



SETTING THE PARIS AGREEMENT IN MOTION: KEY REQUIREMENTS FOR THE IMPLEMENTING GUIDELINES

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EXECUTIVE SUMMARY

Highlights

- The world's governments are working toward a December 2018 deadline to adopt the foundational elements of the implementing guidelines to operationalize the 2015 Paris Agreement.
- This paper seeks to support negotiators by addressing the significant challenges and gaps that remain to achieving clear, robust, and cohesive guidelines.
- It provides both an overarching vision and practical suggestions for implementing the guidelines during every phase of the Paris Agreement's implementation—planning, implementing, and reviewing.
- For each element of the Agreement that requires guidance—ranging from common timeframes and cooperative processes to communicating and reviewing national or collective progress—the authors identify core requirements alongside suggestions for crafting effective guidelines.
- Building on 20 years of experience in the United Nations Framework Convention on Climate Change, the authors promote mutually reinforcing implementing guidelines that leverage the linkages between elements of the Paris Agreement.
- The authors acknowledge that government and nongovernment actors play a role in holding countries accountable for implementing and increasing climate actions, while fostering sustainable development.

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- This guidance will help negotiators adopt rules that enhance national and global climate action and support and maximize the chances of meeting the Agreement's goals in a fair, inclusive, and trustworthy manner.

Why the Paris Implementing Guidelines Matter

The implementing guidelines for the Paris Agreement—known as the Paris Rulebook—are essential to operationalize national and international commitments to combat intensifying climate change in a fair and effective manner.

The guidelines will create a framework for how countries will implement their climate commitments and bring the Paris Agreement to life. The goal is to enable Parties to communicate, report, review, and strengthen climate action in accordance with their capabilities, and do so in a way that is transparent and accountable to the international community. Clear guidelines will enhance predictability and confidence in the transformation to a low-carbon and climate-resilient world, while enhancing international cooperation and support for countries and communities with limited capacities.

Parties set the 2018 24th Conference of the Parties (COP24) as a deadline for developing the implementing guidelines at the 2016 COP22 in Marrakech, Morocco. This deadline was reaffirmed at the 2017 COP23 in Bonn, Germany. In December 2018—during the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA 1–3) in Katowice, Poland held in parallel with COP24—negotiators are due to adopt a set of foundational guidelines that are critical to the Agreement's success.

The Paris Agreement implies that a cycle of planning, implementing, and reviewing progress on climate actions is essential and that developing implementation guidelines is necessary to support this cycle. The plan-implement-review cycle applies to a country's actions both within the international system and domestically. This cycle can guide governments by illustrating the iterative nature of the Paris Agreement's approach (see Figure ES1). For the planning phase, countries develop and communicate their nationally determined contributions (NDCs) and adaptation efforts, and can use indicative information on future financial support to identify opportunities to go further and faster. In the implementation phase, countries work to meet their contributions and report on their progress to the international community as well as to their national stakeholders. Finally, in the review phase, countries participate in a technical expert review of their individual efforts, then share their experiences and best practices

with their peers in a multilateral setting in a facilitative manner. Finally, they undertake a global stocktaking of collective progress toward the Paris Agreement's goal. Countries struggling to meet their requirements, or facing other systemic issues, can be referred to the committee established to facilitate implementation and promote compliance. Following the review phase, countries can use new information to reconsider and strengthen their NDCs in light of their different national circumstances. Though designed at the international level, the plan-implement-review cycle can guide and serve domestic national needs, decisions, and actions. Figure ES1 illustrates this cycle and how the international and domestic processes are related. While it gives an idea of where the various elements of the Paris Agreement and its implementing guidelines fit into the cycle, it is important to note that the cycle is indicative and the relationships among the elements do not always progress along a strictly linear path.

The Negotiating Context

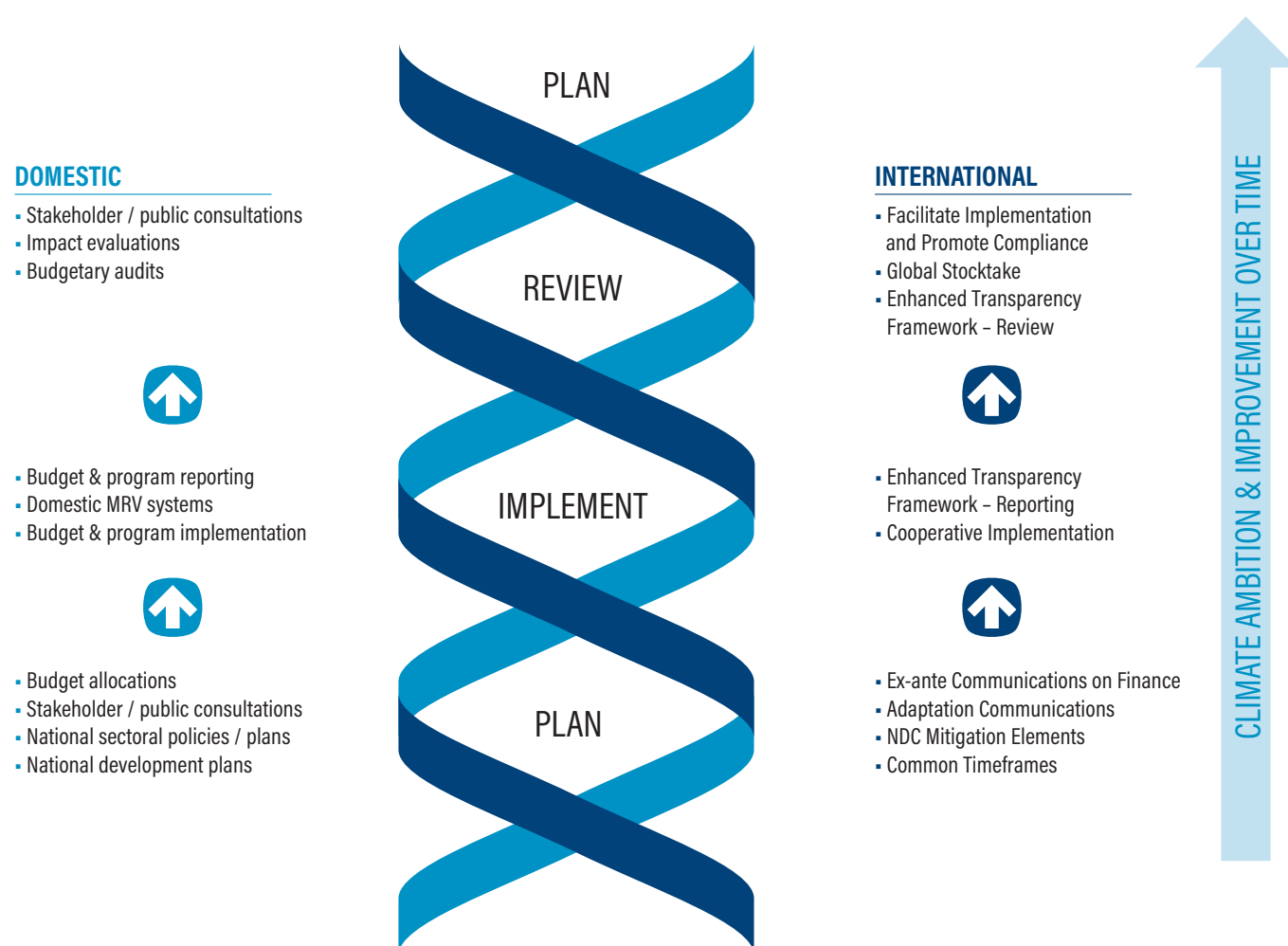
The December 2018 deadline is fast approaching.

Following the Agreement's unprecedented rapid entry into force, Parties are under pressure to develop and adopt modalities, procedures, and guidelines to drive effective implementation of the Paris Agreement by COP24. There is an urgent need to overcome the remaining challenges to designing the guidelines in a fair, inclusive, and effective manner.

Clear, robust, and cohesive implementing guidelines are crucial for building trust, confidence, and credibility for the implementation of an effective international climate regime. Clear guidelines will enable all Parties to understand their obligations and how to facilitate implementation of their obligations. Robust guidelines will signal that the Agreement will be implemented on a level playing field, and ensure that countries' communications about their emissions and efforts to mitigate and adapt to climate change match actual emissions and progress. A cohesive set of guidelines will take account of the linkages across Paris Agreement provisions and coherently interweave them to make the regime more effective.

Parties have much to gain by crafting guidelines that are clear, robust, and cohesive. By adopting effective guidelines, governments will be able to signal to the global economy and society that ambitious climate action and a transition to a low-carbon and climate-resilient economy and society are the only paths forward. Agreeing on these guidelines can also build long-term support for the international climate regime; steer national policies; send market signals that encourage innovation; and establish

Figure ES-1 | **Driving Implementation and Ambition at the National and International Levels: The Plan-Implement-Review Cycle**



Source: Authors.

processes for shared learning among countries on effective mitigation, adaptation, and support efforts. Conversely, failure to outline clear, robust, and coherent “rules of the game” can compromise the world’s ability to achieve the long-term goals in the Paris Agreement in a fair and sustainable way.

Furthermore, adoption of the implementing guidelines in 2018 will provide direction, set an institutional structure for implementation, and help countries enhance their NDCs as early as 2020. Although further technical details and additional elements may be adopted in the coming years to reflect experiences and sustain continuous improvement, negotiators must now establish a credible foundation for the transformation ahead and begin implementation of the Paris Agreement. The Paris Agreement has provided the

framework for international action but the implementing guidelines will breathe life into the Agreement.

It is critical that Parties stick to their 2018 deadline to adopt the foundational elements of the implementing guidelines to set in motion the five-year cycles of action established under the Paris Agreement and enable Parties to plan effectively and respond to the call for enhanced ambition.

The Paris Agreement established successive five-year cycles for a process to take stock of global progress and to communicate successive NDCs. Given that the first global stocktake is set for 2023, adopting the guidelines in 2018 will enable the five-year cycles of implementation to take place on schedule.

Challenges

To adopt implementing guidelines this year, negotiators must navigate sensitive and potentially divisive challenges, including how to reflect differences in national circumstances while driving climate progress by all. Reflecting these differences, while maintaining the “Paris spirit” of solidarity, trust, and ambition, will be difficult but can reap dividends in terms of strengthening the global commitment for long-term climate action. The Paris Agreement reaffirms the principles of equity and “common but differentiated responsibilities and respective capabilities, in the light of different national circumstances,” while—in the case of transparency—also tasking negotiators to develop guidelines that apply to all country signatories and sustain improvement over time. Recognizing that each country has its own capacities and that implementation of the Paris Agreement will reflect different national circumstances, building capacity in developing countries is an essential component of the implementation of the Paris Agreement. Providing the necessary support to create and maintain sufficient capacity is critical to ensure that all Parties are able to fully participate in the Agreement.

A second key challenge—and opportunity—is to leverage the linkages between different elements of the Paris Agreement to create a cohesive package that enhances national and global climate action and support. Indeed, while Parties and groups of Parties may have different priorities, negotiators should not cherry pick elements of the implementing guidelines, but rather should set comprehensive guidelines that are sufficient for guiding the entire cycle of implementation. Throughout the negotiations, Parties have hoped that the various issues would come to maturity at the same time; however, given prior experiences under the current regime—e.g., the transparency systems [see Key Challenges section in Introduction]—some elements may have been more mature from the outset.

As illustrated by the cycle of plan-implement-review, the individual elements of the Paris Agreement all relate to one another. A cohesive and robust set of implementing guidelines should ensure that these linkages seamlessly integrate across the cycle to support enhanced climate action and support. Failure to properly consider and incorporate these linkages could undermine the implementation of the Agreement because the guidelines could become unclear or even contradictory. Conversely, by considering the guidelines as one package, Parties can drive, with confidence, greater action and support from governments more effectively over time.

Parties need to understand the linkages and their implications in terms of the following issues:

- The ability of key processes and mechanisms to inform each other in an effective manner
- The interlinkages among various mechanisms and associated UNFCCC bodies, and how both existing and new processes can be designed or enhanced to secure effective implementation of the Paris Agreement
- The interrelationships among different policy areas at the international and national levels, with the aim of driving effective action on the ground
- The implications of the legal structure for the implementing guidelines, to ensure the durability of the Paris Agreement
- The enhancement of cooperation and provision of support to developing countries who need it to foster bolder and faster action that results in the transformation needed

Another challenge—and opportunity—is developing durable implementing guidelines that can be adjusted to scientific, technological, and societal change and progress. Over time, our collective understanding of the climate and our ability to respond to climate change will deepen. Thus, the implementing guidelines of the Paris Agreement should be able to be adjusted to reflect those advances in science, technology, and society. Given the pace of change in key sectors, a durable but adaptable set of guidelines will provide Parties the opportunity to use new knowledge and experiences to enhance climate action and multilateral processes. By building in “review clauses” and ensuring that the implementing guidelines adopted in 2018 can be revised as appropriate, Parties can ensure that the Paris Agreement’s implementation can keep pace with global progress. Not all elements of the guidelines will need to be adjusted at the same time; hence the final package of the implementing guidelines should be legally crafted in a way that allows different timing of adjustments and prevents an intensive renegotiation of the full package.

Making sure that the set of adopted guidelines are inclusive provides an opportunity to accelerate the pace and scale of investments and actions necessary for the transformation to a low-carbon and climate-resilient society. The urgency and scale of efforts required to maintain a chance to reach the goals of the Paris Agreement cannot allow for a narrow approach that would limit efforts to government officials and exclude those from other stakeholders (van Asselt 2016). The contribution of non-Party stakeholders (including subnational governments; civil society; academia; the private sector; and other multilateral bodies, international organizations, and UN

agencies) to the political momentum ahead of and since Paris, as well as their knowledge and experience is essential (Northrop et al. 2018).

The Paris Agreement acknowledges the critical role of stakeholders. The implementing guidelines need to reflect how to leverage the contributions of these actors in the planning, implementation, and review phases of the Paris Agreement. Doing so is essential to align climate efforts with the social, environmental, and human rights principles reaffirmed in the Agreement, including the rights of indigenous peoples, public participation, gender equality, safeguarding food security and ending hunger, a just transition, and ecosystem integrity.

About This Paper: A Roadmap for Effective Implementing Guidelines

This paper is designed to support international negotiators in adopting clear, robust, and cohesive guidelines in December 2018 for implementing the Paris Agreement. The authors highlight core requirements negotiators should adopt for each element of the implementation cycle shown in Figure ES1 to maximize effective national and global climate action. Building on previous in-depth research published by the Project for Advancing Climate Transparency (PACT) consortium (Box ES1), the paper also provides detailed suggestions for how to meet these requirements. Given the tight timeline, the authors highlight issues that should be given priority attention and identify technical elements that may require ongoing negotiations beyond 2018.

The insights and guidance in the paper draw on the firsthand experience of negotiators and other key stakeholders as well as in-depth research. However, the publication does *not* attempt to provide a negotiating text, include legal language, or present draft modalities, procedures, or guidelines for the CMA 1–3 meeting in Katowice, Poland.

Navigating Our Guidance

While previous PACT publications focused on individual parts of the implementation cycle and related guidelines, this publication guides negotiators through developing rules to implement the Paris Agreement. This paper does not provide suggestions on all elements of the work to implement the Paris Agreement but focuses on those elements that make up the plan-implement-review cycle.

The structure of this paper mirrors the implementation cycle implicit in the provisions of the Paris Agreement. The paper is divided into an

Box ES-1 | About the Project for Advancing Climate Transparency

This paper was prepared by the Project for Advancing Climate Transparency (PACT) consortium. The consortium is composed of nine universities, institutes, and nongovernmental organizations from around the globe. PACT advances the development of robust and effective transparency and accountability rules and processes for the Paris Agreement on climate change by developing options and approaches for the transparency framework, helping build consensus among Parties, and supplying relevant and timely inputs to the United Nations Framework Convention on Climate Change (UNFCCC) negotiations.

Our research and analysis are based on examination of the Paris Agreement and accompanying Conference of Parties (COP) decisions, an extensive literature review, and interviews with negotiating experts and other key stakeholders. The analysis also builds on our own diverse experience as negotiators and thought leaders on these issues from different constituencies around the world.

This publication builds on previous PACT publications on linkages, the reporting and review processes under the enhanced transparency framework, the global stocktake, the mechanism to facilitate implementation and promote compliance, and the accounting of NDCs.

introduction providing context for negotiators, followed by chapters on each element of the cycle, a chapter outlining how the various elements of the Paris Agreement, and therefore its implementation guidelines, are intertwined, and a conclusion. These sections are ordered and color coded in line with the plan-implement-review phases. For each element, the authors

- provide context and describe challenges for negotiators;
- highlight what the PACT consortium considers the foundational requirements for the implementing guidelines in that area; and
- give suggestions for how to craft decisions on the guidelines for that area, taking into account appropriate linkages between various elements.

Though negotiators face a challenging task, the PACT consortium hopes they will find the suggestions for individual elements useful and will use our overall vision for designing the Paris Agreement implementing guidelines as a catalyst for action and support. Table ES1 summarizes our key suggestions for crafting effective implementing guidelines to accelerate global action to curb climate change.

Appendices A and B provide more detailed suggestions—Appendix A expands on the summary in Table ES1, and Appendix B highlights additional elements that may require further elaboration beyond December 2018.

Table ES-1 | **Paris Agreement Implementing Guidelines: Summary of Key PACT Suggestions**

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	SUMMARY OF PACT SUGGESTIONS FOR KEY ELEMENTS OF THE IMPLEMENTING GUIDELINES
PLAN	Common timeframes (Article 4.10)	<p>PARTIES SHOULD:</p> <ul style="list-style-type: none"> Decide that a common timeframe for NDC implementation periods is beneficial: it enables more accurate aggregation and assessment of collective progress and increase in the level of ambition that is commensurate to the Paris Agreement's goals. Agree to submit NDCs using a common timeframe beginning in 2025. Agree that the common implementation period should be five years and that, starting in 2025, Parties should submit NDCs with a target end date ten years after the submission of the NDC. In addition to the five-year target, Parties wishing to do so could also include contributions with an indicative ten-year implementation period in order to provide greater predictability.
	Nationally determined contributions (NDC) Mitigation elements (Article 4)	<p>PARTIES SHOULD:</p> <p>Features:</p> <ul style="list-style-type: none"> Agree to submit NDCs that contain transparent mitigation contributions that reflect the characteristics and description of NDCs outlined in Article 4 of the Paris Agreement, including further ambition over time. Agree that NDCs may also include features not specified in Article 4 of the Paris Agreement to enhance transparency and ambition, in accordance with the nationally determined nature of NDCs. <p>Information to facilitate clarity, transparency and understanding (CTU):</p> <ul style="list-style-type: none"> Include all of the relevant information in Appendix D, justify any exclusions, and be encouraged to improve clarity, transparency, and understanding (CTU) over time. Specify that Parties with greenhouse gas (GHG) emissions targets should be required to quantify their NDC and calculate emissions levels in the target year consistent with target achievement (or emissions intensity in the target year, if they have a base year intensity target) in the target year(s) and calculate an emissions budget, if applicable (e.g., in case of use of Article 6 mechanisms). <p>Accounting:</p> <ul style="list-style-type: none"> Require Parties to account for anthropogenic emissions and removals (including from the land use sector) in accordance with the latest methodologies and common metrics assessed by the Intergovernmental Panel on Climate Change (IPCC) and adopted by the Conference of the Parties (COP) serving as the meeting of the Parties to the Paris Agreement (CMA). Parties unable to do this should provide an explanation and account in accordance with methodologies and common metrics already assessed by the IPCC and adopted by the COP serving as the meeting of the Parties to the Paris Agreement. Accounting should be applied to all sectors and gases included in the NDCs. Include a decision that Parties should communicate, along with their submissions of the next NDCs due in 2020, the choice of full land-based or activity-based accounting, coverage of the sector, as well as forest definitions and other methodological issues in relation to land use, land use change, and forestry (LULUCF) accounting. Request the Subsidiary Body for Scientific and Technical Advice (SBSTA) to develop definitions, modalities, and guidelines for accounting of anthropogenic emissions and removals from LULUCF and to recommend them for adoption by the CMA by COP 25. This should include detailed guidance for reference levels, treatment of natural disturbances, quantification of harvested wood products, and forest definitions, among other issues. Specify how Parties should ensure methodological consistency, including on baselines, between the communication and implementation of NDCs. Specify links between Article 6 and Article 4 (i.e., how the use of Article 6 provisions contribute to both progress and achievement of NDCs), as well as links between Article 13, paras. 7a and 7b and accounting for both progress and achievement. <p>Communication of accounting-related information:</p> <ul style="list-style-type: none"> Require at least those Parties with GHG targets to use a balance sheet, prepared by the Secretariat in consultation with lead reviewers, to be included in the biennial transparency reports. Agree to incorporate the accounting-related information that stems from the accounting guidance developed under Article 4 into the requirements for tracking progress under Article 13, para. 7b. For Parties that do not apply the accounting guidance in their first NDCs, guidelines related to Article 13, para. 7b should require them to report on any national accounting approaches that may be applied and have them checked by the technical expert review team in accordance with Paris Agreement's principles.

Table ES-1 | Paris Agreement Implementing Guidelines: Summary of Key PACT Suggestions (Ct'd)

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	SUMMARY OF PACT SUGGESTIONS FOR KEY ELEMENTS OF THE IMPLEMENTING GUIDELINES
PLAN	Adaptation communications (Article 7)	<p>PARTIES SHOULD:</p> <ul style="list-style-type: none"> Decide that adaptation communications should be focused on forward-looking information that contributes to and informs action toward the global goal for adaptation. Ensure consistency and coherence across the linkage between adaptation communications and Article 13 transparency reports that address adaptation. Agree that core elements for adaptation communication should include: national circumstances; impacts, vulnerabilities, and risk assessment; adaptation priorities, plans, policies, and strategic and planned actions; and adaptation support needs for developing countries.
	Ex-ante communications on finance (Article 9.5)	<p>PARTIES SHOULD:</p> <ul style="list-style-type: none"> Adopt a tiered approach where some qualitative and quantitative information on provision and mobilization of finance deemed applicable to all developed countries is mandatory to communicate, while information on projected levels of public financial resources should be communicated as available. Other Parties providing resources are encouraged to communicate biennially such information on a voluntary basis. Require developed country Parties to explain and justify any limitations or unavailability of data. Agree that all Parties providing resources, including those doing so voluntarily, should report using the same modalities. Mandate that Article 9.5 communications be biennially compiled and synthesized by the UNFCCC Secretariat, and be an input to the global stocktake. Convene a biennial high-level ministerial dialogue to consider overall progress in making all finance flows compatible with the goals of the Paris Agreement, with finance ministers encouraged to attend.
IMPLEMENT	Cooperative implementation (Article 6)	<p>PARTIES SHOULD:</p> <ul style="list-style-type: none"> Consider mandating the UNFCCC Secretariat to set up a centralized registry supported by an international transaction log. Monitoring and oversight could be undertaken by a body designated by CMA, with Secretariat support. Direct the SBSTA to further elaborate a framework for nonmarket approaches under Article 6.8 and develop the share of proceeds from activities under Article 6.6. Agree to use the same metrics and to encourage all countries to adopt multiyear carbon budget targets. Consider enforcing eligibility criteria for participation in internationally transferred mitigation outcomes (ITMOs) as part of carbon markets. The Article 15 Committee could be mobilized in case of noncompliance by countries. Decide whether and how the flexible mechanisms under the Kyoto Protocol could be used to implement NDCs.
	Enhanced transparency framework—Reporting (Article 13)	<p>PARTIES SHOULD:</p> <ul style="list-style-type: none"> Incorporate various ways of operationalizing flexibility for developing countries with limited capacities to report according to the reporting requirements, especially least developed countries (LDCs) and small island developing states (SIDS). Agree that Parties will report comprehensively over time in their national inventories, using the most recent IPCC guidelines adopted by the CMA. The IPCC guidelines will promote a tiered approach that informs the selection of the type and level of GHG data according to national circumstances and data availability. For developing countries that need it, support must be provided for the transition between guidelines; this should facilitate efforts to develop emission factors and collect activity data. The IPCC guidelines represent a process of gradual improvement over time. Agree to provide additional detailed information on NDC-specific and common elements, based on the information outlined in the Paris Agreement to facilitate clarity, transparency, and understanding. Decide that reporting on tracking progress should include information on the indicators and methodologies used for tracking progress, including when technical correction or any changes are performed. Agree to report using common reporting and tabular formats. Ensure consistency and coherence across the linkage with Article 7 adaptation communications. Report ex-post data under the same guidelines. This includes all Parties providing support, including those doing so voluntarily.

Table ES-1 | **Paris Agreement Implementing Guidelines: Summary of Key PACT Suggestions (Ct'd)**

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	SUMMARY OF PACT SUGGESTIONS FOR KEY ELEMENTS OF THE IMPLEMENTING GUIDELINES
REVIEW	Enhanced transparency framework—Review (Article 13)	PARTIES SHOULD: <ul style="list-style-type: none"> ■ Incorporate various ways of operationalizing flexibility for countries with limited capacities to participate in the review processes and meet each review requirement. ■ Decide that various review formats—in-country, centralized, desk, or group reviews— may be utilized for the technical expert reviews in order to maximize the benefits of the review and to reduce resource-intensiveness and burdens on reporting countries. ■ Agree that the facilitative, multilateral consideration of progress can consist of two complementary phases: an interactive (online) process using an online platform aimed at enhancing participation and peer exchange among country experts, practitioners, and non-Party stakeholders from the same region; and the organization of an in-person meeting in conjunction to the sessions of the Subsidiary Body for Implementation (SBI), which would bring more high-level participation. ■ Agree that Parties be allowed to request that the technical expert review and facilitative multilateral consideration of progress consider information beyond that required in the Paris Agreement.
	Global stocktake (Article 14)	PARTIES SHOULD: <ul style="list-style-type: none"> ■ Agree to organize the global stocktake in workstreams oriented toward assessing progress toward the Paris Agreement's long-term goals of mitigation, adaptation, climate impacts, and finance. Each stream should take stock of implementation of other thematic elements of the Paris Agreement (including support, capacity building, technology transfer and development, and loss and damage) as appropriate to assess progress toward each long-term goal. ■ Establish the duration of the first global stocktake as 18 months, including key milestones such as the submission of inputs ahead of the subsidiary body meetings in the year preceding the relevant CMA for the global stocktake (e.g., 2022). ■ Agree that conducting the global stocktake in the light of equity would include consideration of how countries have described their NDCs to be a fair contribution to climate change mitigation. Further research and dialogue under SBSTA and IPCC should be encouraged, including the development of a broader framework to systematically assess collective efforts in light of equity and the best available science. ■ Identify the outputs of the global stocktake, including technical reports from each stream and a summary report for policy makers and COP decision.
	Facilitate implementation and promote compliance (Article 15)	PARTIES SHOULD: <ul style="list-style-type: none"> ■ Agree on elements of operational guidance to the committee, such as avoiding duplication of work with other relevant mechanisms and processes. Several of these elements may be established as providing overarching guidance to the operation of committee, while some should be focused on the application of measures. ■ Decide that the committee can be engaged through a self-referral, Party-to-Party referral, or an administrative non-Party referral (the committee having the discretion to act on the basis of objectively verifiable information received under Article 13 of the Paris Agreement or from the Secretariat). ■ Agree that the committee would have a wide range of facilitative measures available to tailor its response to the particular circumstances of different cases. ■ Mandate the committee to regularly review systemic issues, such as challenges in implementing reporting requirements faced by a number of Parties.

1. INTRODUCTION

The Paris Agreement, adopted in December 2015 by 195 nations, signified a global commitment to address climate change by embracing systematic, collective, long-term efforts to reduce greenhouse gas (GHG) emissions while building resilience for communities under threat from climate impacts. While many national, subnational, and multilateral initiatives are now underway, current levels of action are inadequate to meet the global mitigation goals agreed in Paris.

Reaching these goals depends on implementing the Agreement effectively. This in turn requires the Parties to not only clarify the key tasks and activities ahead for countries and institutions, but also define enabling processes that equip policy makers to identify best practices, new opportunities, and solutions to barriers. Building a rule-based regime with such processes will enable countries to pursue their climate actions further, faster, and with confidence. By leveraging the planning, implementation, and review components of the Agreement, a regime with clear, robust, and cohesive rules can be adopted to set the world on a path to fulfill the promises made in Paris.

In this spirit, Parties to the United Nations Framework Convention on Climate Change (UNFCCC or the Convention) set a deadline of December 2018 to agree on implementing guidelines for the Paris Agreement (UNFCCC 2016b; 2017b). Known as the Paris Rulebook, these guidelines will attempt to steer greater international cooperation to implement ambitious, effective, and fair climate action and mobilize support that will enable and speed the transition to a decarbonized and climate-resilient economy. International negotiators will meet against this backdrop at the third part of the first session of the Conference of the Parties (COP) serving as the meeting of Parties to the Paris Agreement (CMA 1–3) held in conjunction with COP24 in Katowice, Poland. At the December meeting, Parties will face important decisions on both technical and political aspects of the implementing guidelines as they seek to operationalize the Paris Agreement. Making fair and effective decisions will require that negotiators balance various priorities, consider overall coherence, and ensure that all Parties' views are heard. Negotiators will represent Parties who have ratified the Agreement.

The Importance of the Implementing Guidelines

The Paris Agreement grounds national planning and policy making in the development of NDCs and the process for assessing progress and enhancing national action through regular reporting and review, NDC communications, and global stocktakes (Dagnet et al. 2016).¹ This approach is designed to help ensure increased action over time to reduce GHG emissions, adapt to the impacts of climate change, and align financial flows and support.

As countries follow this implementation cycle in pursuit of the Agreement's long-term goals, developing strong guidelines by CMA 1–3 is imperative for:

- **Building the credibility** of the international regime, and credibility among Parties, by fostering confidence and trust about countries' efforts to fulfill their requirements. This will be achieved by **enabling clarity and transparency of action** by Parties and ensuring they make progress in achieving their contributions to the long-term Paris goals.
- **Providing the space and processes for sharing** best practices and strategies for success between countries and applying these lessons to domestic actions.
- **Ensuring a balance** between and connection across adaptation, mitigation, and support efforts in a cohesive manner.
- **Signaling to non-Party stakeholders** and the global economy that increased ambition, climate action, and a low-carbon transition represent the future and leveraging their contributions to do so.
- **Maintaining the spirit of solidarity** by providing support (finance, technology transfer, and capacity building) to developing countries that need it.
- **Supporting the durability of the Paris Agreement** with a structure that allows for the periodic review and updating of the implementing guidelines at different times, so that they remain relevant and foster the enhancement of action over time.

The Paris Agreement Cycle of Implementation and Ambition

The Paris Agreement outlines a plan-implement-review cycle of implementation and ambition to drive climate action and support. In this cycle the international level of the Paris Agreement and national implementation are closely related. The implementing guidelines will help operationalize the entire cycle (Figure 1).

PLAN. Parties begin the cycle by communicating their plans and policy targets to reduce GHGs through NDCs. As they plan their NDCs, countries must consider their national circumstances. Developed countries will provide indicative information on future financial support, which developing countries can use to inform their national plans and implementation activities. Countries will also plan and communicate information on their adaptation priorities, plans, and strategies.

IMPLEMENT. Countries then move to implementing their plans taking into account national budgetary priorities using accounting methodologies and possibly voluntary

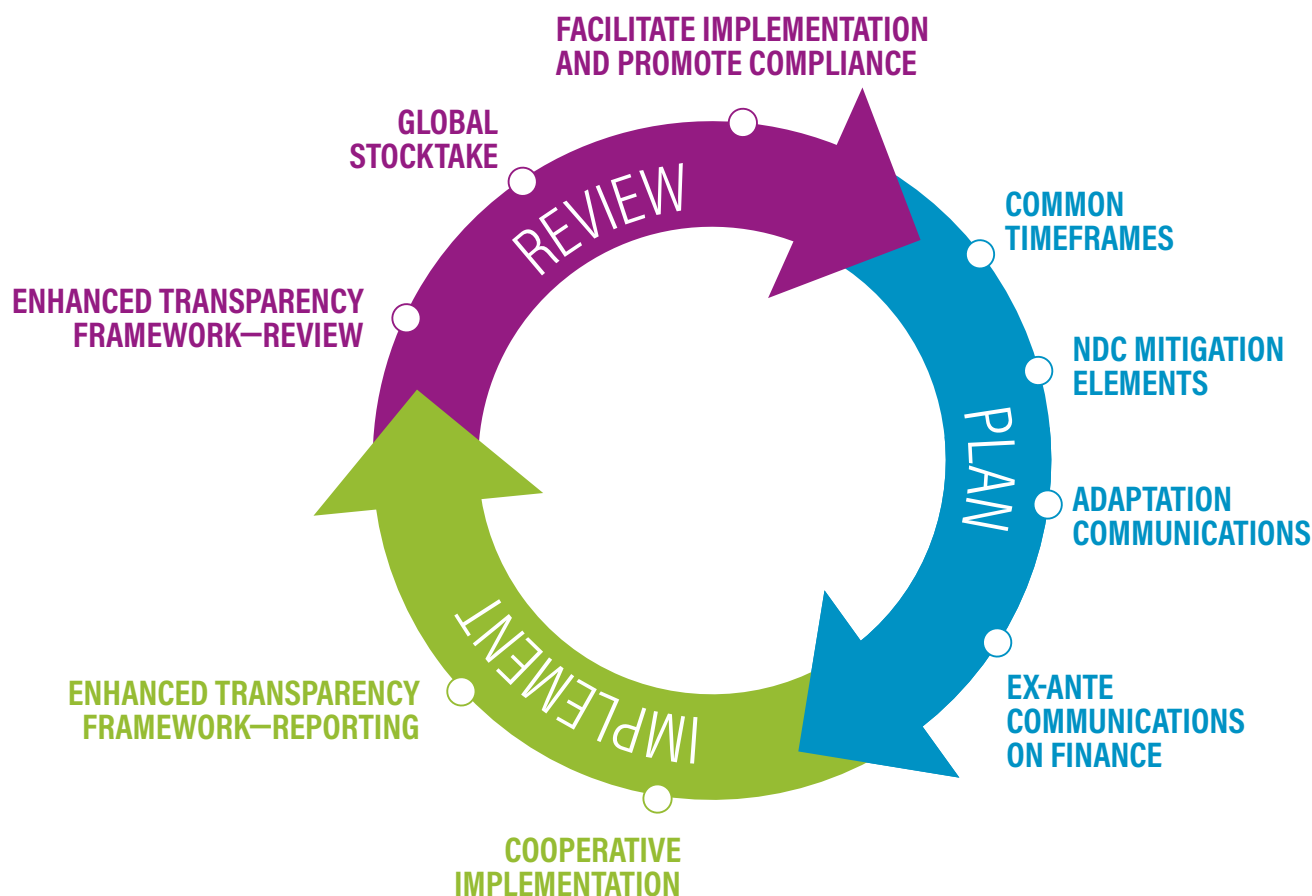
international cooperative implementation. Parties report internationally on their progress and circumstances.

REVIEW. Country reports are individually reviewed under the Paris Agreement's transparency framework including a technical expert review and a facilitative, multilateral consideration of progress. Five-year global stocktakes assess collective progress to see if it is in line with the Paris Agreement target of holding the global temperature below 2°C. A mechanism to facilitate implementation and promote compliance supports countries in fulfilling their obligations.

Based on these reviews and other inputs, Parties seek to revise and enhance their national plans in order to deliver on the Paris Agreement's goals.

If framed effectively, the implementing guidelines will use the plan-implement-review cycle to drive improvements over time in both climate action and support for countries that need it. Figure 1 illustrates this cycle and how the various elements of the implementing guidelines will support operationalization

Figure 1 | The Paris Agreement Cycle of Implementation and Ambition: Plan, Implement, and Review



Source: Authors.

of the Paris Agreement. The plan-implement-review cycle is illustrative as the elements included may not necessarily progress linearly; for example, an element listed in the plan phase could also be part of the implement phase.

Key Challenges

While swift adoption of the Paris Agreement's implementing guidelines is imperative, negotiators face several major challenges. This section identifies the main challenges to designing clear, robust, and cohesive guidelines. The challenges are how to achieve flexibility and differentiation; linkages with other processes in the Agreement; and ambition, balance, and durability. They are described below with suggestions in subsequent chapters on how to frame the guidelines and related decisions.

Flexibility and differentiation

The Paris Agreement reaffirms that its implementation will reflect equity and be guided by the principle of common but differentiated responsibilities—respective capabilities (CBDR-RC) in light of different national circumstances, acknowledging that each Party, especially the least developed countries (LDCs) and small island developing states (SIDS), has unique national policies, circumstances, and stages of development (Dagnet et al. 2016).

Applying the principle of CBDR-RC to the design of implementing guidelines for all countries—particularly with regard to the transparency requirements—is a challenge for the international community. For the transparency framework specifically, negotiators are tasked with developing modalities, procedures, and guidelines that are applicable to all Parties while allowing flexibility to those developing country Parties that need it in the light of their capacities. The challenge lies in operationalizing this flexibility. The authors identify options for providing flexibility for relevant developing country Parties that need it in the light of their capacities in ways that would not jeopardize improved national climate action over time in terms of scope, frequency, or type of NDCs and their reporting or review. While the principle of CBDR-RC and equity are guiding principles for the whole Agreement, the concept of “flexibility” is specifically referenced in the Agreement with regard to the transparency framework. The linkages between the transparency framework and the other provisions of the Paris Agreement have however triggered discussion on flexibility in other elements of the implementing guidelines.

Linkages

The complex linkages between provisions in the Agreement that require rule-setting has caused a bottleneck in the negotiations and needs critical attention by negotiators (Dagnet et al. 2017a). A clear understanding of these linkages offers opportunities to enhance global action. By maximizing the synergies between different provisions of the Agreement, Parties can develop coherent, mutually reinforcing, and efficient implementing guidelines that facilitate achievement of the ambitious global goals agreed in Paris. In view of the critical importance of these linkages, Chapter 10 highlights their implications.

Ambition, balance, and durability

The guidelines adopted must ensure the international climate regime is able to be maintained over time and drive the necessary ambition to achieve the long-term goals agreed in 2015. To achieve these objectives, the guidelines must also drive improvement, encourage greater national action over time, and foster trust in countries' efforts. At the same time, the rules must balance the widely differing circumstances among Parties and reassure all countries that their core concerns have been addressed.

As will be necessary at the COP24 negotiations, this paper tries to strike a fine balance between these priorities in three ways:

- Providing guidance on a comprehensive package of guidelines that maintains the spirit of the Paris Agreement with a focus on nationally determined actions and a balance in emphasis among mitigation, adaptation, and support.
- Acknowledging that not all elements of the Paris Agreement have reached the same level of maturity and some technical aspects of the rules may therefore need to be further developed after CMA 1–3. However, a minimum set of rules will need to be adopted at CMA 1–3 to operationalize all relevant pillars of the Paris Agreement. Thus, we distinguish between decisions that need to be agreed by COP24 in Katowice to guide Parties in implementing and possibly enhancing their NDCs by 2020, and other guidelines that can be further elaborated later.
- Proposing that some mechanisms built into the Paris Agreement need to be designed in a way that ensures they will remain relevant and effective over many decades as technologies and the economic and social circumstances of countries change.

The Paper's Approach: Informing Effective Paris Implementing Guidelines

This paper is designed to support the international community in adopting cohesive, robust, and sustainable guidelines, at the December 2018 COP24 in Katowice, Poland for implementing the Paris Agreement. The primary audience is UNFCCC negotiators. However, given the importance of the rules to local communities, businesses, policy makers, experts, and scholars, this paper will also be of interest to a broader audience.

Based on previous research by PACT (Box 1), we bring together the pieces of the implementing-guidelines puzzle to present negotiators with a full picture for action. It captures views and ideas from PACT members based on years of experience and seeks to identify consensus outcomes by building on convergences of opinion heard across Parties and stakeholders.

Since the rules decided at CMA 1–3 will need to address the entire Paris Agreement implementation cycle depicted in Figure 1, the authors provide detailed suggestions for rulemaking across each element of the plan-implement-review phases. The paper offers suggestions to guide negotiators in preparing the text for final negotiations and adoption. However, it does not attempt to provide legal language or draft text for the modalities, procedures, and guidelines. The paper is structured to mirror the cycle shown in Figure 1. It addresses each element of the cycle, providing for each some contextual information, a discussion of the key decisions required in 2018 at COP24, and a list of elements that may require further work following COP24. However, given the importance of linkages across the elements, the paper also includes a chapter highlighting some of the key linkages and their implications.

Summaries of all PACT suggestions for guidelines are included in Appendixes A and B.

Box 1 | Project for Advancing Climate Transparency Consortium and Publications

In 2016, experts from nine universities, institutes, and nongovernmental organizations (NGOs) around the world formed the Project for Advancing Climate Transparency (PACT) consortium to support negotiators in designing the Paris Agreement implementing guidelines. PACT has three main objectives:

- Engaging diverse stakeholders, including members of governments, NGOs, and businesses, worldwide.
- Conducting analysis and research to develop ideas for implementing guideline content for consideration by the Parties.
- Enhancing the capacity of various key stakeholders in developing countries.

PACT has convened stakeholders at confidential discussions in Africa, Europe, Asia-Pacific, and Latin America and the Caribbean, where it was able to capture ideas and receive feedback.

Publications

In parallel, PACT members have produced research papers on key elements of the implementation guidelines, which identify design options to inform negotiations. In preparing these publications, the consortium evaluated the level of priority of Paris Agreement elements, the feasibility and fitness-for-purpose of options on the table, and how the pieces fit together to create incentivizing and implementable guidelines.

This paper brings together key content from previous PACT publications:

- Mapping the Linkages between the Transparency Framework and Other Provisions of the Paris Agreement
- Designing the Enhanced Transparency Framework: Reporting
- Designing the Enhanced Transparency Framework: Review
- The Mechanism to Facilitate Implementation and Promote Compliance: Design Options
- Achieving the Ambition of Paris: Designing the Global Stocktake
- Recommendations for Accounting for Mitigation Components of NDCs under the Paris Agreement

Consortium partners

The PACT consortium consists of experts from the Caribbean Community Climate Change Centre, the Climate Action Network, Fábrica Ética Brasil, Institute for European Studies at Vrije Universiteit Brussel, Pan-African Climate Justice Alliance, NewClimate Institute, Overseas Development Institute, Tshingua University, and the World Resources Institute.

2. COMMON TIMEFRAMES

Context

The first round of NDCs submitted to the Paris Agreement by Parties varied in their implementation timeframe. Some set mitigation and other targets with end dates in 2025, while others set them for 2030. This discrepancy was reflected in the provisions in the 2015 COP21 decision requesting Parties to revise their NDCs by 2020:

- Parties with a 2025 target year are requested to communicate by 2020, a new nationally determined contribution (but the target year is not specified) and new NDCs every five years thereafter (paragraph 23 of decision 1/CP.21).
- Parties with a 2030 target year are requested to communicate or update by 2020 their 2030 target and do so every five years thereafter (paragraph 24 of decision 1/CP.21).

These NDC's targets were 10 or 15 years after their submission date (from 2015 to 2025 or 2030) and included a five-year "planning period" from 2015 to 2020 before the implementation period began. The implementation period then ran either 5 or 10 years (from 2020 to 2025 or from 2020 to 2030).

For future NDCs, there is no guidance on whether Parties should have 5- or 10-year implementation periods, even though Article 4.9 establishes that each Party shall communicate an NDC every five years. A collective decision about the timeframes for NDCs is needed to make them consistent and fully comparable across countries. Continuing this status quo with differing timeframes runs the risk of significantly complicating assessments of collective efforts, especially in the context of equity, since Parties would be implementing their NDCs on different time schedules. Tracking the progress of individual or collective efforts would be more complex—with a higher risk of double counting—if the timing or associated implementing period is different across countries (Northrop et al. 2018).

Parties have an opportunity at CMA 1–3 in Poland to decide common timetables for their NDCs. At COP21, in December 2015, governments agreed that the meeting of Parties to the Paris Agreement (CMA) "shall consider common time frames for nationally determined contributions at its first session." A year later, at COP22 in Marrakech, the CMA referred the issue of how to converge timeframes to the Subsidiary Body for Implementation (SBI). Negotiators at CMA 1–3 in

Poland will consider whether and when there should be a common NDC implementation period for all Parties. A decision on this issue will need to be considered in light of the linkages discussed later, such as the agreed five-year cycle of communications of NDCs and five-year global stocktaking exercises.

Box 2 | How Common Timeframes Can Enhance Ambition over Time

International processes and policies should respond to the urgent threat of climate change and reflect the rapid shifts taking place on climate change. The five-year communication and stocktaking rhythm adopted in Paris reflected an acknowledgment by Parties that a short cycle is needed to create a dynamic political response to climate change. The cycle would be driven by innovation, economic, and technological changes, and scientific updates, resulting in regular and rapid scaling up of actions and investments (Morgan et al. 2014).

While countries' current NDCs reflect either a 5- or 10-year implementation period after 2020 (i.e., to 2025 or 2030), a decision on common timeframes is needed to establish a level playing field that can capture signals in a timely fashion in order to identify opportunities for action that can drive transformation. Conversely, not agreeing on common timeframes may limit the incentives for transformation and higher ambition.

Key Requirements for 2018 Adoption in Implementing Guidelines

Agree whether and from when there should be a common implementing period

Postponing a decision on this topic or deciding to maintain different target years would restrict the ability to assess progress toward the long-term goals of the Paris Agreement. In addition, maintaining the status quo may complicate the collective assessment of Parties' efforts, including in the light of equity, since Parties would be analyzing efforts across different time scales. Unaligned implementation periods would also require more stringent verification of how the transfer of units emerging from the use of market mechanisms are accounted (see Chapter 6). Given that, Parties should agree to a common timeframe for NDCs that would apply no later than to the NDCs submitted in 2025.

Decide the length of the implementation period

Based on the current status quo, NDCs submitted in 2025 could have either 5- or 10-year implementing periods. The consequences of choosing different implementation periods can be significant. To maximize

the world's chances of reaching the Paris Agreement's long-term goals, negotiators could consider the following criteria (Müller and Ngwadla 2016):

- **Ensure that the option chosen allows for optimal increase of ambition.** The main difference between a 5- or 10-year period is the dynamism of the process and the ability of countries to seize opportunities resulting from economic, policy, societal, and technological changes.
- **Prevent lock-in of low ambition for too long.** Some Parties might find it difficult to revisit a target once it is considered final and recorded in a registry. Given this, a five-year target minimizes the risk of committing to a specific, incompatible emissions reduction pathway.
- **Allow adequate planning and implementation,** or facilitate the required domestic legislative and administrative adjustments. Addressing these concerns could be done by providing the support (capacity-building, technology transfer, and finance) needed by developing countries with limited capacities.
- **Reduce the complexity of the assessment of individual and collective efforts.** Decisions on common timeframes should be aimed at making the tracking and accounting of climate actions less complicated, not more so.

The emissions reductions currently contemplated in the current NDCs “are only a fraction of the economically beneficial options possible over the next 10–15 years” (Dagnet and Mountford 2015). Low-carbon solutions are becoming increasingly affordable and accessible. Innovations in renewable energy have already exceeded expectations by becoming cost-competitive compared with traditional fossil fuel energy.² The deployment of new technologies like electric vehicles and the uptake of climate policies like carbon pricing or phase-out of fossil fuel subsidies worldwide are additional evidence of the transformation currently underway (Martin 2017). This backdrop makes successive five-year implementation periods, from 2025, a realistic prospect compatible with achieving the Paris Agreement's ambitious long-term mitigation and temperature goals.

Parties must also agree on the planning period (or lag time) between the communication of the NDC and the beginning of the implementation period. Parties can continue with a five-year planning period as with their 2015 communications—NDCs submitted in 2015 had a five-year planning period from 2015 to 2020 and were to be implemented from 2020 to either 2025 or 2030.

Given the benefits of adopting near-term targets that help promote an acceleration of climate action, together with the benefits of mid-term targets that are important to putting countries on trajectories to achieve the long-term goals of the Paris Agreement, this paper suggests that Parties agree to the following scenario, which meets most of the criteria described above:

- Parties maintain their five-year domestic planning period between the communication of their NDC and the implementation period.
- By 2020, all Parties would communicate or update their 2030 targets.
- Beginning in 2025, all Parties communicate a target for the five-year implementation period (2031–35).
- Parties willing to do so could also submit an indicative target for a 10-year implementation period (2031–40).

This scenario has been referred to as the “Dynamic Contribution/Ambition/NDC Cycle” or as the 5+5 approach (Müller et al. 2014).³ This option acknowledges that some policies may require more time for planning and adjustment, while not preventing a faster pace of NDC enhancement. This option also mirrors the 10- and 15-year structure of the first NDCs—but instead has a target 10 years after the communication of the NDC and allows Parties to also indicate a target 15 years from the communication.

PACT therefore suggests aligning timeframes as shown in Table 1.

NDCs and their revisions will be informed by international stocktaking exercises, primarily the global stocktake, which will occur every five years beginning in 2023. The timing of the stocktake between NDC communication points impacts the ability of Parties to use the stocktake to inform their NDCs. As such, Parties can leverage the stocktake in a couple of ways:

- For the development of their NDC to be communicated in 2025, Parties should already take account of the outcome of the 2018 Talanoa Dialogue, which offers an assessment of where we are, where we need to be, and how we get there, as well as a space to identify solutions to overcome barriers and opportunities for enhanced cooperation. Parties would have seven years to build from the outcomes of the Talanoa Dialogue.
- Because the preparation of the NDC to be communicated in 2025 will already be underway, the 2023 global stocktake might trigger only limited adjust-

Table 1 | Common Timeframe Schedule Based on a Five-Year Implementing Period

COMMUNICATION DATE	MINIMUM DOMESTIC PLANNING PERIOD ^a	FIVE-YEAR TARGET		INDICATIVE 10-YEAR TARGET	
		IMPLEMENTATION PERIOD	TARGET YEAR	IMPLEMENTATION PERIOD	TARGET YEAR
2025	2025–30	2031–35	2035	2036–40	2040
2030	2030–35	2036–40	2040	2041–45	2045
Same cycle every five years					

a. Parties would be expected to begin planning for the implementation period when they communicate their NDC. For five-year targets, Parties would use the five-year window between communication and the beginning of the implementation period. For indicative 10-year targets, Parties could use the 10 years between communication and the beginning of their target implementation period.

ments in its final stage of preparation. Instead, Parties should be willing to update or adjust their NDC to respond to the urgency and scientific updates at the stocktake. However, the 2023 global stocktake would be able to fully inform the development of the NDCs communicated in 2030.

PACT Suggestions: Guidelines for Common Timeframes

- Beginning with NDCs communicated in 2025, Parties should use a five-year implementation period.⁴
- Parties should use the Dynamic Contribution approach (also referred to as the 5+5 approach) to communicate five-year targets plus an indicative target for the following five years.
- Cooperation among Parties should be enhanced by support to developing countries to enable them to adapt their domestic institutional and legislative system, as appropriate.

Additional Elements for Elaboration, Including Beyond CMA 1–3

Given the technical nature of some of the issues raised by converging the timeframes for climate action by all countries, implementing guidelines will likely need to be refined beyond CMA 1–3. Depending on the decisions taken in Poland, negotiators will need to consider and possibly agree to the following:

- **Adjusting the guidelines.** Adjust relevant elements of the Paris implementation guidelines, such as those with implications for countries related to global stocktakes (Oberthür and Northrop 2018).

- **Procedural implications.** Further elaborate the procedural implications for updates of the registry and for Article 6.
- **Capacity building.** Consider how to support developing countries through capacity building, technology transfer, and finance to transition from a 10-year to a 5-year timeframe. For example, guidance could be developed for enhanced cooperation between experienced and less experienced countries on adjusting national institutional and legislative frameworks.

3. NATIONALLY DETERMINED CONTRIBUTIONS' MITIGATION ELEMENTS

Context

The Paris Agreement guides mitigation action toward a long-term temperature goal to limit temperature rise to well below 2° Celsius (2°C) and to pursue efforts to limit it to 1.5°C. In this pursuit, Parties aim to achieve a balance between anthropogenic emissions and removals in the second half of the century on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty. The Paris Agreement provides a framework for communicating and maintaining nationally determined contributions (NDCs). To advance this framework, Parties are tasked with elaborating guidance on the features of NDCs, information necessary for clarity, transparency and understanding of NDCs, and accounting for their NDCs related to Article 4.13. This guidance will inform future communication to improve overall transparency.

The first NDCs submitted by 169 countries vary greatly in their level of detail and content, and the

understanding of what constitutes an NDC is still subjective (see Appendix C). In addition, while the transparency of NDCs was improved compared with the Cancun pledges, significant information gaps remain, and the information countries provided was difficult to understand in aggregate, reducing the accuracy of a global assessment of climate action (UNEP 2017).

Further guidance on NDCs can:

- Facilitate better understanding of what Parties are contributing
- Assist in the determination of the individual and aggregate GHG emissions reduction impacts of country commitments
- Support countries in tracking progress toward NDC goals and determining whether they have been met
- Steer Parties toward providing comparable information to enable an assessment of collective ambition and whether global emissions after 2020 will be in line with the goal to hold the increase in global average temperature well below 2°C, with efforts to pursue 1.5°C (Levin et al. 2015)
- Encourage more complete coverage of gases and sectors, improvement toward economy-wide targets, and greater ambition over time
- Support development of more robust NDCs with a clear vision that will drive policy and investment at the local, national, and global levels for years to come (Fransen and Myrans 2015)

Specifically, negotiators have been tasked with developing further guidance in relation to the mitigation section of decision 1/CP.21 under agenda item 3 of the Ad Hoc Working Group on the Paris Agreement (APA).⁵ Key to advancing this work is gaining a mutual understanding of the purpose of further “guidance,” how it relates to the nationally determined nature of NDCs and their communication, the approach and structure of the guidance, its elements, and assessing the necessity of further guidance (UNFCCC 2017e). It will also be important to clarify how this guidance will interact with the guidance developed under other agenda items in the negotiations.

Maintaining principles

Guidance should ensure that Parties are able to uphold key objectives and principles to maintain confidence in the Paris Agreement and its institutions. These include clarity, transparency, and understanding (CTU) (when communicating information related to an NDC)

and the principles underpinning accounting; namely, avoiding double counting and promoting environmental integrity, and transparency, accuracy, completeness, comparability, and consistency (TACCC) (UNFCCC 2015, Article 4.13).

Guidance on NDC communications should also ensure that countries maintain methodological consistency, including on baselines, between the communication and implementation of their climate plans and avoid perverse incentives among other considerations referenced in paragraph 31 of Decision 1/CP.21. Negotiators should aim to develop rules to support Parties in preparing future NDCs that progress beyond their current commitments and reflect the highest possible ambition while taking into account differing national circumstances (UNFCCC 2015, Article 4.3).

Box 3 | How NDC Mitigation Elements Can Enhance Ambition over Time

Nationally determined contributions (NDCs) containing information on mitigation contributions that facilitate clarity, transparency, and understanding will provide the necessary foundation to account for anthropogenic emissions and removals. If the vision of the Paris Agreement is met, Parties will be able to accurately account for NDCs and be held accountable for their implementation. This accountability is critical to drive domestic action. Both the pressure from domestic and international constituencies and the confidence and trust born from greater transparency can drive national governments to take on bigger challenges and increase their ambition.

Key Requirements for 2018 Adoption in Implementing Guidelines

Features of nationally determined contributions

Countries understand and define features of NDCs in different ways. For example, some view features as the scope, contents, details, or categories of information in an NDC, while others see features as the characteristics of an NDC such as purpose, context, and relevance to the broader Paris Agreement. These differences in viewpoint have made it challenging for negotiators to agree on implementing guidance. In addition, some Parties have suggested that further guidance on NDC features is not necessary because some aspects could be addressed under other agenda items, depending on the definition of features; whereas others have found further guidance of critical importance.

While contributions will remain nationally determined, any agreed guidance on features should encourage Parties to include characteristics in their NDCs that support the aggregation of NDCs, and facilitate countries' ability to provide information necessary for clarity, transparency, and understanding. Effective guidance on features may also aim to highlight characteristics that can support countries' implementation of mitigation measures, facilitate access to support, or inform domestic processes for preparing future NDCs. Any guidance on features should also facilitate the increase of ambition of NDCs over time.

PACT Suggestions: Features of Nationally Determined Contributions

- Parties should agree to submit NDCs that contain transparent mitigation contributions that reflect the characteristics and description of NDCs outlined in the Paris Agreement, including further ambition over time.
- Parties should agree that Parties may also include features not specified in the Paris Agreement to enhance transparency and ambition, in accordance with the nationally determined nature of NDCs.

Information provided by Parties to facilitate clarity, transparency, and understanding of NDCs.

The information provided by Parties in their NDCs to facilitate clarity, transparency, and understanding (CTU) of the NDCs will support Parties in upholding many of the key principles and requirements of the Paris Agreement. CTU guidance would serve the following objectives:

- **Enable accountability.** Provide information necessary for countries to be held accountable to the requirements under Article 4 which requires Parties to prepare, communicate, maintain, and account for their NDCs (UNFCCC 2015, Articles 4.3, 4.4, 4.5, and 4.13). Additionally, each NDC is meant to represent a progression beyond the current NDC and reflect the highest possible ambition. CTU is necessary to understand each contribution and determine if a Party has met these requirements.
- **Assess collective progress.** Provide information to analyze global emissions and determine collective progress of the NDCs, in the context of the Paris Agreement's long-term mitigation goal to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels.
- **Provide context.** Provide information to tell the country's story and understand challenges, national circumstances, and development priorities. Qualitative information can improve the understanding of the how the NDC is fair and ambitious in light of national circumstances and to designate the country's highest possible ambition.
- **Explain plans and actions.** Provide information to build awareness of Parties' mitigation measures to achieve their NDCs. This will help both national stakeholders and the broader international community understand plans, actions, and investments and can reinforce a Party's commitment to achieve its NDC.
- **Share needs.** Provide information on Parties' financial and other support needs related to achieving the NDC. Providing this information may provide context and clarify conditions that may impact a Party's ability to meet the objectives of its contribution and expected emissions reductions.
- **Explain individual effort.** Provide information on Parties' efforts individually and in relation to others recognizing common but differentiated responsibilities and respective capabilities, in light of different national circumstances. CTU is essential to facilitate an understanding of the NDC, especially by reviewers during the technical expert review, by clarifying specific assumptions and methodologies underpinning the NDC, which will be critical for accurate evaluation of NDC progress and achievement.

To help achieve these important objectives, negotiators should develop and adopt guidance outlining aspects of information necessary to facilitate clarity, transparency, and understanding and request all Parties to provide information relevant to their NDC. (See Appendix D for a complete list). If Parties are unable to provide this information fully in the NDC itself, they could provide it through their biennial transparency reports (BTRs) under Article 13, and should provide it in subsequent NDCs. However, it should be noted that the delay associated with providing information under BTRs—as opposed to NDCs—is not ideal and will lead to a significant time lag in understanding the NDC.

PACT Suggestions: Clarity, Transparency, and Understanding of Nationally Determined Contributions

- Parties should include all of the relevant information in Appendix D and justify any exclusions.
- Parties should be encouraged to improve clarity, transparency, and understanding over time.

Accounting for mitigation components of nationally determined contributions

Parties are expected to account for their NDCs (UNFCCC 2015, Article 4.13), and comprehensive and effective guidance is essential to inform their efforts to do so at all stages of the NDC cycle. It is important for negotiators to develop and communicate a clear understanding of what it means to “account for” an NDC and its anthropogenic emissions and removals. Such guidance could lay out a clear framework for assessing progress before countries implement their NDCs. It could also support countries during implementation by defining how to track and report progress in a comparable and transparent manner. Guidance could be crafted to help countries assess whether their goals were achieved after implementation of the NDC.

Accounting guidance can also assist in

- ensuring measurable emissions reductions, in line with Paris Agreement principles;
- enabling comparability; and
- enabling participation in Article 6 mechanism (e.g., cooperative approaches and the transfer of internationally transferable mitigation outcomes).

By their bottom-up nature, NDCs present a complex accounting challenge because they contain a diversity of mitigation target types, as well as policies and actions. As a result, there is no comprehensive, uniform accounting formula that can be applied to all NDCs, although there are many common elements for accounting that can be universally applied.

For GHG emissions targets, a balance sheet or summary table should be used to present specific information related to accounting for NDCs (see Levin et al. 2018). This balance sheet or summary table could be developed by the UNFCCC Secretariat in consultation with lead reviewers and capture information on annual emissions and removals, relevant calculations of net land sector emissions, and information related to the transfer and

use of internationally transferred mitigation outcomes (ITMOs; see Appendix E). For Parties that do not participate in Article 6 and use full land-based accounting, the balance sheet would simply capture the emissions and removals in the target boundary. A common format could serve as a useful reporting tool for countries to communicate accounting information and facilitate the comparison of information among countries.

General guidance

Under the Paris Agreement, accounting guidance will be applied to countries’ second and subsequent NDCs, although Parties may still need to decide what is meant by “second” or “subsequent” (UNFCCC 2015, para. 32). The communication of “new” NDCs by Parties whose current NDCs contain a time frame up to 2025, could be considered a “second” NDC (UNFCCC 2015, para. 23). However, there is some ambiguity for Parties whose NDCs contains a time frame up to 2030 because they are requested to communicate or update these contributions (UNFCCC 2015, para. 24). Parties may wish to specify in the accounting guidance that any NDC communicated or updated by 2020 will be considered a second or subsequent NDC. Furthermore, Parties are expected to ensure methodological consistency, including on baselines, between the communication and implementation of NDCs (UNFCCC 2015, para. 31b). It is therefore important that Parties agree to accounting guidance as soon as possible to inform the communication of new or updated NDCs by 2020 and ensure solid foundations for methodological consistency. Least developed countries (LDCs) and small island developing countries (SIDs) will be given discretion on the choice of sectoral activities and methodological guidance.

Finally, there are diverging views on the need for accounting guidance on how reference levels should be calculated and under what conditions they can be recalculated. Many Parties have noted that the lack of guidance incentivizes countries to change the reference levels in the middle of their NDC implementation period, which can be particularly problematic for countries with baseline scenario targets. Other Parties have suggested that imposing such guidance is against the “nationally determined” nature of the NDCs. At a minimum, safeguards should be put in place to prevent undermining transparency and environmental integrity, to avoid loopholes (e.g., for any implications on forest reference levels), and to ensure that bad precedents are not set. At a minimum, the lack of CTU in the NDCs should be compensated by more detailed reporting in the biennial transparency report under Article 13 and thoroughly checked under the technical expert review.

Communicating accounting information

Negotiators should also develop guidance specifying how Parties should communicate accounting information making clear that different information may be required at different time periods (Levin et al. 2018).

Under the Kyoto Protocol, initial information on the quantification of each Annex I Party's assigned amount

was required early in the commitment period through the submission of an "initial report." Countries were subsequently required to produce a second report providing information to assess the fulfillment of commitments. If sufficiently detailed, the guidance for CTU may act like the initial reports under the Kyoto Protocol as this would facilitate understanding of Parties' contributions including any GHG emissions reduction targets and provide details necessary to account for the NDC. However, if CTU guidance remains as it currently stands, and there are gaps in information provided by Parties, this method will not be sufficient for providing a basis for tracking progress. The lack of information would need to be compensated by more detailed communication of accounting information under the enhanced transparency framework in order to properly track progress made in implementing and achieving NDCs (UNFCCC 2015, Article 13.7b). This could be additional to any other information necessary to track progress unrelated to accounting, such as qualitative information related to the status of implementation of mitigation measures or other contextual information.

The accounting-related information included in the transparency reports under Article 13.7b, could be different at the various stages of the NDC implementing period. For example, the first transparency report could provide further details related to the NDC as the basis of tracking progress, while the second report could provide further details on the status of implementation. The last report at the end of the NDC's implementation period could include relevant information on achievement (Elliott et al. 2017).

PACT Suggestions: Accounting for Nationally Determined Contributions

Parties should incorporate the following suggestions in guidelines for accounting for NDCs:

- Specify that Parties with GHG emissions targets should be required to quantify their NDC and calculate emissions levels in the target year consistent with target achievement (or emissions intensity in the target year if they have a base year intensity target) in the target year(s) and calculate emission budget, if applicable; e.g., in case of use of Article 6 mechanisms.
- Require Parties to account for anthropogenic emissions and removals in accordance with the latest methodologies and common metrics assessed by the Intergovernmental Panel on Climate Change (IPCC) and adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA). Parties unable to do this should provide an explanation and account in accordance with methodologies and common metrics already assessed by the IPCC and adopted by the CMA. Accounting should be applied to all sectors and gases included in the NDCs.
- Include a decision regarding which latest IPCC guidelines adopted by the COP and CMA should be applied for the purposes of accounting for anthropogenic emissions and removals for all Parties that include anthropogenic emissions and removals from the land sector in their NDCs.
- Include a decision that Parties should communicate the choice of full land-based or activity-based accounting, coverage of the sector, as well as forest definitions and other methodological issues in relation to land use and land use conservation and forestry (LULUCF) accounting, with the submissions of the next NDCs due in 2020.
- Request the Subsidiary Body for Scientific and Technical Advice (SBSTA) to develop definitions, modalities, and guidelines for accounting of anthropogenic emissions and removals from LULUCF and to recommend them for adoption by the CMA by COP 25. This should include detailed guidance for reference levels, treatment of natural disturbances, quantification of harvested wood products, and forest definitions, among other issues.
- Specify how Parties should ensure methodological consistency, including on baselines, between the communication and implementation of NDCs.
- Specify links between Article 6 and Article 4, as well as the links between Article 13 para. 7b and accounting for both progress and achievement.

PACT Suggestions: Communicating Accounting Information

Parties should incorporate the following suggestions in guidelines:

- Require at least those Parties with greenhouse gas (GHG) emissions targets to use a balance sheet, prepared by the UNFCCC Secretariat in consultation with lead reviewers, to be included in the biennial transparency reports.
- Agree to incorporate the accounting-related information that stems from the accounting guidance developed under Article 4 into the requirements for tracking progress under Article 13, para. 7b. For those that do not apply the accounting guidance for their first NDCs, guidelines related to Article 13, para. 7b should require Parties to report on any national accounting approaches that may be applied and have them checked by the technical expert review team in accordance with Paris Agreement's principles.
- Agree to capture accounting-related information before, during, and upon completion of their NDCs.

Additional Elements for Elaboration, Including Beyond CMA 1–3

Depending on the level of detail in the set of guidelines adopted in Katowice, further technical guidance would need to be developed, for example, for quantification of target year/period emissions levels, land sector accounting methodologies, or any further guidance on reference levels and recalculations. Further work could address the following issues:

- **Balance sheet.** The Secretariat should have a mandate to design an accounting balance sheet template and prepare instructions on how to fill in the required information.
- **Definitions, modalities, and guidelines.** Beyond CMA 1–3, the SBSTA should be given the mandate to develop definitions, modalities, and guidelines for accounting of anthropogenic emissions and removals from LULUCF and to recommend them for adoption by the CMA by COP25 in 2019. This should include detailed guidance, treatment of natural disturbances, quantification of harvested wood products, forest definitions, and reference level, among other issues.
- **Deadline for technical guidance.** All necessary technical guidance should be agreed no later than 2020, so Parties have adequate time to prepare for reporting their accounting-related information. Ideally it would be agreed in 2019 so that Parties are informed of the guidance when updating their NDCs or submitting new NDCs.

4. ADAPTATION COMMUNICATIONS

Context

The Paris Agreement for the first time established a global goal on adaptation to climate change including enhancing adaptive capacity, strengthening resilience, and reducing vulnerability. All countries are expected to undertake adaptation planning and to communicate their actions to the UNFCCC to inform the five-year global stocktakes of progress on the Paris goals. The UNFCCC will draw on countries' adaptation communications to assess adaptation needs and determine the support needed to facilitate resilience with the goal of enhancing the implementation of adaptation actions.

To support the enhanced transparency framework and advance progress toward its global goal on adaptation, the Paris Agreement asks Parties to submit, and periodically update, an adaptation communication. Article 7.10 of the Paris Agreement states that “each Party should, as appropriate, submit and update periodically an adaptation communication, which may include its priorities, implementation and support needs, plans, and actions, without creating any additional burden for developing country Parties.”

The role of adaptation communications is further defined in Article 7.14 and paragraph 99 of the Paris decision 1/CP.21, which calls on the global stocktake to:

- Recognize the adaptation efforts of developing country Parties
- Review the adequacy and effectiveness of adaptation and support provided for adaptation
- Review the overall progress made in achieving the global goal on adaptation
- Provide guidance to enhance the implementation of adaptation action taking into account the adaptation communication

The quality, scope, specificity, measurability, and timeline of the adaptation communications will determine the quality and comprehensiveness of the overview of collective adaptation efforts.

The Ad Hoc Working Group on the Paris Agreement (APA) has advanced the conversation on the purpose, elements, vehicles, timing, and flexibility of adaptation communications, and on their linkages with the global stocktake and the mitigation agenda. In addition, the Adaptation Committee and Least Developed Countries Expert Group (LEG) are tasked with undertaking technical groundwork that could inform the preparation of adaptation communications.

Despite this progress, key decisions remain regarding the purpose of adaptation communications and the guidance Parties will receive. Negotiations have struggled to find the right balance between the flexibility granted Parties under the Paris Agreement to choose the vehicle with which to communicate their adaptation efforts, and ensuring consistency in the information each Party reports. Consistency is important for informing the global stocktake, measuring progress against adaptation goals, and facilitating international

Box 4 | **How Adaptation Communications Can Enhance Ambition over Time**

Parties recognize that adaptation is a global challenge that requires concerted effort to complement action on mitigation. Even with ambitious mitigation action today, the impacts of climate change will still be felt in communities around the globe. Consequently, it is imperative to implement adaptation efforts and ensure low-carbon sustainable development.

According to the Paris Agreement, all countries are expected to undertake adaptation planning and to communicate their actions to the United Nations Framework Convention on Climate Change to inform the global stocktake. Clear, standardized, forward-looking signals on Parties' plans, priorities, and the support needed to strengthen their resilience will facilitate the assessment of collective efforts against the adaptation goal of enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change.

Parties can also articulate a long-term vision of nationally appropriate climate-resilient development, based on their national adaptation plan or equivalent national planning process, and share lessons learned, address shared challenges, and document their progress toward the Paris Agreement's long-term adaptation goal (Fransen et al. 2017).

collaboration. Parties have not reached consensus on whether NDCs should be highlighted in the guidance ahead of the other potential reporting vehicles.

Purpose and elements

Three possible options have been proposed to define the purpose of adaptation communications, set out in an APA Informal Note (UNFCCC 2017f):

- Communicate national adaptation priorities, plans, actions, implementation, and support needs
- Contribute to and inform progress toward the global goal for adaptation
- Strengthen the profile of adaptation to enhance action to catalyze support for developing countries to implement prioritized adaptation actions

Parties have yet to agree whether “recognition of efforts”—the actions countries take on their own—or the facilitation of transparency and understanding of adaptation actions, support provided, and lessons learned, should be part of the core purpose of the adaptation communication or left to other vehicles. Some are concerned that reporting these actions could lead to greater scrutiny or calls for verification of actions that countries undertake. Instead, they propose that “recognition of efforts,” in addition to lessons learned and other nonvital elements, should be optional for the adaptation communication. The make up of additional optional elements for adaptation communications is still under discussion.

Lack of consensus on what elements should be included in adaptation communications have resulted in three options with different priorities and combinations of elements, set out in the APA Informal Note (UNFCCC 2017c). All options provide for a core set of elements and additional, optional elements. There is broad agreement that core elements comprise:

- National circumstances
- Assessment of impacts, vulnerabilities, and risk
- Adaptation priorities, plans, policies, strategies, and planned actions
- Adaptation support needs of developing country Parties

Defining the relationship between the adaptation communication and the transparency framework

Negotiations on adaptation communications are occurring in parallel with a similar discussion on how to report on adaptation in the transparency framework, with two separate texts being developed. Parties need to clarify at COP24 what content should go into each process—and how the processes can inform each other—to minimize duplication and ensure consistency and coherence.

The vehicle

The Paris Agreement clearly states that adaptation communications can be a component of, or produced in conjunction with, other communications or submissions under the UNFCCC, including national adaptation plans (NAPs), NDCs, and/or national communications. This is set out in Article 7.11 of the Paris Agreement: communications “. . . shall be, as appropriate, submitted and updated periodically, as a component of or in conjunction with other communications or documents, including a national adaptation plan, a nationally determined contribution as referred to in Article 4, paragraph 2, and/or a national communication.”

Debate is ongoing about which vehicle(s) are most suitable, with some countries pushing for guidance specifically for adaptation communications in NDCs. Importantly, the Paris Agreement does not require all elements of the adaptation communication to be delivered within one document. The choice of vehicle(s) for the adaptation communication should enhance the commitment of governments to adaptation and to advance adaptation action. The different vehicles have distinct characteristics and purposes of their own (Box 5 and Figure 2), and may therefore be better suited to carrying different elements—both core and optional—of the adaptation communications.

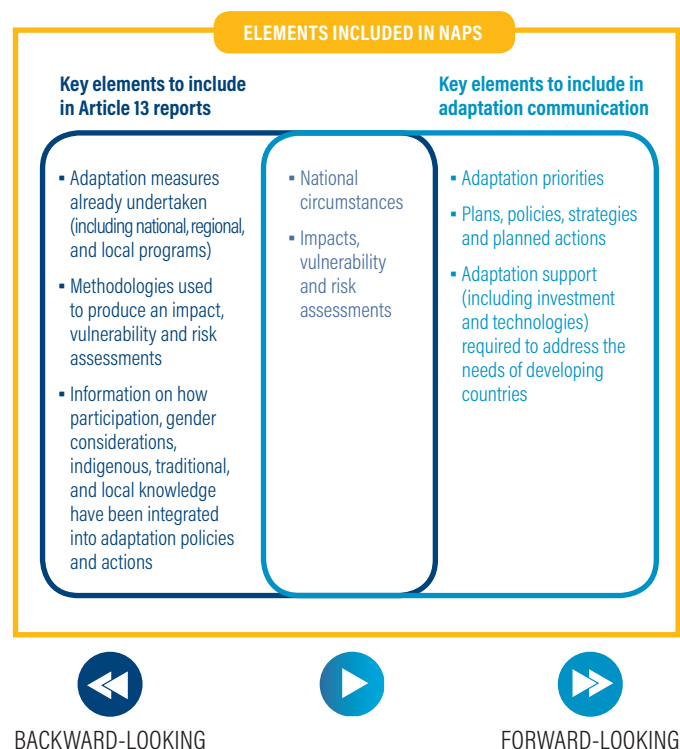
Figure 2 illustrates how NAPs may be used to present both forward- and backward-looking information and how adaptation communications should include, at least, forward-looking information. As noted, there are open questions about the content for adaptation communications and reporting in biennial transparency reports under the Article 13 enhanced transparency framework. In ensuring these two reporting vehicles complement each other, Parties could further decide that the transparency reports would include backward-looking information.

Box 5 | The Significance of the Vehicle for Adaptation Communications

Each vehicle for adaptation communications has a specific purpose and therefore the vehicle chosen has implications for the content of the adaptation communication itself.

- **National adaptation plans (NAPs).** NAPs, instigated in 2011, are a national planning process, rather than an international communication process. The information contained in a NAP document is typically long and detailed. Countries could produce a concise summary within their NAP which would serve as a communication. However, the updating cycle of NAPs has not been determined and therefore its utility as a reporting tool is uncertain.
- **Nationally determined contributions (NDCs).** NDCs are a commitment and communication vehicle for international readership. Many countries explained in their NDC how they are preparing their NAP process, their progress, and their intentions. Most adaptation components of NDCs provide a concise overview for an international audience of what the country is doing and therefore are essentially a communication. The reporting cycle for NDCs is set at five years.
- **National communications (NCs).** National communications are the traditional reporting vehicle for adaptation as well as for mitigation actions. Some NCs already include priorities and needs. Decision 5/CP.17, adopted at COP17 in Durban, South Africa, invites Parties to report on efforts and support provided and received for their NAP process through their national communications. As a vehicle for the adaptation communication, NCs could provide both backward- and forward-looking information. However, they tend to be very long, detailed documents, and receive relatively little international readership or follow-up. The four-year reporting cycle of NCs may impose an undue burden on reporting of national adaptation actions.

Figure 2 | **Adaptation Reporting and Communications: Looking Backward and Forward**



Key Requirements for 2018 Adoption in Implementing Guidelines

Adaptation communications are arguably among the least contentious issues on the Paris Agreement Work Program, and Parties express confidence that the central remaining issues can be resolved at COP24 in Poland. There is also scope for Parties to agree on technical details and additional, optional elements further down the line.

Purpose(s) and elements

It is essential that decisions regarding the core purpose(s) of the adaptation communication be made at CMA 1–3. The adaptation communication must primarily be a mechanism for advancing adaptation action and securing political commitment. This must be done without duplicating efforts and placing additional reporting burdens on countries, in particular developing countries. The core purposes of adaptation communications should therefore be forward-looking. Forward-looking refers to plans, priorities, and support needed for future actions rather than reporting on previous actions.

While additional purposes and elements under discussion are of value, these may not be essential for

advancing adaptation, and some could be burdensome if made mandatory. For instance, recording “recognition of efforts” to provide a full picture for the global stocktake and progress toward the global goal on adaptation would be a considerable task. Developing countries are also concerned that this could lead to greater scrutiny or calls for verification of actions that countries undertake. Instead, inclusion of “recognition of efforts,” in addition to lessons learned and other nonvital elements, should be optional for adaptation communications. These elements would remain an appropriate reporting requirement under the transparency framework, based on the objectives of Article 13 (see Chapter 7).

PACT Suggestions: Core Purposes and Elements of Adaptation Communications

CORE PURPOSES:

Adaptation communications should be forward-looking and achieve the following purposes:

- Contribute to and inform action toward the global goal for adaptation
- Raise the profile of adaptation to bring parity with mitigation
- Communicate countries' national adaptation priorities, plans, and actions, implementation, and support needs
- Communicate investments and technologies that developing countries require to catalyze support for implementation of prioritized adaptation actions

CORE ELEMENTS:

Adaptation communications should include these core elements:

- National circumstances
- Impacts, vulnerabilities, and risk assessment
- Adaptation priorities, plans, policies, strategies, and actions
- Adaptation support needs of developing countries

Additional Elements for Elaboration, Including Beyond CMA 1–3

Parties will not be able to conclude all work related to adaptation communications by December 2018 and may need to address the following elements in future years:

- **Methodological work.** The methodological work (expected to be guided by the Adaptation Committee and Least Developed Countries Expert Group) to help countries undertake the required assessment and projection of efforts lags behind similar efforts on mitigation. Parties could mandate SBTSA and

IPCC to consolidate methodological guidelines and tools to support countries' endeavors.

- **Optional elements.** Decisions on the optional elements under discussion, which would be useful but are not central to efforts to meet the global goal on adaptation, can be made by negotiators further down the line.
- **Linking to the global stocktake.** Similarly, the details of what and when the adaptation communications feed into the 2023 global stocktake does not require action at CMA 1–3. However, it would be useful for Parties to agree on a timeline for resolving these issues.

5. EX-ANTE COMMUNICATIONS ON FINANCE

Context

Improving predictability about future financial support is widely recognized as a key aspect of aid effectiveness, since it enables recipients to more effectively plan and manage their development efforts.⁶ Article 9 of the Paris Agreement, which deals with finance, includes a paragraph applying the principle of predictability to the realm of climate finance.⁷ Specifically, Article 9.5 states that: “Developed country Parties shall biennially communicate indicative quantitative and qualitative information related to paragraphs 1 and 3 of this Article, as applicable, including, as available, projected levels of public financial resources to be provided to developing country Parties. Other Parties providing resources are encouraged to communicate biennially such information on a voluntary basis.”

Article 9.5 builds on a prior mandate from COP19 that requested developed countries to make biennial submissions on scaling up climate finance from 2014 to 2020 (UNFCCC 2013, para. 10). Adherence to the earlier mandate has not been universal and the quality and quantity of reported information varied.⁸ Nonetheless, Article 9.5 reflects a shared recognition by Parties of the utility of the biennial submissions and a desire to improve available ex-ante finance information (Box 6).

Box 6 | How Article 9.5 Communications Can Enhance Ambition over Time

By providing indicative information on future financial support and on efforts to shift and align all financial flows, Article 9.5 communications can help developing countries to better plan and implement climate action. For example, developing countries can identify opportunities to enhance the ambition of nationally determined contributions as a result of better understanding of the likely support available, and the initiatives to mobilize and shift broader financial flows in support of the Paris Agreement's goals.

Key Requirements for 2018 Adoption in Implementing Guidelines

General approach

The core element to be adopted by negotiators at CMA 1–3 is the type of information to be provided by Parties in accordance with Article 9.5 (UNFCCC 2015, para. 55). A key challenge is that the national budget processes of some countries make it difficult to provide projected levels of public finance. Furthermore, it is important not to preempt the decisions by the governing bodies of climate funds or undermine country ownership by requiring donors to be overly deterministic in setting out, several years in advance, specific projects to which funding will flow. Article 9.5 recognizes this, building significant flexibility into the mandate.

Article 9.5 states that developed country Parties must communicate “indicative quantitative and qualitative information” on the provision and mobilization of climate finance “as applicable.” Negotiators will need to determine whether certain types of information in relation to these topics are applicable to all developed country Parties. The latter part of Article 9.5 is more flexible, stating, “including, as available, projected levels of public financial resources to be provided.” Here, the decision on inclusion is based on data availability to the developed country Party.

Finance information to be communicated

Given the long-term goal on finance—to make all finance flows consistent with low greenhouse gas emissions and climate-resilient development pathways (Article 2.1c)—it will be important for Article 9.5 communications to include information about prospective efforts to ensure that all finance flows support the goals of the

PACT Suggestions: General Approach to Ex-ante Information on Climate Finance

- A tiered approach could be adopted, in which some qualitative and quantitative information on provision and mobilization of climate finance deemed applicable to all developed country Parties is mandatory to communicate, while information on projected levels of public financial resources should be communicated as available.
- Developed country Parties will be required to explain and justify any limitations or unavailability of data.
- Other Parties providing resources, who voluntarily communicate information, should use the same modalities.

Paris Agreement. Ex-ante information on international support will be central to Article 9.5 communications, but this alone will not be sufficient for NDC planning and implementation. Developed country Parties and other Parties that provide finance should therefore use their communications to set out a holistic approach for how they will support developing countries in implementing the Paris Agreement, including both indicative information on future finance provision and mobilization, and their policies and practices to help shift broader investment flows to support climate action.

A review of countries' past ex-ante climate finance commitments and biennial submissions reveals a wealth of information already available that could be included in Article 9.5 communications. This approach would not entail any additional legal commitments, but rather would synthesize existing pledges, announcements, policies, and other sources of information. It avoids undue burden on Parties and does not request information that is not available under national budgetary procedures, but does enhance predictability for prospective recipients. Different types of information will have varying utility for recipients, while the feasibility and availability of information will differ between contributor countries. Using a tiered approach in accordance with the Article 9.5 mandate and combining information from different sources can create a robust indicative picture of future efforts on climate finance.

Table 2 suggests types of information that could be included in the implementing guidelines for Article 9.5, along with an explanation and a classification as to which part of Article 9.5 the information supports (color coded green for qualitative and quantitative information related to provision and mobilization applicable to all communicating Parties, and yellow for projected levels of public financial resources to be provided, as

available to communicating Parties) to indicate which tier of information it comprises. Appendix F includes an expanded version of Table 2 with examples of each type of information and descriptions of how, based on past experience, the information can be useful to developing country Parties.

Process for considering information communicated and its place in a post-2020 finance system under the Paris Agreement

Negotiators must also decide how the CMA will use the information received in Article 9.5 communications. The precursor biennial submissions on strategies and approaches have, at the COP's request, been compiled and synthesized by the UNFCCC Secretariat. At a minimum, the CMA should request that the Secretariat compile and synthesize Article 9.5 communications.

There is also a need to consider how Article 9.5 communications fit within the broader post-2020 finance processes under the UNFCCC and Paris Agreement. Current work under the long-term finance agenda item includes annual in-session workshops on long-term climate finance and biennial high-level ministerial dialogues on climate finance, which have been informed by the ex-ante biennial submissions (UNFCCC 2013, para. 13; 2014, para. 11; 2016a, para. 10; 2017c, para. 8). However, long-term finance work is mandated only until 2020, leaving significant uncertainty about how and where progress on finance will be considered after that under the Paris Agreement.

The global stocktake is clearly an important opportunity to consider finance—in terms of means of implementation, but also, importantly, in efforts to meet the long-term goal of the Paris Agreement stated in Article 2.1c, “making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development” (Northrop et al. 2018). Article 9.5 communications will be important inputs to the global stocktake. Article 9.6 states that the stocktake “shall take into account the relevant information provided by developed country Parties and/or Agreement bodies on efforts related to climate finance,” which would include Article 9.5 communications. Since the outcome of the stocktake is to inform Parties in updating and enhancing their actions and support and enhance international cooperation for climate action (Article 14.3), indicative information on finance efforts can highlight opportunities and needs for better aligning finance flows with the goals of the Paris Agreement.

Table 2 | **Suggested Information for Inclusion in Article 9.5 Communications on Climate Finance**

INFORMATION TYPE	EXPLANATION
QUALITATIVE AND QUANTITATIVE INFORMATION RELATED TO PROVISION AND MOBILIZATION, APPLICABLE TO ALL	
Description of budgetary process	Provide information on national budget process, including the timeline and stages. Focus on elements particularly relevant for climate finance.
Relevant investment, trade, and fiscal policies	Policies and incentives relevant to mobilization of climate finance in developing countries and efforts to align all finance flows with climate goals.
Information on overall climate finance provision and mobilization	Information on overall climate finance pledges.
Information on countries and regions	Information on how efforts focus on different regions or categories of countries (e.g., least developed countries, small island developing states).
Information on themes, sectors, or technologies	Information on how efforts focus on thematic areas of climate finance (e.g., adaptation, mitigation, REDD+), sectors, or technologies.
PROJECTED LEVELS OF PUBLIC FINANCIAL RESOURCES TO BE PROVIDED, AS AVAILABLE	
OECD Development Assistance Committee's survey on donors' forward spending plans	Respondents provide projected information on core country programmable aid, up to three years ahead. From 2014 to 2016, there was a voluntary question on climate finance, which could be restored.
Multiyear budget and planning frameworks	Some contributor countries have medium-term budget frameworks or commitments that include development assistance and climate finance.
Public climate finance through multilateral climate funds	Information on pledges to multilateral climate funds. The Global Environment Facility and Green Climate Fund run on multiyear replenishment cycles; pledges to other funds may also be made in advance and then disbursed over multiple years.
Public climate finance through bilateral channels	Contributors that initiate multiyear funding partnerships with developing countries may be able to project the proportion of climate-specific funding.
Public climate finance through development finance institutions	Such as multilateral or bilateral development banks.
Public climate finance to specific programs and initiatives	Advance commitments to multiyear and/or large programs and initiatives.

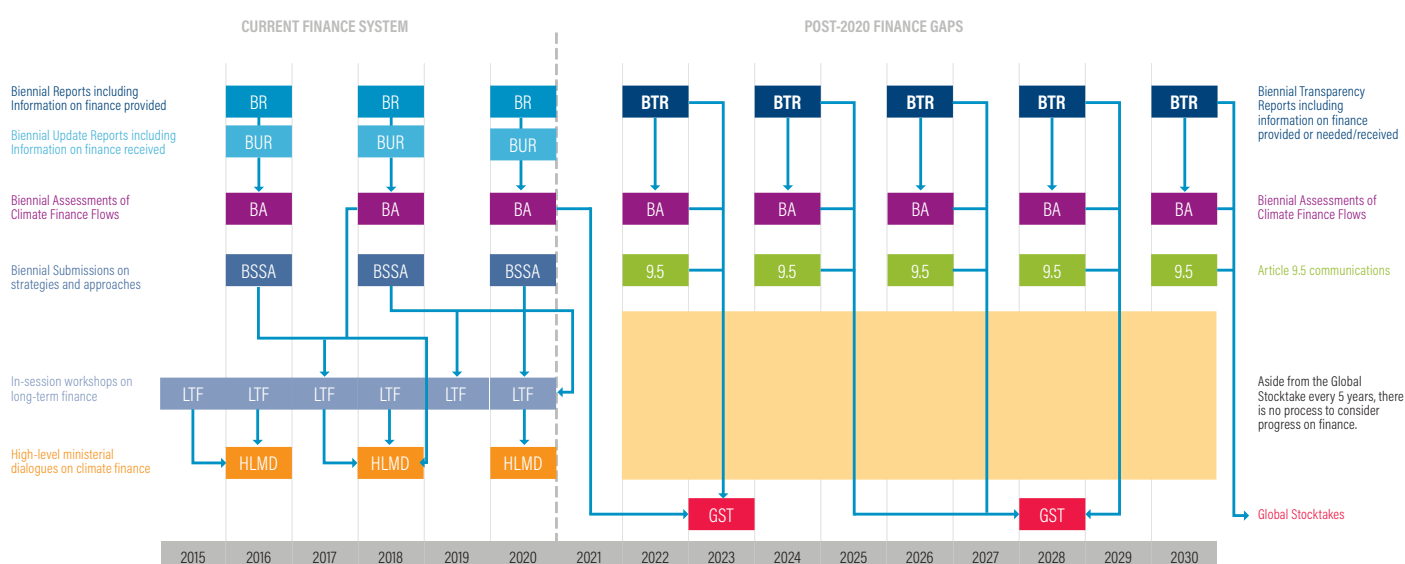
However, the global stocktake, which only happens every five years, may not be sufficient for considering finance issues (see Figure 3).

Because the world of finance is fast moving, a more frequent opportunity to consider progress may be useful. A post-2020 standing agenda item on finance would not have to replicate the long-term finance agenda item in its entirety, but could continue elements that Parties have found useful, such as the high-level ministerial dialogue on climate finance (see Appendix G for further information on a potential approach). It will be important to broaden the scope of post-2020 finance considerations to reflect the Paris Agreement's focus on aligning all finance flows, including public, private, international, and domestic flows, to be consistent with low greenhouse gas emissions and climate-resilient development. To elevate the profile of the dialogue, finance ministers should be encouraged to attend. The dialogues and any preparatory sessions could be held biennially to align with the frequency of finance submissions; this timing would strike a balance between taking up too much time from other negotiations and being too infrequent to respond to the speed of developments.

PACT Suggestions: Process for Considering Financial Information Communicated

- Building on previous practice, at a minimum, Article 9.5 communications should be compiled and synthesized by the UNFCCC Secretariat.
- Per Article 9.6, the CMA should specify that Article 9.5 communications and their compilation and synthesis by the Secretariat shall be inputs to the global stocktake.
- To allow for more frequent consideration of progress in making all finance compatible with the goals of the Paris Agreement, a biennial high-level ministerial dialogue should be convened by the CMA, and finance ministers should be encouraged to attend. To prepare for the dialogue, the Subsidiary Body for Implementation or another process created by the CMA could consider all finance reports and communications under the Paris Agreement received in the prior two years and determine the agenda or key topics for the high-level ministerial dialogue.

Figure 3 | Gaps in the Post-2020 Finance System



Additional Elements for Elaboration, Including Beyond CMA 1–3

Several additional elements related to operationalizing Article 9.5 intersect with other aspects of the Paris Agreement Work Program, and may be best addressed in tandem:

- **Due dates and time period covered by communications.** While the mandate is clear that Article 9.5 communications are biennial, the precise submission deadline, as well as the period to be covered by the communication (for example, two years from the date of submission) needs to be determined. It will be important to ensure timings are well-coordinated with other submissions and processes so as to ensure coherence and avoid undue burden on Parties (see Chapter 10).
- **Format for communications.** Common tabular formats could help increase comparability and consistency of communications. They would be substantially different to common tabular formats for ex-post reporting, since project-level information would not be expected. In addition, not all fields would be mandatory because of the flexibility allowed by the Article 9.5 mandate and our proposed tiered approach.
- **Parties required to communicate.** “Developed country Parties” are not defined in the Paris Agreement. The CMA could provide guidelines, or Parties could self-identify (Elliott et al. 2017).
- **Potential joint communications.** As with the prior mandate for biennial submissions, Article 9.5 refers to Parties in the plural, which means that joint communications by multiple Parties might be possible. Indeed, European Union member states, along with some other Parties in the region, have made joint biennial submissions. Additional guidelines may be necessary to assist Parties in choosing whether and how to make joint Article 9.5 communications.

6. COOPERATIVE IMPLEMENTATION

Context

Article 6 of the Paris Agreement recognizes that some countries may wish to voluntarily cooperate in implementing their climate actions and commitments. Such cooperation may—but does not have to—result in some Parties counting emission reductions achieved elsewhere toward their own NDC. While this may enable countries to increase the ambition of their NDC target, robust transparency and accounting rules will be required to ensure that the results of such cooperation, if involving the transfer of mitigation outcomes, avoid double counting.

Article 6.2 enables Parties to voluntarily engage in cooperative approaches that involve the use of internationally transferred mitigation outcomes (ITMOs) toward their NDCs on the condition that such engagement promotes sustainable development, ensures environmental integrity and transparency, and applies robust accounting to avoid double counting. This provision is intended to recognize the potential role of carbon markets (Marcu 2016). Nevertheless, Parties deliberately chose the wording of “internationally transferred mitigation outcomes” to point to a wider diversity of options beyond emission allowance and credit trading. Several issues ensue from this broadening of scope, such as the types of outcomes, their compatibility with existing and future NDCs, and the treatment of previous international mechanisms and their outcomes.

Article 6.4 offers a more centralized carbon market instrument, following generally the approach of previous instruments under the UNFCCC and the Kyoto Protocol, such as the Clean Development Mechanism (CDM). Whereas the work under the Article 6.2 is to develop “guidance” in relation to the use of ITMOs, work under the Article 6.4 mechanism is to lead to “rules, modalities, and procedures,” closely following in the footsteps of previous mechanisms.

This chapter focuses on Articles 6.2 and 6.4 and the associated rules that need to be adopted by COP24. Authors make the assumption that the work program on nonmarket approaches under Article 6.8, while more detailed, will not immediately lead to operational provisions but would be further developed in coming years. Authors acknowledge that rules on the share of

proceeds from activities from market and nonmarket mechanisms are critical and need to be developed, and suggest that the Subsidiary Body for Scientific and Technical Advice (SBSTA) be mandated to complete that work well ahead of the next round of NDCs in 2020.

This paper will point out, but not discuss, the growing concern among Parties and observers about the relationship between Articles 6.2 and 6.4 and the aviation and climate change regime. Under the Carbon Offsetting and Reduction Scheme for International Aviation, negotiated under the auspices of the International Civil Aviation Organisation, an offsetting scheme for international aviation was devised aimed at keeping emission growth in check and thereby contributing to overall global neutrality goals in the long run. However, the use of unrestricted offsets to serve aviation demand could jeopardize the goals inscribed in NDCs and could lead to double counting with domestic emissions.

Key Issues in the Further Development of Article 6.2 and Article 6.4

Broadly speaking, accounting rules are complicated by the variety of NDC target types, scopes of coverage, time frames, and global warming potential used for gases compared with the economy-wide, multiyear carbon budgets used uniformly under the Kyoto Protocol (Hood and Soo 2017). These complications exacerbate the risk of double counting emissions reductions toward both the NDC target of the host country and the ITMO buyer's NDC target. It is particularly important that robust guidelines regarding Article 6 are aligned to the wider accounting and tracking of progress for mitigation efforts under Article 4.13 and Article 13 to allow for early implementation of transfers of mitigation outcomes toward meeting countries' NDCs and planning for the next round of NDCs (Asian Development Bank 2018).

Article 6.2

Article 6.2 allows countries to cooperate in the “cooperative approaches that involve the use of internationally transferred mitigation outcomes” (ITMOs) toward NDCs. The text is silent however on any definition of what an ITMO may be, or its main features, beyond the fact that robust accounting should avoid double counting of ITMOs in separate NDCs. There is therefore the open question of whether a definition of an ITMO, and its characterization with distinct features should be attempted. At this stage, it may not

be particularly fruitful as there may simply be too much variety in ITMOs regarding their unitization, their metrics, and so on.

As a result, negotiators need to decide whether criteria for the generation of mitigation outcomes under Article 6.2 should be elaborated, or whether only their transfer or even just their use toward NDCs should be regulated. The first option would likely limit the scope of available “mitigation units” as these would need to be subject to some international oversight. In addition, based on experience with market-based mechanisms, negotiators need to decide whether the transfer of “mitigation outcomes” requires the use of similar metrics and units.⁹ The language under Article 6.2 does not require or mandate unitization, nor does it point to any specific metric (e.g., metric tons of CO₂ equivalent [tCO₂e]). While there is a growing consensus that mitigation outcomes themselves should be expressed in terms of CO₂ equivalence, ITMOs generated from within NDCs may be expressed in metrics not easily converted to tCO₂e. The diversity of metrics used may pose questions of compatibility, fungibility, and ultimately, integrity.¹⁰

Another fundamental issue is the relationship of ITMO transfers given the variety of NDCs in terms of scope, type, metrics, and time frames (some NDCs use a single-year target, while others use multiyear targets; some NDC's GHG targets refer to a base year, intensity, baseline scenario, trajectory, or fixed-level targets). Any transfer of mitigation outcomes would need to be reflected in the accounting of their NDC, so as to reflect the zero-sum effect of such a trade (from a climate perspective). Guidance on the issue of double counting is paramount. Such guidance needs to distinguish between trades on mitigation outcomes within and outside the scope of the NDCs. In addition, allowing for the use of ITMO trading from activities, sectors, programs, or measures not covered under existing NDCs (for noneconomy-wide ones) must be treated with care, so that they do not result in perverse incentives.

Making “corresponding adjustment” a basic element of the accounting system for Article 6.2 is therefore critical: both NDCs involved in a transfer of a mitigation outcome should be adjusted to properly assess the impact of that transfer. Under targets that can be translated to a carbon budget, corresponding adjustments are fairly simple: they imply only adjusting the holding of each budget. However, under systems that cannot be readily converted into a budget, adjustments need to be made to other reference levels to ensure that

a mitigation outcome is reflected adequately on both sides of the transaction. Given the diversity of Parties' NDCs, negotiators are exploring the proposal for an "emission balance" bookkeeping system, with double entry for additions and subtractions. Such a proposal is detailed in Levin et al. (2018).

Finally, Parties need to resolve whether any transaction under Article 6.4 that generates a unit used toward the achievement of an NDC should be subject to the rules on "corresponding adjustment" to be developed under Article 6.2. This integration of Articles 6.2 and 6.4 is not consensual however, with some Parties disputing in particular the notion that "corresponding adjustments" should be required for first transactions of credits under Article 6.4.

Article 6.4

Article 6.4 requires the adoption of rules, modalities, and procedures for the mechanism. Parties are closer to a shared understanding of such rules, modalities, and procedures and their potential contents. Such rules, modalities, and procedures have a precedent in relation to both the Clean Development Mechanism and Joint Implementation under the Kyoto Protocol. In essence, such rules should at a minimum cover:

- the generation of emission reductions, their monitoring, verification, and reporting;
- accounting guidelines in relation to the NDCs for countries that wish to take part in the mechanism in a way that prevents double claiming (as per Article 6.5);¹¹
- how any international transfers of 6.4 units relate to the accounting for "internationally transferable mitigation actions" under Article 6.2; and
- the governance of the mechanism.

This is all the more important in view of the divergence on how transfers of emission reductions under Article 6.4 contribute to the overall mitigation of global emissions. Indeed, for some Parties, such transfers should accommodate a measure of their own contribution toward the host Party's NDC. However, most other Parties interpret 6.5 (d)—"deliver an overall mitigation in global emissions"—to mean that transfers should result in "net mitigation" that is neither counted toward the host's nor the acquiring Party's NDC. Clarity and understanding of these concepts must be operationalized in approaches for discounting (which could result in net mitigation), or

short crediting periods, or using conservative baseline assumptions (which would not formally result in net mitigation), thus these are needed to establish credibility in the mechanism.

Hence, negotiations do not start from scratch. As noted in paragraph 37 of decision 1/CP.21, negotiators can leverage "the experience gained with and lessons learned from existing mechanisms and approaches adopted under the Convention and its related legal instruments" to inform their design. Discussions on the required guidance and rules, modalities, and procedures for countries have been underway in SBSTA since COP21 in 2015.

Box 7 | How Cooperative Implementation Can Enhance Ambition over Time

Allowing for the international transfer of mitigation outcomes under Article 6 is meant to provide flexibility for countries in meeting their NDCs. This call for flexibility has been the main underlying reason for the development of carbon market mechanism provisions under the Kyoto Protocol. Many Parties that are now considering their long-term pathways and starting to develop or revise the next cycle of NDCs wish to consider flexibility mechanisms in their revised NDCs. The commitment of most developing or emerging countries to a contribution on mitigation affects the supply and demand for such mechanisms.

Based on past experience, efforts must be made to ensure that the availability of such mechanisms does not just contribute to lowering the overall cost of compliance, but also results in increased ambition. This can be achieved under the Paris Agreement with clearer and more robust accounting rules for countries participating in such cooperation. The reporting and review process under Article 13, as well as the mechanisms to facilitate implementation and promote compliance under Article 15, will help countries learn from each other, strengthen their practices, identify and respond more proactively to warning signals, and therefore minimize free riding. The collective assessment and stocktaking exercise under Article 14 on how global efforts can be ramped up to achieve the Paris Agreement's long-term goals can also help assess the effectiveness of the overall mechanism.

Key Requirements for 2018 Adoption in Implementing Guidelines

By COP24, in order to operationalize the provisions in Article 6.2 and Article 6.4, negotiators need to leverage both the experience from using existing flexible mechanisms and the experience from finalizing the rules governing flexible mechanisms under the Kyoto Protocol to address the outstanding issues highlighted above.

The PACT consortium suggests that the following decisions be adopted at Katowice regarding governance, principles and accounting rules, and linkages regarding cooperative implementation. See Appendix E for more information on suggested ITMO guidelines.

Governance

The design of a governance system enabling the transfer of ITMOs under Article 6.2 and supporting the crediting mechanism under Article 6.4 must be guided by the need to prevent the creation of perverse incentives, facilitate the tracking and assessment of the impact of trading, and prevent double counting and double claiming. To secure the integrity of the system, agreement on short crediting periods and transition arrangements toward inclusion of covered activities within NDC must be considered a precondition for the operation of the mechanism. The use of a centralized registry for issuance of emission reduction units and their unique identification, coupled with a tracking device such as a transaction log is the best option to facilitate tracking and avoid the use of emission reductions by more than one Party.¹²

Basic principles and accounting rules

As a result of the issues discussed above, robust rules are required. These issues include the quantification of NDCs and ITMOs, the use of metrics (including global warming potential) in the quantification protocols for either ITMOs or Article 6.4 emission reductions, eligibility criteria for participation in both Article 6.2 and Article 6.4, specific information (including on vintage), methodologies for tracking ITMOs and corresponding adjustments, specific guidance on how to deal with single vs. multiyear targets, any double counting due to conditionality of NDCs, and ITMOs from uncovered vs. covered sectors (La Hoz Theuer et al. 2017). The consortium also suggests the use of a balance sheet (Levin et al. 2018).

PACT Suggestions: Governance

Article 6.2: Parties should consider the following actions:

- Set up a facilitative, centralized registry for use by Parties wishing to engage in trading internationally transferred mitigation outcomes (ITMO).
- Restrict participation in Article 6.2 ITMO transfers to countries meeting eligibility criteria in relation to: unitization of mitigation outcomes, use of metrics compatible with those used in nationally determined contributions (NDCs), and visibility of corresponding adjustments in the reporting on NDCs.
- Issue guidance covering “unit issuance” under Article 6.2 to facilitate the transaction of ITMOs and prevent double counting. This could be further elaborated in coming years.

Article 6.4: Parties should consider the following actions:

- Set up a registry for the issuance of Article 6.4 units.
- Create short crediting periods and conditionality to avoid the perverse incentive of allowing sectors or activities indefinitely outside the scope of a country's NDC.
- Establish sound governance practice for the supervisory board, including equitable regional representation, gender balance, provisions on conflict of interest, term limits for membership, and the development of an appeals procedure for decisions of the future body.
- Establish a periodic review of the mechanism to assess the sustainability of the mechanism used and its impact on NDCs.

PACT Suggestions: Principles and Accounting Rules

Article 6.2: Parties should consider the following actions:

- Agree to use the same accounting metrics (including the latest global warming potentials from the Intergovernmental Panel on Climate Change [IPCC]).
- Encourage adoption of multiyear carbon budget targets but, in the meantime, set specific rules on how to account for internationally transferred mitigation outcomes (ITMO) use toward single-year nationally determined contribution (NDC) targets; specific guidance should be provided on the use of different vintages and units and their impact on ambition, especially in relation to NDCs expressed as single-year targets.
- Create and use balance sheets to support reference-level approaches.

Article 6.4: Parties should consider the following actions:

- Decide whether and how to consider project activities under the Kyoto Protocol, including the Clean Development Mechanism (CDM), under the new mechanism, bearing in mind the significant impact on overall ambition from unrestrained use of existing CDM activities. Parties will need to decide under which conditions credits generated under CDM and Joint Implementation of the Kyoto Protocol can be used for meeting NDCs.

Linkages

There are many links between accounting processes for assessing progress toward, and achievement of, an emissions target and the enhanced transparency framework. For example, both robust accounting and transparency rules promote the TACCC principles—transparency, accuracy, completeness, comparability and consistency. They also support environmental integrity and prevention of double counting, in line with COP guidance.

PACT Suggestions: Linkages

Article 13 reporting guidelines should include guidance on:

- How inventory emissions should be compared to the target level, after accounting for internationally transferred mitigation outcomes (ITMOs) and the land sector. This approach could allow the emissions inventories to combine information on ITMO transfers, as well as the land sector, to create an “accounting balance.”
- How technical corrections affect target levels or baselines to support continuous improvement of methodologies and processes while maintaining clarity.

Article 13 technical expert review (TER) guidelines should:

- Allow for a “true up period” after the end of each commitment period, when transactions between the latest units can be finalized and included in the registry and inventory, and therefore be properly reviewed (Hood and Soo 2017).
- Offer guidance on how the TER will track and assess progress on NDC implementation and achievement of targets, supported by adequate training.

Negotiators should clarify the link to Article 15 and compliance:

- Make participation in international transfers of ITMOs subject to eligibility criteria. These could be based on the accounting rules and guidelines mentioned above (e.g., related to the communication of NDCs [under Article 4.13], and the tracking of progress in implementing and achieving NDCs [under Article 13.13], including the use of ITMOs toward NDCs [under Article 6]) (La Hoz Theuer et al. 2017).
- Address the mismatch in timing between provisions under Article 4 of the Paris Agreement, with an impact on second and subsequent NDC cycles) and Article 6 (in force from 2020 onward) to ensure compatibility of Article 6 accounting with the overall accounting system.

Parties should also consider establishing a capacity-building program for developing countries on issues related to accounting for their NDCs and their involvement in either Article 6.2 or 6.4-related activities.

Notes: See Hood and Soo (2017, para. 21) for more on the concept of accounting balances. A “true up period” could be similar to what has been undertaken under the Kyoto Protocol.

Additional Elements for Elaboration, Including Beyond CMA 1–3

Additional areas for implementing rules for items that negotiators will need to address in future years include:

- **Sustainability assessments.** On governance, criteria to guide sustainability assessment of activities under the future Article 6.4 mechanism.
- **Training.** Training material for how technical expert reviewers will track and assess progress on NDC implementation and achievement of target.
- **Safeguards.** Safeguards should be developed to prevent perverse incentives (including for the conservativeness of baselines and guidance on the treatment of NDCs in the baseline).
- **Reporting on ITMOs.** Guidance on tabular formats and templates for transparently recording ITMO transfers and their application to NDCs.
- **Flexible mechanisms.** How flexible mechanisms under the Kyoto Protocol, including the Clean Development Mechanism, will continue, evolve, or be replaced under the new Paris regime. This must include considering possible changes to existing methodologies; incorporating the new reality of NDCs into their baseline methodologies; treatment of existing activities, given that these activities are committed to credit from business-as-usual scenarios and are not systematically considered in NDCs; and the possible banking of units, with impacts on the level of ambition of existing NDCs.
- **Share of proceeds.** A decision on the share of proceeds from activities under the mechanism in Article 6.4 to cover administrative expenses and assist developing countries that are particularly vulnerable to climate change to meet the costs of adaptation (UNFCCC 2015, Article 6.6). Building on past practice, the proceeds should be channelled through the Adaptation Fund (UNFCCC 2001a, para. 2). This could be specified in the decision of the CMA on how the Adaptation Fund will serve the Paris Agreement (UNFCCC 2016c, para. 11, 2017d; para. 12). In terms of the size of the share of proceeds from the Article 6.4 mechanism for the Adaptation Fund, the present 2 percent share of certified emissions reductions from CDM project activities for the Adaptation Fund shall be considered a floor and should rise with increased ambition (UNFCCC 1998, Article 12, para. 8; 2001b, para. 15[a]).

7. ENHANCED TRANSPARENCY FRAMEWORK—REPORTING AND REVIEW

The enhanced transparency framework (ETF) under the Paris Agreement includes two components: reporting and review. These two components illustrate efforts in the implementing and reviewing parts of the plan-implement-review cycle. While this split is reflected in Figure ES1 and in Table ES1 summarizing key PACT suggestions for negotiators, this chapter treats the two components of transparency together to reflect their treatment in the Agreement and related negotiations, as well as the degree of consistency and coherence required across the two components.

Context

Transparency and accountability are the backbone of global action to combat climate change under the UNFCCC. The Paris Agreement decided to enhance these critical pillars, but does not build a new transparency system from scratch. The UNFCCC has had a measurement, reporting, and verification (MRV) transparency system in place for more than 20 years (see Appendix H). In many ways, the Paris system will build upon current arrangements by continuing to require Parties to submit updates on their efforts every two years (and possibly more comprehensive reports every four years) and subject that information to a thorough assessment and peer considerations in a multilateral setting.

The ETF's purpose is twofold: first, to provide a clear understanding of climate change action, including clarity and tracking of national progress toward implementing and achieving individual NDCs under Article 4, as well as countries' adaptation actions under Article 7; and second, to provide clarity on finance and other support provided and received by relevant Parties for advancing climate action.

Key Requirements for 2018 Adoption in Implementing Guidelines

Modalities, procedures, and guidelines established by negotiators in December 2018 must cover the enhanced transparency framework's two basic functional pillars—reporting and review. Given the maturity and technical nature of the existing UNFCCC transparency regime, much of the negotiations in Poland will focus on enhancing the current system. Negotiators seeking suggestions for the technical elements of reporting and

Box 8 | How the Enhanced Transparency Framework Can Enhance Ambition over Time

The reporting and review processes of the enhanced transparency framework will build confidence in efforts undertaken by all Parties to implement their NDCs. The framework will do so by creating tools, venues, and processes that encourage Parties to share their progress, exchange lessons, and strengthen capacity, based on identified gap and needs from developing countries. In particular, the technical expert review and the facilitative, multilateral consideration of progress promote trust and cooperation among Parties lending credibility to the multilateral system and leading to momentum for enhanced action and ambition.

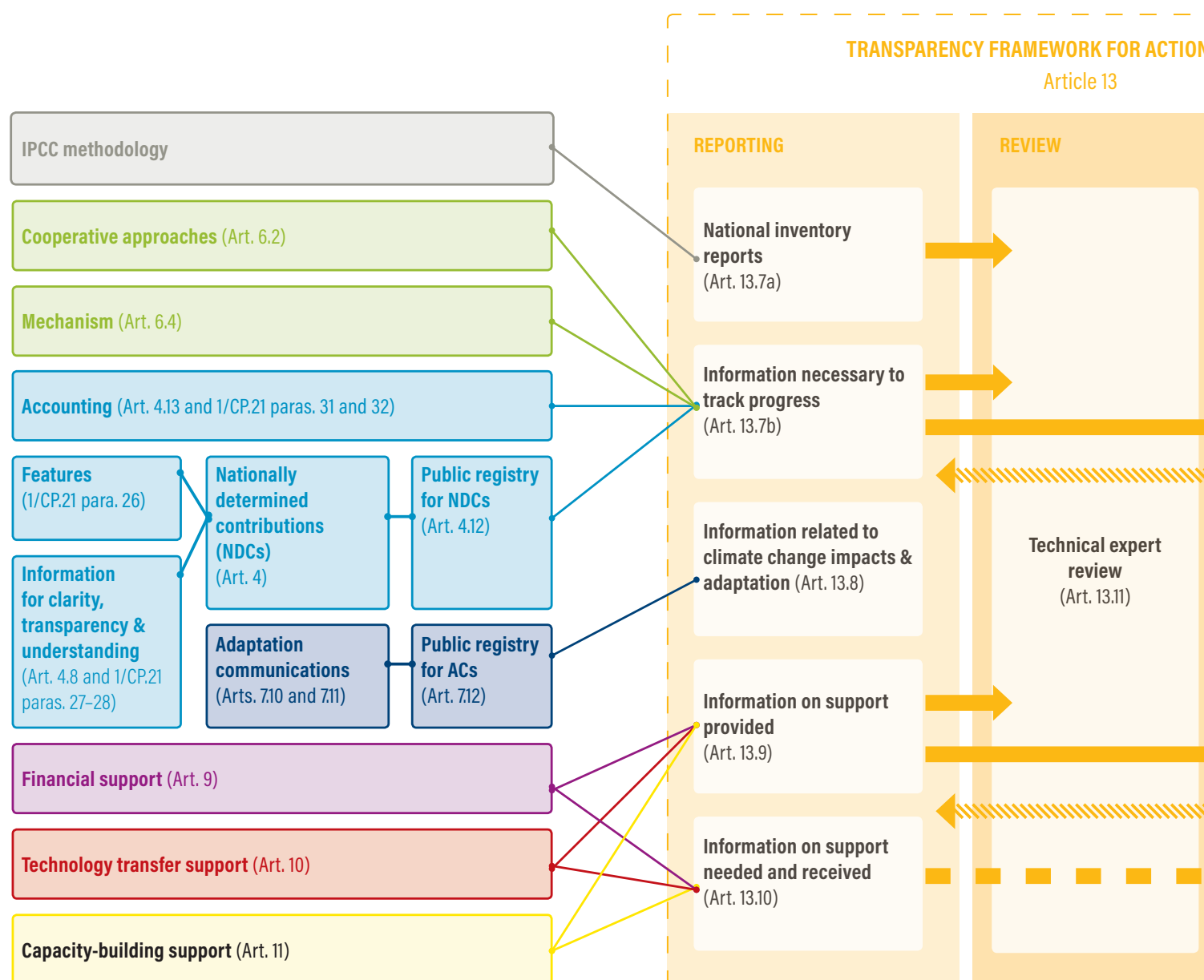
The enhanced transparency framework will support improved data and encourage evidence-based decision-making. Outputs from the framework can serve as inputs to the global stocktake (held every five years) and, through the stocktake, encourage Parties to increase their own ambition.

review implementation under the Paris Agreement could refer to the two previous PACT working papers published in November 2017.

FLEXIBILITY

In a shift away from treating developed and developing countries differently, the new transparency and accountability regime will have guidelines and processes applicable to all countries. However, the Agreement also provides “built-in flexibility” for developing countries that need it in view of their capacities. Least developed countries (LDCs) and small island developing states (SIDS) are allowed to fulfill Article 13's requirement at their discretion. One of the most important and contentious issues on the table for a decision at COP24 is how to define this flexibility. A number of conditions however need to be considered when addressing this issue: (a) per decision 1/CP.21, paragraph 92(e) Parties must maintain their frequency and quality of reporting under current obligations under the Convention (hence, developed countries would still be expected to do more and better than developing countries in the short-term); (b) ways identified to operationalize flexibility should not jeopardize the objective of the transparency framework to foster improvement overtime; and (c) adequate support—particularly capacity building for developing countries—will be a key condition for setting effective implementation guidelines for these critical transparency requirements.

Figure 4 | Mapping the Linkages between the Transparency Framework and Other Provisions of the Paris Agreement



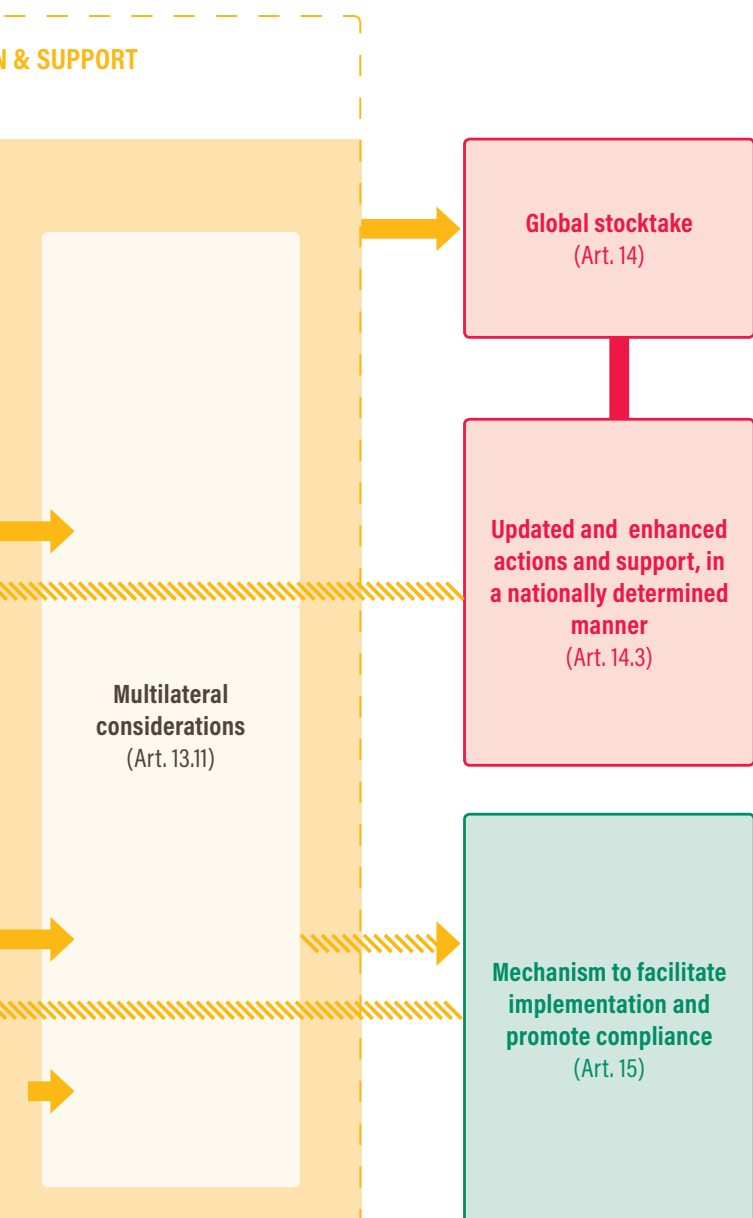
KEY:

 = Article 4
 = Article 6
 = Article 7
 = Article 9
 = Article 10
 = Article 11
 = Article 13
 = Article 14
 = Article 15

— = linkage made explicit in the Paris Agreement between Article 13 and other articles

→ = linkage within Article 13
 —→ = nonmandatory linkage within Article 13

→ = potential linkage explored in this paper with Article 13
 → = linkage within Article 14



More specifically, when considering how to provide flexibility for specific provisions, negotiators could consider the following strategies:

TIERS. Use a tiered approach to construct the modalities, procedures, and guidelines (MPGs) in which the availability of data and capacity guides the Party's participation. This approach is already used for the production of national greenhouse gas inventories under the existing transparency framework through the use of Intergovernmental Panel on Climate Change (IPCC) guidelines. In this context, the tiered approach guides the selection of the type and level of data to use for estimating emissions in a given sector, according to national circumstances, including availability of data and importance of a category to emissions reductions (with the more stringent methods requiring more specific data). Parties should strive to apply the most stringent method but may use less elaborated ones in light of their capacities.

OPT-IN/OPT OUT. Allow countries to "opt-in" by providing more information or requesting review of more information than required by the Paris Agreement or to "opt-out" if they cannot fulfill the requirements, but identify ways to address problems with the help of the technical expert review team. This approach provides flexibility for Parties to implement a requirement in a way that reflects their capacities, provided there is no backsliding from requirements under the current regime.

IMPROVEMENT PLANS. Require countries unable to use best practices to produce an appropriate improvement plan to address their needs and gaps in using best practices. While such plans may place additional burdens on governments, the plans could also help developing countries to increase capacity over time and request support funding.

CRITERIA. Establish criteria for key aspects of reporting and review requirements to help reduce both financial burdens and resource constraints on Parties and the Secretariat. For example, countries could be allowed to select the format of their reviews¹³ in line with certain other criteria (such as the quality and outcome of their previous biennial transparency reports, emissions threshold, financial resources available, and type of NDC).

Detailed suggestions for the enhanced transparency framework are given in Appendix I.

PACT Suggestions: Flexibility

In addition to the discretion provided to LDCs and SIDS, the provision of support to developing countries to sustain improvement over time, and the no backsliding clause mentioned above:

- The consortium does not expect a specific overarching decision on flexibility, but rather expects flexibility to be woven into the reporting and review elements.
- Parties should consider a diverse set of flexibility approaches, ranging from the use of tiers, opt-in/opt-out, development of improvement plans, and criteria-based decisions (as described above).
- The MPGs could be periodically reviewed (e.g., after two rounds of the reporting and review cycle) to improve the process based on experience and lessons learned.

LINKAGES

Figure 4 maps out the linkages between the transparency framework and other provisions in the Paris Agreement, building off a previous PACT paper (Dagnet et al. 2017a). Chapter 10 outlined and noted many implications of these linkages. The PACT suggestions help provide paths forward for some of them.

TRANSITION TO THE NEW REGIME

At COP24, Parties must clarify how the new ETF established by the Paris Agreement will supersede the existing UNFCCC transparency framework. Specifically, the new framework, once operationalized, will supersede the existing measurement, reporting, and verification systems. To guide negotiators, decision 1, paragraph 98 at COP21 in Paris clearly states that the ETF arrangements should come into force “immediately following the submission of the final biennial reports and biennial update reports.” However, no decision has been made on when the ETF will supersede the existing MRV arrangements.

Therefore, Parties need to define when the final biennial reports and biennial update reports will be submitted and when the new MPGs will become operational and supersede the existing system. In considering these questions, Parties should note:

- The existing MRV regime aims to track the progress toward 2020 pledges (emission targets for developed countries and nationally appropriate mitigation actions for developing countries). Thus, in order

to assess the achievement of the 2020 target, 2022 could be considered the last year for reporting under the existing MRV arrangements.

- The ETF under the Paris Agreement should inform the global stocktake. To provide timely inputs for the 2023 global stocktake, 2022 makes sense as the first year for submissions under the ETF.

Considering the two points above on ending the current system and beginning the new system, Parties could be asked to report under both systems in 2022. Under this approach, care should be taken to minimize duplication of efforts. Operating under two systems—even if only for the 2022 submission—will be challenging, and developing countries, in particular, may require significant support. If Parties want to avoid the overlap in systems, they could postpone the beginning of the ETF MPGs until 2024, but this would not be ideal as it would not allow the ETF to provide inputs to the 2023 global stocktake.

Another important consideration is whether to maintain the existing system under the Convention for countries that are party to the Convention but not to the Paris Agreement. Maintaining two systems will have financial, human, and operational resource implications for the UNFCCC Secretariat.

It is also not clear yet whether the current arrangements for reporting through national communications will continue under the Convention. If Parties to the Paris Agreement decide to continue their national communications, Parties could be requested to submit their national communications in conjunction with the biennial transparency reports every four years. The national communication could cover any information currently reported but that may be outside the scope of the ETF (e.g., information on research science and observation and education, training, and public awareness), especially if there are no other channels for reporting this information. Parties could also decide to use the national communications to monitor efforts to implement more comprehensively all the provisions of the Paris Agreement and covered more broadly under the Paris Agreement Work Program (e.g., public education, training, and awareness under Article 12, progress to implement the Gender Action Program, and

other relevant provisions). The Convention will also need to decide whether national communications should be reviewed moving forward.

Reporting requirements

NATIONAL GHG INVENTORIES

Under the Paris Agreement (Article 13, para. 7a), each signatory country will regularly provide a national inventory report of anthropogenic GHG emissions by sources and removals by sinks.¹⁴ These must be prepared using good practice methodologies accepted by the IPCC and agreed upon by CMA. Under the existing framework, Parties report based on methodologies from the IPCC, including either the 1996 or 2006 methodological guidelines. The authors anticipate the IPCC guidelines will be updated based on better scientific data and technological advancements. Hence, Parties will need to decide whether all Parties can strive to use the latest guidelines, taking into account differing capabilities. The use of tiers as currently done under the IPCC guidelines has enabled Parties to improve over time based on their national capabilities. In addition, in developing the new MPGs, negotiators in Poland must make several key decisions, discussed below, including the content, frequency, and format of reports.

INFORMATION TO TRACK PROGRESS

Article 13, paragraph 7b requires each Party to provide information necessary to track progress in implementing and achieving its NDC. Guidelines adopted by negotiators will specify how countries will track progress toward NDC goals and may be used by Parties for tracking progress toward their first NDCs. However, the negotiations are complicated by the accounting guidance also due to be adopted at CMA 1–3 in relation to Article 4, paragraph 13 of the Paris Agreement, which states that Parties are not obliged to apply accounting guidance in reporting on their first NDCs.

INFORMATION ON CLIMATE CHANGE IMPACTS AND ADAPTATION

Negotiators must also clarify adaptation reporting requirements in December 2018. While Article 13, paragraph 8 of the Paris Agreement calls for voluntary reporting on climate change impacts and adaptation, Article 7 asks Parties to, as appropriate, submit and

regularly update “adaptation communications.” Clarifying how these expectations for reporting under Article 13 and for communicating under Article 7 relate to one another, and how they can build on existing reporting practices, is a key task for negotiators in Poland. In particular, as noted in Chapter 4, adaptation communications should be at least forward-looking (ex-ante) while Article 13 reporting can be more backward-looking (ex-post). Finding effective middle ground could help minimize the reporting burden on all countries and optimize prospects for Parties that decide to report on adaptation using different channels to do so effectively. Hence, as a minimum, this reporting could include: adaptation measures already undertaken (including national, regional, and local programs), methodologies used to produce an impact, vulnerability and risk assessments; and information on how participation, gender considerations, and indigenous, traditional, and local knowledge have been integrated into adaptation policies and actions.

INFORMATION ON SUPPORT PROVIDED AND MOBILIZED

Article 13, paragraph 9 requires developed countries to provide information on financial, technology transfer, and capacity-building support provided to developing countries. Developing country Parties providing support should also report on support provided. Article 9, paragraph 7 reiterates the Article 13.9 commitment and provides more specificity on the reporting requirements for finance. The Paris Agreement accompanying decision mandates SBSTA to develop modalities for the accounting of financial resources provided and mobilized through public interventions in accordance with Article 9, paragraph 7 (UNFCCC 2015, para. 57).

INFORMATION ON SUPPORT NEEDED AND RECEIVED

Article 13, paragraph 10 states that developing country Parties should provide information on the financial, technology transfer, and capacity-building support needed and received.

PACT Suggestions: Reporting

National GHG inventories

- All Parties should be required to report comprehensively on all seven Kyoto greenhouse gases over time with flexibility for developing countries based on their capacities.
- Parties should maintain at least their current reporting frequency; developing countries should be encouraged to report annually over time as support grows and institutions strengthen.
- Parties should report comprehensively over time on their national inventories, using the most recent IPCC guidelines adopted by CMA. The IPCC guidelines promote a tiered approach. Support must be provided for the transition between guidelines for developing countries who need it, making efforts to develop emission factors and collect activity data.
- Parties should use common reporting and tabular formats (to be defined post-CMA 1–3) to disclose data.

Tracking progress

- All Parties should report at a minimum the information required in the Paris Agreement decision 1/CP.21 paragraph 27.
- All Parties should provide additional detailed information on NDC-specific and common elements based on the information outlined in the Paris Agreement to facilitate clarity, transparency, and understanding (decision 1/CP.21 para. 28).
- Parties should include information on the indicators and methodologies used for tracking progress, including when technical correction or any changes are performed.
- Parties using cooperative approaches under Article 6.2 and accounting for the land use sector, should include in the transparency report an “accounting balance,” specifying how inventory emissions are compared to the target level, after accounting for internationally transferred mitigation outcomes (ITMOs) and the land sector.
- Reports could be required to provide information specific to its reporting period, for example, focusing on tracking achievement after an NDC implementation period is completed.
- Parties should use common reporting and tabular formats.

Climate change impacts and adaptation

- A single set of guidance should be developed for both adaptation communications under Article 7 and transparency reporting under Article 13.

- Depending on this guidance, Parties could provide forward-looking information, backward-looking information, and contextual elements. Adaptation communications should be at least forward-looking.

Support provided and mobilized

- A single set of guidance should be developed to govern reporting for all Parties providing support.
- Parties should report biennially and include ex-post data on the previous two calendar years.
- Parties should agree on a common approach for collectively reporting on finance mobilization.
- Parties should report on how their support achieves the aims of Article 2 and their provision of finance supports the goal in Article 9.4.
- Modalities for the accounting of financial resources provided and mobilized through public interventions in accordance with Article 9.7 developed by the Subsidiary Body for Scientific and Technical Advice (SBSTA) must be integrated into the guidance for reporting on finance provided and mobilized in the enhanced transparency framework (ETF).

Support needed and received

- In reporting support needed, developing countries should use information provided in NDCs, national action plans (NAPs), national adaptation programs of action (NAPAs), technology needs assessments (TNAs), adaptation needs assessments, and other sources.
- Parties should adopt a tiered system of reporting on support received, according to their capacities. Specifically, developing countries could prioritize reporting on support received from developed countries and the operating entities of the Agreement’s financial mechanism. This would align with current practice in biennial update reports. Parties could report on support from other Parties and multilateral institutions as their capacities allow.
- Parties should be encouraged to report support received during the previous two calendar years but should not be timebound in reporting their support needs.
- Parties should use common reporting and tabular formats.

Source: Adapted from Elliott et al. 2017.

Review guidelines

The Paris Agreement mandates two phases of the review process for national progress on climate action—the technical expert review (TER) and the facilitative, multilateral consideration of progress (FMCP). Article 13, paragraph 11 notes that the information submitted under paragraphs 7 (national inventory and information necessary to track progress) and 9 (support provided) should be considered in the TER. The TER will identify areas of improvement for the Party and review consistency of the information with the MPGs, while considering the flexibility afforded under Article 13.2. Paragraph 11 also notes that the FMCP will consider efforts under Article 9 (support) and implementation and achievement of NDCs.

In both cases, there are key elements where countries have not yet reached consensus and which are important for negotiators to consider. For both processes, urgent decisions are needed on the scope of the review, modalities, frequency, and timing. Suggestions for negotiators in setting guidelines for each review process are summarized below. In developing these guidelines, care needs to be taken to ensure that participation in both the TER and the FMCP is positive and beneficial for the Party under review. Parties should also note that the current number of experts available to carry out technical review is inadequate (Dagnet et al. 2017b). Hence, while building upon the existing strong foundation,¹⁵ Parties need to make significant efforts to broaden their pool of experts and nominate more nongovernmental representatives in the UNFCCC roster of experts in a way that fosters gender balance. Finally, Parties should continue to rely on the experience and expertise of lead reviewers. Indeed, the institution of the lead reviewers has been and will continue to be critical for ensuring common understanding of the evolving approaches for effectively undertaking the technical reviews on the basis of the MPGs, and for facilitating continuous improvement.

PACT Suggestions: Review

Technical expert review:

- Parties should be able to request that the technical expert review consider information beyond that required under Articles 13.11 and 13.12 of the Paris Agreement.
- For review of initial NDCs, countries should be required to highlight how they plan to track progress in implementing and achieving their NDCs.
- Review formats should be allowed to vary based on set criteria (to be decided later; see the following section) with input from the country under review and recommendations from previous technical expert review (TER) teams. Centralized reviews could be the default.
- Special attention should be given for the review of the tracking of NDCs for Parties using internationally transferred mitigation outcomes (ITMOs) or accounting for their land use sector.
- Parties should make more efforts to broaden their pool of experts and should nominate more nongovernmental experts in the roster in a way that fosters gender balance. The team of experts should include lead reviewers and their roles should be similar to those specified in existing guidelines. Facilitative, multilateral consideration of progress.
- An online platform could be used to facilitate and enhance regional peer exchange among key national stakeholders who would not otherwise be able to participate in the in-person facilitative, multilateral consideration of progress (FMCP) scheduled on the margin of the UNFCCC negotiations. This would enhance capacity building with a wider range of stakeholders and make the process more inclusive.
- A streamlined design adopted by negotiators could combine the two review processes in a more collaborative and effective manner (see Appendix J).

Crosscutting guidelines

- Negotiators should pay particular attention to the review of information necessary to track progress in implementing and achieving country NDCs under Article 4 of the Paris Agreement because this could help identify capacity-building needs and areas for improvements. Capacity-building needs and areas for improvements need to be identified by the Party to avoid the impression that TER teams should review the adequacy or success of NDCs. The TER teams, guided by the Parties, should have the opportunity to list the capacity-building needs and areas for improvement, which could not only inform the FMCP and the Article 15 expert committee, but could also be used as input for the national process of revision and/or update of the NDCs.

Source: Adapted from Dagnet et al. 2017b.

Additional Elements for Elaboration, Including Beyond CMA 1-3

Due to the heavy workload for negotiators in 2018, work on some technical elements of the enhanced transparency framework may extend beyond COP24. Depending on when the new Paris regime supersedes the existing MRV systems, the international community may have an additional few years to finalize these technical elements, which include:

- **The structure and specific elements of the Common Tabular Format and Common Reporting Format tables.** These reporting methods can aid comparability and consistency between country reports on key information including GHG emissions and removals, mitigation actions and effects, and financial support. They are used already under the UNFCCC and several options are under consideration.
- **The “terms of reference” of the technical expert review teams.** Specific elements that could be postponed beyond 2018 include the role of the Secretariat and lead reviewers; nomination and selection criteria to guarantee the relevant competencies, geographical balance, avoidance of conflict of interest, gender balance, and participation of a wider range of stakeholders; and training and certification.
- **The criteria for determining review formats.** Given the financial and human limits on conducting reviews, Parties may identify criteria to determine the format of individual reviews to ensure an efficient use of resources.
- **Guidelines for preparation of review outputs.** Negotiators may agree in 2018 on the desired outputs from the two review processes, but further time may be needed to develop the MPGs for these outputs.
- **Guidelines for the TER team’s assessment.** Parties may also mandate the Secretariat to produce a template or a checklist that the technical expert review teams may use to guide their assessment in a consistent and facilitative manner, based on lessons learned from the existing regime. Such a template could be considered by the SBTSA, where Parties would provide guidance to the Secretariat for finalization of the checklist and its use during the TER. Sample guidance is provided in Appendix K.

- **Training for reviewers.** Training material for how technical expert reviewers will track and assess progress on NDC implementation and achievement of target needs to be developed.
- **Transitional arrangements.** Parties may need to continue to reflect on how to ease the transition to the new framework.

8. GLOBAL STOCKTAKE

Context

The global stocktake is an essential part of the Paris Agreement architecture, designed to reconcile the world’s collective, long-term global ambition with the aggregate impact of individual actions by countries. Under Article 14, this stocktaking exercise will take place every five years beginning in 2023. The information gathered from all Parties will be used to assess implementation of climate action and collective progress toward achieving the Paris goal of keeping global temperature rise this century well below 2°Celsius above pre-industrial levels, and working toward 1.5°C (UNFCCC 2015, Article 14.1).

The outcome of the global stocktake will inform Parties in updating and enhancing their actions and support and in enhancing international cooperation for climate action until the long-term goals of the Agreement are met (UNFCCC 2015, Article 14.3). To do this effectively, Article 14 specifies that the stocktake must be “comprehensive and facilitative,” consider “mitigation, adaptation and the means of implementation and support,” and be conducted “in the light of equity and the best available science” (UNFCCC 2015, Article 14.1). Each global stocktake will be conducted on a collective, rather than an individual country, basis and will inform mandatory new NDCs from all Parties (UNFCCC 2015, Article 4.9).

To fulfill its role under the Paris Agreement and the much broader expectations placed on the global stocktake as the “ambition mechanism,” the modalities and procedures adopted at COP24 must ensure a process that can incentivize transformation. The global stocktake must therefore be a process that is transparent, inclusive, solution-driven, and capable of sending clear signals to other international, regional, and national fora to catalyze action and align appropriate support at all levels. To this end, Parties need to consider how to ensure the inclusion and engagement of a broad range of stakeholders, including other multilateral fora, business and investors, civil

Box 9 | How the Global Stocktake Can Enhance Ambition over Time

The concept of five-year reviews of collective progress to inform the next cycle of actions and support is at the very heart of understanding how the Paris Agreement drives enhanced ambition over time.

Following each global stocktake, all Parties will be required to prepare and communicate new NDCs, informed by outcomes from the global stocktake. These revised NDCs will represent a progression from previous efforts and reflect each Party's highest possible ambition, taking into consideration equity and different national circumstances. The global stocktake is also expected to enhance the implementation of adaptation action and enhance support. (For more information, see Articles 4, 4.9, 7.14(b), and 14.3.)

The global stocktake is the engine of the "ambition mechanism"—allowing countries to be responsive to the latest science and technological advancements, and ensuring that Parties have the opportunity to regularly reflect on progress made, challenges encountered, and lessons learned to inform what they do next. To work effectively, the assessment process must be solution-driven so that it enables countries to identify options to overcome barriers, seize upcoming opportunities, and strengthen and implement climate actions and support.

society, academia, women, youth, and vulnerable communities.

It will be equally important to ensure that the global stocktake process can evolve and develop over time as Parties' needs and priorities change and information availability increases. Opportunities to review the process can be built into the modalities adopted at CMA 1–3. Furthermore, new modalities could be adopted that can be further developed through subsequent decisions ahead of each respective global stocktake or elaborated by co-facilitators appointed for each global stocktake. It is also important to note that the first global stocktake is unlikely to generate the same outcome as the subsequent one, since the inputs may be more limited.¹⁷

Parties should build on the lessons learned from the 2018 Talanoa Dialogue, building from the three core questions: Where are we? Where we want to go? and How do we get there? The questions can be adapted as necessary to meet the specific nature and purpose of the global stocktake.

Negotiators should address four critical issues to strike the necessary balance for reaching consensus and ensuring an ambitious and effective global stocktake. These are

- operationalizing the scope of the global stocktake through its format and additional sources of input;
- identifying the duration of the global stocktake and timing of key milestones in the process;
- ensuring the global stocktake is undertaken in the light of equity; and
- identifying what outputs (products or advice) will best support the required outcomes.

Key Requirements for 2018 Adoption in Implementing Guidelines

In this section, the authors offer suggestions for how to reflect these four core issues in the modalities and procedures to be adopted at CMA 1–3, as well as suggestions for other aspects of the stocktake's design.

Deciding which elements of the Paris Agreement to address in the global stocktake is perhaps the biggest challenge—and opportunity—facing the negotiators. The scope of the global stocktake can be operationalized through its format. Ensuring a scope that is manageable and not duplicative of other UNFCCC processes, while also being comprehensive enough to meet the purpose of the global stocktake, will be a tricky balancing act for CMA 1–3.

A key element of scope will be identifying thematic streams. Collective progress toward the three long-term goals of the Paris Agreement must be assessed—limiting temperature, increasing adaptation, and aligning financial flows—and means of implementation and support must be considered along with implementation of other substantial elements of the Paris Agreement. The PACT consortium suggests that three thematic streams based on the long-term goals in Article 2.1 can be identified with clear crosscutting considerations for each. To avoid these streams becoming silos of information, it is suggested that they take place sequentially and culminate in a joint discussion of the outputs of each stream and prepare a single set of recommendations for the political phase of the global stocktake to be held in conjunction with the COP.

Building off the lessons and experiences of the 2018 Talanoa Dialogue, each stream should be tasked with answering three guiding questions:

- **Where are we?** Given that the international community recognizes that current climate action and commitments fall far short of the Paris goals, Parties need to understand the extent of emission and temperature gaps, implications for adaptation and loss

and damage, what works and what does not, and reflect on best practices and lessons learned in order to inform continued climate action.

- **Where do we need to go?** While Paris clearly signaled the destination, and provided the parameters for global “decarbonization” and enhanced resilience, various paths forward are possible. Because the transition will be challenging, Parties need to monitor the compatibility of their actions with climate goals and their alignment with and sustainable development goals.
- **How do we get there?** The effectiveness of the stocktake in driving ambition will hinge on its ability to generate solutions, incentivize action, address barriers, and identify opportunities driven by societal, technological, environmental, and economic changes. This learning will be critical to updating and improving the policy design, implementation, and enhancement of country climate plans and mobilization of support and means of implementation.

To ensure the necessary focus and analytical rigor, it would also be helpful to develop specific guiding questions to assess progress toward each long-term goal. These questions would also help ensure that inputs and outputs are tailored to the needs of each and that no issue is missed.

A list of potential guiding questions relevant for the global stocktake is shown in Appendix L. Guiding questions need not be developed ahead of COP24. Rather, the modalities and procedures task the co-facilitators of the global stocktake with developing guiding questions well in advance of the start of each global stocktake (e.g., by COP26 in 2020). Some of the questions and the associated inputs that the global stocktake will consider in addressing these topics are obvious. For example, to assess the state of play on mitigation, the stocktake must take into account the gap between the aggregated impact of NDCs on global GHG emissions and what is needed to meet the Paris long-term temperature goal. For other important stocktaking questions, such as, “What would be an ‘adequate’ adaptation response to be in line with the global temperature goal?” methods for coming up with answers are not yet available.

Scope should also be operationalized through identifying additional sources of input to supplement the nonexhaustive list in paragraph 99 of decision 1/CP.21. These inputs will need to be refined over time,

but as a minimum CMA 1–3 should identify additional information on:

- the efforts to enhance understanding, action, and support on a cooperative and facilitative basis with respect to loss and damage associated with the adverse effects of climate change under Article 8.4; and
- the efforts of nonstate actors.

The latest relevant reports from the following sources should also be identified:

- UN specialized agencies
- UN treaty bodies and processes
- Intergovernmental organizations

Duration, timing, and key milestones

The modalities adopted at CMA 1–3 should include the duration of the first global stocktake in 2023 and timing of key milestones. Each global stocktake should culminate in a high-level political phase to be held in conjunction with the relevant COP and that the outputs from this phase are to inform the next round of NDCs. Inputs could be called for ahead of the meeting of the subsidiary bodies in the preceding year—with technical work commencing in the thematic streams in the margins of the preceding COP. Because the process is as important as the outcome, and because experiences from the existing regime show that one to two years are necessary to conduct a comprehensive assessment and reflection of the way forward, we suggest a length of 18 months for the first global stocktake that would include two technical considerations during intersessions and one political phase during a COP.

Equity

The Paris Agreement mandates that the global stocktake will be undertaken “in the light of equity.” Since no commonly agreed guidance or yardstick to judge equity has yet been designed, Parties have agreed to provide information on why their national contribution is fair. To facilitate progress, the modalities adopted at CMA 1–3 should include specific space for consideration of how countries have described their NDC to be a fair contribution under the Paris Agreement and guidance on common indicators for future NDC communication. Further research to systematically assess collective efforts based on equity should also be encouraged. The outcome of such research could be used to further elaborate the guidelines ahead of the first global

stocktake. We suggest therefore that Parties agree to have an agenda item under SBSTA to discuss the development of a framework or set of indicators that would be used more consistently to assess the adequacy of efforts and equity. Such work could be done in collaboration with the IPCC.

In addition to providing adequate space for consideration of equity, relevant inputs on equity can assist in facilitating discussion. Preserving the collective and facilitative nature of the stocktake is at odds with singling out individual countries—which could be a component of considering equity. This conflict could be addressed by assessing the efforts and impacts across groups of Parties—rather than individual countries—or in the context of sharing global benefits (Holz and Ngwadla 2016; Winkler et al. 2018). It will also be important to understand efforts to reduce emissions, gaps in building or sustaining resilience, and gaps in means of implementation deployed compared to the support needed by countries in the context of sustainable development. Inputs highlighting climate action have helped countries to align with their development priorities and sustainable development goals.

Outputs

The outputs from the global stocktake will support the credibility and legitimacy of the exercise and contribute to strengthening global action on climate change at regular intervals. Parties should agree that the global stocktake should produce a range of outputs that inform actions and decisions by all stakeholders. The output of the global stocktake should include:

- **High-level political messages** contained in a summary report from the co-chairs of working groups or roundtables. A final CMA decision could take note of and annex these summary points.
- **Detailed technical summary of options, identification of best practice, and recommendations.**
- **CMA decisions that would** “take note of” any summary reports from the global stocktake and foster further action depending on other outputs from the global stocktake (e.g., specific recommendations that emerge from the technical phase could be taken up in the political phase in the form of a CMA decision to request Parties to take a specific action). These decisions

could also take the form of invitations to the IPCC and UNFCCC subsidiary bodies to prepare special reports or convene research dialogues to help inform the next global stocktake and fill knowledge gaps identified through the current global stocktake.

Additional Elements for Elaboration, Including Beyond CMA 1–3

In addition to the core elements listed in Table 3 for adoption at CMA 1–3, further work will need to take place on several other operational and process elements. These include:

- **Co-chairs of the global stocktake:** The method of appointing co-chairs for the global stocktake will need to be further elaborated, including whether additional co-facilitators are appointed for thematic streams.
- **Inputs:** A process should be drafted for identifying any additional inputs ahead of each global stocktake.
- **Specific guiding questions:** A process should be elaborated for identifying additional and more specific guiding questions (along the lines of those identified in Appendix L). The co-chairs could be mandated to develop this process well in advance of the timing for submission of the first round of inputs for the 2023 global stocktake.
- **Specific role of UNFCCC bodies:** Specific roles for various UNFCCC bodies in the global stocktake should be decided.
- **Participation of non-Party stakeholders:** Negotiators should decide how non-Party stakeholders will engage in the global stocktake, including whether there will be any criteria or guidance for the submission of inputs, how non-Party stakeholders will participate in technical dialogues convened under the global stocktake, and any associated methods of appointment.

PACT Suggestions: Core Elements for Adoption at CMA 1–3

Our suggestions for decisions on critical issues (Table 3) and additional issues (Table 4) regarding the global stocktake guidelines are given here.

Table 3 | **Critical Issues for Decisions on Global Stocktake Guidelines**

CRITICAL ISSUE		SUGGESTIONS
SCOPE	Thematic Streams	<p>Parties should establish three streams aimed at the long-term goals. Each stream should also consider implementation of other thematic elements of the Paris Agreement.</p> <ul style="list-style-type: none"> ■ Stream A: long-term temperature goal 2.1 (a), including considerations of means of implementation (Mol) and support for mitigation, loss and damage implications and related aspects ■ Stream B: long-term adaptation goal 2.1 (b), including considerations of Mol and support for adaptation, loss and damage implications and related aspects ■ Stream C: long-term financing goal 2.1 (c), including finance flows for Mol and support and loss and damage and related aspects <p>Additional elements, such as those in Article 12, should be considered as appropriate.</p>
	Specific guiding questions	Parties should mandate co-facilitators for the global stocktake to prepare specific guiding questions, within the three broad questions of “where are we?” “where do we need to go?” and “how do we get there?” well ahead of each global stocktake to inform the provision of inputs.
	Additional inputs	Parties should include additional information to be considered by the global stocktake and additional sources of input to supplement the nonexhaustive list in paragraph 99 of decision 1/CP.21.
Duration and timing of key milestones		Parties should ensure the global stocktake culminates in a high-level political phase to take place in conjunction with the relevant Conference of Parties (COP). Negotiators should ensure that inputs are called for by the subsidiary body session in the year preceding the relevant COP for the global stocktake. We suggest a length of 18 months for the first global stocktake, that would include two technical considerations during intersessions and one political phase during a COP.
Equity		Parties should ensure the global stocktake reflects on how countries have described their nationally determined contribution (NDC) to be a fair contribution. Further research should be encouraged under Subsidiary Body for Scientific and Technical Advice (SBSTA) and Intergovernmental Panel on Climate Change (IPCC) on a broader framework to systematically assess collective efforts based on equity.
Outputs		<p>Parties should agree that the global stocktake produce the following to inform the actions and decisions of various stakeholders:</p> <ul style="list-style-type: none"> ■ High-level political messages, applicable to all ■ Detailed technical summaries of global and regional options ■ Actionable recommendations for a range of constituencies ■ Recommendations on future research for institutions like IPCC

Table 4 | **Additional Elements Needing Decisions Regarding the Global Stocktake Guidelines**

ELEMENT	SUGGESTIONS
UNFCCC bodies involved	Given the volume of available information and highly thematic nature of the stocktaking exercise, Parties should use the expertise and experience of existing bodies serving the Paris Agreement to synthesize information. Different institutions, including the Secretariat, the champions, and the subsidiary bodies, could play roles at various stages of the global stocktake process.
Participation of subnational and nonstate actors	Parties should allow for inputs by non-Party stakeholders.
Timing of inputs	Parties could agree on an initial round of submissions at the start of each global stocktake, with a later review process to assess gaps and identify additional sources of input. Over time, inputs and outputs could be revisited based on the outcome of previous stocktaking exercises, and scientific, societal, environmental, economic, and technological changes.
Phases	Parties could mandate one technical phase that incorporates both the submission of country inputs and technical dialogues, followed by a political phase.

9. FACILITATING IMPLEMENTATION AND PROMOTING COMPLIANCE

Context

The Paris Agreement established a new mechanism, an expert committee, to facilitate implementation and promote compliance with the provisions of the Paris Agreement. This mechanism is a vital building block of the Agreement, promoting effective implementation and supporting greater cooperation and trust among Parties. This will, over time, allow Parties to gain trust in the system and its effectiveness, thereby supporting enhanced ambition.

The expert committee must now be made operational. In particular, Parties must further clarify the issues in the committee's jurisdiction, and the type of facilitative measures it will be able to employ to support countries. In addition to arming the committee with the authority and ability to support countries effectively in fulfilling their Paris obligations, negotiators must ensure the committee, the enhanced transparency framework, and the global stocktake will work together.

Box 10 | How the Article 15 Expert Committee Can Enhance Ambition over Time

The establishment of a mechanism—an expert committee—to facilitate implementation and promote compliance can support enhanced ambition under the Paris Agreement. In a multilateral regime such as the Paris Agreement, ambition is built through transparency, accountability, and trust.

The Article 15 mechanism expert committee has a unique role to play in working with individual countries to ensure implementation of the requirements of the Paris Agreement, including the obligation to communicate and maintain a nationally determined contribution (NDC) and provide the information required under the enhanced transparency framework of Article 13, as well as identifying and investigating systemic issues which may be faced by a number of countries and which can be addressed by the CMA.

Working with individual countries and addressing systemic challenges will be crucial to prevent free riding and building the necessary trust to encourage all countries to enhance their ambition over time to achieve the Paris Agreement's long-term goals.

Article 15 requires the committee to function in a facilitative, transparent, nonadversarial, and nonpunitive manner. While it will apply to both developed and developing countries, the committee is also charged with paying “particular attention to the respective national capabilities and circumstances of Parties.” The new mechanism is built on a three-part rationale: (1) assisting countries in pursuing, and holding them accountable for, their commitments; (2) complementing the enhanced transparency framework mainly by addressing failure to submit reports under Article 13 and to submit NDCs in accordance with Article 4, as well as any persistent or recurring failure to implement related requirements; and (3) taking account of and exploring crosscutting, “systemic” implementation issues faced by a number of Parties, which might feed into the global stocktake under Article 14. The latter makes the committee relevant to the means of implementation under the Paris Agreement through its role in facilitating assistance, as appropriate. It might also be instrumental in addressing any issues with respect to the fulfillment of requirements under Article 6 of the Agreement.

Key Requirements for 2018 Adoption in Implementing Guidelines

In the run-up to COP24, Parties are developing the detailed modalities and procedures that will determine how the committee operates. For negotiators at CMA 1–3, three issues in particular require attention to strike a balance between reaching consensus and ensuring the committee is robust and fit for purpose. These key, interlinked issues are

- operational guidance governing the committee's actions;
- methods for referring countries to the committee; and
- measures the committee is authorized to take.

PACT suggests approaches and decisions for negotiators in these three key areas designed to provide an effective framing acceptable to all countries.

Guidance

By providing clear operational guidance, negotiators can establish boundaries to the committee's discretion acceptable to all countries. This guidance must strike a critical balance between allowing the committee to act when needed and avoiding overreach and unpredictability. The PACT consortium provides suggestions for these operational requirements in Table 5.

Referral

Providing a broad range of methods to refer matters to the committee would help ensure that it can address important implementation and compliance issues comprehensively and in timely fashion. Such methods could include self-referral, Party-to-Party referral, and administrative non-Party referral. Including the latter option would allow the committee to initiate action based on information it receives under Article 13 of the Paris Agreement (which governs communication of national reports) and from the UNFCCC Secretariat (e.g., on the submission or nonsubmission of reports under Article 13 and of NDCs). Negotiators should also include an initial appraisal of referrals or information received by the committee in the implementing guidelines. This step should reassure Parties that the committee will launch proceedings only on the basis of firm evidence and with their agreement or at their own request.

Measures

Similarly, mandating the committee to select from a wide range of facilitative measures would allow it to tailor responses to countries' varying needs on a case by case basis. This in turn would support swift, adequate, and timely action to fulfill the committee's purpose. To avoid overreach, operational guidance should provide clear direction to the committee on how to apply the measures at its disposal appropriately.

Specific suggestions for framing such measures are provided in Table 5.

The stronger measures—namely, issuing cautions, a declaration of noncompliance, and the suspension of rights and privileges— could be limited to cases of noncompliance with specific binding obligations under the Paris Agreement and could be applied as a last resort. Such decisions could be required to receive confirmation by the CMA.

In line with the facilitative nature of the mechanism, available measures should enable the committee to take facilitative action as well as to assist national efforts by following up on the implementation of action plans by offering advice, recommendations, or other measures.

Mandate to address systemic challenges

Allowing the committee to address systemic, general challenges that a number of countries face in implementing the Paris Agreement could bring significant additional benefits for global climate action. Negotiators should therefore consider mandating the committee to support development of the regime beyond addressing individual cases by investigating such systemic issues. This would follow the example of other multilateral environmental agreements with such a mandate. For example, the committee could regularly review common challenges that arise for countries in meeting reporting requirements. Its findings on systemic issues could feed into the global stocktake or other relevant review processes, strengthening the Agreement overall.

The aforementioned key requirements would also address the main linkages with other key processes and mechanisms under the Paris Agreement. The prime connection to the system of reporting and review (transparency) would be addressed primarily through the design of the administrative non-Party referral, which could benefit from further coordination with the elaboration of the modalities, procedures, and guidelines under Article 13. The key linkage with the processes and mechanisms involved in providing finance, technology, and capacity-building under the Paris Agreement could evolve on the basis of the measures available to the committee and the related overarching guidance. Another linkage yet to be defined concerns the potential role of the committee in ensuring the observation of accounting standards for the purposes of Article 6.

Additional Elements for Elaboration, Including Beyond CMA 1–3

In addition to the key issues highlighted in Table 5, negotiators will need to develop further rules on several other operational and process elements. These include:

- **Institutional arrangements and decision-making procedures:** length of terms of committee members, appointment of chair and vice-chair, decisions on whether members will act in their personal capacity, and whether a majority is required for decision making.
- **Due process rights of countries under referral:** the right to participate in proceedings (but not in adopting the decision), to speak, to make written submissions, and to comment on information on the table.

- **Additional sources of information:** additional types of information the committee may use in its deliberation (beyond Article 13 and the Secretariat), possibly including information supplied by non-Party stakeholders and treatment of information submitted in confidence.
- **Process issues:** decisions on whether to allow participation in proceedings by stakeholders and the public, to enable the committee to receive expert advice, and to define general steps for proceedings.

PACT Suggestions: Core Requirements for the Article 15 Committee

Core requirements for the CMA 1–3 to adopt for the expert committee in the areas of guidance, referral, measures, and systematic issues shown in Table 5.

Table 5 | Core Requirements for Article 15 Committee Guidance

	REQUIREMENTS
Guidance	<p>Parties should frame operational guidance for the committee to take into account:</p> <ul style="list-style-type: none"> ■ The cause, type, degree, and frequency of implementation difficulties facing countries that are referred for compliance issues ■ The special needs of least developed countries and small island developing states in particular ■ Efforts underway by the country concerned to receive support when it is facilitating assistance ■ The legal character of the applicable provisions of the Paris Agreement ■ The need to avoid duplication of work and enhance synergy with other relevant mechanisms and processes under the Paris Agreement and beyond ■ That the stronger measures should be applied only to cases of noncompliance with specific binding obligations under the Paris Agreement and be used only as a last resort. ■ Several of these elements may be established as providing overarching guidance to the operation of the committee, while some should best be focused on the application of measures.
Referral	<p>Parties should provide for three methods of referral of individual matters to the committee:</p> <ul style="list-style-type: none"> ■ Self-referral ■ Party-to-Party referral ■ Administrative non-Party referral (the committee having the discretion to act on the basis of information received under Article 13 of the Paris Agreement or from the Secretariat)
Measures	<p>Parties should provide the committee with the authority to take the following measures, as appropriate:</p> <ul style="list-style-type: none"> ■ Provision of information or advice ■ Recommendations for a particular course of action ■ Facilitation of access to assistance ■ Action plans for countries ■ Issuance of cautions ■ A declaration of noncompliance or a finding on compliance ■ Suspension of certain rights and privileges under the Paris Agreement. ■ The final three stronger measures could be limited to cases where countries fail to meet specific binding obligations under the Paris Agreement, and could be applied as a last resort. (To reassure Parties, such decisions could also require confirmation by the CMA.)
Systemic issues	<p>Parties should mandate the committee to regularly review challenges in the implementation of reporting requirements faced by a number of Parties and any other systemic issues the committee or the CMA identifies as significant.</p>

- **Relationship with the CMA (including whether and how the CMA provides further guidance to the committee):** the relationships with dispute settlements under Article 24 of the Paris Agreement, and with the UNFCCC Secretariat.

Parties should consider which of these procedural rules can be delegated for the committee to design itself after COP24, once it is operational and subject to approval by the CMA.

10. DESIGNING A DURABLE AND COHESIVE PACKAGE—ADDRESSING LINKAGES

As negotiators develop the implementing guidelines, the interconnected nature of the provisions of the Paris Agreement must be considered carefully in order to make the guidelines coherent, mutually reinforcing, durable, and effective in accelerating action and support over time.

The first part of this chapter aims to enhance our understanding of the linkages among many of the elements addressed in this paper to strengthen the design of the implementing guidelines and facilitate coordination across the distinct bodies serving the UNFCCC that have different functions but interrelated mandates. It builds on a previous PACT paper focused on linkages between the transparency framework and other provisions of the Paris Agreement (Dagnet et al. 2017a).

The matrix in Table 6 provides examples of how elements of the implementation guidelines discussed in this paper relate to one another. As illustrated, the enhanced transparency framework for action and support is at the heart of the Agreement's linkages. However, the matrix demonstrates the complex web of linkages across the implementing guidelines and the importance of considering all elements in a holistic manner in order to design the implementing guidelines in a clear, robust, and cohesive manner. While many of these elements can be mutually reinforcing, some present trade-offs to consider. In negotiating the final package of elements, Parties need to understand how these linkages and trade-offs relate to one other.

This chapter addresses the following types of linkages and their implications:

- *Linkages concerning timing:* the ability of key processes and mechanisms to inform one another in an effective manner
- *Linkages concerning process:* interlinkages among various arrangements and institutions
- *Linkages among policy areas:* interrelationships among different policy areas at international and national levels

It also addresses:

- The design of the legal structure of the implementing guidelines, particularly the outcome at COP24
- Cooperation and provision of support to developing countries who need it

Linkages Concerning Timing

This section showcases how various processes can inform one another but also highlights the challenges emerging from the various timing of inputs and outputs. Indeed, within the full NDC cycle of implementation and ambition, the different elements of the Paris Agreement operate on different timelines:

- NDCs will be submitted every five years, providing political commitments on national actions that represent a progression beyond countries' previous NDCs, reflecting enhanced collective ambition toward the long-term goals.
- The NDCs will be implemented over a period to be defined (current negotiations are addressing whether to agree on a common timeframe of either 5- or 10-year implementation periods).
- A global stocktake will take place every five years to assess the implementation of this Agreement and the collective progress toward achieving its long-term goals. Each stocktake will occur about two years before the next round of NDCs being due in order to inform Parties in updating and enhancing, in a nationally determined manner, their actions and support.

- Processes under the enhanced transparency framework will operate every two years. Every two years, countries will report individually (in their biennial transparency reports [BTRs]) on their progress to fulfill requirements (including progress on the implementation and achievement of their NDCs). Parties will also participate in the technical expert review (TER) and facilitative, multilateral consideration of progress (FMCP) every two years.
- Ex-ante communications on finance will be submitted by relevant Parties every two years.

Figure 5 illustrates the implications of these reporting rhythms within the full implementation and ambition (or plan-implement-review) cycle. Some of these timing elements have already been decided (e.g., for NDC communications and global stocktakes), while others, such as whether there will be common NDC implementation periods, have not yet been decided. Given that, the timeline in Figure 5 is illustrative based on the suggestions made in this paper. As Figure 5 shows, while the timing of processes within the Paris Agreement may not fully align, the various elements feed into and interact with one another. Given these different timelines, negotiators will need to carefully consider the interactions among these different elements in order to address as effectively as possible the lack of synchronization among some of the milestones and maximize the outcome of each milestone.

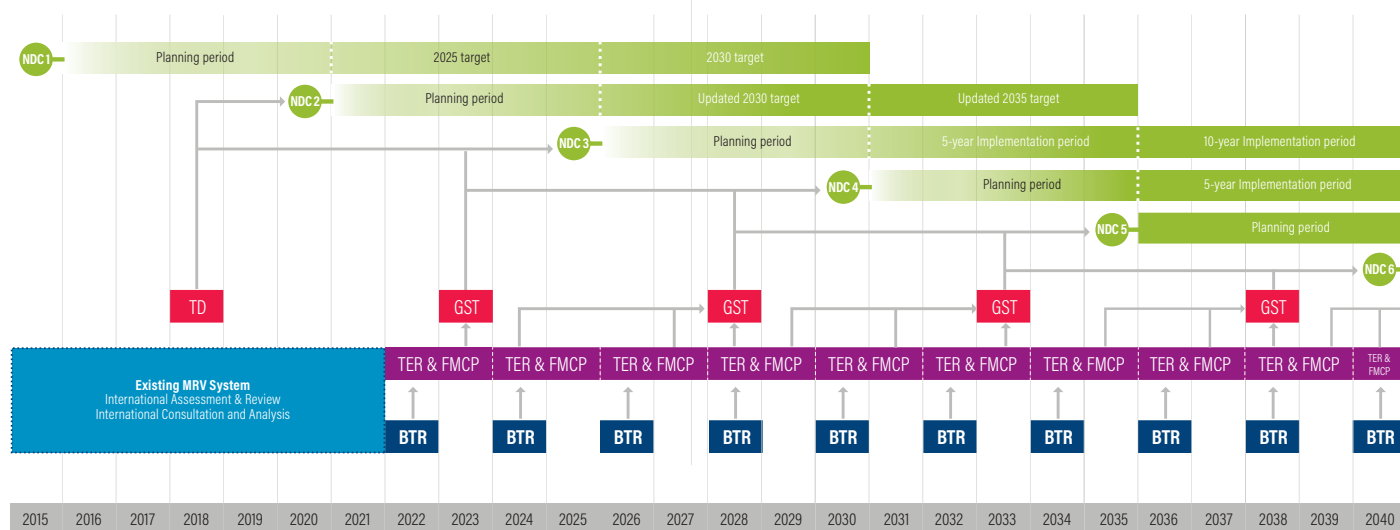
For instance, the decision on common timeframes has direct implications for a number of other processes. Common timeframes will define the implementation periods communicated and planned for in the NDCs, and the implementation period will be considered when accounting for cooperative implementation. In addition, the implementation periods will be reflected in reporting related to tracking progress on the implementation and achievement of NDCs under the transparency framework. Given that, the compilation, aggregation, and analysis of individual and collective progress could be complicated substantially without common timeframes for NDCs; common implementing periods will facilitate more accurate aggregation and facilitate the assessment of equity on a comparable basis.

Another relevant issue is that biennial reporting under the enhanced transparency framework does not synchronize well with the five-year reporting period. For instance, if a country's first biennial transparency report is submitted in 2022, followed by reports every two years, it means that three reports would be generated during the 2026–30 implementing period (i.e., 2026, 2028, and 2030). For that same country, however, only two reports would be generated during the 2031–35 implementing period (2032 and 2034). As result, there would be a three-year delay after the end of the accounting period for the Secretariat to receive the report assessing the achievement of the NDC, which would occur at the same time as the global stocktake.¹⁸ Nonetheless, a country would produce two reports in each implementing period, and the biennial transparency report aimed at assessing the achievement of a Party's NDC could be submitted within either two to three years following the end of the implementation period and ahead of the relevant global stocktake.

While this lack of synchronization may complicate the operationalization of the Paris Agreement, it should not be an excuse to reduce the level of responsiveness to scientific, technological, and socioeconomic changes and therefore affect the pace of the transformation needed. Parties need to explore ways to synchronize the timing of reports beyond COP24 to maintain the pace of the ratchet-up mechanism (every five years instead of every ten years). In addition, the analysis and Figure 5 illustrate that countries need to leverage the time lags in between the submissions of NDCs and the global stocktake to plan, implement, and review, so they can inform and strengthen their decision- and policy-making processes in a timely manner.

Finally, it is important to note that the lack of adequate capacity may prevent some developing countries from submitting their biennial transparency reports by the due date. As a result, the mandate of the international system to conduct the review processes under the transparency framework, and undertake an analysis of aggregated efforts in a timely manner, may become more difficult.

Figure 5 | Major Timing Linkages in the Implementation and Ambition Cycle



NDC 1,2 = first, second, etc. rounds of nationally determined contributions; TD = Talanoa Dialogue; GST = global stocktake, TER = technical expert review; FMCP = facilitative, multilateral consideration of progress; BTR = biennial transparency reports.

Linkages Concerning Process

The plan-implement-review cycle, described in the introduction, illustrates the linkages among the different processes created under the Paris Agreement. While the various elements of the Paris Agreement are components of phases of the plan-implement-review cycle, the relationship among the elements does not always follow a linear path through the cycle. As a result, understanding the multiple linkages is all the more important for building a cohesive set of guidelines. As highlighted throughout the paper, some of these linkages build from existing arrangements within the UNFCCC that would need to be strengthened to enhance the implementation of the Paris Agreement. Meanwhile, other linkages are emerging from newly established processes and tools that need to be designed carefully to leverage existing processes and build from lessons learned over the past 20 years of implementation while avoiding overlap. Both existing and new processes would benefit from the participation of a broad range of key stakeholders, and their cohesion would improve the coordination among relevant institutions and enhance the effectiveness of the regime.

Linkages Covering Communication, Reporting, and Accounting of Actions and Support

Negotiations are addressing the elements necessary for the clarity, transparency, and understanding (CTU) of NDCs and how to best account for the efforts to reach their targets. These considerations have a number of implications for other aspects of the Agreement. As noted in previous chapters, the CTU and accounting guidelines need to align with the guidelines for reporting related to tracking progress. Countries planning to cooperate voluntarily using the approaches and incentive mechanisms outlined under Article 6—in particular the transfer of internationally transferred mitigation outcomes (ITMOs)—would need to provide additional information in their NDCs and transparency reports to demonstrate the efforts made to avoid double counting and ensure environmental integrity.

Meanwhile, adaptation communications are related to the enhanced transparency framework. Guidance for adaptation communications under Article 7 and guidance for reporting on climate change impacts and adaptation under the transparency framework provisions in Article 13.8 should be well aligned. Since

80 percent of NDCs include both adaptation and mitigation efforts, there is also a natural link between guidance for adaptation communications and NDC communications (Fransen et al. 2017). According to the Paris Agreement, Parties have the flexibility to use their NDCs as a vehicle to note their future adaptation contributions and efforts and should regularly report on the impacts of climate change and their efforts to adapt. The modalities for the accounting of financial resources provided and mobilized through public interventions in accordance with Article 9, paragraph 7 being developed under the SBSTA are directly linked to the enhanced transparency framework, since they will be integrated into the guidance for Article 13.9 reporting on support provided and mobilized (UNFCCC 2018, para. 3).

Review mechanisms

The review process under the enhanced transparency framework, the mechanism to facilitate implementation and promote compliance (referred to as the Article 15 committee), and the global stocktake are mutually reinforcing and form the “review” phase of the implementation cycle (Dagnet et al. 2017a). These three review processes play a critical role to hold countries accountable and incentivize them so that they can take bolder and faster action.

The enhanced transparency framework provides flexibility, in particular for LDCs and SIDS and for developing country Parties that need it in light of their capacities. Wide application of flexibility, with Parties providing differing levels of information at differing times, could make it more difficult to compare individual efforts and aggregate collective progress. Therefore, flexibility may need to be bounded in order to facilitate assessment efforts or avoid inaccurate assessment efforts, and drive improvement overtime. In addition, because of the linkages identified earlier between the transparency framework, the global stocktake and the communication of the mitigation elements of NDCs (including the need to ensure some alignment between the NDC communication requirements and the reporting requirements), this concept of flexibility may permeate various negotiation workstreams. Negotiators will need to be consistent in their approach on flexibility and more broadly on the way they operationalize the principles of equity and common but differentiated responsibilities—respective capabilities (CBDR-RC).

Outputs of the transparency framework—biennial transparency reports, review reports, and summary reports from the Secretariat—should provide important information on individual efforts that could be aggregated to assess collective efforts, including progress toward the long-term goals under the global stocktake.

Although ex-ante communications on finance are not directly linked to the transparency framework, developed country Parties could be asked about their ex-ante information on finance support during the facilitative, multilateral consideration of progress (FMCP). Questions remain as to whether this is the best place or most effective process to consider these communications. To assess collective efforts and progress toward the long-term goals, the global stocktake may also consider a wide range of inputs that can include ex-ante communications on finance and further outputs from the Standing Committee on Finance, as well as adaptation communications and any other compilation or analysis of NDCs by the Secretariat.

The outcome of the technical expert review (TER) could refer cases to the Article 15 committee, while the FMCP could identify issues for systemic consideration by the Article 15 committee. In addition, the failure to submit transparency reports and the persistence of issues of noncompliance may also trigger consideration by the Article 15 committee. In this context, and in view of the links already noted, the Article 15 committee could potentially assess eligibility requirements related to participation in and use of Article 6 cooperative approaches and incentive mechanisms when an issue is flagged by the TER. Meanwhile, outputs from the global stocktake and Article 15 committee could inform future transparency reports.

Outputs from the Article 15 committee, such as annual reports or special reports on systemic issues faced by countries generally, could potentially serve as inputs to the global stocktake (although this remains to be negotiated).

The compilation, aggregation, and analysis of individual and collective progress could be complicated substantially without common timeframes; common implementing periods will facilitate more accurate aggregations and facilitate the assessment of the pace of efforts from an equity point of view.

Linkages Concerning Policy

The implementation of the Paris Agreement involves a number of linkages among multiple policy areas (e.g., mitigation, adaptation, loss and damage, finance and technology transfer, capacity building, and education, as well as non-climate policy areas such as energy security, job creation, and health; Briner et al. 2014). The IPCC Fifth Assessment Report's in-depth analysis of the synergies and trade-offs among climate policies highlights the importance of these interlinkages and the need to understand and leverage the common drivers behind these policies: economic development, poverty eradication, environmental and resources protection, and adaptation and mitigation of climate change (IPCC 2014). Capitalizing on these synergies can help drive the transformation toward the Paris Agreement's goals. The Paris Agreement places mitigation, adaptation, and support at the same level of importance, particularly in its long-term goals. Efforts to ramp up efforts to meet the temperature, resilience, and finance goals can result in synergies and/or trade-offs that must be factored in during national planning processes. Mitigation and adaptation policies are relevant to one another. Adaptation activities and needs remain driven at the local or regional levels, but such needs are conditioned by the level of global emissions and resulting impacts that depend on the mitigation efforts achieved by all Parties. The same link and implications apply for loss and damage. These linkages affect the design of the various processes, particularly the design of the global stocktake where, in order to maximize the synergies, PACT suggests that thematic workstreams are organized in a sequenced manner but with an overlapping period to allow for joint consideration.

The Paris Agreement has a special article on education, which does not need to be included in the biennial transparency reports, but is closely related to countries' effort to support and strengthen their capacity. As highlighted in Chapter 11, effective capacity does not apply to government officials alone, but needs the systemic, holistic participation of a broad range of stakeholders in efforts across different policy areas (Dagnet et al. 2015; Khan et al. 2018).

In addition, the multiple benefits and effects of planned and implemented climate actions and support can be identified, monitored, communicated, and reported. This includes not only mitigation and/or adaptation outcomes, but also effects on economic growth and development, poverty reduction, air quality, health, energy security, job creation, biodiversity conservation, and water risk management. Addressing these mutual benefits can be an effective way to incentivize further action, inform the design of climate policies, and achieve greater levels of ambition. Sharing these co-benefits in biennial reports and multilateral spaces created to share lessons, take stock of progress, and identify best practices to go further and faster, can inform the national processes.

Implications Regarding the Legal Structure and the Design of the Implementing Guidelines

Because of the linkages among the aspects of the Paris Agreement, the legal structure of the overall package could also have implications for the design of the implementing guidelines (Bodansky and Rajamani 2018). The legal structure for the Paris implementing guidelines can be:

- A single CMA decision, as was the case with decision 1/CP.21, which included sections referring to various articles of the Paris Agreement; the approach used for the Cancun Agreements.

- Individual decisions for each article of the Paris Agreement, as was done in the Marrakech Accords under the Kyoto Protocol (UNFCCC 2001c). To secure the cohesion of these decisions, Parties could also incorporate an overarching, umbrella decision (as with decision 1/CMP.1).
- Separate decisions for each issue highlighted in this paper, which are part of broader provisions.¹⁹ An overarching decision could also be integrated at the beginning of the set of guidelines.

The legal structure could affect the ways in which the implementing guidelines could be modified or updated in the future. The Paris Agreement provides a durable framework that guides global effort for the next three decades. Its implementing guidelines should be designed in a way that enables the Agreement to be responsive to social, economic, and technological changes and allows countries to take account of those changes. The implementing guidelines adopted in 2018 should be able to be improved over time based on lessons learned and experiences gained through using the guidelines. While not all updates need to occur at the same time, some changes may require consideration of other elements of the implementing guidelines (Bodansky and Rajamani 2018). Given that, the decisions at COP24 and the structure of the guidelines should provide the opportunity to update specific elements of the guidelines when necessary, though without requiring the updating of all elements (Bodansky and Rajamani 2018).

The matrix in Table 6 can be used as a guide to identify the linkages for the design of the implementing guidelines and to inform the revision of these guidelines in the years to come.

Enhanced Support for Developing Countries Who Need It and Cooperation among Countries


Guidelines for the implementation of the Paris Agreement will need to take into account capacity and resource needs. This is particularly true to enable participation by a wide set of Parties in biennial reporting and review, five-year global stocktakes, and communication of successive NDCs every five years. Indeed, in order to respond to the new challenges, most countries, especially developing countries, need to adapt and strengthen the relevant national and international institutions by (1) building more robust and responsive domestic measurement and tracking systems; (2) providing more frequent reports that review policies and actions; (3) ensuring the appropriate infrastructure to track internationally transferable emissions outcomes; and (4) putting in place stronger national institutional and regulatory frameworks (including inter-ministerial coordination).

Capacity will also be needed to facilitate peer exchanges and cooperation among countries' key stakeholders, which can help to strengthen the coherence and efficiency of policies and domestic processes. In the same vein, a broader set of subnational, private sector, civil society actors should be mobilized. This is important for collecting better data, resulting in more transparent, accurate, complete, consistent, and comparable information and to incentivize additional actions.

Table 6 | Exploring Linkages across Elements of the Paris Implementing Guidelines

	COMMON TIMEFRAME	NATIONALLY DETERMINED CONTRIBUTION (NDC) MITIGATION ELEMENTS	ADAPTATION COMMUNICATIONS	EX-ANTE COMMUNICATIONS ON FINANCE
Common timeframe				
NDC mitigation elements	Communication of NDC implementation period			
Adaptation communications	Unclear or indirect linkage	The vehicle for adaptation communications is undefined so these communications could be part of NDCs		
Ex-ante communications on finance	Unclear and indirect linkage	Indirect linkage Ex-ante information can inform future plans	Indirect linkage Ex-ante information can inform future plans	
Cooperative implementation	Accounting taking account of the implementation period when transfers of ITMOs have taken place	Relationship between Art. 6 accounting and NDC accounting	Yet to be defined through the Sustainable Development Mechanism	No direct linkage
Enhanced transparency framework	Reporting and tracking of NDC implementation and achievement during the implementation period	Accounting informs Art. 13 reporting and tracking	Should be alignment between Art. 7 and Art. 13.8 guidelines	Parties might consider efforts and progress on Art. 9.5 during the facilitative, multilateral consideration of progress (FMCP) or via another process
Global stocktake	Ability of global stocktake to aggregate and take stock of progress on the basis of equity (pace of efforts over the implementation period)	ICTU informs aggregation efforts under the global stocktake	Indirect linkage Aggregated information from adaptation communications can serve as an input to the global stocktake	Art. 9.5 communications will be inputs to the global stocktake progress toward the Art. 2.1c goal
Facilitating implementation and promoting compliance	No direct linkage	Failure to submit NDC	No direct linkages, but could be considered in case of emerging systemic issue	No direct linkage, but could be considered in case of emerging systemic issue

 Clear (established) linkage with significant implications (based on the Paris Agreement and the associated decision)

 Potential (indirect) link that needs to be taken into account

 No direct or unclear link

COOPERATIVE IMPLEMENTATION	ENHANCED TRANSPARENCY FRAMEWORK	GLOBAL STOCKTAKE	FACILITATING IMPLEMENTATION AND PROMOTING COMPLIANCE
Art. 6. efforts, especially Art. 6.2, reflected in Art. 13 reporting and scrutinized during the technical expert review (TER)			
Indirect linkage Art. 6 info must be taken into account for the aggregation efforts	Enhanced transparency framework (ETF) outputs can serve as inputs into the global stocktake		
Potential Art. 15 role in assessing Art. 6 eligibility criteria	Art. 15 receives inputs or referral from ETF Failure of reporting or persisting failure to address advice that emerged from the TER	Both global stocktake and Art. 15 can identify systemic issues and inform each other on how to best address them	

11. CONCLUSION AND SUMMARY OF KEY DECISIONS FOR IMPLEMENTING GUIDELINES

The deadline for adopting the Paris Agreement's implementing guidelines is quickly approaching and much work remains before December 2018. Parties must agree to guidelines for a number of different but linked elements, including NDC communications, voluntary international cooperative implementation, adaptation communications, ex-ante communications of finance, the enhanced transparency framework, the global stocktake, common timeframes, and the mechanism for implementation and compliance. Producing this set of implementing guidelines is part of a broader program of work called the Paris Work Program.

The structure of the implementing guidelines suggested in this paper mirrors the implementation cycle implicitly conveyed throughout the provisions of the Paris Agreement. Parties begin by communicating their nationally determined plans and policy targets. Developed countries will also provide indicative information on future financial support, which developing countries can use to inform their national plans and implementation activities. All Parties then move to implementation of their plans using accounting methodologies and voluntary international cooperative implementation. Further, Parties report on their progress and circumstances. Review mechanisms under the enhanced transparency framework, global stocktake, and mechanism for implementation and compliance assess individual and collective progress. Based on these reviews and other inputs, Parties seek to revise and enhance their national plans in order to deliver on the agreed targets.

Strong and robust guidelines are imperative for each element of the cycle. Strong guidelines are necessary to ensure credibility of the international regime, signal the commitment to enhanced ambition and climate action, provide for clarity of the individual Party contributions, and enable learning from other Parties. Without these guidelines, the ability to achieve the long-term goals of the Paris Agreement in a fair and sustainable way is at risk.

Negotiators will have to navigate a number of challenges to ensure that a set of implementing guidelines can be adopted this year. Doing so while maintaining the “Paris spirit” of solidarity, trust, and ambition, guided by the Convention's principles and by the notions of universality, inclusiveness, justice, human rights, sustainable development, flexibility, and improvement over time (highlighted throughout the Paris Agreement, from its preamble to its operational articles) will be strenuous. But done right, this process would be decisive.

Parties have different national capacities. The Paris Agreement reaffirms principles of equity and common but differentiated responsibilities and respective capabilities in the light of different national circumstances. As Parties negotiate the implementing guidelines, they need to—in the case of transparency—develop guidelines that apply to all Parties but recognize the differences in capacities. Improvement over time, in a trustworthy manner, but at a pace and scale that keep the long-term goals of the Paris Agreement within reach, is also at the heart of the Paris Agreement. Capacity-building efforts and ensuring all Parties are able to participate fully in the Agreement by providing the required support is crucial to drive the change needed.

Parties must consider different types of linkages, not only across the various elements of the guidelines, but also how they would connect to national decision making by taking into account various economic, social, and environmental drivers.

Navigating the linkages is important to ensure the entire set of guidelines is coherent, efficient, mutually reinforcing, and supports the implementation cycle both internationally and on the ground. To facilitate such navigation and ensure that the entire package is balanced and drives improvement and greater action over time, this paper highlights the types and implications of these linkages in term of:

- Timing, by showcasing how the various processes can inform one another in a timely manner but also by noting the challenges emerging from the various timing of inputs and outputs
- Interlinkages between existing and new processes not only to minimize duplication of function, but also to enhance their potential outcomes and result in the effective implementation of the Paris Agreement
- Interrelationships between different policy areas at the international and national levels to drive effective action on the ground
- Design of the legal structure of the implementing guidelines to facilitate the improvement of the processes and rules established with a view to ensuring the durability of the Paris Agreement
- Cooperation and provision of support to developing countries who need it, in order to foster bolder and faster actions that result in the transformation we want to see

Though Parties face a challenging task, the authors hope that they will find the suggestions for the individual elements helpful and the vision for the entire package of implementing guidelines inspiring. This consolidated analysis of the entire package should help negotiators to prioritize issues that will need to be resolved at CMA 1–3, and to define ways forward for those more technical aspects that can be refined later. These suggestions are built from a series of papers previously published by the PACT consortium. This paper has not attempted to suggest legal language or draft text. Rather, it was intended to serve as a guide to negotiators as they work through the final negotiating sessions of 2018 to finalize the package of guidelines. A summary of PACT suggestions is in Appendix A and Appendix B.

The most important task is translating these implementation guidelines into real action on the ground. The “Paris spirit” will need to prevail because this will be one of the defining tasks of our time, a legacy for which we will all be held to account by future generations. The development and deployment of clean technology and the alignment of financial flows will be critical to make a decarbonized and sustainable society a reality. These implementation guidelines, and their use in country, will ultimately need to be embraced by all actors: negotiators, policy makers, private sector, civil society, cities, academia— and the citizens of the world.

APPENDIX A: DETAILED SUGGESTIONS FOR KEY ELEMENTS FOR ADOPTION IN DECEMBER 2018

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	PACT SUGGESTIONS FOR ADDITIONAL ELEMENTS FOR ELABORATION, INCLUDING BEYOND CMA1-3
PLAN	Common Timeframes (Article 4.10)	<ul style="list-style-type: none"> Beginning with NDCs communicated in 2025, Parties should use a five-year implementation period. Parties should use the Dynamic Contribution approach (also referred to as the 5+5 approach) to communicate five-year targets plus an indicative target for the following five years. Cooperation among Parties should be enhanced by support to developing countries to enable them to adapt their domestic institutional and legislative system, as appropriate.
	Nationally determined contributions (NDC) Mitigation Elements (Article 4)	<p>Features</p> <ul style="list-style-type: none"> Parties should agree to submit nationally determined contributions (NDCs) that contain transparent mitigation contributions that reflect the characteristics and description of NDCs outlined in the Paris Agreement, including further ambition over time. Parties should agree that Parties may also include features not specified in the Paris Agreement to enhance transparency and ambition, in accordance with the nationally determined nature of NDCs. <p>Clarity, Transparency, and Understanding (CTU)</p> <ul style="list-style-type: none"> Parties should include all of the relevant information in Appendix D and justify any exclusions. Parties should be encouraged to improve clarity, transparency, and understanding over time. <p>Accounting</p> <ul style="list-style-type: none"> Specify that Parties with GHG emissions targets should be required to quantify their NDC and calculate emissions levels in the target year consistent with target achievement (or emissions intensity in the target year if they have a base year intensity target) in the target year(s) and calculate emission budget, if applicable, e.g. in case of use of Article 6 mechanisms. Require Parties to account for anthropogenic emissions and removals in accordance with the latest methodologies and common metrics assessed by the Intergovernmental Panel on Climate Change (IPCC) and adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA). Parties unable to do this should provide an explanation and account in accordance with methodologies and common metrics already assessed by the IPCC and adopted by the CMA. Accounting should be applied to all sectors and gases included in the NDCs. Include a decision regarding which latest IPCC guidelines adopted by the COP and CMA should be applied for the purposes of accounting for anthropogenic emissions and removals for all Parties that include anthropogenic emissions and removals from the land sector in their NDCs. Include a decision that Parties should communicate the choice of full land-based or activity-based accounting, coverage of the sector, as well as forest definitions and other methodological issues in relation to land use and land use conservation and forestry (LULUCF) accounting, with the submissions of the next NDCs due in 2020. Request the Subsidiary Body for Scientific and Technical Advice (SBSTA) to develop definitions, modalities, and guidelines for accounting of anthropogenic emissions and removals from LULUCF and to recommend them for adoption by the CMA by COP 25. This should include detailed guidance for reference levels, treatment of natural disturbances, quantification of harvested wood products, and forest definitions, among other issues. Specify how Parties should ensure methodological consistency, including on baselines, between the communication and implementation of NDCs. Specify links between Article 6 and Article 4, as well as the links between Article 13 7(b) and accounting for both progress and achievement. <p>Communicating accounting</p> <ul style="list-style-type: none"> Require at least those Parties with greenhouse gas (GHG) emissions targets to use a balance sheet, prepared by the UNFCCC Secretariat in consultation with lead reviewers, to be included in the biennial transparency reports. Agree to incorporate the accounting-related information that stems from the accounting guidance developed under Article 4 into the requirements for tracking progress under Article 13, para. 7b. For those that do not apply the accounting guidance for their first NDCs, guidelines related to Article 13, para. 7b should require Parties to report on any national accounting approaches that may be applied and have them checked by the technical expert review team in accordance with Paris Agreement's principles. Agree to capture accounting-related information before, during, and upon completion of their NDCs.

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	PACT SUGGESTIONS FOR ADDITIONAL ELEMENTS FOR ELABORATION, INCLUDING BEYOND CMA1-3
PLAN	Adaptation Communications (Article 7)	<p>On the core purposes of adaptation communications, these should be forward-looking and achieve the following purposes:</p> <ul style="list-style-type: none"> ■ Contribute to and inform action toward the global goal for adaptation ■ Raise the profile of adaptation to bring parity with mitigation ■ Communicate countries' national adaptation priorities, plans, and actions; implementation; and support needs ■ Communicate investments and technologies that developing countries require to catalyze support for implementation of prioritized adaptation actions <p>On the core elements of adaptation communications, these should include:</p> <ul style="list-style-type: none"> ■ National circumstances ■ Impacts, vulnerabilities, and risk assessment ■ Adaptation priorities, plans, policies, strategies, and actions ■ Adaptation support needs of developing countries
	Ex-ante Communications on Finance (Article 9.5)	<p>General approach</p> <ul style="list-style-type: none"> ■ A tiered approach could be adopted, where some qualitative and quantitative information on provision and mobilization of climate finance deemed applicable to all developed country Parties is mandatory to communicate, while information on projected levels of public financial resources should be communicated as available. ■ Developed country Parties will be required to explain and justify any limitations or unavailability of data. ■ Other Parties providing resources, who voluntarily communicate information, should use the same modalities. <p>Process for considering information communicated</p> <ul style="list-style-type: none"> ■ Building on previous practice, at a minimum, Article 9.5 communications should be compiled and synthesized by the UNFCCC Secretariat. ■ Per Article 9.6, the CMA should specify that Article 9.5 communications and their compilation and synthesis by the Secretariat shall be inputs to the global stocktake. ■ To allow for more frequent consideration of progress in making all finance compatible with the goals of the Paris Agreement, a biennial high-level ministerial dialogue should be convened by the CMA, and finance ministers should be encouraged to attend. To prepare for the dialogue, the Subsidiary Body for Implementation or another process created by the CMA could consider all finance reports and communications under the Paris Agreement received in the prior two years and determine the agenda or key topics for the high-level ministerial dialogue.

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	PACT SUGGESTIONS FOR ADDITIONAL ELEMENTS FOR ELABORATION, INCLUDING BEYOND CMAI-3
IMPLEMENT	Cooperative Implementation (Articles 6.2 & 6.4)	<p>GOVERNANCE</p> <p>Article 6.2</p> <ul style="list-style-type: none"> ■ Set up a facilitative, centralized registry for use by Parties wishing to engage in trading internationally transferred mitigation outcomes (ITMO). ■ Restrict participation in Article 6.2 ITMO transfers to countries meeting eligibility criteria in relation to: unitization of mitigation outcomes, use of metrics compatible with those used in nationally determined contributions (NDCs), and visibility of corresponding adjustments in the reporting on NDCs. ■ Issue guidance covering "unit issuance" under Article 6.2 to facilitate the transaction of ITMOs and prevent double counting. This could be further elaborated in coming years. <p>Article 6.4</p> <ul style="list-style-type: none"> ■ Set up a registry for the issuance of Article 6.4 units. ■ Create short crediting periods and conditionality to avoid the perverse incentive of allowing sectors or activities indefinitely outside the scope of a country's NDC. ■ Establish sound governance practice for the supervisory board, including equitable regional representation, gender balance, provisions on conflict of interest, term limits for membership, and the development of an appeals procedure for decisions of the future body. ■ Establish a periodic review of the mechanism to assess the sustainability of the mechanism used and its impact on NDCs. <p>PRINCIPLES AND ACCOUNTING RULES</p> <p>Article 6.2</p> <ul style="list-style-type: none"> ■ Agree to use the same accounting metrics (including the latest global warming potentials from the Intergovernmental Panel on Climate Change [IPCC]); ■ Encourage adoption of multiyear carbon budget targets but, in the meantime, set specific rules on how to account for internationally transferred mitigation outcomes (ITMO) use toward single-year NDC targets; specific guidance should be provided on the use of different vintages and units and their impact on ambition, especially in relation to NDCs expressed as single-year targets; ■ Create and use balance sheets to support reference-level approaches. <p>Article 6.4</p> <ul style="list-style-type: none"> ■ Decide whether and how to consider project activities under the Kyoto Protocol, including the Clean Development Mechanism (CDM), under the new mechanism, bearing in mind the significant impact on overall ambition from unrestrained use of existing CDM activities. Parties will need to decide under which conditions credits generated under CDM and Joint Implementation of the Kyoto Protocol can be used for meeting NDCs. <p>LINKAGES</p> <ul style="list-style-type: none"> ■ Article 13 reporting guidelines should include guidance on: <ul style="list-style-type: none"> □ How inventory emissions should be compared to the target level, after accounting for ITMOs and the land sector. This approach could allow the emissions inventories to combine information on ITMO transfers, as well as the land sector, to create an "accounting balance." □ How technical corrections affect target levels or baselines to support continuous improvement of methodologies and processes while maintaining clarity. ■ Article 13 technical expert review (TER) guidelines should: <ul style="list-style-type: none"> □ Allow for a "true up period" after the end of each commitment period, when transactions between latest units can be finalized and included in the registry and inventory, and therefore be properly reviewed (Hood and Soo 2017). □ Offer guidance on how the TER will track and assess progress on NDC implementation and achievement of targets, supported by adequate training. ■ Negotiators should clarify the link to Article 15 and compliance: <ul style="list-style-type: none"> □ Make participation in international transfers of ITMOs subject to eligibility criteria. These could be based on the accounting rules and guidelines mentioned above (e.g., related to the communication of NDCs [under Article 4.13], and the tracking of progress in implementing and achieving NDCs [under Article 13.13], including the use of ITMOs toward NDCs [under Article 6; La Hoz Theuer et al. 2017]). □ Address the mismatch in timing between provisions under Article 4 of the Paris Agreement, with an impact on second and subsequent NDC cycles) and Article 6 (in force from 2020 onward) to ensure compatibility of Article 6 accounting with the overall accounting system. ■ Parties should also consider establishing a capacity-building program for developing countries on issues related to accounting for their NDCs and their involvement in either Article 6.2-or 6.4-related activities.

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	PACT SUGGESTIONS FOR ADDITIONAL ELEMENTS FOR ELABORATION, INCLUDING BEYOND CMA1-3
IMPLEMENT	Enhanced Transparency Framework – Reporting (Article 13)	<p>FLEXIBILITY</p> <ul style="list-style-type: none"> ■ The consortium does not expect a specific overarching decision on flexibility, but rather expects flexibility to be woven into the reporting and review elements. ■ Parties should consider a diverse set of flexibility approaches, ranging from the use of tiers, opt-in/opt-out, development of improvement plans, and criteria-based decisions (as described above). ■ The MPGs could be periodically reviewed (e.g., after two rounds of the reporting and review cycle) to improve the process based on experience and lessons learned. <p>NATIONAL GHG INVENTORIES</p> <ul style="list-style-type: none"> ■ All Parties should be required to report comprehensively on all seven Kyoto greenhouse gases over time with flexibility for developing countries based on their capacities. ■ Parties should maintain at least their current reporting frequency; developing countries should be encouraged to report annually over time as support grows and institutions strengthen. ■ Parties should report comprehensively over time on their national inventories, using the most recent IPCC guidelines adopted by CMA. The IPCC guidelines promote a tiered approach. Support must be provided for the transition between guidelines for developing countries who need it, making efforts to develop emission factors and collect activity data. ■ Parties should use common reporting and tabular formats (to be defined post CMA 1–3) to disclose data. <p>TRACKING PROGRESS</p> <ul style="list-style-type: none"> ■ All Parties should report at a minimum the information required in the Paris Agreement decision 1/CP.21 paragraph 27. ■ All Parties should provide additional detailed information on NDC-specific and common elements based on the information outlined in the Paris Agreement to facilitate clarity, transparency, and understanding (decision 1/CP.21 para. 28). ■ Parties should include information on the indicators and methodologies used for tracking progress, including when technical correction or any changes are performed. ■ Parties using cooperative approaches under Article 6.2 and accounting for the land use sector, should include in the transparency report an “accounting balance,” specifying how inventory emissions are compared to the target level, after accounting for ITMOs and the land sector. ■ Reports could be required to provide information specific to its reporting period, for example, focusing on tracking achievement after an NDC implementation period is completed. ■ Parties should use common reporting and tabular formats. <p>CLIMATE CHANGE IMPACTS AND ADAPTATION</p> <ul style="list-style-type: none"> ■ A single set of guidance should be developed for both adaptation communications under Article 7 and transparency reporting under Article 13. ■ Depending on this guidance, Parties could provide forward-looking information, backward-looking information, and contextual elements. Adaptation communications should be at least forward-looking. <p>SUPPORT PROVIDED AND MOBILIZED</p> <ul style="list-style-type: none"> ■ A single set of guidance should be developed to govern reporting for all Parties providing support. ■ Parties should report biennially and include ex-post data on the previous two calendar years. ■ Parties should agree on a common approach for collectively reporting on finance mobilization. ■ Parties should report on how their support achieves the aims of Article 2 and their provision of finance supports the goal in Article 9.4. ■ Modalities for the accounting of financial resources provided and mobilized through public interventions in accordance with Article 9.7 developed by the SBSTA must be integrated into the guidance for reporting on finance provided and mobilized in the enhanced transparency framework (ETF).

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	PACT SUGGESTIONS FOR ADDITIONAL ELEMENTS FOR ELABORATION, INCLUDING BEYOND CMAI-3
REVIEW	Enhanced Transparency Framework – Review (Article 13)	<p>In addition to the discretion provided to LDCs and SIDS, the provision of support to developing countries to sustain improvement over time, and the no backsliding clause mentioned above:</p> <p>FLEXIBILITY</p> <ul style="list-style-type: none"> ■ The consortium does not expect a specific overarching decision on flexibility, but rather expects flexibility to be woven into the reporting and review elements. ■ Parties should consider a diverse set of flexibility approaches, ranging from the use of tiers, opt-in/opt-out, development of improvement plans, and criteria-based decisions (as described above). ■ The MPGs could be periodically reviewed (e.g., after two rounds of the reporting and review cycle) to improve the process based on experience and lessons learned. <p>TECHNICAL EXPERT REVIEW</p> <ul style="list-style-type: none"> ■ Parties should be able to request that the technical expert review consider information beyond that required under Articles 13.11 and 13.12 of the Paris Agreement. ■ For review of initial NDCs, countries should be required to highlight how they plan to track progress in implementing and achieving their NDCs. ■ Review formats should be allowed to vary based on set criteria (to be decided later, see the following section) with input from the country under review and recommendations from previous TER teams. Centralized reviews could be the default. ■ Special attention should be given for the review of the tracking of NDCs for Parties using ITMOs or accounting for their land use sector. ■ Parties should make more efforts to broaden their pool of experts and should nominate more nongovernmental experts in the roster and in a way that fosters gender balance. The team of experts should include lead reviewers, and their roles should be similar to those specified in existing guidelines.²⁰ <p>FACILITATIVE, MULTILATERAL CONSIDERATION OF PROGRESS</p> <ul style="list-style-type: none"> ■ An online platform could be used to facilitate and enhance regional peer exchange among key national stakeholders who would not otherwise be able to participate in the in-person facilitative, multilateral consideration of progress (FMCP) scheduled on the margin of the UNFCCC negotiations. This would enhance capacity building with a wider range of stakeholders and make the process more inclusive. ■ A streamlined design adopted by negotiators could combine the two review processes in a more collaborative and effective manner (see Appendix J). <p>CROSSCUTTING GUIDELINES</p> <ul style="list-style-type: none"> ■ Negotiators should pay particular attention to the review of information necessary to track progress in implementing and achieving country NDCs under Article 4 of the Paris Agreement because this could help identify capacity-building needs and areas for improvements. Capacity-building needs and areas for improvements need to be identified by the Party to avoid the impression that TER teams should review the adequacy or success of NDCs. The TER teams, guided by the Parties, should have the opportunity to list the capacity-building needs and areas for improvement, which could not only inform the FMCP and the Article 15 expert committee, but could also be used as input for the national process of revision and/or update of the NDCs.

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	PACT SUGGESTIONS FOR ADDITIONAL ELEMENTS FOR ELABORATION, INCLUDING BEYOND CMAI-3
REVIEW	Global Stocktake (Article 14)	<p>SCOPE</p> <ul style="list-style-type: none"> ■ Parties should establish three streams aimed at the long-term goals. Each stream should also consider implementation of other thematic elements of the Paris Agreement. <ul style="list-style-type: none"> □ Stream A: long-term temperature goal 2.1 (a), including considerations of means of implementation (Mol) and support for mitigation, loss and damage implications, and related aspects □ Stream B: long-term adaptation goal 2.1 (b), including considerations of Mol and support for adaptation, loss and damage implications, and related aspects □ Stream C: long-term financing goal 2.1 (c), including finance flows for Mol and support and loss and damage and related aspects ■ Additional elements, such as those in Article 12 should be considered as appropriate. ■ Parties should mandate co-facilitators for the global stocktake to prepare specific guiding questions, within the three broad questions of “where are we?” “where do we need to go?” and “how do we get there?” well ahead of each global stocktake to inform the provision of inputs. ■ Parties should include additional information to be considered by the global stocktake and additional sources of input to supplement the nonexhaustive list in paragraph 99 of decision 1/CP.21. <p>DURATION AND TIMING OF KEY MILESTONES</p> <ul style="list-style-type: none"> ■ Parties should ensure the global stocktake culminates in a high-level political phase to take place in conjunction with the relevant Conference of Parties (COP). Negotiators should ensure that inputs are called for by the subsidiary body session in the year preceding the relevant COP for the global stocktake. We suggest a length of 18 months for the first global stocktake that would include two technical considerations during intersessions and one political phase during a COP. <p>EQUITY</p> <ul style="list-style-type: none"> ■ Parties should ensure the global stocktake reflects on how countries have described their NDC to be a fair contribution. Further research should be encouraged under SBSTA and Intergovernmental Panel on Climate Change (IPCC) on a broader framework to systematically assess collective efforts based on equity. <p>OUTPUTS</p> <ul style="list-style-type: none"> ■ Parties should agree that the global stocktake produce the following to inform the actions and decisions of various stakeholders: <ul style="list-style-type: none"> □ High-level political messages, applicable to all □ Detailed technical summaries of global and regional options □ Actionable recommendations for a range of constituencies □ Recommendations on future research for institutions like IPCC. <p>UNFCCC BODIES INVOLVED</p> <ul style="list-style-type: none"> ■ Given the volume of available information and highly thematic nature of the stocktaking exercise, Parties should use the expertise and experience of existing bodies serving the Paris Agreement to synthesize information. Different institutions, including the Secretariat, the champions, and the subsidiary bodies, could play roles at various stages of the global stocktake process. <p>PARTICIPATION OF SUBNATIONAL AND NONSTATE ACTORS</p> <ul style="list-style-type: none"> ■ Parties should allow for inputs and by non-Party stakeholders. <p>TIMING OF INPUTS</p> <ul style="list-style-type: none"> ■ Parties could agree on an initial round of submissions at the start of each global stocktake, with a later review process to assess gaps and identify additional sources of input. Over time, inputs and outputs could be revisited based on the outcome of previous stocktaking exercises and scientific, societal, environmental, economic, and technological changes. <p>PHASES</p> <ul style="list-style-type: none"> ■ Parties could mandate one technical phase that incorporates both the submission of country inputs and technical dialogues, followed by a political phase.

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	PACT SUGGESTIONS FOR ADDITIONAL ELEMENTS FOR ELABORATION, INCLUDING BEYOND CMA1-3
REVIEW	Facilitate Implementation and Promote Compliance (Article 15)	<p>GUIDANCE</p> <ul style="list-style-type: none"> ■ Parties should frame operational guidance for the committee to take into account: <ul style="list-style-type: none"> □ The cause, type, degree, and frequency of implementation difficulties facing countries that are referred for compliance issues □ The special needs of least developed countries and small island developing states in particular □ Efforts underway by the country concerned to receive support when it is facilitating assistance □ The legal character of the applicable provisions of the Paris Agreement □ The need to avoid duplication of work and enhance synergy with other relevant mechanisms and processes under the Paris Agreement and beyond □ That the stronger measures should be applied only to cases of noncompliance with specific binding obligations under the Paris Agreement and be used only as a last resort ■ Several of these elements may be established as providing overarching guidance to the operation of the committee, while some should best be focused on the application of measures. <p>REFERRAL</p> <ul style="list-style-type: none"> ■ Parties should provide for three methods of referral of individual matters to the committee: <ul style="list-style-type: none"> □ Self-referral □ Party-to-Party referral □ Administrative non-Party referral (the committee having the discretion to act on the basis of information received under Article 13 of the Paris Agreement or from the Secretariat) <p>MEASURES</p> <ul style="list-style-type: none"> ■ Parties should provide the committee with the authority to take the following measures, as appropriate: <ul style="list-style-type: none"> □ Provision of information or advice □ Recommendations for a particular course of action □ Facilitation of access to assistance □ Action plans for countries □ Issuing cautions □ A declaration of noncompliance or a finding on compliance □ Suspension of certain rights and privileges under the Paris Agreement. ■ The final three stronger measures listed above could be limited to cases where countries fail to meet specific binding obligations under the Paris Agreement, and could be applied as a last resort, as appropriate. (To reassure Parties, such decisions could also require confirmation by the CMA.) <p>SYSTEMIC ISSUES</p> <ul style="list-style-type: none"> ■ Parties should mandate the committee to regularly review challenges in the implementation of reporting requirements faced by a number of Parties and any other systemic issues the committee or the CMA identifies as significant.

APPENDIX B: SUMMARY OF ADDITIONAL ELEMENTS FOR ELABORATION, INCLUDING BEYOND DECEMBER 2018

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	PACT SUGGESTIONS FOR ADDITIONAL ELEMENTS FOR ELABORATION, INCLUDING BEYOND CMA1-3
PLAN	Common timeframes (Article 4.10)	<ul style="list-style-type: none"> ■ Adjusting the guidelines. Adjust relevant elements of the Paris implementation guidelines, such as those with implications for countries related to global stocktakes (Oberthür and Northrop 2018). ■ Procedural implications. Further elaborate the procedural implications for updates of the registry and for Article 6. ■ Capacity building. Consider how to support developing countries through capacity building, technology transfer, and finance to transition from a 10-year to a 5-year timeframe. For example, guidance could be developed for enhanced cooperation between experienced and less experienced countries on adjusting national institutional and legislative frameworks.
	Nationally determined contributions (NDC) Mitigation elements (Article 4)	<ul style="list-style-type: none"> ■ Balance sheet. The Secretariat should have a mandate to design an accounting balance sheet template and prepare instructions for how to fill in the required information. ■ Definitions, modalities, and guidelines. Beyond CMA 1–3, the SBSTA should be given the mandate to develop definitions, modalities, and guidelines for accounting of anthropogenic emissions and removals from LULUCF and to recommend them for adoption by the CMA by COP25 in 2019. This should include detailed guidance, treatment of natural disturbances, quantification of harvested wood products, forest definitions, and reference level, among other issues. ■ Deadline for technical guidance. All necessary technical guidance should be agreed no later than 2020, so Parties have adequate time to prepare for reporting their accounting-related information. Ideally it would be agreed in 2019 so that Parties are informed of the guidance when updating their NDCs or submitting new NDCs.
	Adaptation communications (Article 7)	<ul style="list-style-type: none"> ■ Methodological work. The methodological work (expected to be guided by the Adaptation Committee and Least Developed Countries Expert Group) to help countries undertake the required assessment and projection of efforts lags behind similar efforts on mitigation. Parties could mandate SBSTA and IPCC to consolidate methodological guidelines and tools to support countries' endeavors. ■ Optional elements. Decisions on the optional elements under discussion, which would be useful but are not central to efforts to meet the global goal on adaptation, can be made by negotiators further down the line. ■ Linking to the global stocktake. Similarly, the details of what and when the adaptation communications feed into the 2023 global stocktake does not require action at CMA 1–3. However, it would be useful for Parties to agree on a timeline for resolving these issues.
	Ex-ante Communications on Finance (Article 9.5)	<ul style="list-style-type: none"> ■ Due dates and time period covered by communications. While the mandate is clear that Article 9.5 communications are biennial, the precise submission deadline, as well as the period to be covered by the communication (for example, two years from the date of submission) needs to be determined. It will be important to ensure timings are well-coordinated with other submissions and processes so as to ensure coherence and avoid undue burden on Parties (see Chapter 10). ■ Format for communications. Common tabular formats could help increase comparability and consistency of communications. They would be substantially different to common tabular formats for ex-post reporting, since project-level information would not be expected. In addition, not all fields would be mandatory because of the flexibility allowed by the mandate and our proposed tiered approach. ■ Parties required to communicate. "Developed country Parties" are not defined in the Paris Agreement. The CMA could provide guidelines, or Parties could self-identify (Elliott et al. 2017). ■ Potential joint communications. As with the mandate for biennial submissions, Article 9.5 refers to Parties in the plural, which means that joint communications by multiple Parties might be possible. Indeed, European Union member states, along with some other Parties in the region, have made joint biennial submissions. Additional guidelines may be necessary to assist Parties in choosing whether and how to make joint Article 9.5 communications.

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	PACT SUGGESTIONS FOR ADDITIONAL ELEMENTS FOR ELABORATION, INCLUDING BEYOND CMAI-3
IMPLEMENT	Cooperative Implementation (Articles 6.2 & 6.4)	<ul style="list-style-type: none"> ■ Sustainability assessments. On governance, criteria to guide sustainability assessment of activities under the future Article 6.4 mechanism. ■ Training. Training material for how technical expert reviewers will track and assess progress on NDC implementation and achievement of target. ■ Safeguards. Safeguards should be developed to prevent perverse incentives (including for the conservativeness of baselines, and guidance on the treatment of NDCs in the baseline). ■ Reporting on ITMOs. Guidance on tabular formats and templates for transparently recording ITMO transfers and their application to NDCs. ■ Flexible mechanisms. How flexible mechanisms under the Kyoto Protocol, including the Clean Development Mechanism, will continue, evolve, or be replaced under the new Paris regime. This must include considering possible changes to existing methodologies; incorporating the new reality of NDCs into their baseline methodologies; treatment of existing activities, given that these activities are committed to credit from business-as-usual scenarios and are not considered in NDCs; and the possible banking of units, with impacts on the level of ambition of existing NDCs. ■ Share of proceeds. A decision on the share of proceeds from activities under the mechanism in Article 6.4 to cover administrative expenses and assist developing countries that are particularly vulnerable to climate change to meet the costs of adaptation (UNFCCC 2015, Article 6.6). Building on past practice, the proceeds should be channelled through the Adaptation Fund (UNFCCC 2001a, para. 2). This could be specified in the decision of the CMA on how the Adaptation Fund will serve the Paris Agreement (UNFCCC 2016c, para. 11; 2017d, para. 12). In terms of the size of the share of proceeds from the Article 6.4 mechanism for the Adaptation Fund, the present 2 percent share of certified emissions reductions from CDM project activities for the Adaptation Fund shall be considered a floor and should rise with increased ambition (UNFCCC 1998, Article 12, para. 8; 2001b, para. 15[a]).
	Enhanced Transparency Framework – Reporting (Article 13)	<ul style="list-style-type: none"> ■ The structure and specific elements of the Common Tabular Format and Common Reporting Format tables. These reporting methods can aid comparability and consistency between country reports on key information including GHG emissions and removals, mitigation actions and effects, and financial support. They are used already under the UNFCCC, and several options are under consideration. ■ Transitional arrangements. Parties may need to continue to reflect on how to ease the transition to the new framework.
REVIEW	Enhanced Transparency Framework – Review (Article 13)	<ul style="list-style-type: none"> ■ The “terms of reference” of the technical expert review teams. Specific elements that could be postponed beyond 2018 include the role of the Secretariat and lead reviewers; nomination and selection criteria to guarantee the relevant competencies, geographical balance, avoidance of conflict of interest, gender balance, and participation of a wider range of stakeholders; and training and certification. ■ The criteria for determining review formats. Given the financial and human limits on conducting reviews, Parties may identify criteria to determine the format of individual reviews to ensure an efficient use of resources. ■ Guidelines for preparation of review outputs. Negotiators may agree in 2018 on the desired outputs from the two review processes, but further time may be needed to develop the MPGs for these outputs. ■ Guidelines for the TER team’s assessment. Parties may also mandate the Secretariat to produce a template or a checklist that the technical expert review teams may use to guide their assessment in a consistent and facilitative manner, based on lessons learned from the existing regime. Such a template could be considered by the SBSTA, where Parties would provide guidance to the Secretariat for finalization of the checklist and its use during the TER. Sample guidance is provided in Appendix K. ■ Training for reviewers. Training material for how technical expert reviewers will track and assess progress on NDC implementation and achievement of target needs to be developed. ■ Transitional arrangements. Parties may need to continue to reflect on how to ease the transition to the new framework.

CLIMATE ACTION CYCLE PHASE	PARIS AGREEMENT ELEMENT	PACT SUGGESTIONS FOR ADDITIONAL ELEMENTS FOR ELABORATION, INCLUDING BEYOND CMA1-3
REVIEW	Global Stocktake (Article 14)	<ul style="list-style-type: none"> ■ Co-chairs of the global stocktake. The method of appointing co-chairs for the global stocktake will need to be further elaborated, including whether additional co-facilitators are appointed for thematic streams. ■ Inputs. A process should be drafted for identifying any additional inputs ahead of each global stocktake. ■ Specific guiding questions. A process should be elaborated for identifying additional and more specific guiding questions (along the lines of those identified in Appendix L). The co-chairs could be mandated to develop this process well in advance of the timing for submission of the first round of inputs for the 2023 global stocktake. ■ Specific role of UNFCCC bodies. Specific roles for various UNFCCC bodies in the global stocktake should be decided. ■ Participation of non-Party stakeholders. Negotiators should decide how non-Party stakeholders will engage in the global stocktake, including whether there will be any criteria or guidance for the submission of inputs, how non-Party stakeholders will participate in technical dialogues convened under the global stocktake and any associated methods of appointment.
	Facilitate Implementation and Promote Compliance (Article 15)	<ul style="list-style-type: none"> ■ Institutional arrangements and decision-making procedures. Length of terms of committee members, appointment of chair and vice-chair, decisions on whether members will act in their personal capacity, and whether a majority is required for decision-making. ■ Due process rights of countries under referral. The right to participate in proceedings (but not in adopting the decision), to speak, to make written submissions, and to comment on information on the table. ■ Additional sources of information. Additional types of information the committee may use in its deliberation (beyond Article 13 and the Secretariat), possibly including information supplied by non-Party stakeholders and treatment of information submitted in confidence. ■ Process issues. Decisions on whether to allow participation in proceedings by stakeholders and the public, to enable the committee to receive expert advice, and to define general steps for proceedings. ■ Relationship with the CMA (including whether and how the CMA provides further guidance to the committee). The relationships with dispute settlements under Article 24 of the Paris Agreement, and with the UNFCCC Secretariat.

APPENDIX C: UNDERSTANDING THE MITIGATION COMPONENT OF THE NDC

Background on the NDCs

The concept of a nationally determined contribution (NDC) has evolved over time. The diversity of the information captured in NDCs is a result of their nationally determined nature, as well as the continued absence of an unambiguous and unanimous definition.²¹ COP19 in Warsaw in 2013 invited all Parties to prepare their *intended* nationally determined contributions (INDCs) to address climate change and to communicate them before the end of the negotiations process. At that time, the nature, scope, and legal status of commitments and actions under the Paris Agreement was not clear. It was up to Parties to decide how they intended to contribute to global efforts to address climate change.

The foundational concepts of “contribution” and “national determination” were reinforced in Articles 3 and 4.2 of the Paris Agreement, which clarifies the expectation that each government decides, based on its circumstances and capacities, the mitigation measures it will take to achieve the objectives of their NDC and the Agreement. In aggregate, the efforts of individual Parties to reduce national emissions should set the world on a path to limit temperature rise to well below 2°C or 1.5°C above pre-industrial levels.

INDCs were later formalized into NDCs as countries submitted their respective instruments of ratification, acceptance, approval, or accession of the Paris Agreement. These first NDCs embody efforts by each country to reduce national emissions and adapt to the impacts of climate change. They are the anchor or reference point for further guidance on implementation of the Paris Agreement including the transparency framework and for accounting.

Expectations for mitigation in the NDCs

The establishment of nationally determined contributions (NDCs) sets expectations for Parties, domestic constituencies, and other stakeholders that they will contribute to the global goals of the Paris Agreement. NDCs provide a signal that countries are doing their part to combat climate change and limit future climate risks. NDCs are expected to be ambitious, leading to transformation in carbon-intensive sectors and industries; equitable, so that each country does its fair share to address climate change; and transparent, so that stakeholders can track progress and ensure countries meet their stated goals. NDCs that are transparent build trust and accountability with domestic and international stakeholders.

NDCs should be reliable and accurate, and provide unambiguous information about a country's intentions. Clear communication is critical so domestic and international stakeholders can anticipate how these actions will contribute to global emissions reductions and collaborate and plan accordingly.

APPENDIX D: ELEMENTS OF CLARITY, TRANSPARENCY, AND UNDERSTANDING

ELEMENTS THAT COULD FACILITATE THE CLARITY, TRANSPARENCY, AND UNDERSTANDING OF THE NATIONALLY DETERMINED CONTRIBUTIONS

THE REFERENCE POINT (INCLUDING, AS APPROPRIATE, A BASE YEAR)

Base year(s)/period, if relevant (e.g., 2005 or 2005–10)

Base year/period emissions, base year/period emissions intensity, or projected baseline scenario emissions, as relevant (e.g., base year emissions of 500,000 MtCO₂e in 2005)

TIME FRAMES AND/OR PERIODS FOR IMPLEMENTATION

For targets/outcomes: target year(s)/period and peaking year (if applicable) (e.g., 2025 or 2030 for a single-year target; 2021–30 for a multiyear target)

For actions: date that action comes into effect and date of completion (if applicable) (e.g., 2020 with no end date)

SCOPE AND COVERAGE

Sectors covered (e.g., all Intergovernmental Panel on Climate Change [IPCC] sectors covered in national greenhouse gas [GHG] inventory, or all economic sectors as defined by national sector classification)

Greenhouse gases covered (i.e., CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃)

Geographical coverage (e.g., 100% consistent with the national GHG inventory)

Percentage of national emissions covered, as reflected in the most recent national GHG inventory (e.g., 100%)

PLANNING PROCESSES

Planning processes for preparation of the nationally determined contribution (NDC; such as stakeholder engagement and public consultation; process, data, and analysis for prioritizing sectors, actions; and decision-making processes)

If known, planning processes for implementation of the NDC (such as government planning processes and implementation actions, and, if known, a list of existing or planned actions that will be implemented to achieve the NDC, their legal status, and the implementing entity[ies].)

If known, planning processes for tracking implementation of the NDC (such as any domestic monitoring, reporting, and verification [MRV] systems in place or planned)

ASSUMPTIONS AND METHODOLOGICAL APPROACHES INCLUDING THOSE FOR ESTIMATING AND ACCOUNTING FOR ANTHROPOGENIC GREENHOUSE GAS EMISSIONS AND, AS APPROPRIATE, REMOVALS

Assumed IPCC inventory methodologies and global warming potential (GWP) values to be used to track progress (e.g., 2006 IPCC Guidelines for National Greenhouse Gas Inventories; AR4 GWP values)

Related to international market mechanisms:

- Whether the Party intends to use or transfer internationally transferred mitigation outcomes (ITMOs)
- If ITMOs are to be used, is there any limit on the percentage of emission reductions that may be achieved through the use of ITMOs
- If ITMOs are to be used, the policy by which they are eligible

ELEMENTS THAT COULD FACILITATE THE CLARITY, TRANSPARENCY, AND UNDERSTANDING OF THE NATIONALLY DETERMINED CONTRIBUTIONS

Related to accounting assumptions for emissions and removals from the land sector:

- Treatment of land sector (included as part of the broader target; treated as a separate sectoral target; used to offset emissions within the target boundary; or not included in a target)
- If the land sector is included, coverage of the land sector (net emissions and removals from land use activities and/or categories) as compared to total net emissions from the land sector as a percentage, if known
- If the land sector is included, assumed accounting approach (activity based or land based) and accounting method for the land sector and the level against which emissions and removals from the land sector are accounted, if known, including policy assumptions and methodologies employed
- Any assumed use of methodologies to quantify and account for natural disturbances and legacy effects
- Any other relevant accounting approaches, assumptions, or methodologies

For GHG reduction targets relative to a projected baseline scenario:

- Whether the baseline scenario is static (will be fixed over the period) or dynamic (will change over the period)
- The methodology used to project the baseline scenario, including the projection method (e.g., name and type of models); the cut-off year for policies included in the baseline scenario, and any significant policies excluded from the baseline scenario; and the emissions drivers included and assumptions and data sources for key drivers
- For dynamic baseline scenario targets, under what conditions will the baseline be recalculated and if applicable, any significance threshold used to determine whether changes in emissions drivers are significant enough to warrant recalculation of the scenario
- Total emissions projected in baseline scenario in the target year(s)

For GHG reduction targets relative to emissions intensity:

- Level of output (e.g., GDP) in the base year, projected level of output in the target year/period (and an uncertainty range, if available), and units and data sources used

For NDCs that include actions:

- Estimated impact on GHG emissions and/or non-GHG indicators
- Methodologies used to estimate impacts, including the baseline scenario and other assumptions
- Uncertainty of estimated impacts (estimate or description)
- Information on potential interactions with other policies/actions

HOW THE PARTY CONSIDERS THAT ITS NDC IS FAIR AND AMBITIOUS, IN LIGHT OF ITS NATIONAL CIRCUMSTANCES, AND HOW IT CONTRIBUTES TOWARD ACHIEVING THE OBJECTIVE OF THE CONVENTION AS SET OUT IN ITS ARTICLE 2

Comparison of the contribution to multiple indicators related to fairness. Factors Parties may want to consider include:

- Emissions (e.g., past, current, or projected future emissions, emissions per capita, emissions intensity, or emissions as a percentage of global emissions)
- Economic and development indicators (e.g., GDP, GDP per capita, indicators related to health, energy access, energy prices, education, housing)
- National circumstances
- Vulnerability and capacity to adapt to climate change impacts
- Costs or relative costs of action
- Mitigation potential (e.g., renewable energy potential)
- Benefits of action (e.g., co-benefits), or other factors

Comparison of the contribution to multiple indicators related to ambition. Factors Parties may want to consider include:

- Projected business-as-usual emissions
- Recent historical emissions trends
- Total mitigation potential based on mitigation opportunities determined to be technically and economically feasible
- Benchmarks for the annual rate of emissions reductions, or other factors

Comparison of the contribution to multiple indicators related to achieving the objective of the Convention as set out in its Article 2. Factors Parties may want to consider include:

- Anticipated national emissions in the target year/period if the contribution is achieved
- The quantified GHG impact of the contribution
- The intended peaking year and peaking emissions level (if known)
- The annual rate of emissions reductions and/or expected emissions trajectory over time
- Deviation from business-as-usual emissions
- Any long-term mitigation goals, plans to limit cumulative emissions over time, or other factors

ELEMENTS THAT COULD FACILITATE THE CLARITY, TRANSPARENCY, AND UNDERSTANDING OF THE NATIONALLY DETERMINED CONTRIBUTIONS

OTHER INFORMATION

For outcomes, type of target and target level

For actions, name or title of actions, legal status, implementing entity(ies), or other relevant information

Additional action that could be achieved if certain conditions were met, such as action by other Parties, the receipt of support, or other factors, if applicable

Description of Party's long-term target(s), if applicable

Elaboration on national circumstances (e.g., emissions profile, mitigation potential)

Additional information on adaptation not captured elsewhere, if relevant

APPENDIX E: SUGGESTED REPORTING INFORMATION REQUIREMENTS FOR PARTIES GENERATING ITMOS

- Inventory time series should be produced so internationally transferred mitigation outcomes (ITMOs) trading across time can be referenced to annual emissions.
- Information on issuance, transfers, holdings and retirements/use of ITMOs, and Party-to-Party transfers should be required. This would include the quantity of ITMOs sold, retired, and transferred on an annual basis (in terms of metric of carbon dioxide equivalent). This would also include whether the host country or the buyer is counting a portion of the reduction achieved toward their nationally determined contributions (NDCs) through the transfer of ITMOs.
- ITMOs should be specified: types, country of origin, vintage (as applied to NDCs), and whether generated within or outside scope of NDC.
- Scope of the NDC target (gas and sector coverage, including role of land use) must be clarified.
- Information on nationally governed mechanisms and their unit registries should be provided.

- Parties should undertake accounting balance (using a balance sheet) to show progress based on the use of agreed accounting guidelines and projection of target. This would help facilitate the tracking of progress for the implementation and achievement of NDCs.
- Parties should provide the further information to (a) demonstrate efforts to preserve the environmental integrity of domestic market mechanisms and their registry systems; (b) show the co-benefits for sustainable development generated, together with information and details on national and international criteria used to determine how the ITMOs promote sustainable development; (c) demonstrate how "higher ambition" under Article 6.1 is achieved.
- Program standards must be established for a crediting mechanism or the design of an emissions trading scheme.
- Consultation should be undertaken with key stakeholders on activities under the Article 6 mechanisms.

Note: Unit registry would be similar to governance under the Kyoto Protocol.

Sources: Hood and Soo 2017; La Hoz Theuer et al. 2017; Carbon Market Watch 2016.

APPENDIX F: DETAILED TABLE ON POTENTIAL INFORMATION FOR INCLUSION IN ARTICLE 9.5 COMMUNICATIONS ON CLIMATE FINANCE

INFORMATION TYPE	EXPLANATION	UTILITY FOR DEVELOPING COUNTRY PARTIES	EXAMPLE
QUALITATIVE AND QUANTITATIVE INFORMATION RELATED TO PROVISION AND MOBILIZATION OF FINANCE, APPLICABLE TO ALL			
Description of budgetary process	Provide information on national budget process, including the timeline and stages with a focus on elements particularly relevant for climate finance.	Enhances understanding of opportunities and constraints that contributors face in providing climate finance.	The European Union provided information about its own budget process, as well as those of its member states. ^a
Relevant investment, trade, and fiscal policies	Policies and incentives relevant to mobilization of climate finance in developing countries. This includes information on efforts to make finance flows consistent with a pathway toward low greenhouse gas emissions and climate-resilient development (per Article 2.1c).	Enhances understanding of institutions, policies, and instruments available to mobilize and shift finance flows in support of the objectives of the Paris Agreement.	Switzerland provided information on its policy of not granting insurance for exports of coal plants. ^b
Information on overall climate finance provision and mobilization	Information might include pledges on absolute amounts over a specified time period, increases in funding by a certain percentage from a specified baseline, or commitments to maintain funding at a fixed level or to balance funding across different areas. In 2016, all Annex II Parties made pledges related to reaching the \$100 billion collective mobilization goal in 2020. ^c	Indication of likely total climate finance available, global trends in provision, and gaps.	Germany committed to double its climate finance from 2014 levels by 2020. France committed to raising its climate finance from €3 billion to €5 billion a year by 2020. ^d
Information on countries and regions	Information on how efforts focus on different regions or categories of countries (e.g., least developed countries [LDCs], small island developing states [SIDS])	Indication of which contributors are likely to be prioritized supporting a given recipient's needs, and any gaps.	New Zealand stated that it would focus climate finance on SIDS in the Pacific region. ^e
Information on themes, sectors, or technologies	Information on how efforts focus on thematic areas of climate finance (e.g., adaptation, mitigation, REDD+), sectors, or technologies.	Indication of which contributors are best to approach for which needs, as well as any gaps in coverage.	Norway committed to maintain its REDD+ financing at NOK 2.8 billion per year until 2020. ^f
PROJECTED LEVELS OF PUBLIC FINANCIAL RESOURCES TO BE PROVIDED, AS AVAILABLE			
OECD Development Assistance Committee's survey on donors' forward spending plans ^g	Respondents provide projected information on core country programmable aid (CPA), up to three years ahead. ^h From 2014 to 2016, there was a voluntary question on climate finance, but only 16 out of 52 respondents provided information. ⁱ This question could be restored.	Context on the overall aid budget available, from which public climate finance commitments are likely to be made.	All DAC members and 23 multilateral agencies (including the Global Environment Facility and multilateral development banks) are surveyed.

INFORMATION TYPE	EXPLANATION	UTILITY FOR DEVELOPING COUNTRY PARTIES	EXAMPLE
Multiyear budget/ planning frameworks	Some contributor countries have medium-term budget frameworks or commitments that include development assistance and climate finance.	Context on overall budget available, and in some cases indicative climate finance allocations.	The United Kingdom enshrined in law a commitment to spending 0.7% of its GDP on development aid. ^j
Public climate finance through multilateral climate funds	Information on pledges to multilateral climate funds. The Global Environment Facility and the Green Climate Fund run on multiyear replenishment cycles. Pledges to other funds may also be made in advance and then disbursed over multiple years.	Indication of likely funding available at different funds, and any gaps.	Most developed country Parties contribute to one or more multilateral climate fund.
Public climate finance through bilateral channels	Some contributors initiating multiyear funding partnerships with developing countries may be able to project the proportion of climate-specific funding.	Indicates duration of engagement and types of activities prioritized.	U.S. Millennium Challenge Corporation makes five-year compacts with countries, with funding disbursed in tranches. ^k
Public climate finance through development finance institutions (DFIs)	Such as multilateral or bilateral development banks. Based on capital contributions, indicative projections of climate funding are possible based on each DFI's climate finance reporting and targets. ^l	Indication of finance likely available from DFIs and their approaches to private climate finance mobilization.	Most developed country Parties contribute to one or more DFI.
Public climate finance to specific programs and initiatives	Advance commitments to multiyear and/or large programs and initiatives.	Indicates duration of a commitment to support a specific program or initiative.	France provided information on future funding for a facility to support NDC implementation. ^m

Notes:

^a UNFCCC 2017a.^b UNFCCC 2015.^c UNFCCC 2017a.^d UNFCCC 2017a.^e UNFCCC 2017a.^f UNFCCC 2017a.^g Available at: <http://www.oecd.org/development/effectiveness/aidpredictability.htm>^h Country programmable aid is a core subset of gross bilateral official development assistance and multilateral outflows essential for the support of development goals. It excludes spending that is inherently unpredictable, such as humanitarian aid and debt relief; aid which doesn't flow to recipient countries, such as administration costs and refugee spending in donor countries; and aid which is usually not discussed between the donor and recipient governments, such as food aid or core funding to NGOs. See: OECD 2018.ⁱ Sedemund 2018.^j United Kingdom 2015.^k Millennium Challenge Corporation 2018.^l Multilateral Development Banks 2017.^m UNFCCC 2017a.

APPENDIX G: A POTENTIAL POST-2020 FINANCE PROCESS

The centerpiece of the post-2020 finance process could continue to be the high-level ministerial dialogues (HLMD), which have been important opportunities to engage leaders on climate finance, and have provided a political space for new finance commitments to be made. The CMA could convene the HLMD, and the COP Presidency and Secretariat should encourage finance ministers to attend to ensure the dialogue has the necessary breadth and importance to generate tangible outcomes. The outcomes of the HLMD, which could be summarized by the COP Presidency, can be an input to the global stocktake.

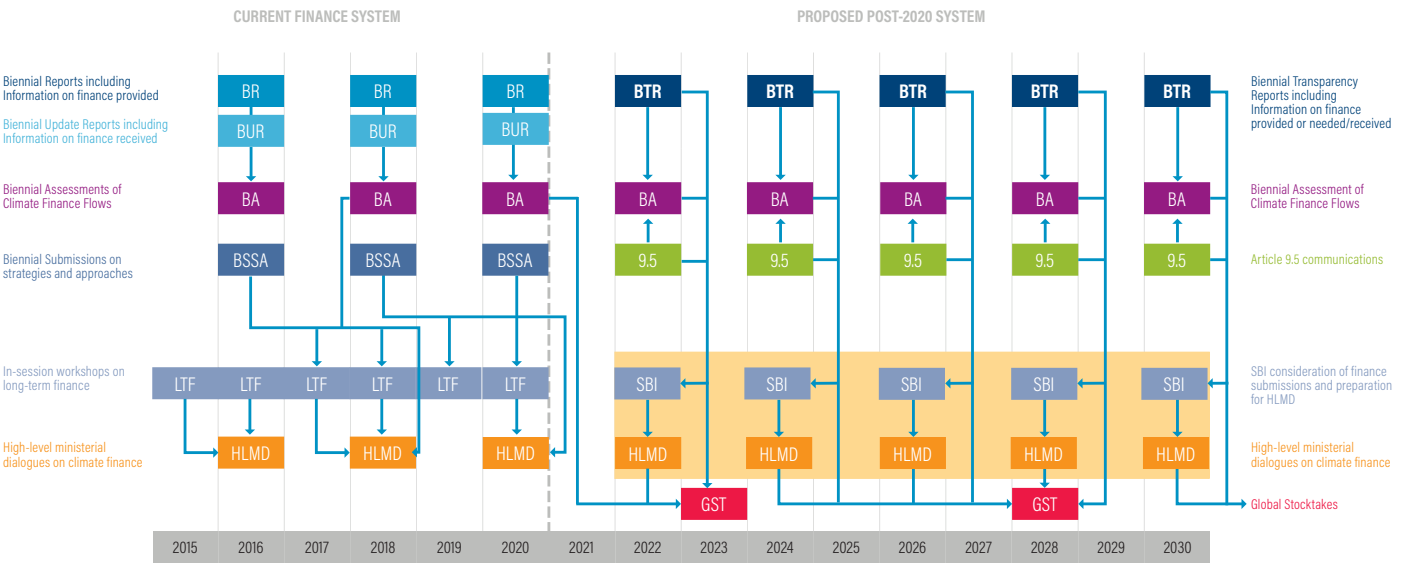
Ahead of the HLMD, it would be useful to consider all finance reports and communications under the Paris Agreement received in the prior two years and, based on this, determine the agenda or key topics for the

HLMD. This could take place under the Subsidiary Body for Implementation, or another process created by the CMA.

Finally, the CMA could consider specifying that Article 9.5 communications be considered in the Standing Committee on Finance’s Biennial Assessment and Overview of Climate Finance Flows, which would enable the report to take a more holistic look at not only past climate finance trends, but also future projections.

Figure AG-1 shows how such a system could work with other finance processes under the Paris Agreement.

Figure AG-1 | Proposed Post-2020 Finance System



APPENDIX H: THE TRANSPARENCY FRAMEWORK UNDER THE EXISTING SYSTEM AND UNDER THE PARIS AGREEMENT

	EXISTING UNFCCC SYSTEM		PARIS AGREEMENT	
	ANNEX I PARTIES	NON-ANNEX 1 PARTIES	DEVELOPED PARTIES	DEVELOPING PARTIES
REPORTING	Quadrennial national communications		Quadrennial national communications	
	Biennial reports	Biennial update reports	Biennial transparency reports	
	Annual national inventories		Annual national inventories	
REVIEW	Quadrennial in-depth review		Quadrennial technical review	
	Biennial international assessment and review technical review	Biennial international consultation and analysis technical review	Biennial technical review	
	Biennial international assessment and review multilateral review	Biennial international consultation and analysis facilitative sharing review	Biennial facilitative, multilateral consideration of progress	
	Annual review of national inventories		Annual review of national inventories	

APPENDIX I: DETAILED SUGGESTIONS FOR THE ENHANCED TRANSPARENCY FRAMEWORK

Based on the discussions in this paper and the analysis undertaken in Elliott et al. 2017 and Dagnet et al. 2017b, Table AI-1 includes the set of requirements and decisions Parties should take by COP24.

Table AI-1 | **PACT Suggestions for the Transparency Framework**

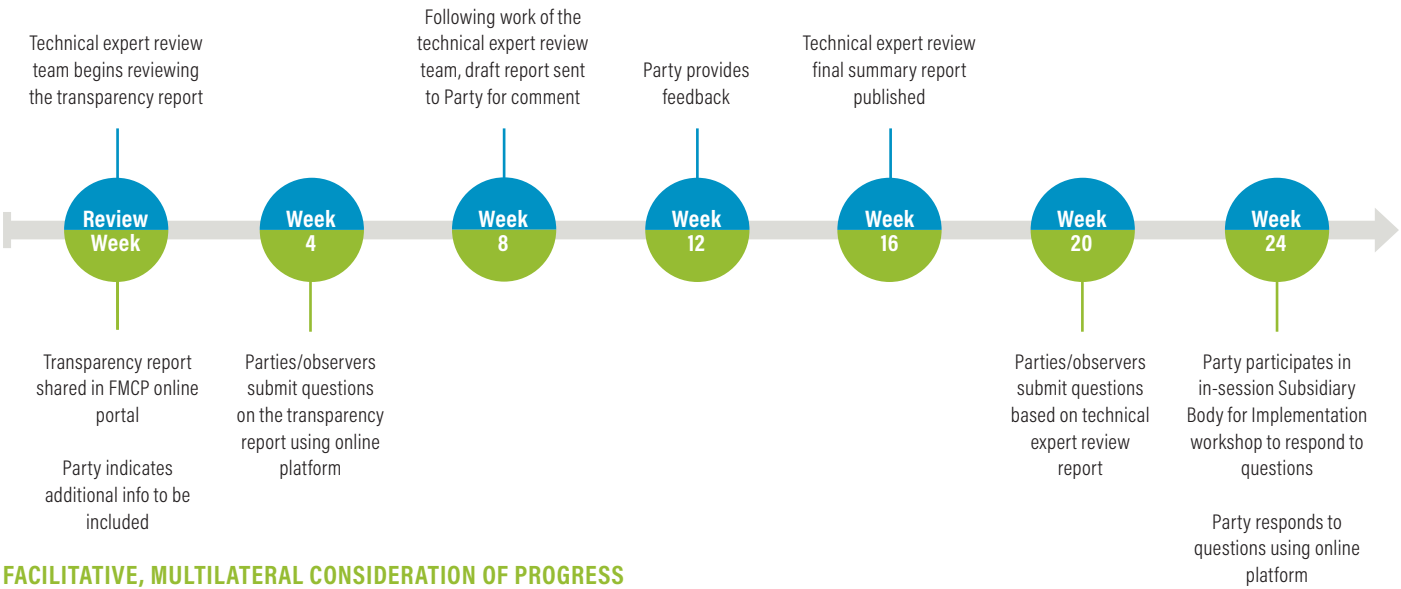
	ELEMENT	DECISION POINT	PACT MAIN SUGGESTIONS
REPORTING	National greenhouse gas (GHG) inventories	Information to be reported	Over time, all Parties should report the most accurate and comprehensive presentation of their GHG inventory data covering all seven GHG gases under the Kyoto Protocol. Opt-out allowed for developing countries but should be justified based on capabilities and relevance.
		Methodology	Parties should, to the extent of their capacity, apply the most recent Intergovernmental Panel on Climate Change (IPCC) guidelines.
		Format	Parties should use common reporting format (CRF) tables.
		Frequency	At a minimum, Parties should maintain their current frequency of reporting. Developing countries in a position to report annually should be encouraged to do so.
	Information necessary to track progress	Information to be reported	All Parties should be required to report additional information on their nationally determined contributions (NDCs) for the basis of tracking progress. Information reported on progress related to implementation and achievement should have common elements, as well as elements that are specific to the NDC, as relevant.
		Frequency	Parties should continue to report information relevant to progress every two years (e.g., with greater detail on implementation before a global stocktake).
		Format	Parties should report using a CRF organized by sectors and GHGs covered by the NDC and include key methodological assumptions accompanied by the use of an accounting tracking format for GHG targets.
	Information on climate change impacts and adaptation	Single set of guidance	Parties should follow one single set of guidance for adaptation communications under Article 7 that includes reporting for transparency purposes in order to streamline the reporting process, while retaining flexibility on the vehicle of communication or reporting.
		Information to be included	Parties should include both forward-looking and backward-looking information as well as contextual information.
	Information on support provided and mobilized	Information to be reported	Developed country Parties as well as other Parties that provide support shall include a description of how the provision of support contributes to achieving the aims of the Paris Agreement as set out in Article 2 and a description of how, in accordance with Article 9, paragraph 4, the provision of scaled-up financial resources contributes to achieving a balance between adaptation and mitigation.
		Format	Developed country Parties as well as other Parties that provide support should report biennially, through enhanced common tabular format (CTF) tables containing ex-post information on support provided.

Table AI-1 | **PACT Suggestions for the Transparency Framework (Ct'd)**

	ELEMENT	DECISION POINT	PACT MAIN SUGGESTIONS
REPORTING	Information on support needed and received	Information to be reported	<p>Parties should pull information from other communications and planning activities (e.g., NDCs, national adaptation plans [NAPs], national adaptation programs of action [NAPAs], and technology needs assessments [TNAs]).</p> <p>Parties should apply a tiered system of reporting on support received, where information is provided according to capacities, with the aim of progressing toward more detailed reporting over time.</p> <p>Parties should be encouraged to voluntarily report on finance from domestic budgets used for implementing the Paris Agreement and their NDCs.</p>
		Reporting periods	The reporting periods for support received should be the same as for support provided.
REVIEW	Technical expert review (TER)	Information for review	Parties should be able to request review of additional information (e.g., adaptation and means of implementation).
		Scope of review	The first review undertaken under the Paris Agreement should pay particular attention to the way Parties, especially Parties using market mechanisms, intend to track progress to prevent double counting and to preserve environmental integrity. Following the completion of an NDC implementation period, additional attention may be given to reporting on progress achieved.
		Modalities	In light of the increased number of reviews for a broader set of countries, the format of the TER—that is, whether it is a desk, centralized, or in-country review—should be targeted to ensure that the most effective approaches are used in specific country contexts. The type of TER could be selected based on a number of criteria (e.g., the quality of their previous biennial transparency reports and outcome of the previous review, emissions threshold, level of financial resources available for each review cycle, type of NDC, etc.). Centralized reviews could be used as the default.
		Frequency and Timing	TER takes place every two years following the submission of the biennial transparency report. Reviews should be completed within 15 months of the submission of the report.
	Facilitative, multilateral consideration of progress (FMCP)	Outputs	Consistent and facilitative review reports capturing recommendations from the reviewers should be produced within three months after the TER.
		Information for review	Parties could request that nonmandatory information be considered during the multilateral considerations.
		Scope of review	The scope of the first FMCP should pay particular attention to the way Parties intend to track progress toward their NDC.
		Modalities	The FMCP can consist of two complementary phases: an interactive process using an online platform aimed at enhancing participation of country experts, practitioners, and non-Party stakeholders; and the organization of in-person workshops under the Subsidiary Body for Implementation (SBI), which would bring more high-level participation.
		Frequency and Timing	FMCP takes place every two years following the submission of the biennial transparency report. The FMCP can take place before the conclusion of the TER.
		Outputs	A comprehensive review database with FMCP summary reports should be set up.

APPENDIX J: PROPOSED STREAMLINED TER/FMCP PROCESS

TECHNICAL EXPERT REVIEW



FACILITATIVE, MULTILATERAL CONSIDERATION OF PROGRESS

Source: Dagnet et al. 2017b.

APPENDIX K: SAMPLE QUESTIONS FOR THE TER

Participation in the technical expert review (TER) should be a positive and beneficial experience for Parties. To help ensure the TER is conducted in a facilitative manner and is helpful for Parties, Parties and the Secretariat may work together to define the checklist or types of questions that may guide the TER team's work. Below, we provide a few examples of the types of questions that the TER team would consider during its work. These questions build off the suggestions presented in Chapter 7 and are intended to illustrate the manner in which the TER would work and consider the information submitted.

With regard to 13.7 (a), National greenhouse gas (GHG) inventories	<ul style="list-style-type: none"> ■ Did the Party report comprehensively on all seven Kyoto gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride)? If the Party did not report on all seven gases, did the Party provide an explanation of their limitations for reporting? Did those developing country Parties that need it in the light of their capacities apply flexibility as provided for in the modalities, procedures, and guidelines for the enhanced transparency framework of action and support? ■ Did the Party submit their inventory according to the timeline specified within the modalities, procedures, and guidelines for the enhanced transparency framework of action and support? Did those developing country Parties that need it in the light of their capacities apply flexibility as provided for in the modalities, procedures, and guidelines for the enhanced transparency framework of action and support? ■ Did the Party indicate which Intergovernmental Panel on Climate Change (IPCC) guideline(s) were applied in preparing their inventory, and was the selected guideline(s) in accordance with the requirements stipulated by the modalities, procedures, and guidelines for the enhanced transparency framework of action and support? Did those developing country Parties that need it in the light of their capacities apply flexibility as provided for in the modalities, procedures, and guidelines for the enhanced transparency framework of action and support? ■ Did the Party submit their inventory using the common reporting and tabular formats as stipulated in the modalities, procedures, and guidelines for the enhanced transparency framework of action and support? Did those developing country Parties that need it in the light of their capacities apply flexibility as provided for in the modalities, procedures, and guidelines for the enhanced transparency framework of action and support?
With regards to 13.7 (b), Tracking Progress	<ul style="list-style-type: none"> ■ Did the Party provide sufficient information about their nationally determined contribution (NDC) to understand what they are tracking progress toward? ■ Did the Party provide information specific to its reporting period? ■ Did the Party submit their inventory using the common reporting and tabular formats as stipulated in the modalities, procedures, and guidelines for the enhanced transparency framework of action and support? Did those developing country Parties that need it in the light of their capacities apply flexibility as provided for in the modalities, procedures, and guidelines for the enhanced transparency framework of action and support?
With regards to 13.9, Support provided and mobilized	<ul style="list-style-type: none"> ■ Did the Party report biennially in accordance with the modalities, procedures, and guidelines for the enhanced transparency framework of action and support? ■ Did the Party provide ex-post information on finance provided during the previous two calendar years in accordance with the modalities, procedures, and guidelines for the enhanced transparency framework of action and support? ■ Did the Party include information on finance provided and mobilized in US dollars as well as their national currency (if different), and did they include information on the source(s) and date(s) for the exchange rate used to convert into US dollars?

APPENDIX L: POSSIBLE GUIDING QUESTIONS FOR THE GLOBAL STOCKTAKE

Below is a list of possible guiding questions regarding mitigation; adaptation; finance flows, support and means of implementation; and other areas that can be drawn upon to guide the format of the global stocktake. Under each category, questions are grouped according to: Where are we? Where do we need to be? and How do we get there? The final list of questions could be adjusted once the scope of the stocktake is agreed.

Mitigation

Where are we?

- Are all Parties preparing, communicating and maintaining successive nationally determined contributions? (Article 4.2)
- Are all Parties pursuing domestic mitigation measures, with the aim of achieving the objectives of such contributions? (Article 4.2)
- Are all Parties providing the information necessary for clarity, transparency, and understanding in accordance with decision 1/CP.21 and any other relevant decisions? (Article 4.8)
- Are Parties accounting for their NDCs in the manner outlined in Article 4.13? (Article 4.13)
- How have long-term low greenhouse gas emission development strategies been formulated? (Article 4.19)
- Are sinks and reservoirs of greenhouse gases being conserved and enhanced (as appropriate)? (Article 5.1)
- Is the use of internationally transferred mitigation outcomes toward NDCs promoting sustainable development and ensuring environmental integrity and transparency, including in governance, and applying robust accounting to ensure, inter alia, the avoidance of double counting? (Article 6.2)
- Is the mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable development (Article 6.4) established and effective?
- Is the framework for nonmarket approaches to sustainable development (Article 6.9) established and effective?
- To what extent are Parties providing and receiving international support and how effective is it?
- What is the aggregated impact of subnational and nonstate actions on the implementation of mitigation actions and ultimately on future global GHG emissions?
- What are the aggregated projected GHG emissions that result from all actions?
- When will emissions peak?
- When do carbon dioxide emissions need to reach net zero?
- When do non-carbon-dioxide GHG emissions need to reach net zero?
- When do total GHG emissions need to reach net zero?
- What is the projected increase in global average temperatures above pre-industrial levels based on current progress?

Where do we need to be?

- What global emission pathways are consistent with the long-term temperature goal and what are the associated assumptions?
- What is the estimated global GHG emissions gap or the temperature gap between current progress and scenarios consistent with the long-term temperature goal?

How do we get there?

- What are the barriers for implementation of further actions that would be in line with what is needed and how can Parties be supported in overcoming these barriers?
- What projects, programs, policies, and institutions are available to close the gap between where we are and where we need to be on the country, regional, sector, and organization levels?
- What are the costs (e.g., mitigation costs, compromises on food and water availability) and benefits (e.g., improved air pollution and health, energy security, innovation) of achieving additional reductions on a country, regional, sector, and organization level?

Adaptation

Where are we?

- To what extent has adaptive capacity been enhanced, resilience strengthened, and vulnerability reduced? (Article 7.1)
- How do these advances contribute to sustainable development? (Article 7.1)
- What data and information has been gathered, synthesized, and shared to recognize the adaptation efforts of developing countries? (Article 7.3 and 7.14a)
- To what extent do adaptation actions incorporate the principles outlined in Article 7.5?
- What evidence exists to indicate Parties are strengthening their cooperation on enhancing action on adaptation? (Article 7.7)

Where do we need to be?

- What does the temperature goal in Article 2 require in terms of an “adequate” adaptation response? (Article 7.1)
- How adequate and effective are the adaptation actions and the support provided for adaptation? (Article 7.14c)

How do we get there?

- What are the barriers to adaptation planning, and how can Parties overcome, and be supported to overcome, those barriers? (Article 7.8)
- What is needed to support broader incorporation/application of the principles outlined in Article 7.5?
- In what ways can Parties continue to build on the Cancun Adaptation Framework to strengthen cooperation on enhancing action on adaptation? (Article 7.7)
- What outputs are needed to enhance the implementation of adaptation action? (Article 7.14b)

Finance Flows, Support and Means of Implementation

Where are we?

- To what extent are current finance flows consistent with compatible pathways toward low greenhouse gas emissions and climate-resilient development? (Article 2.1c)
- What projects, programs, policies, and institutions are being used to make finance flows consistent with a pathway toward low greenhouse gas emissions and climate-resilient development, and how effective are they? (Article 2.1c)
- Are developed country Parties providing financial resources to assist developing country Parties in continuation of their existing obligations under the Convention? (Article 9.1)
- Are other Parties providing support voluntarily? (Article 9.2)
- Is the mobilization of climate finance taking into account the needs and priorities of developing country Parties, and their progression beyond previous efforts? (Article 9.3)
- Is the provision of scaled-up financial resources achieving a balance between adaptation and mitigation? (Article 9.4)
- Are the institutions serving the Agreement ensuring efficient access to financial resources through simplified approval procedures and enhanced readiness support for developing country Parties, in particular for the least developed countries and small island developing states? (Article 9.9)
- What support is being provided to developing country Parties for technology development and transfer, including for strengthening cooperative action on technology development and transfer at different stages of the technology cycle, with a view to achieving a balance between support for mitigation and adaptation? (Article 10.6)
- Are Parties cooperating to enhance the capacity of developing country Parties to implement this Agreement? Are developed country Parties enhancing support for capacity-building actions in developing country Parties? (Article 11.3)

Where do we need to be?

- What would it take to make finance flows consistent with compatible pathways toward low greenhouse gas emissions and climate-resilient development, in accordance with the goals set out in Articles 2.1(a) and (b), 4.1, and 7.1?
- Which projects, programs, policies, and institutions are consistent with low greenhouse gas emissions and climate-resilient development pathways, and which projects, programs, policies, and institutions are not consistent with such pathways?
- What are the needs and priorities of developing country Parties? (Article 9.3)
- What is the gap between financial resources provided for adaptation and financial resources provided for mitigation?

How do we get there?

- How can support provided and mobilized be more effective in meeting the long-term goals of the Agreement?
- What projects, programs, policies, and institutions are necessary to make finance flows consistent with a pathway toward low greenhouse gas emissions and climate-resilient development, and how could these enable an increase in ambition?
- What policies, investments, and institutional reforms are required to scale up the mobilization of finance, achieve a balance between adaptation and mitigation financial resources, and ensure efficient access to finance?

Additional Questions Arising from Implementation of the Agreement

Debate is ongoing as to whether these questions fall under the mandate of the global stocktake.

Where are we?

- To what extent have Parties enhanced understanding, action, and support with respect to loss and damage associated with the adverse effects of climate change? (Article 8.3)
- To what extent have Parties cooperated to enhance climate change education, training, public awareness, public participation, and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement? (Article 12)
- To what extent have Parties implemented Article 13, including the provision of information under paragraphs 7, 8, 9, and 10 and the review process under paragraphs 11 and 12?

Where do we need to be?

- What is required for Parties to avert, minimize, and address loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events? (Article 8.1)
- What is required for enhanced cooperation on education, training, public awareness, public participation, and public access to information? (Article 12)
- What would be the reporting and review requirements that would be compatible with the long-term goals of the Agreement?

How do we get there?

- In what ways can sustainable development play a role in reducing the risk of loss and damage? (Article 8.1)
- Has the Warsaw International Mechanism collaborated with existing bodies and expert groups under the Agreement, as well as relevant organizations and expert bodies outside the Agreement? (Article 8.5)
- What lessons have been learned about enhancing education, training, public awareness, public participation, and public access to information on climate change? How can these be scaled up? What opportunities are there for additional cooperation? (Article 12)
- How could the barriers to reporting and review requirements that would be compatible with the long-term goals of the Agreement be overcome?

ABBREVIATIONS

AC-LEG	Adaptation Committee and Least Developed Countries Expert Group
APA	Ad Hoc Working Group on the Paris Agreement
BTR	Biennial transparency report
CBDR-RC	Common but differentiated responsibilities and respective capabilities
CDM	Clean Development Mechanism
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
COP	Conference of the Parties
CRF	Common reporting format
CTF	Common tabular format
CTU	Clarity, transparency, and understanding
DAC	Development Assistance Committee
ETF	Enhanced transparency framework
FMCP	Facilitative, multilateral consideration of progress
GHG	Greenhouse gases
GST	Global stocktake
GWP	Global warming potential
HLMD	High-level ministerial dialogue
IPCC	Intergovernmental Panel on Climate Change
ITMOs	Internationally transferred mitigation outcomes

LDC	Least developed countries
Mol	Means of implementation
MPGs	Modalities, procedures, and guidelines
MRV	Measurement, reporting, and verification
NAP	National adaptation plan
NAPA	National adaptation programs of action
NC	National communications
NDC	Nationally determined contribution
NGO	Nongovernmental organization
OECD	Organisation for Economic Co-operation and Development
PA	Paris Agreement
PACT	Project for Advancing Climate Transparency
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCF	Standing Committee on Finance
SIDS	Small island developing states
TACCC	Transparency, accuracy, completeness, comparability, and consistency
TER	Technical expert review
TNA	Technology needs assessment
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change

ENDNOTES

1. Global stocktakes will occur every five years, beginning in 2023. Parties will also report on information to track progress under the transparency framework every two years.
2. Costs of solar components fell by an incredible 80 percent between 2008 and 2013. Five or 10 years ago this would never have been predicted.
3. This scenario is not new to this paper and was first conveyed in Müller et al. 2014 and Morgan et al. 2014 and has been supported in the latest round of submissions from Ethiopia on behalf of the Least Developed Countries Group, Trinidad & Tobago, and Belize, and from Oxford Climate Policy.
4. Which would align with the provisions of Article 4.9 stipulating that each Party shall communicate a nationally determined contribution every five years.
5. Agenda Item 3 of the negotiations furthers guidance related to the mitigation section of decision 1/CP.21 and encompasses the following elements: features of nationally determined contributions, as specified in paragraph 26; information to facilitate clarity, transparency, and understanding of nationally determined contributions, as specified in paragraph 28; and accounting for Parties' nationally determined contributions, as specified in paragraph 31. This involves gaining a shared understanding by Parties on what is meant by guidance, as well as determining the guidance's purpose and objectives.
6. In the OECD's Paris Declaration of Aid Effectiveness, donors agreed to "provide reliable indicative commitments of aid over a multi-year framework and disburse aid in a timely and predictable fashion according to agreed schedules," while the Accra Agenda for Action included more concrete commitments by donors to provide "regular and timely information on their rolling three- to five-year forward expenditure and/or implementation plans, with at least indicative resource allocations that developing countries can integrate in their medium-term planning and macroeconomic frameworks." <http://www.oecd.org/dac/effectiveness/34428351.pdf>. The UN International Conferences on Financing for Development also included commitments by donors to "make aid more predictable by providing developing countries with regular and timely, indicative information on planned support in the medium-term." http://www.un.org/esa/ffd/doha/documents/Doha_Declaration_FFD.pdf.
7. The Framework Convention's Article 4.3 also emphasizes the "need for adequacy and predictability in the flow of funds."
8. Two Annex II Parties failed to make submissions in 2014 and 2016.
9. Experience has been mostly with systems under which there is a common, unit-based metric—namely, tonnes of CO₂ equivalent, following the common unit under Kyoto.
10. In relation to the level of ambition effectively achieved with each NDC.
11. Under Article 6.5, two Parties cannot use the same emission reduction to demonstrate achievement of their NDC.
12. An alternative system would need to compare upon demonstration of achievement the holdings of different units by each Party in their registries against the issued units and ensure no double claiming is happening. A clear preference should be for the establishment of a centralized registry and a tracking log.
13. For more on this suggestion, please see the earlier PACT paper, Dag-net et al. 2017b.
14. Decision 1/CP.21, para. 90 notes that information reported under Article 7, paras. 7–10 (inclusive) shall be submitted "no less frequently than on a biennial basis." LDCs and SIDS may submit at their discretion. Decision 1/CP.21 further states in paragraph 92.e that "Parties maintain at least the frequency and quality of reporting in accordance with their respective obligations under the Convention."
15. The Secretariat and lead reviewers could continue performing their existing roles. The team could be selected in a way that ensures it has the relevant competencies, respects geographical balance, and avoids conflict of interest, with additional attention paid to gender balance and participation of a wider range of stakeholders. Training and certification should be provided to reviewers to match the issues under review.
16. See decision 22/CMP.1 and decision 13/CP.20.
17. As noted in previous chapters: the decision on common timeframes will have an effect on the global stocktake in 2028. Given different timeframes with current NDCs, comparability of efforts will remain a challenge for the global stocktake in 2023. In addition, depending on the transition to the enhanced transparency framework, there may be limited transparency reports as inputs. As highlighted in the chapter on linkages, there may also be additional ad hoc inputs, including those from the IPCC.

18. This is because the biennial transparency report submitted in 2036, would include only GHG historical emissions until 2034. In order to assess the achievement of the NDC, you would need to wait for the subsequent report in 2038, unless countries are asked to produce a special report in 2037 for the assessment of countries' targets, which may put an additional reporting burden on countries.
19. NDC Mitigation Elements refers to discussions on items related to Article 4 on mitigation, which covers a broader set of issues than communication of NDCs. Chapters on adaptation communications and ex-ante communications of finance information are only part of the broader issues covered by Articles 7 and 9, respectively.
20. See decision 22/CMP.1 and decision 13/CP.20.
21. This section draws from Levin et al. forthcoming.

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