaps between actions (see Chapter 9)
- Building understanding, participation, shared ownership and support for national or sectoral targets, policies, and projections among stakeholders which may enhance implementation and impact
- Facilitating buy-in from stakeholders for assessment objectives and its results
- Providing a mechanism through which stakeholders are provided with an opportunity to raise issues related to non-state and subnational actions
- Raising awareness and improving understanding of complex issues for all parties involved, building their capacity to contribute effectively
- Addressing stakeholder perceptions of risks and impacts and helping to develop measures to reduce negative impacts and enhance benefits for all stakeholder groups, including the most vulnerable
- Enabling enhanced ambition and finance by strengthening the underlying assessment

Various sections throughout this guidance explain where stakeholder participation is recommended—for example, in creating a list and selecting relevant non-state and subnational actions to assess (Chapter 5 and 6), assessing overlaps and comparing ambition (Chapter 9), reporting results (Chapter 10) and decision making and using results (Chapter 11).

Before beginning the assessment process, consider how stakeholder participation can support the objectives and include relevant activities and associated resources in the assessment plans. It may be helpful to combine stakeholder participation for non-state and subnational impact assessment with other participatory processes involving similar stakeholders, such as those being conducted for the assessment of GHG and sustainable development impacts in the same sector.

It is important to ensure conformity with national legal requirements and norms for stakeholder participation in public policies as relevant, as well as requirements of specific donors and of international treaties, conventions and other instruments that the country is party to. These are likely to include requirements for disclosure, impact assessments and consultations, and may include specific requirements for certain stakeholder groups (e.g., UN Declaration of the Rights of Indigenous Peoples, International Labour Organisation Convention 169) or specific types of policies and actions (e.g., UNFCCC guidance on safeguards for activities reducing emissions from deforestation and degradation in developing countries).

During the planning phase, it is recommended to identify stakeholder groups that may be affected by or may influence the assessment. Appropriate approaches should be selected to engage with the target stakeholder groups, including through their legitimate representatives. To facilitate effective stakeholder participation, consider establishing a multi-stakeholder working group or advisory body consisting of stakeholders and experts with relevant and diverse knowledge and experience. Such a group may advise and potentially contribute to decision making to ensure that stakeholder interests are reflected in the assessment. It is also important to ensure that stakeholders have access to a grievance redress

mechanism to secure adequate protection of stakeholders' rights related to the impacts of non-state and subnational actions.

Refer to the ICAT *Stakeholder Participation Guidance* for more information, such as how to plan effective stakeholder participation (Chapter 4), identify and analyse different stakeholder groups (Chapter 5), establish multi-stakeholder bodies (Chapter 6), provide information (Chapter 7), design and conduct consultations (Chapter 8) and establish grievance redress mechanisms (Chapter 9). Appendix B summarises the steps in this guidance where stakeholder participation is recommended along with specific references to relevant guidance in the *Stakeholder Participation Guidance*.

Planning technical review (if relevant)

Before beginning the assessment process, consider whether technical review of the assessment report will be pursued. The technical review process emphasises learning and continual improvement and can help users identify areas for improving future assessments. Technical review can also provide confidence that the impacts of non-state and subnational actions have been estimated and documented according to ICAT key recommendations. Refer to the ICAT *Technical Review Guidance* for more information on the technical review process.

3.3 Assessment principles

This section outlines key principles for the identification, quantification and integration of impacts of non-state and subnational actions and commitments.[6] These principles underlie the step-by-step approach presented in the following chapters. It is a *key recommendation* to base the assessment of non-state and subnational action impacts on the principles of relevance, completeness, consistency, accuracy, comparability and transparency.

- **Relevance**: Ensure that the assessment appropriately reflects the incremental (additional) GHG impacts of non-state and subnational action and serves the decision-making needs of policymakers. Users should apply this principle when selecting the desired level of accuracy and completeness among a range of methodological options.
- **Completeness**: Include all significant non-state and subnational mitigation impacts in the mitigation assessment boundary. Disclose and justify any specific exclusions. To support users with the analysis, especially as data availability can represent a significant challenge for many countries, this guidance provides an overview of the principal international databases for non-state and subnational action (Appendix A).
- **Consistency**: The step-by-step approach provides recommendations on how to overcome the many differences in accounting approaches for non-state and subnational action, as well as data collection and calculation methods. It is recommended to consistently use this approach to allow for meaningful performance tracking over time. Eventually this may lead to more consistent accounting approaches, data collection and calculation methods of non-state and subnational action itself. Users should transparently document any changes to the data, assessment boundary, methods, or any other relevant factors in the time series.

[6] Adapted from the GHG Protocol *Policy and Action Standard* (WRI 2014b).

- **Accuracy**: Given the constraints of non-state and subnational action (often voluntary commitments and with limited accountability), it is important to achieve sufficient accuracy to enable users and stakeholders to make appropriate and informed decisions with reasonable confidence as to the integrity of the reported information. Users should pursue accuracy to the extent possible, although this will be informed by a number of factors including: the objective; the availability of data; the type of actions to be assessed and levels of uncertainty
- **Comparability**: Current non-state and subnational action and initiatives are very difficult to compare, owing to different methodologies, data sources, assumptions, objectives and reporting formats. This document offers guidance to enhance comparability. Users should exercise caution when comparing the results of non-state and subnational action. Differences in reported emissions impacts may be a result of differences in methodology or GHG accounting rather than real-world differences. Additional measures are necessary to enable valid comparisons, such as consistency in the timeframe of the assessments, the types of impacts included in the assessment boundary, baseline assumptions, calculation methodologies, methods for assessing policy interactions, and data sources. Additional consistency to facilitate comparability can be provided through GHG reporting programmes or more detailed sector-specific guidance.[7] To understand whether comparisons are valid, all methodologies, assumptions and data sources used must be transparently documented.
- **Transparency**: Users should provide clear and complete information for reviewers to assess the credibility and reliability of the results. Users should also document data sources, calculations, assumptions and uncertainties. Similarly, to the extent possible, they should also document the processes, procedures and limitations of the assessment in a clear, factual, neutral and understandable manner (detailed further in Part III).

In addition to the above principles, users may also want to apply the principle of **conservativeness** when uncertainty is high and can no longer be practically reduced, or when a range of possible values or probabilities exists. A conservative approach may mean that users exclude certain actions from the assessment if data is insufficient, or if overlaps cannot be determined. If the user sets an objective to assess the maximum potential impact and therefore wants to include the maximum number of actions, any assumptions used to estimate impact, determine the likelihood of achievement, or potential overlaps should be recorded.

Given the often voluntary and sometimes uncertain nature of non-state and subnational action, users should also consider being conservative (cautious) about their estimates. Just how cautious estimates should be depends on the objectives and the intended use of the results as well as on data/information availability. This document provides further guidance on what approach to use and when to be cautious in the step approach outlined in part II of this guidance.

[7] For example, IPCC Guidelines for National Greenhouse Gas Inventories, the Greenhouse Gas Protocol, and reporting systems such as those managed by the UNFCCC, the Global Covenant of Mayors, CDP, and the Climate Group among others.

In practice, users of this guidance may encounter trade-offs between principles when developing an assessment of non-state and subnational action. For example, governments may find that achieving the most complete assessment requires using less accurate data for a portion of the assessment, which would trade off overall accuracy. Conversely, achieving the most accurate assessment may require excluding sources or effects with low accuracy, compromising overall completeness. Users should balance trade-offs between principles depending on their objectives. Over time, as the accuracy and completeness of data increases, the trade-off between these accounting principles will likely diminish.[8]

3.4 Common challenges around quantification, aggregation and integration

Users may encounter multiple challenges when trying to identify, quantify, aggregate, and integrate the impact of non-state and subnational action into national or sectoral targets and mitigation planning. The approach described in this guidance addresses these challenges in relevant steps in Part II. Where such a challenge may exist, the guidance points to it, provides an example, and describes how to address it.

Table 3.4 lists some of the most frequently encountered challenges and where guidance can be found to resolve them.

Table 3.4: Common challenges around the quantification of non-state and subnational action

Challenge	Description	Chapters with guidance on how to address the challenge
Lack of clarity regarding non-state and subnational action targets	Some non-state and subnational targets are very vague, contain no quantitative information, and therefore, may be difficult to translate in terms of their expected mitigation impact. The ambiguity can lead to uncertainty about the impact of non-state and subnational mitigation action.	Chapters 3 and 6
Overlaps, double counting and additionality of actions[9]	Overlap among non-state and subnational mitigation actions, and with national actions can lead to double counting of mitigation efforts in a system where multiple actors are working towards the same goal. In addition, there may be overlap between targets for sectors and subsectors at national and subnational level (e.g., national energy efficiency target and state energy efficiency policy for residential and industrial sectors). As a result, the combined effect of those actions could be less (or more) than the sum of the individual effects of implementing them separately. National government and subnational/non-state actors may also take credit for the same reductions and count them as progress toward their individual goals/targets.	Chapters 4, 8, 9 and 10

[8] WRI 2014b

[9] Overlaps, double counting and additionality are different but closely related topics. For example, overlaps can be caused by a lack of additionality which can lead to double counting.

	There are also accounting challenges in avoiding double counting when comparing the impact of non-state and subnational actions aimed at direct and indirect emissions, and national actions. Further, for non-state and subnational action to contribute to exceeding existing national mitigation efforts or closing the "emissions gap"[10], the impact of non-state and subnational action needs to be additional. Often non-state and subnational actors formulate their actions in response to climate policy, but state them together with a package of other things as 'commitment to climate action'. This can again result in double-counting. In the case of multinational actions, it can be difficult to distribute the impacts to specific countries. The impact may not be equally distributed across the countries. Users may need to make assumptions to estimate distribution if country-level information is unavailable, which may affect accuracy of the assessment.	
Differences in baselines, timeframes and reference scenarios	Users may find that non-state, subnational and national action all have different baselines, timeframes and reference scenarios making comparisons challenging.	Chapters 3 and 9
Data availability, completeness and usability	Users may want to calculate the impact of non-state and subnational action when insufficient, outdated or no data is available, or the data is not accurate enough to quantify the impact.	Chapter 5, 7 and 8
Uncertainty in results	A number of factors such as lack of data, opaque underlying assumptions, and the voluntary nature of non-state and subnational action, can lead to high uncertainty in results.	Chapters 3, 6 and 9
Scope 3 emissions	Scope 3 or indirect emissions for non-state and subnational actors can be a very significant source of GHG emissions but are currently insufficiently accounted for by a majority of actors and difficult to attribute to specific countries.	Chapters 4 and 5

[10] The "emissions gap" here refers to the difference between the emission reduction needed to stay well below 2°C and pursing efforts to limit the temperature increase to 1.5°C and the estimated emission pathway if the country fulfils its current NDC (IVM 2015).