



STAYING ON TRACK FROM PARIS: ADVANCING THE KEY ELEMENTS OF THE PARIS AGREEMENT

YAMIDE DAGNET, DAVID WASKOW, CYNTHIA ELLIOTT, ELIZA NORTHROP, JOE THWAITES, KATHLEEN MOGELGAARD, MELISA KRnjaic, KELLY LEVIN, HEATHER MCGRAY

EXECUTIVE SUMMARY

The Paris Agreement adopted in December 2015 provides essential building blocks for universal action to address climate change. Now, much work is needed to breathe life into the provisions and commitments of the Agreement in order to realize the globally agreed vision to limit temperature rise, build the ability to adapt to climate impacts, and align financial flows toward zero-carbon¹ and climate-resilient development.

The Parties to the United Nations Framework Convention on Climate Change (UNFCCC) must continue to cooperate effectively to unpack and clarify the key tasks and activities outlined in the Agreement in order to provide a well-defined pathway to implementation. This paper takes an in-depth look at the Paris Agreement, highlighting important outcomes and the tasks and activities that now need to be undertaken to elaborate and develop the critical rules and processes under the Agreement. Ensuring that these rules and processes are strong and effective will be essential to promoting ambitious climate action and accelerating it in the coming years.

What the Paris Agreement achieved

The Paris Agreement is a significant achievement that captures the divergent priorities and needs of 195 different countries in a manner that is applicable to all and guided by the principles of the Convention. Rooting the Agreement in national planning and policymaking—particularly through the national climate plans reflected in intended nationally determined contributions (INDC)—was essential to ensuring that the Agreement was universal and applicable to both developed and developing countries.

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In addition to its universal nature, the Paris Agreement makes significant progress in fulfilling eight key functions that were identified by the Agreement for Climate Transformation 2015 (ACT 2015) consortium² as critical to achieve in the Agreement.³

These functions are that the Agreement:

- Sends a clear signal to policymakers, businesses, investors, and the public that the low-carbon, climate-resilient economy is inevitable
- Links to science with a sense of urgency
- Connects the global agreement to the “real economy” and “real people” and enhances sustainable development
- Demonstrates fairness, equity, and justice in climate actions and outcomes
- Provides transparency and accountability for country commitments
- Accelerates the investment shift to low-carbon and climate-resilient economies
- Incentivizes action
- Ensures that vulnerable communities have the capacity to build resilience, manage, and adapt to the impacts of climate change

The Paris Agreement and the accompanying Conference of the Parties (COP) decisions provide a comprehensive framework that puts in place these essential functions. Yet challenges remain to realizing that globally agreed vision. At the national level, countries must implement their nationally determined contributions and identify scenarios for doing so in the context of sustainable development, while also exploring ways to go beyond their current national plans and increase ambition over time.

Meanwhile, however, there is also a crucial dimension of action that must take place at the global level. To fully achieve the functions of the Agreement, Parties must work together to design the numerous rules, guidelines, modalities, and procedures that will become the operational tools for implementing the Agreement. Ultimately, the long-term success of the Paris Agreement will rest on these critical details. Designing these tools well will be essential to ensuring environmental integrity, enhancing implementation, providing support for action, and increasing ambition over time.

Suggestions for advancing key elements of the Paris Agreement

The Agreement and the accompanying decisions outline a number of specific tasks that will need to be undertaken in order to establish the Agreement’s rules and procedures. This paper is intended to inform these critical efforts by outlining the essential tasks and providing specific recommendations for achieving significant progress on ten key elements of the Paris Agreement.

Many of the tasks described in this paper are intended to be completed by the first session of the Parties to the Paris Agreement (referred to in this paper as the first session of the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement (CMA1)), where key decisions will be adopted. While there is some uncertainty about the timing of this first session, depending on when the Agreement enters into force, a focused process for elaborating on the details of the Agreement needs to start in 2016.

Following are brief descriptions of the tasks that must be undertaken to enable implementation of the key elements of the Paris Agreement:

MITIGATION: The Agreement supports mitigation action by establishing a long-term mitigation goal to achieve net-zero greenhouse gas emissions (GHG) in the second half of the century, along with setting a goal to limit temperature rise to well below 2 degrees Celsius (2°C) and the pursuit of efforts to limit it to 1.5°C. It also provides a framework for communicating and maintaining nationally determined contributions and establishes a process for progressively increasing mitigation ambition and action over time, informed by a regular “global stocktake” to consider the state of implementation of the Agreement.

Parties now need to determine the features of future nationally determined contributions (NDCs) in order to guide their preparation, facilitate their assessment, and enable monitoring of progress toward achieving national targets and the collective long-term goal. Parties also have an opportunity to establish common timeframes, including end dates, for NDCs. To help ensure effective oversight of implementation, Parties also need to establish approaches applicable to all for accounting of emissions and emissions reductions. In order to foster implementation of NDCs and support achievement of the Agreement’s long-term goals, Parties could further cooperate and share best practices for developing long-term emissions reduction strategies.

ADAPTATION: The Paris Agreement also sets a goal to enhance countries' capacity to adapt to climate change, strengthen their resilience, and reduce vulnerability. All countries are expected to undertake adaptation planning and to communicate their actions to the UNFCCC to inform the global stocktake. The development of methodologies, reporting requirements, and modalities for the recognition of adaptation efforts should be aligned, through effective coordination among the various bodies mandated to draft these guidelines. Parties, guided by the Adaptation Committee, now need to provide additional clarity concerning an effective adaptation cycle of improvement, including the way in which the UNFCCC will draw on countries' adaptation communications to assess adaptation needs and determine the support needed to facilitate resilience.

LOSS AND DAMAGE: The Paris Agreement elevates the complex issue of loss and damage and establishes a dedicated framework, separate from adaptation, to address this issue. By making the Warsaw International Mechanism on Loss and Damage permanent, Parties create a space for improving our understanding of what constitutes loss and damage and the nature of appropriate responses. However, Parties must go further to define this concept and determine how best to support countries that experience the unavoidable effects of climate change. Particular focus will be required on ways to address issues such as insurance and risk transfer schemes, as well as integrated approaches to avert, minimize, and address climate-related displacement. Enhanced collaboration between institutions within and outside UNFCCC will be essential to advance this agenda.

FINANCE: The finance goal articulated in the Paris Agreement sends a clear message to shift financial flows away from activities that contribute to climate change and toward zero-emission and climate-resilient development. While developed countries must continue to take the lead in providing financial support, support from developing countries is now also encouraged on a voluntary basis. However, Parties will need to provide more details regarding how finance will be scaled up, tracked, and reported on both by donors and recipients. This will include details regarding the goal of mobilizing \$100 billion annually, ensuring an increase in the share of adaptation finance, and undertaking clear reassessment of the finance target in the context of future needs.

TECHNOLOGY DEVELOPMENT AND TRANSFER: In the Paris Agreement, Parties agreed that the existing Technology Mechanism will serve the Paris Agreement and they established a new framework to provide guidance for the Mechanism's activities. Parties must now address the nature of this new framework and clarify details on the expanded work of the Mechanism and how it will be supported. In particular, Parties should clarify how the Financial Mechanism and the Technology Mechanism will work together to support technology development and transfer in developing countries, building on existing efforts to identify linkages between the two mechanisms.

CAPACITY BUILDING: In the Paris Agreement, Parties committed to enhance capacity building activities and established the Paris Committee on Capacity Building (PCCB), a new committee to address the current and emerging capacity gaps and needs in developing countries. Parties will first need to agree on its mode of operation and adopt terms of reference, as well as provide a clear roadmap for the PCCB's activities to inform the review of the international institutional arrangements in 2019. Parties will have an opportunity, at COP22, to review and strengthen the UNFCCC work program on climate change education, training, and public awareness. This review process should be leveraged to strengthen capacity on the ground. This should be accompanied by concrete commitments to increase support for capacity building in developing countries and help them build the right domestic conditions for action.

TRANSPARENCY OF ACTION AND SUPPORT: Transparency and accountability are the backbone of the Convention and have been considerably enhanced in terms of robustness, frequency, depth, and scope in the Paris Agreement. In a shift from the previous bifurcation between developed and developing countries, the transparency and accountability regime will be guided by accounting approaches, reporting guidelines, and verification processes that are applicable to all countries. However, the Agreement also provides "built-in flexibility" for developing countries that need it in view of their capacities and Parties will need to agree on how they define this flexibility. Efforts will be needed in particular to improve the tracking, monitoring, and evaluation of adaptation efforts and support provided or received. Ensuring adequate support—in particular, capacity building for developing countries—will also be a key condition of successful implementation of these requirements. In view of the complexity of the issues, a clear work program will have to be agreed at COP22 to adopt the necessary set of guidelines and modalities by 2018.

GLOBAL STOCKTAKE: To increase the ambition of Parties' climate actions and support over time, the Agreement and accompanying COP decisions establish a collective moment for countries to reflect on the current state of implementation and inform future actions and support. The moments start in 2018 with a facilitative dialogue, then continue with global stocktakes every five years from 2023. Many of the details regarding how these stocktaking processes will operate, including how the inputs and outputs will be used to drive further ambition, must still be decided. In developing these modalities, Parties should ensure that these moments provide an opportunity to pause and take stock, identify shortcomings, reflect on the latest science, leverage new technology and best practices, and ultimately facilitate greater cooperation. Lessons from existing review processes within and outside UNFCCC can help in designing more effective modalities.

COMPLIANCE: The Paris Agreement establishes a new mechanism, consisting of an expert-based committee, to facilitate implementation and promote compliance. Still, much is left to be decided before the committee is operational. In particular, Parties will need to further clarify the scope of issues to be addressed by the committee, the type of facilitative measures that will be taken, together with potential links with the transparency framework and the global stocktake, while ensuring that the committee has the authority and ability to support countries that need help with fulfilling the obligations of the Agreement.

COOPERATIVE APPROACHES: The Agreement recognizes that some Parties will cooperate in the implementation of their climate actions through market and non-market initiatives, as well as through other cooperative arrangements. Parties agreed to promote sustainable development and environmental integrity in these approaches and will need to clarify how this cooperation will be managed and assessed. Accounting rules will need to be developed to monitor the transfer of emissions reductions between Parties to avoid double counting, and the mechanism to contribute to mitigation and sustainable development, and the framework for non-market approaches will need to be elaborated.

A summary of our suggestions and further elaboration on process can be found in Appendix II: Suggestions for UNFCCC Process.

Other Key Considerations

Many of the tasks that will determine rules, guidelines, modalities, and procedures must be completed before the first meeting of the Parties to the Paris Agreement so that they can be adopted at that meeting. That first meeting of the Parties will take place alongside the first Conference of the Parties to occur after the Agreement enters into force. If that takes place in 2016 or 2017, which is possible, it would leave limited time to complete and adopt all the rules, modalities, and guidelines prescribed in the Agreement. Given this timing, some flexibility in the timeline may ultimately be needed to complete the necessary details for implementing the Agreement without disenfranchising any countries that may not be able to join the Agreement quickly, due to complex national or regional approval procedures. It will be essential to ensure that all Parties are able to take part in the deliberations and decisions regarding the Agreement's architecture and rules.

The decision accompanying the Paris Agreement also includes provisions to help raise ambition in the near term before 2020. These provisions include knowledge-sharing efforts and continued engagement with non-Party stakeholders (such as subnational entities, cities, other multilateral conventions, among others), so countries can identify best practices that can be scaled up and replicated by others, as appropriate.

However, the processes for pre-2020 action will need to shift their focus from recognizing and encouraging action to spurring new innovation and fostering implementation. Further clarification is needed about how an annual high-level event will maintain continuity between successive COPs under the leadership of the newly established climate "champions," who will serve overlapping terms. The incoming COP22 Moroccan Presidency has an important opportunity to shape current and future engagement with non-Party stakeholders, not only directly but also through the pre-2020 processes of Technical Expert Meetings and their associated reports.

With so many tasks ahead and a number of ambitious goals to be achieved in a limited timeframe, it may seem difficult to know where to begin. Parties, together with non-Party stakeholders and the support of academia and civil society, will need to develop a pathway from Paris. Starting from the historical signing ceremony in New York in April 2016, every available opportunity should be used to advance discussions and address these central challenges, both within the UNFCCC and in the wide range of international fora that can help drive forward ambitious implementation. Cooperation and timely coordinated action will be essential to fulfill the functions of the Paris Agreement.

I. INTRODUCTION

The twenty-first session of the Conference of the Parties (COP) of the United Nations Framework Convention on Climate Change (known as COP21), marked a historic turning point in global action on climate change. On December 12, 2015, 195 countries adopted the Paris Agreement, a universal agreement that sets the world on a course to a zero-carbon, more resilient, and hopeful future. Building on the foundation of national climate plans, known as intended nationally determined contributions (INDCs) from 188 countries, the success of COP21 and the Paris Agreement is a reflection of the combined ambition of nations as well as unprecedented momentum from cities, companies, civil society organizations, including faith-based communities, and others that have grown significantly since the first international conference on climate change in 1992.

Following Paris, it is essential to recognize that the achievements of the international process have provided a robust foundation on which to build. Now, to fully achieve the long-term goals of the Agreement, many critical UNFCCC decisions must be made to implement and realize the ambition of the Agreement's provisions in a timely fashion. The detailed rules and processes of the Paris Agreement are not yet finalized and will be negotiated and developed further over the coming years. The effective design of these rules, guidelines, modalities, processes, and institutions will be vital to:

- ensure the credibility and environmental integrity of the Agreement, including the effective implementation, tracking reporting, and verification of countries' commitments;
- establish a process to effectively catalyze the necessary climate actions over time; and
- enhance international support for implementation of both mitigation and adaptation action.

This paper highlights 10 key elements of the Paris Agreement and charts a pathway forward. It examines the next steps necessary to implement the Paris Agreement, including the tasks for the UNFCCC Parties laid out in the Agreement and accompanying COP decisions. In doing so, the paper aims to serve as an initial roadmap for upcoming negotiations and calls attention to the opportunities and potential barriers that will have to be addressed in paving the way for effective implementation of the Paris Agreement.

The paper provides recommendations on critical issues that will face policymakers, climate negotiators, and non-Party stakeholders who embraced the Paris Agreement and are now embarking on the journey to advance zero-carbon and climate-resilient actions over the coming years. The majority of recommendations aim at facilitating the decision-making process within the UNFCCC over the next few months and years. Therefore, they are specifically directed at the Conference of the Parties (COP) and at UNFCCC bodies responsible for undertaking the implementation of the Paris Agreement. These bodies include: the UNFCCC Secretariat, the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement (CMA), the ad hoc working group on the Paris Agreement (APA), the Subsidiary Body for Implementation (SBI), and the Subsidiary Body for Scientific and Technological Advice (SBSTA).

The paper acknowledges that many questions remain to be answered and may require further research and analysis. Part II provides an overview of the Paris Agreement and its main achievements. Part III provides a description of the Agreement's provisions for specific issues and, for each issue, highlights key next steps and recommendations for effective implementation. Part IV highlights some additional considerations, and Part V concludes with some final remarks for taking this work forward.

The Paris Agreement was not expected to solve the climate crisis all at once. However, as this paper illustrates, effective implementation of the Agreement would establish a pathway toward a zero-carbon and climate-resilient world. Countries must now begin the collective journey down that path and identify the key moments and milestones that are essential to guide progress forward.

II. WHAT THE PARIS AGREEMENT ACHIEVES

At its core, the Agreement provides a framework for developing robust international rules that apply to all countries; it moves beyond the bifurcated approach of the Kyoto Protocol, which required binding action only from the Annex I group of developed countries. Yet, the Agreement is nuanced in ways that convey the principles of the Convention, allowing all Parties to play their part in accordance with their capabilities.

The outcome in Paris fulfilled the mandate from the Durban COP that the new global agreement be “applicable to all.” Because the Paris Agreement includes action by every country, it needed to accommodate different development stages and national policies. The Agreement strikes a delicate balance between obligations that are legally binding and those that are framed in more discretionary terms. It enables broad participation by providing adequate flexibility to countries, while still requiring effective action domestically and ensuring accountability on the part of all countries. Specifically, although countries are not bound to achieve their mitigation targets, all countries are required to prepare, communicate, and maintain their nationally determined contributions and pursue domestic measures to achieve them. This subtle arrangement, rooted in national policymaking, was essential to achieving a universal agreement.

The Agreement also applies universally to adaptation action, requiring all countries to engage in adaptation planning processes. Encouragingly, many Parties included adaptation in their INDCs, submitted prior to Paris.

The Paris Agreement’s universal approach to international climate action means that the key elements of the Agreement have broad global implications. In the lead-up to Paris, the ACT 2015 consortium⁴ examined a set of core functions that the Agreement could achieve. In the following eight key takeaways, we describe how the Paris Agreement fulfills these functions, creating a robust foundation that can be built upon to motivate climate action across a wide range of countries and achieve a fair transition to a zero-carbon, climate-resilient economy.

Send a clear signal to policymakers, businesses, investors, and the public that the low-carbon, climate-resilient economy is inevitable. The goals of the Paris Agreement send clear signals to policymakers, the public, investors, and finance providers of governments’ intent to achieve a zero-carbon and climate-resilient economy. Most importantly, the Agreement’s long-term mitigation goal to achieve net-zero greenhouse gas emissions in the second half of the century is linked to the Agreement’s goal of holding temperature change well below 2°C and pursuing efforts to limit it to 1.5°C. Countries are also invited to submit, by 2020, long-term low-emissions development strategies aimed at 2050. In addition, the Agreement makes climate resilience a central global objective and a core element of the international climate regime. Together, these goals send strong signals about the direction of the global transformational climate action needed. Achieving these goals will require the Agreement to be implemented in ways that not only ensure that countries’ commitments are fulfilled but also lift the level of climate action ambition and mobilize necessary support.

Link to science with a sense of urgency. The Agreement provides an essential mechanism to assess the seriousness of climate change facing the world and the level of action being taken—as well as an opportunity to ramp-up that action on a regular basis. Assessments of the INDCs submitted by countries show that, collectively, they put us on a path to hold the average global temperature rise to 2.7–3.7°C.⁵ While this tapered warming projection is better than the catastrophic 4–6°C pathway predicted a few years ago in business-as-usual scenarios, current INDCs deliver only about a third of the emissions reductions needed to keep temperature rise below 2°C, let alone the more ambitious 1.5°C.

By establishing a “global stocktake” at five-year intervals, which incorporates inputs from the Intergovernmental Panel on Climate Change (IPCC) along with other information to be determined, the Paris Agreement makes global action responsive to the scientific, technological, and policy contexts. Critically, the Agreement also establishes a process where countries put forward progressively more ambitious nationally determined contributions (NDCs) every five years, creating a dynamic regime, informed by a global stocktake to advance climate action on a regular basis. The level of ambition represented in these successive contributions will be critical to determining the ultimate success of our efforts to combat climate change.

Connect the global agreement to the “real economy” and “real people” and enhance sustainable development. The Paris Agreement is fundamentally rooted in the policies and measures that countries put in place at the national level, and the INDCs submitted by countries are grounded in national priorities and policy processes. Moreover, the Agreement requires countries to “pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.”⁶ Framing the obligations in this way anchors them in national laws and regulations. The Agreement has also provided a sense of momentum to efforts made by a wide range of country-level stakeholders to address climate change on the ground. Cities, regions, business, investors, civil society organizations, and other stakeholders have embraced the Paris Agreement and declared themselves ready and willing to stand shoulder to shoulder, alongside governments, to implement strong and effective climate action.⁷

The preamble emphasizes the “intrinsic relationship that climate change actions, responses, and impacts have with equitable access to sustainable development and eradication of poverty” as well as with food security. It acknowledges the challenges and “imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities.”⁸ The preamble also highlights the important role that sustainable lifestyles and patterns of consumption and production play in the fight against climate change.⁹

Demonstrate fairness, equity, and justice in climate actions and outcomes. The new regime provides for universal action, but the Convention’s principle of equity still plays an essential role in the design of the Paris Agreement. The Agreement incorporates equity both as a framework for the Agreement as a whole and as a principle within a wide range of specific issues. In its overarching objectives, the Agreement clearly states that it “will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances” (CBDR-RC-NC).¹⁰ The Agreement’s preamble also notes the importance of “climate justice,” a “just transition,” and human rights when taking action to address climate change.¹¹ The Agreement acknowledges the differences in levels of development and national policies among countries, and the special circumstances of least developed countries and small island states are taken into account. In the case of mitigation, adaptation, transparency, and finance, and for the global stocktake, the Agreement incorporates distinct ways of ensuring an equitable regime.

Implementation of the Agreement will need to ensure that concerns regarding equity are dealt with concretely across all these issues.

Provide transparency and accountability for countries’ commitments. The Paris Agreement requires countries to be transparent about the actions they are taking. All countries are legally bound to prepare, communicate, and maintain their NDCs on mitigation every five years and pursue domestic measures to achieve them. The Agreement also includes strong, legally binding provisions on how to measure, report, and verify emissions reductions. Countries will be required to use the reporting guidelines that are applicable to all, but that also take account of differing capacities and allow some flexibility. All countries will submit information verified through a technical review process. Finally, the Paris Agreement provides for the establishment of a compliance mechanism in the form of an expert committee “to facilitate implementation and promote compliance with the provisions of this Agreement,” underscoring the seriousness with which all countries have entered into the Paris Agreement. These provisions build confidence and trust among governments and stakeholders regarding the delivery of each country’s respective commitments, while holding countries accountable for their actions. Trust and confidence will help support cooperation, and greater accountability will reduce freeriding. Together, they will support the collective action required to achieve the Agreement’s temperature, resilience and net-zero emission goals.

Accelerate the investment shift to low-carbon and climate-resilient economies. The long-term signals provided by the Paris Agreement are further buttressed by the Agreement’s emphasis on aligning finance and investment with climate objectives. The Agreement establishes a goal of “making finance flows consistent” with low-emissions and climate-resilient development. This finance signal is essential to mobilize broader financial flows, shift trillions of dollars in global investment, and enable the world to achieve its long-term goals on both mitigation and adaptation. In addition, the Paris Agreement includes provisions to enhance support for action so that universal participation and the ambition of the Agreement can be fully realized. The finance provisions of the Agreement maintain developed countries’ commitment to mobilize \$100 billion annually until 2025, going beyond the previous date of 2020, and Parties agreed to further scale up finance from that floor after 2025. Parties will need to provide details on how finance will be scaled up, and how it will be tracked, by both donors and recipients. Moreover, greater clarity is needed on how a broad shift in finance flows can be catalyzed.

Incentivize action. As noted, previously the Paris Agreement sends signals to accelerate the shift, mobilization, and alignment of broader financial flows with long-term goals. Throughout the various provisions of the Agreement, there are commitments to provide support to developing countries to fulfill their new requirements. There has also been greater emphasis on strengthening the enabling conditions, in particular capacity building, to put in place the facilitative processes that promote implementation and compliance with the provisions of the Paris Agreement. Finally, the Agreement includes incentives for countries to go farther and faster on their commitments than they might otherwise intend, allowing countries to cooperate with each other through the use of market and non-market mechanisms “for higher ambition in their mitigation and adaptation actions” and also in the areas of technology development, innovation, and knowledge transfer. A “mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable development” was established to incentivize and facilitate participation by public and private entities.

Ensure that vulnerable communities have the capacity to build resilience, manage, and adapt to the impacts of climate change. The Paris Agreement places adaptation and climate resilience at its core, making clear that responding to serious impacts and ensuring that vulnerable communities have the capacity to build resilience, manage, and adapt to climate change is a vital part of climate action. The Agreement’s goals include “increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience.” The Agreement also articulates a global adaptation goal of “enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change.” It explicitly places this goal in the context of the Agreement’s temperature targets, thereby suggesting that adaptation and resilience need to be undertaken based on the extent to which temperature change exceeds that goal. Adequate finance for adaptation will be essential to achieving these goals.

The Paris Agreement and the accompanying COP decisions outline a framework for action covering relevant climate change issues. Each of these issues, described in the following, section, has specific tasks that must be undertaken to successfully implement the Paris Agreement and fulfill its key functions.

III. PATHWAY FROM PARIS: ROADMAP FOR EFFECTIVE IMPLEMENTATION

The meeting in Paris created a sound and ambitious new structure for the international climate regime. The world now has important work to do to ensure that this structure is coherent and can achieve its fullest purpose. The design of effective rules, processes, and institutions for the Paris Agreement will be vital to ensure that the commitments made by all countries are effectively implemented and generate even greater ambition.

Specifically, these processes will be necessary to ensure that the key elements of the Agreement—including the ambition mechanism, and the rules, guidelines, and processes to ensure transparency and accountability—are credible and robust enough to fulfill the long-term goals. The design and elaboration of these rules, guidelines, and processes will be undertaken by the Ad Hoc Working Group on the Paris Agreement (APA),¹² together with the existing subsidiary bodies.¹³ The Agreement’s rules will, in principle, need to be finalized before the Agreement enters into force and should be adopted when the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA)¹⁴ meets for the first time and starts reviewing the implementation of the Paris Agreement. (See Part IV, Section 1 on Ratification for more on entry into force.)

The following sections look at the specific tasks to be undertaken within the following 10 areas of work: mitigation, adaptation, loss and damage, finance, technology development and transfer, capacity building, transparency and accountability, compliance, the global stocktake, and cooperative approaches.

A summary of our recommendations and further elaboration on process can be found in Appendix II: Suggestions for UNFCCC Process.

1. Mitigation

1.1 Overview

One of the most significant outcomes of the Paris Agreement is the articulation of a global temperature goal to guide efforts across all elements of the Agreement. The Parties agree to hold global temperature increase to well below 2°C (3.6°F) above pre-industrial levels and to pursue efforts to limit temperature increase to 1.5°C (2.7°F) to avoid the worst impacts of climate change.¹⁵

To achieve this goal, the Agreement includes another goal to “reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties.” The accompanying COP decision gives more specific guidance by indicating that the aggregate level of GHG emissions across various sectors needs to be reduced from the projected level of 55 gigatonnes (Gt) in 2030 to 40 Gt. It also includes a concrete long-term mitigation goal to achieve net-zero greenhouse gas emissions and removals in the second half of the 21st century—specifically, “to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.”¹⁶

LONG-TERM TEMPERATURE GOAL OF THE PARIS AGREEMENT:

- 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, recognizing that this would significantly reduce the risks and impacts of climate change.

EMISSIONS GOALS OF THE PARIS AGREEMENT:

- To reach global peaking of greenhouse gas emissions as soon as possible; and
- To achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.

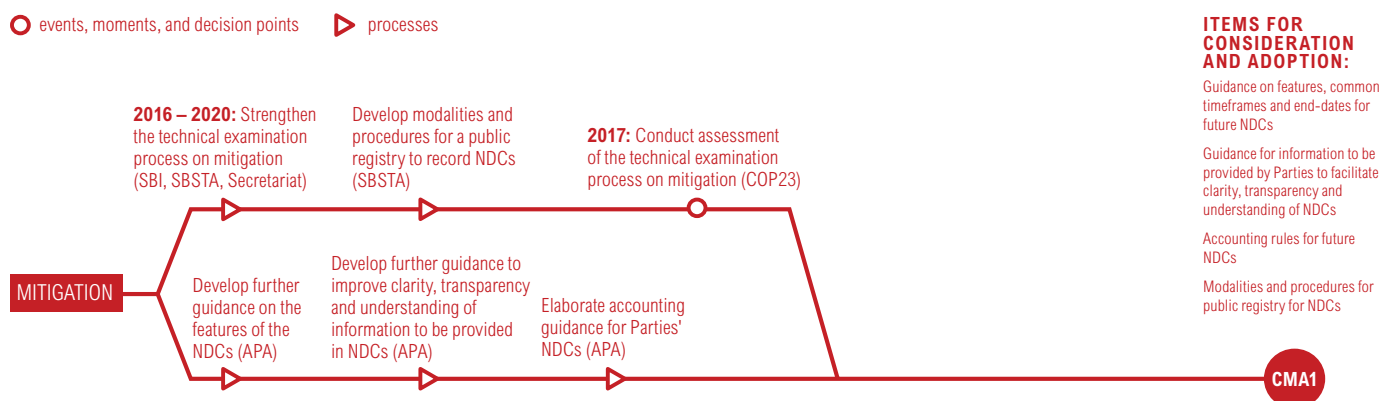
Moving effectively toward these global goals will require robust and ambitious action by individual Parties. The Agreement provides an essential foundation for such action in the form of NDCs from both developed and developing countries. The concept of NDCs emerged from several years of negotiations leading up to the Paris Agreement. At COP19 (2013) in Warsaw, Parties agreed that all countries would put forward intended nationally determined contributions (INDCs). Each Party is required to communicate its first nationally determined contribution (NDC), no later than when the Party formally joins the Paris Agreement through depositing its instrument of ratification, acceptance, approval, or accession. In the case of those Parties that have already submitted an INDC (currently 189 countries), their INDC will be deemed to be their NDC upon joining the Paris Agreement unless they notify the UNFCCC Secretariat otherwise.¹⁷ All NDCs will be recorded in a public UNFCCC registry.

Under the Paris Agreement, NDCs will become the main vehicle for mitigation action by countries and for successive, more ambitious mitigation pledges over time. The Agreement balances binding obligations of conduct with flexibility to allow for nationally determined targets, policies, and measures. Specifically it provides that “Each Party shall prepare, communicate, and maintain successive nationally determined contributions that it intends to achieve,”¹⁸ while also requiring that “Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.”¹⁹

While the Agreement’s central mitigation provisions apply to all countries, those provisions also require that equity considerations among countries be taken into account. The Agreement notes that the long-term goal should be undertaken “on the basis of equity.”²⁰ Further, the Agreement provides that developed countries “should continue taking the lead by undertaking economy-wide absolute emissions reduction targets,” while developing countries are “encouraged to move over time” toward such targets.²¹ Successive contributions by countries are also meant to reflect their differing responsibilities and capabilities.

The essential process of review and revision every five years provides the means by which the Paris Agreement’s collective, long-term goals can be achieved. Parties are required to submit NDCs every five years, and each successive NDC is required to provide a “progression” beyond each Party’s previous targets.²² The COP decision accompanying the Paris Agreement includes provisions for Parties to update or submit new NDCs by 2020, and the requirement to submit successive NDCs will then

Figure 1 | **Mitigation**



apply every five years from 2025 onwards.²³ Importantly, the Agreement requires that the NDCs be informed by the global stocktake that will also take place every five years prior to the submission of successive NDCs.²⁴

The Paris Agreement’s provisions on mitigation also reflect the critical importance of establishing a clear means of tracking progress toward achieving the goals of NDCs. The Agreement has provisions to develop approaches for estimating and accounting for emissions and removals, which are applicable to all countries. These approaches will enable effective measurement and tracking of progress. This is a significant advance on both the Copenhagen Accord and the Cancun Agreement, which remained silent on how to track progress toward achieving pledges (Levin et al. 2015). Getting Parties to agree on such approaches will help advance Parties’ understanding of one another’s progress toward meeting NDC commitments, as well as toward the collective goals set out in the Agreement. Further, robust accounting rules need to be established for internationally transferable mitigation outcomes (ITMOs) to avoid double counting, promote sustainable development, and ensure environmental integrity. (See Section 10: Cooperative Approaches for more on ITMOs.) The Parties have significant work ahead of them to iron out the details of such accounting guidance, especially if it is to be finalized in advance of the next communication of NDCs, so Parties can understand how their NDCs will be accounted for before submitting them.

Finally, although Parties are required to update and enhance their NDCs, the information that future NDCs will contain and how progress will be assessed still remains unclear. The timing around the long-term temperature goal is also vague and should be elaborated to ensure effective policy planning. Addressing these issues will be necessary to fully realize the ambition contained in the Paris Agreement’s mitigation article.

The Paris Agreement does not include a specific reference on how to tackle the expected increase of emissions from international aviation and shipping, nor does it address the phase-out of hydrofluorocarbons (HFCs). However, these sectors represent an increasing share of global emissions, and it will be essential for bodies outside the UNFCCC to effectively ensure emissions reductions in these sectors. In 2016, both the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) have opportunities to advance measures on emissions, particularly through a market-based mechanism in the ICAO, and the Parties to the Montreal Protocol have agreed to work together to reach an HFC amendment this year (Gençsü and Hino 2015).

The land-use sector was given specific attention in the Agreement through a standalone article that acknowledges the specific nature of this sector. This paper does not provide an analysis of this article.

1.2 Key Tasks and Recommendations

The Paris decision text includes tasks to be undertaken on mitigation. They include the development of key rules and guidelines that will be essential to providing clarity about NDCs—including their contents and timing, accounting for progress toward achieving the mitigation component, and putting into practice the long-term mitigation goals that are central to the transformational potential of the Paris Agreement.

AGREE FEATURES AND INFORMATION TO BE COMMUNICATED FOR FUTURE NDCS

One of the most important tasks ahead is to provide further guidance on the features and information to be provided by Parties in order to facilitate clarity, transparency, and understanding of future NDCs. The APA will develop the guidance on NDCs, with the aim of its being adopted by the time of CMA1.²⁵ This guidance will build on existing guidance from the COP decision adopted in Lima, which provided Parties with a set of elements and information to include when submitting their INDCs ahead of COP21. The Lima guidance could be enhanced by requiring countries to be more specific about their assumptions and methodological approaches, especially those relating to baseline scenario emissions calculations (as relevant), accounting for the land-use sector, and the use of market mechanisms, among others. The new guidance could also provide greater clarity on the specific issues involving fairness and ambition that should be addressed (Northrop and Waskow 2015).

ADOPT A COMMON TIMEFRAME FOR FUTURE NDCS

Parties also agreed to consider at the first session of the CMA whether to adopt common timeframes for future NDCs.²⁶ Convergence on a single common timeframe for the period covered by NDCs, preferably five years, would enhance comparability of Parties' actions and avoid the current inconsistency of NDC end dates. For NDCs submitted from 2025 onward, an agreed timeframe would enable Parties to have a common end date for their NDCs. Five-year intervals would enable all Parties to update their commitments frequently enough to respond to the latest scientific and technological developments.

DEVELOP ACCOUNTING APPROACHES APPLICABLE TO ALL

Drawing from approaches established under the Convention and the Kyoto Protocol, the APA is charged with the task of elaborating accounting guidance for Parties NDCs, to be adopted by the Parties at CMA1.²⁷ Accounting rules are aimed at laying out a clear framework for assessing achievement and progress toward targets (or other commitments in NDCs); the guidelines include defining what "counts" as emissions sources and sinks.

The guidance developed must apply to all Parties, and ensure that Parties:

- account for anthropogenic emissions and removals, in accordance with methodologies and common metrics assessed by the IPCC and adopted by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP);
- ensure methodological consistency, including baselines;
- strive to include all categories of anthropogenic emissions or removals in their NDCs; and
- explain the exclusion of any categories.²⁸

The accounting rules developed in accordance with these parameters will be applied to all subsequent NDCs and Parties may also apply them to their current INDCs. Applying this guidance to the communication of Parties' current INDCs will largely depend on timing of communication and finalization of the rules.

To advance decisions on accounting, Parties will need to determine a timeline for deciding issues. For example, if Parties want accounting guidance established before they submit their next NDCs, then time is limited and guidance would likely have to be finished by 2018. Once the timing is decided, technical work will begin on various aspects of accounting, such as the land-use sector, internationally transferred mitigation outcomes, metrics and methodologies (inventories, Global Warming Potential and NDC-specific issues, such as baselines for baseline scenario targets).

This development of guidance will be guided by the principles in the Agreement. When developing accounting guidance, the APA should:

- Clearly outline the timeline for decisions, taking into account the timing of the next NDC submissions. This includes selecting the order in which various accounting issues will be resolved and ensuring that enough time is set aside to resolve some of the most complicated accounting issues that will have the greatest impact on how NDCs are accounted for. The timeline and sequencing of decisions can be informed by the identification of areas where there is more consensus. These areas (e.g. metrics and methodologies for inventories) can be dealt with first, allowing more time to be spent on more complex and politically or technically sensitive issues.

- Identify where guidance exists and can be further improved upon. A significant amount of accounting guidance has been created under the Kyoto Protocol, REDD+ framework, and non-UN initiatives, for example, the GHG Protocol Mitigation Goal Standard and GHG Protocol Policy and Action Standard. The Agreement confirms that existing guidance should be built upon and Parties should view existing guidance as a useful foundation for their work.

OPERATIONALIZE MID-CENTURY LOW-CARBON STRATEGIES

Parties will need to develop long-term strategies to put the long-term mitigation goals of the Paris Agreement into practice. These strategies must become the focus of efforts to implement the Paris Agreement.

In part, the task will involve achieving clarity on the goals themselves, including an understanding of the implications of the temperature targets for global emissions levels. Based on current emissions levels, to have a likely chance of keeping warming to below 2°C, carbon dioxide emissions have to drop to net zero between 2060 and 2075, and total GHG emissions need to decline to net zero between 2080 and 2090 (UNEP 2015). For a likely chance of limiting warming to 1.5°C, carbon dioxide emissions have to drop to net zero between 2045 and 2050, and total GHG emissions need to decline to net zero between 2060 and 2080.

To catalyze the transformation needed to meet these long-term climate goals, the Paris Agreement includes a provision that Parties “should strive to formulate and communicate long-term low greenhouse gas emission development strategies.” The COP decision invites Parties to communicate these strategies by 2020, and they will be published on the UNFCCC website.²⁹

The invitation to develop and communicate, by 2020, long-term low-GHG emissions development strategies that include mid-century targets should be highlighted as a key element of successful implementation of the Paris Agreement in coming years. Although some countries have already developed such plans, these strategies provide an opportunity for countries to further operationalize the long-term goal and send long-term signals within their national settings (as opposed to the INDCs which send shorter-term signals). These strategies could represent an important pathway by which countries show how they intend to meet the goals of the Paris Agreement.

Cooperation among Parties and non-Party stakeholders, and sharing of best practices, should be enhanced to assist countries with preparation of relevant strategies. Such collaboration and sharing of experience could provide countries with access to modeling resources that aid in the preparation of long-term, mid-century development strategies. Collaboration could also inform the development of guidelines; such guidelines should pay particular attention to equity considerations and national circumstances.

2. Adaptation

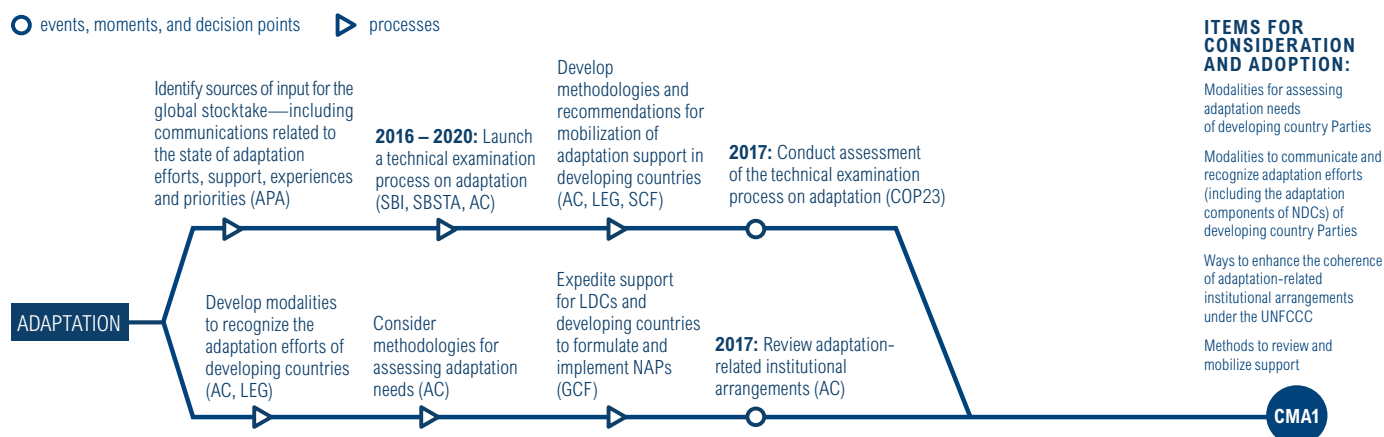
2.1 Overview

The Paris Agreement recognizes the intimate connections between mitigation, adaptation, and support. It promotes a holistic approach that reinforces the links among the three elements, and moves away from an approach centered only on mitigation. Roughly 80 percent of the INDCs submitted in the lead-up to Paris included an adaptation component. This signaled a new prioritization of adaptation issues within UNFCCC processes. The Paris Agreement also reflects the elevated importance of adaptation action.

The Agreement contains long-term goals for adaptation that prioritizes “enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal.” Further, it outlines a process by which countries should submit and periodically update “adaptation communications” that outline domestic adaptation priorities, implementation plans, and support needs. The global stocktake every five years will take these communications into account, with the aim of reviewing the adequacy and effectiveness of adaptation support and progress toward the long-term goals.

ADAPTATION GOALS OF THE PARIS AGREEMENT:

- To increase the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production.
- To enhance adaptive capacity, strengthen resilience, and reduce vulnerability to climate change, with a view to contribute to sustainable development and ensure an adequate adaptation response in the context of the temperature goal.

Figure 2 | **Adaptation**

Importantly, all Parties are expected to undertake adaptation planning and action, and should communicate those actions to the global community as noted above. Communications are framed broadly, to include “adaptation priorities, implementation and support needs, plans and actions.” Countries also have a great deal of flexibility in terms of the form and timing of their communications, which may be made as a component of a national adaptation plan, an NDC, a National Communication, or other document. This flexibility is important given the resource and capacity constraints faced by many poorer countries, and is intended to ensure that communications put no additional burden on developing countries.

The Agreement also addresses developing countries’ capacity constraints by specifying that they will receive “continuous and enhanced” international support to undertake adaptation activities. More detail on developments in adaptation finance stemming from the Paris Agreement can be found in Section 4 on Finance.

2.2 Key Tasks and Recommendations

The Paris Agreement sets an ambitious trajectory for adaptation action, but it leaves several important gaps in articulating the processes needed to achieve the long-term goal. Parties will need to remain actively engaged in adaptation and build momentum in the lead-up to CMA1 if they are to realize the Agreement’s potential for accelerating and scaling adaptation. The Paris decision outlines important tasks for the Adaptation Committee (AC) in particular, including tasks undertaken in collaboration with other bodies. The AC’s work in the near term will be central in furthering adaptation action as called for under the Agreement, while the adaptation technical examina-

tion process (A-TEP) will set the stage for how adaptation is treated in future global stocktakes (see Part IV, Section 2 for more on the TEP). The work of both the AC and the A-TEP should focus on streamlining global processes and institutions, to ensure that they facilitate and energize national planning and action, and do not create parallel processes or fragmented structures.

ALIGN KEY ADAPTATION PROVISIONS

The Agreement emphasizes the need to “recognize the adaptation efforts” of developing country Parties. The Adaptation Committee, along with the Least Developed Countries Expert Group, is charged with developing modalities for this recognition, and making recommendations on such modalities for adoption by the CMA at its first session. The Adaptation Committee will also have the tasks of considering methodologies for assessing adaptation needs, and reviewing the adequacy and effectiveness of adaptation and support. This work should support countries’ efforts to develop their periodic adaptation communications in ways that allow for a clearer and more uniform synthesis to inform the global stocktake. At present, however, links are unclear among the needs assessment, effectiveness review, adaptation communications, and modalities for recognizing developing countries’ efforts. The Adaptation Committee’s work over the coming year should include clarification of the relationships among these elements, in order to ensure they are aligned in contributing to an effective global stocktake. The AC is mandated to conduct an institutional review on adaptation across the UNFCCC, which should be developed with the explicit aim of also helping to promote this alignment. The Adaptation Committee should coordinate its efforts with the APA, which is also tasked

with developing modalities for reporting on adaptation action and planning, “with a view to collectively exchanging information and sharing lessons learned.” Even more importantly, Parties must ensure that adaptation communications, recognition of efforts, and other global provisions help build momentum for effective national adaptation planning and action, and that they facilitate the flow of support for adaptation.

The A-TEP and the workshop on long-term finance (LTF) both present opportunities to improve these linkages. Organized by SBI and SBSTA and conducted by the Adaptation Committee, the A-TEP is intended to “identify concrete opportunities for strengthening resilience, reducing vulnerabilities, and increasing the understanding and implementation of adaptation actions.” Meanwhile, the LTF annual in-session workshops and biennial high-level ministerial dialogues could include a special focus on adaptation finance.

It will be important for the Adaptation Committee to ensure that guidance developed to recognize the adaptation efforts of developing countries is responsive to adaptation communications, and that National Adaptation Plan reporting guidelines are aligned and flexible. It will also be important to clarify what comes next for the adaptation components of INDCs, which are likely to be separated from mitigation as Parties prepare NDCs, and could potentially become separate national adaptation communications. However, neither Agreement text nor decision text is clear on this point, and it will be important for the Adaptation Committee, in coordination with the APA, to include recommendations that are explicit on the next steps for adaptation in INDCs as we move toward the first session of the CMA.

Adaptation is embedded in a number of issues across the Agreement. We include a summary table highlighting these issues in Table A1 at the end of the paper.

CREATE AN EFFECTIVE CYCLE OF IMPROVEMENT FOR ADAPTATION

Four components of the Agreement—a long-term goal for adaptation, national adaptation planning, communications of adaptation efforts, and a global stocktake every five years—comprise important building blocks of a “cycle of improvement” (Oberthür et al. 2015) for adaptation that can accelerate action over time.

In developing modalities and making recommendations to the CMA as described above, the Adaptation Committee and other institutions have the opportunity to ensure that such an improvement cycle functions efficiently and coherently, in ways that build on existing processes, and minimize the planning and reporting burden on all Parties. However, a critical missing piece is guidance on how the global stocktake will inform the next round of adaptation communications in terms of highlighting support needs, sharing lessons learned, and facilitating greater ambition in adaptation action. Closing this feedback loop is essential for developing an effective cycle.

3. Loss and Damage

3.1 Overview

The Paris Agreement gives distinct recognition to the evolving issue of loss and damage (L&D), which was previously treated as a subcategory of adaptation. By creating this distinct category of negotiations and action, the Agreement acknowledges the reality that there are some climate change impacts that cannot be adapted to—impacts that are so severe that they leave in their wake permanent or significantly damaging effects, such as the disappearance of islands, transformation of ecosystems, loss of heritage sites, or total unviability of traditional land uses.

This sets the stage for a more focused international dialogue on what constitutes loss and damage, what the appropriate responses are, and who bears responsibility to act.

Leading up to the Agreement, negotiations revolved around implications of responsibility for addressing loss and damage, and the nature of appropriate responses. Many vulnerable countries, especially island states, advocated for the global community to create a process for dealing with the unprecedented and potentially catastrophic consequences clearly attributable to climate change, such as the permanent loss of land to rising seas. However, many wealthier countries resisted opening up the issue because they feared that addressing it would set a precedent that might create legal liability for harms attributable to climate change. The Paris Agreement resolved this issue by making it clear that the article on loss and damage does not provide a basis for liability or compensation.

Figure 3 | **Loss and Damage**

The loss and damage article in the Agreement recognizes the importance of “averting, minimizing and addressing loss and damage.” The article also makes permanent the Warsaw International Mechanism for Loss and Damage (WIM), an institution established at COP19 in 2013 to explore initial questions about loss and damage, but which was set to expire in 2016. The Agreement also elevates the issues of risk transfer, insurance, and displacement as key concerns associated with loss and damage.

3.2 Key Tasks and Recommendations

Including loss and damage as a standalone concept in an international agreement on climate change is an important step in recognizing the differences between adapting to climate change and contending with the losses and damages associated with it. Making the WIM permanent shows significant progress and creates a space for improving our understanding of what constitutes loss and damage and the nature of appropriate responses to grow. The Paris Agreement sets the stage for solutions to emerge over time in a spirit of global cooperation and shared learning. However, it represents only the first few steps on a long road ahead. Further work is needed to fully understand this issue and determine how best to support the countries that experience the most severe negative impacts of climate change.

DEMONSTRATE “EARLY WINS”

The Paris Agreement has built substantial momentum around the concept of loss and damage. To maintain that momentum, the WIM will need to demonstrate early concrete achievements in advancing the dialogue on loss and damage and continuing to distinguish it from adaptation.

Some of the most immediate opportunities can be found in the areas of risk transfer and climate change-related displacement. The Paris decision outlines concrete tasks for the Executive Committee of the WIM in these two areas:

- establish a clearinghouse for risk transfer as a way to help Parties develop and implement comprehensive risk management strategies; and
- create a task force for developing recommendations on approaches to address climate change displacement.

The guidance in the decision for creating a task force is broad, directing the Executive Committee to draw on existing bodies and expert groups within and outside the Convention. This work will proceed through three meetings of the Executive Committee in 2016 (slated for February, April, and September).

At the same time, the Executive Committee of the WIM will continue to follow through on the elements of its original two-year work plan, with a broad mandate to build understanding of the types and scope of losses that can follow from climate change, who is most vulnerable to damages, and the kinds of processes that are needed to minimize the risks of loss and damage. This initial work plan is to be reviewed by the COP in 2016 at COP22.³⁰

ENHANCE COLLABORATION AND COORDINATION WITH OTHER INSTITUTIONS

Collaboration and coordination with other international institutions provide important avenues for the UNFCCC to advance work on loss and damage. The Paris COP decision calls on the Executive Committee of the WIM to involve existing bodies and expert groups in establishing a task force to contend with the issue of displacement.

These bodies and expert groups include, under the Convention, the Adaptation Committee and the Least Developed Countries Expert Group, as well as relevant organizations and expert bodies outside the Convention, such as the International Organization for Migration and the Sendai Framework for Disaster Risk Reduction. Given the complexities of climate migration and displacement, and the wide range of institutions that have been engaged in exploring this concept, the WIM's Executive Committee will need to carefully consider how best to design a process that can effectively incorporate and synthesize the work of multiple institutions.

ADDRESS FUNDAMENTAL DEFINITIONAL ISSUES

As Parties pursue early wins through the WIM and through international collaboration, it will be important to keep in mind that fundamental questions about what constitutes loss and damage still have only incomplete answers. Exactly how should the international community distinguish between activities that assist in adapting to climate change, and those that assist in grappling with unadaptable losses or damages? Are there principles or criteria that will be broadly applicable across locations and climate contexts? Will such criteria include attribution of impacts to climate change? Or will the global community define L&D by crafting a list of activity categories, climate contexts, or loss/damage types? The Paris Agreement's elevation of risk transfer, insurance, and displacement as L&D issues could be interpreted as an early step toward developing a list-based approach. This was probably an expedient choice in the political context of Paris. At this point, however, with the liability fight set aside, Parties have an opportunity for more open conversation on the definition of L&D. The WIM should take the lead in grounding this conversation as much as possible in evidence and in real-life experience, most of which is found outside of the UNFCCC. To this end, the WIM should capitalize early on its mandate to collaborate with relevant external organizations and expert bodies³¹ through, for example, the joint commissioning of reports or the establishment of spaces for cross-institutional dialogue.

4. Finance

4.1 Overview

The Paris Agreement and the accompanying COP decision provide direction on the future of climate finance. One of the core aims of the Paris Agreement is to make financial flows consistent with a pathway toward low-emissions, climate-resilient development.³² Read alongside the long-term temperature goal³³ and the mitigation goal of balancing anthropogenic greenhouse gas emissions and removals by sinks,³⁴ the Paris Agreement sends a strong signal that all finance—both public and private—needs to be shifted out of sectors and activities that drive climate change, and toward climate solutions.

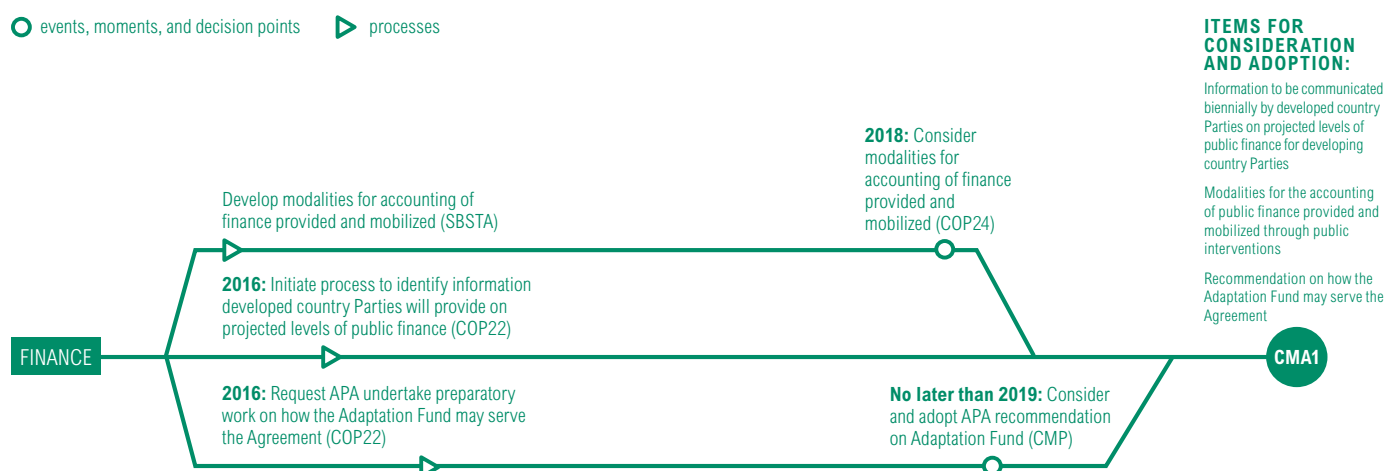
FINANCE GOAL IN THE PARIS AGREEMENT:

- To make finance flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development

The Agreement reaffirms that developed countries must continue to provide funding for developing countries to mitigate and adapt to climate change.³⁵ In a new development, the Agreement also encourages other countries to provide support on a voluntary basis;³⁶ this constitutes recognition of the growing number of developing countries that are becoming contributors of climate finance. Increasing adaptation finance, which lags behind support for mitigation, was a key issue in the lead-up to COP21. To address this, the Agreement includes an aim to balance the provision of finance between adaptation and mitigation,³⁷ but does not define what constitutes balance. All countries also committed to mobilize finance from a wide variety of sources, instruments, and channels, with developed countries taking the lead, and with actions representing a progression beyond previous efforts.³⁸ In the COP decision, developed countries reiterated their existing goal to mobilize \$100 billion a year in climate finance by 2020,³⁹ and committed to maintain this level of mobilization until 2025.⁴⁰

Paris marked a progression in reporting and improving transparency of finance (see Section 7 on Transparency). Finance will be considered in the global stocktakes, providing an opportunity to assess progress in mobilizing and deploying finance to meet the goals of the Agreement.⁴¹ Done well, the new measurement, reporting, and verification (MRV) regime can help in tracking progress on commitments, assessing effectiveness, and informing future climate finance goals.

Figure 4 | Finance



The existing Financial Mechanism of the UNFCCC (comprising the Global Environment Facility and the Green Climate Fund) will serve as the Financial Mechanism of the Paris Agreement,⁴² and the Least Developed Countries Fund and Special Climate Change Fund will also serve the Agreement.⁴³ The Adaptation Fund, created under the Kyoto Protocol, may also potentially play a role in implementing the Paris Agreement.⁴⁴ All institutions serving the Agreement must aim to improve access to finance through “simplified approval procedures and enhanced readiness support” in the context of “national strategies and plans” with a specific emphasis on ensuring access for least developed countries and small island states.⁴⁵

Enhancing the predictability and the scale of climate finance is essential to enable developing countries to fulfill and enhance their climate actions. While some progress has been made, it remains important to provide clarity on how increased finance will be provided, how finance can be tracked in terms of both donors and recipients, and how the Financial Mechanism will cooperate with other institutions.

4.2 Key Tasks and Recommendations

COP21 decisions include a number of mandates on finance, focusing on three areas: setting targets and roadmaps for scaling up funding, elaborating reporting and accounting rules, and clarifying institutional arrangements.

SCALING UP BY 2020 AND BEYOND

While the Agreement reaffirms existing obligations for developed countries to provide finance, there remain outstanding questions about how climate finance will continue to grow over time. Developed countries are urged to scale up their financial support and come up with a concrete roadmap to achieve the \$100 billion commitment by 2020.⁴⁶ This provision does not specify what the concrete roadmap must contain, but it could include an assessment of current levels of financial flows, projections of what existing commitments will amount to by 2020 if delivered, identification of any gaps, and the establishment of intermediate targets for the years prior to 2020 (Gallagher and Amin 2014).⁴⁷ In order to build trust, the roadmap needs to be developed in dialogue with developing country Parties and produced as soon as possible. Interestingly, the original wording of the \$100 billion commitment in the Cancun decision was “a goal of mobilizing jointly USD 100 billion per year by 2020”⁴⁸ yet the Paris decision refers to “the goal of jointly providing USD 100 billion annually by 2020.”⁴⁹ The implications of this wording change are unclear and Parties will need to clarify this.

Prior to 2025, the CMA has a mandate to agree a new collective goal for mobilizing climate finance, which will go beyond the floor of \$100 billion a year that developed countries committed to continue mobilizing between 2020 and 2025.⁵⁰ It is unclear how this goal will be decided, what time period it will cover, and which countries will be responsible for meeting it. Countries should begin considering these questions early in order to provide clarity about how climate finance will continue to grow to support developing countries in implementing their NDCs. Parties should begin informal discussions on the process the CMA should take to determine the new collective goal. This process might include assessing relevant information such as the finance needs identified in national reports under the transparency framework, adaptation communications, and the outputs of the global stocktake. (See Section 2 on Adaptation, Section 7 on Transparency, and Section 8 on the Global Stocktake.)

GET THE BALANCE FOR ADAPTATION RIGHT

There is a particular need for clarity on adaptation finance as part of a roadmap for the \$100 billion commitment. In the lead-up to and during COP21, there appeared to be some momentum behind setting a quantified adaptation finance goal, with some Parties informally suggesting doubling the current share of adaptation finance to reach \$32 billion a year by 2020 (Government of France 2015). However, Paris did not deliver a quantified adaptation finance target. The need for “significantly increasing” adaptation finance was emphasized in the decision urging a roadmap to meet the \$100 billion goal.⁵¹ Within the LTF work program, Parties should consider whether a quantified adaptation finance goal would be helpful to achieve this. Such a goal could be agreed as early as COP22.

Parties might also elaborate on the Agreement’s “aim to achieve a balance between mitigation and adaptation [financial resources].”⁵² Such elaboration might include setting a quantified allocation ratio between adaptation and mitigation, which could complement or be an alternative to a fixed dollar amount finance goal. Some Parties suggested a 50:50 allocation ratio in early drafts of the Paris Agreement.⁵³ Debate on its merits centered around two points. First, given changing thematic needs over time, some Parties questioned whether a fixed ratio was desirable, noting that in the future Parties might want more than half of public climate finance flows to go toward adaptation. In light of that, some Parties suggested that 50 percent be set as the floor for the level of finance directed to adaptation.⁵⁴ Second, some Parties expressed concern that rapid scaling up of adaptation finance required by a 50:50 ratio would incentivize

loans for adaptation, counted at face value, which might not be appropriate for all adaptation needs.

If an allocation ratio is considered, it will therefore be important to keep track of progress in developing clear accounting modalities (see below) and examine how a quantified ratio could be adjusted over time in light of changing needs. The Adaptation Committee’s mandate to consider methodologies for assessing adaptation needs,⁵⁵ and the requirement that the global stocktake consider the adequacy and effectiveness of support provided for adaptation,⁵⁶ could provide useful information when considering future adaptation finance targets (see Section 2 on Adaptation).

ENSURE ROBUST REPORTING AND ACCOUNTING OF FINANCE

If roadmaps and future targets are to be meaningful, the new reporting system must be robust. It should build on the experience with developed and developing countries’ biennial submissions, as well as the updated strategies and approaches for scaling up climate finance from 2014 to 2020 that were submitted by developed countries.⁵⁷ Section 7 on Transparency examines work required on ex-post finance reporting as part of Article 13. The COP is also required to initiate a process to identify the forward-looking finance information that developed countries will report biennially under Article 9.5, making recommendations for the first CMA to consider and adopt.⁵⁸ This could be undertaken by the APA, which is already mandated to develop recommendations to the CMA on the broader transparency framework, including backward-looking finance reporting,⁵⁹ or by SBSTA, which is mandated to develop accounting modalities for climate finance (see below).⁶⁰ One challenge in determining the information to be reported is to ensure that it is both feasible and genuinely forward looking. Though developed countries’ national budgetary processes may place limitations on information available, their current multi-year commitments⁶¹ suggest that it is possible to provide indicative information several years into the future, or at least to clarify the replenishment cycles of dedicated multilateral climate funds. Parties should explore the possibility of having all contributor countries provide, at a minimum, information about the next year’s climate finance provision, and ensure that reporting deadlines are timed appropriately.⁶²

In recognition of the lack of consensus on what should count as climate finance and how to count it (Bodnar et al. 2015), SBSTA is requested to “develop modalities for accounting of financial resources provided and mobilized” for consideration by COP24 (2018), with a view to making a recommendation for adoption by the first

CMA.⁶³ This process should build on past deliberations within SBSTA and the Standing Committee on Finance (SCF), as well as technical work currently underway by the OECD Research Collaborative on Tracking Private Climate Finance,⁶⁴ the Multilateral Development Banks' Common Reporting Principles for Climate Finance,⁶⁵ and by other stakeholders who are working to develop approaches to track climate finance. In order to overcome the stalemate that has characterized previous discussions on climate finance accounting in the context of the \$100 billion commitment, Parties will have to engage in a frank dialogue. If approached in a meaningful way, acknowledging the political disagreements (for instance on the definition of climate finance) while identifying areas where consensus can be reached on technical elements of finance accounting, the process has the potential to enhance the consistency of reporting and ensure that both the quality and quantity of climate finance flows improve.

STRENGTHEN INSTITUTIONAL COHERENCE

The Paris COP decision provides an option for the Adaptation Fund to serve the Paris Agreement, and the Conference of the Parties Serving as the Meeting of the Parties to the Paris Agreement (CMP) already began considering this issue during the Paris negotiations.⁶⁶ Given the importance many developing countries have attached to the Adaptation Fund, particularly its pioneering use of direct access modalities, COP22 should, as invited by CMP11, mandate the APA to undertake preparatory work to consider different ways in which the Adaptation Fund can serve the Paris Agreement, and forward a recommendation for consideration by CMP15 (2019) at the latest.⁶⁷ The CMP would then make a recommendation on the future of the Adaptation Fund to CMA1 and both bodies would have to make decisions to allow the Adaptation Fund to serve the Paris Agreement.⁶⁸ There is potential for the Adaptation Fund to be funded by a share of proceeds from activities under the sustainable development mechanism (see Section 10 on Cooperative Approaches).⁶⁹

The COP could also request that the APA provide a more detailed interpretation of the requirement for the funds serving the Agreement to “aim to ensure efficient access to financial resources through simplified approval procedures and enhanced readiness support.”⁷⁰ Interpretation of the requirement could include ways of assessing progress in fulfilling this mandate, which could be forwarded to CMA1 for consideration and adoption. Additionally, it will be important to clarify how the Financial Mechanism will engage other support bodies of the UNFCCC such as the Technology Mechanism, as mandated in Article 10. (See Section 5 on Technology for more on this issue.)

5. Technology Development and Transfer

5.1 Overview

Technology development and transfer has long been a sensitive issue under the negotiations. The important role of technology in both reducing greenhouse gas emissions and building resilience has not been in dispute, but the level of discussion has not matched the level of ambition needed.

Despite the slow pace at which technology issues have advanced within the UNFCCC, the Paris Agreement achieved a number of successes:

- Parties adopted a shared long-term vision to fully realize technology development and transfer in order to improve resilience and reduce emissions.
- The Technology Mechanism is requested to serve the Agreement and to undertake additional responsibilities, including conducting further work on the development and enhancement of endogenous capacities and technologies.
- Some specificity was given regarding the technologies that are to be promoted under the Agreement; the new technology framework should address barriers to development and transfer of socially and environmentally sound technologies. How this will be determined remains unclear.
- The Agreement also seeks to strengthen financial support for technology by requesting that the Financial Mechanism support both collaborative approaches to research and development, and cooperative action on technology development and transfer.

The negotiations in Paris added to the complexity of technology issues, making the path forward unclear; however, they opened the door for more activity on development and transfer. One of the challenges will concern how to support the additional responsibilities of the Technology Mechanism. Without adequate financial support and a clear operational linkage between the Technology Mechanism and the Financial Mechanism, the new mandates will be difficult to accomplish. Focus areas of work noted in Article 10 on technology run the gamut from efforts to accelerate innovation, particularly in early-stage technologies, to an assessment of ready-to-transfer technologies. However, how Parties will move to advance and support specific technology activities remains unclear.

Figure 5 | **Technology Development and Transfer**

○ events, moments, and decision points ▷ processes



5.2 Key Tasks and Recommendations

The article on technology development and transfer and the corresponding decisions open up a number of areas that will need to be addressed. They include the expanded scope of the Technology Mechanism and effective coordination with other support bodies such as the Financial Mechanism, the elaboration of the technology framework, and the elaboration of scope and modalities of the assessment on adequacy of support for the Technology Mechanism. Parties will need to take steps to develop the new technology framework and enhance the effectiveness of the Technology Mechanism, building on lessons from current activities and taking into consideration the views of all Parties.⁷¹

EXPANDED SCOPE OF THE TECHNOLOGY MECHANISM AND NEED FOR EFFECTIVE COORDINATION

Parties in Paris agreed that the Technology Mechanism will continue to support the development and transfer of technology and will serve the Paris Agreement. The Technology Executive Committee (TEC) and the Climate Technology Center and Network (CTCN) are the most appropriate UNFCCC bodies to undertake further work in research, development, and deployment (RD&D) and the development and enhancement of endogenous capacities and technologies, as requested by the Paris Agreement. The Technology Mechanism is also requested to engage with the Technical Expert Meetings on pre-2020 ambition and enhance their efforts to facilitate and scale up Parties' implementation. How the Technology Mechanism will go about providing enhanced support on implementation and further support for RD&D remains a significant question.

To deliver on this enhanced support, strong institutional pathways of communication are needed between the Technology Mechanism and the Financial Mechanism. Paris COP decision 13/CP.21 established a process to consider the linkages between the two mechanisms⁷² and Article 10 of the Paris Agreement notes that support is to be provided to developing countries for technology innovation and cooperative action both by the Technology Mechanism and the Financial Mechanism, underscoring the importance of their relationship. Parties will need to agree how the two bodies will work together under the Paris Agreement to provide enhanced financial support for current and future technology development and transfer activities.

Specifically, Parties can elaborate how the two bodies will work together to:

- improve the process for developing technology needs assessments;
- clarify the purpose of the assessment of ready-for-transfer technologies;
- identify how to support further work on RD&D; and
- develop and enhance endogenous capacities and technologies.

Effective coordination could help the development and identification of bankable projects and advance implementation. Considering the strong relationship between the mandates of both bodies, it will be important to develop sustained engagement processes between the two bodies moving forward. The TEC has

already identified a number of ways to build linkages. Members of the TEC could provide input to the work on the Investment Framework being undertaken by the Investment Committee, and could also assist the Independent Technical Advisory Panel with the assessment and evaluation of proposals.⁷³ Also, the two bodies could facilitate knowledge and information sharing among the National Designated Entities (NDEs) of the Technology Mechanism and the National Designated Authorities (NDAs) of the GCF. While the GCF is to put forward recommendations at COP22,⁷⁴ it will be important for Parties to build on current efforts to identify linkages and seriously consider formalizing the relationship through COP decisions.

ELABORATE THE TECHNOLOGY FRAMEWORK

The Parties agreed to a new framework for technology to provide guidance to the Technology Mechanism. SBSTA is to elaborate the technology framework, which will facilitate continued support for technology needs assessments and enhance the implementation of their results, including through the provision of financial and technical support. This is a key decision on technology, signifying that the Technology Mechanism should focus more on facilitating implementation. It presents an opportunity to reframe efforts on technology more explicitly around the long-term goals.

The technology framework should support the enhancement of enabling environments, address barriers to development, and facilitate the transfer of socially and environmentally sound technologies. Furthermore, Parties need to make sure that the Technology Needs Assessments (TNAs) are useful, practical, and linked to finance in order to enhance the implementation of their results, as noted in the decision text. SBSTA could develop a work program to identify the challenges facing implementing activities, based on the technology needs assessments, and collect input from Parties, National Designated Entities, the TEC, CTCN, UNDP, and others and set in motion a plan to update the Handbook for Conducting Technology Needs Assessments.

The technology framework should also facilitate the assessment of ready-for-transfer technologies, although frequency of the assessment, responsibility for conducting it, and the manner of its use still need to be decided. Parties will need to decide these questions, and to define what “ready-for-transfer” means. SBSTA could initiate a study to define the term and identify specific technologies that might meet that description.

SUPPORT FOR TECHNOLOGY DEVELOPMENT AND TRANSFER

One significant question concerns how the Technology Mechanism will be able to accomplish its expanded workload. The TEC and CTCN do not currently have the support necessary to provide these enhanced services. Noting this, Parties decided to undertake a periodic assessment of the effectiveness of the Technology Mechanism and the adequacy of the support it receives, although the scope and modalities are not to be adopted until November 2019, after the facilitative dialogue. It is likely that this assessment will find the Technology Mechanism wholly under-supported. However, waiting until 2019 to identify how to provide enhanced support will only delay the assistance that could be provided to Parties for implementation. SBSTA should therefore aim to address this issue in its work to elaborate the technology framework. As SBSTA begins to elaborate the core elements of the technology framework, it should also take into consideration the additional costs of new and enhanced activities. It should estimate the amount of additional funding required and make recommendations on how the Technology Mechanism could expand its funding base in order to fulfill the expanded tasks identified in the Paris Agreement. This work could serve as input to the development of modalities for the future assessment.

6. Capacity Building

6.1 Overview

Until COP17 (2012) in Durban, capacity building had a very low profile in the UN climate regime’s support structure. Progress on capacity building negotiations has been relatively recent, with the majority of decisions being made over the last four years through the Durban Forum on Capacity-Building, a multi-stakeholder forum for sharing ideas and lessons learned, and through an information portal.⁷⁵ However, for developing countries, these decisions failed to translate to real actions on the ground.

Article 6 of the United Nations Framework Convention on Climate Change has been the main vehicle for the promotion of climate change public awareness, education, access to information, and participation and training in countries. The negotiations on capacity building and on Article 6 have been mutually reinforcing, because education, training, public awareness, and access to information are often seen as means to strengthen or build capacity. However, as with capacity building, Article 6 remained under the political radar until COP18 (2013) in Doha, when an eight-year work program, the Doha Work Programme, was adopted to address Article 6 issues. During the 2014 negotiations at COP20 in Peru, a ministerial declaration on climate change

education and awareness-raising was adopted that encourages governments to incorporate climate change into national curricula and prioritize raising awareness in the development of climate change strategies and policies.

The Paris Agreement elevates these issues and confirms capacity building and education as important avenues toward climate action. The Agreement creates an opportunity to foster enhanced, strategic, and sustained approaches that support transformational change and enable all Parties and stakeholders to build the institutional capacities needed to mitigate and adapt to climate change, in the following ways:

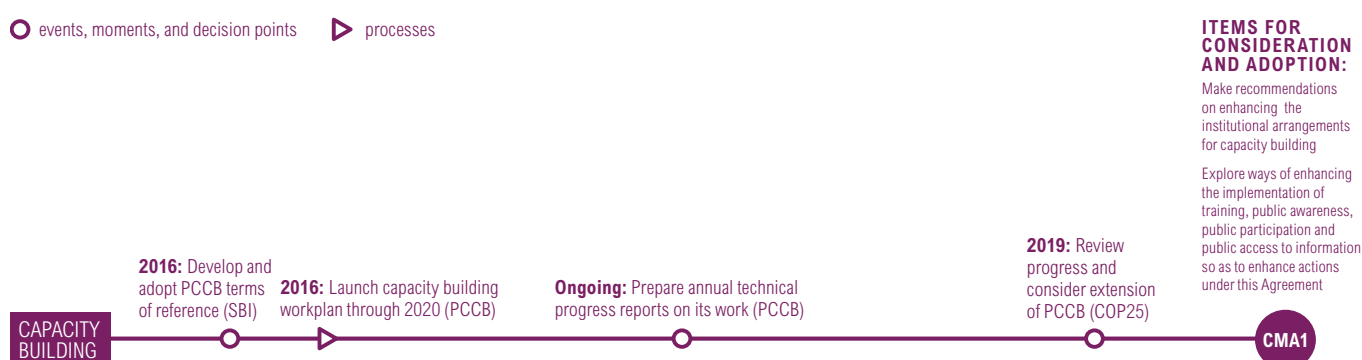
- encouraging all Parties to cooperate to enhance the capacity of developing countries, and to enhance climate change education, public awareness, participation, and access to information;
- requiring all Parties to regularly communicate what actions and measures they have undertaken to enhance the capacity of developing countries. The Paris COP decision also established the Paris Committee on Capacity Building (PCCB) to “address gaps and needs, both current and emerging, in implementing capacity building in developing country Parties and further enhancing capacity-building efforts, including with regard to coherence and coordination in capacity-building activities under the Convention;”⁷⁶ and
- further enhancing the institutional arrangements for capacity building under the UNFCCC by 2020.

The PCCB is mandated to oversee a comprehensive work program⁷⁷ over the next four years that includes:

- assessing how to increase synergies through cooperation among existing bodies and activities within and outside the UNFCCC;
- identifying capacity gaps and needs;
- fostering international, regional, national, and subnational cooperation;
- promoting the development and dissemination of relevant tools and methodologies;
- identifying and collecting good practices, challenges, experiences, and lessons learned from work on capacity building under the UNFCCC;
- exploring how developing countries can take ownership of building and maintaining their capacity over time;
- identifying opportunities to strengthen capacity at the national, regional, and subnational levels;
- fostering dialogue, coordination, and coherence among relevant processes and initiatives under the UNFCCC; and
- providing guidance to the UNFCCC Secretariat on the development of the Capacity Building Portal.

The progress of the PCCB and need for extension of its mandate will be reviewed by the COP at COP25 in 2019. The Paris Agreement also establishes the Capacity Building Initiative for Transparency (CBIT) to build institutional and technical capacity to support the efforts of developing country Parties in need to meet the enhanced transparency requirements of the Paris Agreement (see further details in Section 7 on Transparency).

Figure 6 | **Capacity Building**



6.2 Key Tasks and Recommendations

Enhancing the institutional framework for capacity building in the Convention is a first step toward a more constructive and effective enabling context for climate action. In addition to an enhanced institutional framework, implementation of the Paris Agreement should spur capacity building on the ground through best practice guidance, based on better data and analysis,⁷⁸ and it should result in enhanced and targeted funding of capacity building and education activities.

DEVELOP THE TERMS OF REFERENCE FOR THE PCCB

SBI was tasked with developing the terms of reference for the PCCB for adoption at COP22. Due to diverging visions among Parties at COP21 regarding the type and model of the Committee, no guidance was provided by the Paris COP decision on these terms of reference, including membership of the PCCB. Questions remain as to the appropriate size of the Committee for effective decision-making, and the kind of representatives that should be appointed (for example, whether there will be more emphasis on recruiting representatives from existing UNFCCC thematic bodies or capacity building experts).

SBI should consider the following when determining the membership of the PCCB:

- Decisions should be driven by experts on the international capacity building framework and by implementation on the ground.
- In view of the cross-cutting nature of capacity building, membership should include representation from key UNFCCC thematic bodies, for example, Adaptation Committee, Standing Committee of Finance, Consultative Group of Experts, LEG.⁷⁹
- In order to enhance the sustainability of capacity building activities, the PCCB should also include representatives of relevant international, regional, and local organizations including research institutions and academia.

The number of representatives should be big enough to benefit from the wealth of expertise outlined above, but should be sufficiently limited to facilitate an effective decision-making process. The PCCB should also be envisioned in the context of existing institutions and should not duplicate the Durban Forum for capacity building, already created to enhance synergies across capacity building activities.⁸⁰

DEVELOP THE DETAILS FOR THE 2016–2020 WORK PLAN

In Paris, the COP launched a work plan for the period 2016–2020. It includes a long list of activities and is to be managed and overseen by the PCCB.⁸¹ Enough time must be provided under SBI both to adopt the terms of reference of the PCCB and discuss what to prioritize, with a view to adopting a more detailed roadmap for the next four years that establishes clear deliverables and tangible outcomes. In 2016, emphasis could be placed on identifying capacity gaps and needs and collecting best practices and lessons learned about ways to enhance ownership and retain capacity at national, regional, and subnational levels. The result of the Third Review of the Capacity Building Framework⁸² should be taken into account by the PCCB in order to make appropriate recommendations. Discussions on this review are expected to start at the UNFCCC negotiating session in May 2016.

LEVERAGE THE DOHA WORK PROGRAMME TO FOSTER PROGRESS ON EDUCATION

The Paris Agreement and its COP decisions set out no concrete next steps to advance education before the Agreement's entry into force. However, in Paris, Parties adopted the terms of reference for the intermediate review of the Doha Work Programme on Article 6 of the Convention.⁸³ By this Decision, the COP requested the Subsidiary Body for Implementation to launch the intermediate review of the implementation of the Doha work programme on Article 6 of the Convention at the UNFCCC negotiating session in May 2016, with a view to the review being completed by November 2016, at COP22. The review should be leveraged to advance the agenda on education and public awareness over the next four years and enable Parties, at CMA1, to adopt a program that further enhances the implementation of training, public awareness, public participation, and public access to information so as to advance actions under the Agreement.⁸⁴

The Doha Work Programme will remain the main vehicle for progress on education over the next four years. At the intermediate review of progress in 2016, Parties are expected to consider the following Art. 6 objectives:

- Identification of the needs and gaps in current programs and approaches
- Enhancement of climate change education programs
- Promotion of public awareness about climate change
- Facilitation of public access to information about climate change

- Promotion of public participation in climate change activities
- Increase of training to relevant stakeholders, including lifelong training for teachers

Attention could be given to progress on the inclusion of climate change education in educational curricula, and the increased participation of stakeholders. In particular, Parties could review the ways in which the capacities of women and youth have been strengthened in climate change project design and implementation and in the implementation of climate education, through training and technical assistance.

COP22 could be a turning point and a real opportunity to boost Article 6 and capacity building issues. Parties could take account of the outcome of a number of initiatives or dialogues launched over the past year. These include the recommendations made by 750 education experts from 22 countries who met in India in January 2016 and adopted the Ahmedabad Framework for Action,⁸⁵ and the call for a global citizenship, made in a manifesto entitled “Ten billion human beings: to live together, let’s change the education!” Similarly, Parties could leverage work undertaken by the International Labor Organization (ILO) and the UN Alliance on Climate Change Education, Training and Public Awareness.⁸⁶

At COP22, Parties could decide to take a number of actions:

- strengthen the capacities of decision-makers and other stakeholders to implement climate education;
- secure funding for climate change education;
- enhance international cooperation to scale up climate change education and action between governments and among international institutions;
- include education and capacity building in the updated national climate plans (including NDCs), which could serve as one of the main drivers for enhancing climate action;
- strive to remove structural and organizational obstacles in education systems;
- share best practices and experiences; and
- promote the greening of enterprises, workplace practices, and the labor market as a whole. This is an approach that policymakers should strive to implement at home.

MAKE CONCRETE COMMITMENTS FOR MORE EFFECTIVE CAPACITY BUILDING ON THE GROUND

Governments, together with other stakeholders, need to make concrete commitments to increase support for capacity building in developing countries and help them build the right domestic conditions for action. Commitments should include readying finance, developing bankable projects through effective and robust MRV systems, and enhancing governance and institutional frameworks. Bringing together key stakeholders to facilitate the enhancement of domestic enabling environments could be valuable. Such an initiative could be launched at COP22.

In some cases, the level of funding and resources can make a significant difference; in others, the essential factors include the type of funding, type of activities, timing and delivery of support, and source of support, as well as the effectiveness of institutional, regulatory, and administrative frameworks. In most cases, success can be achieved through a combination of different approaches. Integrating these needs, gaps, or challenges in any projects or program activities that aim to enhance the implementation of national contributions or seek to increase their ambition, could be helpful.

It is important not only to build and sustain the capacity and education of individuals; there must also be an increased focus on building the capacity of the organizations and institutional arrangements that support them. This requires a fundamental move away from the ad hoc, short-term project focus of many current capacity building activities (Dagnet et al. 2015). Innovative approaches to building and sustaining capacity include online training; regional and international cooperation; leveraging the expertise of NGOs, the private sector, research institutes, and academia; developing crosscutting networks, centers of excellence and partnerships with institutions that have specific expertise, such as the Climate Technology Centre and Network; and integrating climate policies with mainstream socioeconomic and capacity development strategies. These approaches could inform deliberations over the next four years on the enhancement of the international institutional framework for capacity building (Dagnet et al. 2015).

7. Transparency of Action and Support

7.1 Overview

The backbone of the Paris Agreement is a set of provisions that ensure transparency and accountability of action and support. Transparency is vital for building international trust and confidence that action is taking place, and facilitating further action. It is also vital to improve national decision-making processes, foster better domestic dialogues, highlight needs and gaps, facilitate prioritization of actions, and improve enabling environments to attract greater investment and funding.

The Paris Agreement contains the most robust, credible, and balanced transparency requirements agreed to date in the international climate regime. The transparency provisions are comprehensive in scope, and make balanced progress on mitigation, adaptation, and support provided and received by Parties.

All Parties committed to strong, legally binding commitments to enhance their data over time and report regularly on their trends in greenhouse gas emissions and progress made toward achieving their NDCs. These reports will be based on agreed international standards such as those adopted by the Intergovernmental Panel on Climate Change (IPCC) for national greenhouse gas inventories, and agreed-upon accounting approaches. Parties also committed to allow the information they provide to be subject to scrutiny through a technical expert review followed by a multilateral, facilitative process (see further details on Compliance in Section 9).

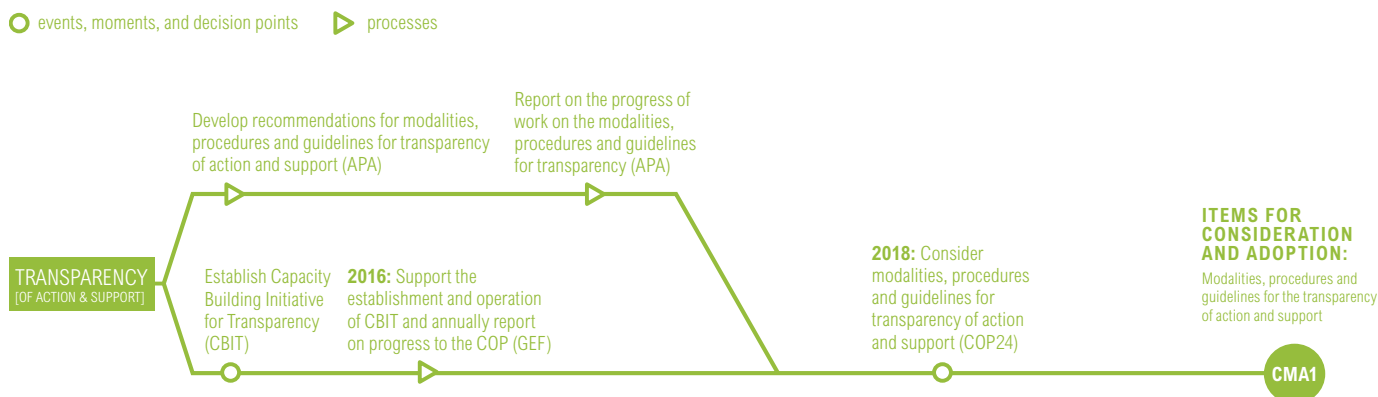
Significantly, the transparency requirements of the Paris Agreement are universally applicable through the development and adoption of common modalities, and the application of common reporting principles and guidelines to all countries. These modalities, principles, and guidelines will apply to the preparation of reports, estimation of emissions reductions, and verification of the information provided by all Parties. The universal nature of the provisions on transparency is a departure from the binary approach (Annex I vs non-Annex I) used in the Convention, the Kyoto Protocol, and the guidelines adopted in Durban. However, the Agreement also acknowledges different stages of development and capabilities among countries and builds in a degree of flexibility for developing countries.

The Agreement sets a benchmark for enhancing transparency by requiring that the transparency standards will be no less detailed or stringent than existing requirements, and will build on lessons learned from applying the requirements under the Kyoto Protocol and the Convention. At least every two years, all Parties will submit reports showcasing progress made on emissions reductions and adaptation efforts, and tracking support provided or received. These reports will also be reviewed biennially. Parties also committed to produce better data and to improve national reports over time. Finally, all Parties agreed to be subject to a facilitative compliance system. Although no enforcement measures were agreed in Paris, all Parties will now be required to respond to the committee established under the Agreement to facilitate implementation (see Section 9 on Compliance for more details).

The Paris Agreement places particular emphasis on capacity building to help countries put transparency measures in place. This reflects an acknowledgment that it took many developed countries around 15 years to build their sophisticated monitoring systems and that many developing countries, based on their national circumstances and stages of development, will need time and assistance to meet the new, more demanding transparency requirements. In response, the Paris Agreement establishes the Capacity-Building Initiative for Transparency, supported by the Global Environment Facility (GEF), to strengthen the institutional and technical capacity of developing countries to meet their requirements under the Agreement.

The Paris Agreement makes tremendous progress on creating more enhanced and robust transparency requirements that apply to all Parties. Through its three building blocks (reporting, technical review, and multilateral facilitative considerations), the newly agreed universal and legally binding transparency pillar of the Paris Agreement helps build confidence among national and international stakeholders, promotes implementation, and will provide critical inputs for the global stocktake.

Figure 7 | **Transparency of Action and Support**



7.2 Key Tasks and Recommendations

Effective implementation of the Paris Agreement’s transparency provisions will require the development of rules, modalities, procedures, and guidelines called for by the Agreement and the provision of adequate support (finance, technology transfer, and capacity building). The effective design of accounting rules, reporting guidelines, and verification processes will be essential to ensure that Parties’ commitments are effectively implemented and that even greater ambition is generated. Similarly, an effective capacity building and training program, together with appropriate human and financial resources, will be necessary to ensure successful implementation of procedures and engage countries in continuous improvement (Dagnet et al. 2014). (See also Section 6 on Capacity Building.) The Agreement sets out a process for the APA to undertake the design of the transparency provisions and present these rules for consideration at COP24 (2018) and adoption at CMA1.

CREATE CONDUCTIVE NEGOTIATING ENVIRONMENT TO UNPACK NEW AND SENSITIVE CONCEPTS

With so many guidelines, rules, and processes to adopt by 2018, priority in 2016 should be given to creating a conducive negotiating environment—a “safe space”—so that Parties can begin to unpack, define, and clarify politically sensitive and complex concepts introduced under the Paris Agreement. The concept of “built-in flexibility” when designing accounting approaches applicable to all and reporting and verification guidelines will require time to elaborate and define. This can be interpreted and made operational in different ways. However, without initial clarification and agreement among Parties on such

definitions, the subsequent drafting of accounting rules, reporting guidelines, and review processes may stall.

Most importantly, the issue of differentiation in transparency needs to be addressed. In Paris, transparency remained one of the more contentious issues until the end because of the sensitivity of differentiation. Even though the Paris Agreement shifted from a binary transparency system to a more universal approach, progress toward a common and enhanced transparency system will likely be slow and challenging. Significant work is needed in the negotiations and the UNFCCC transparency process to improve the overall robustness and effectiveness of the system, while reflecting the principles of the Convention. Parties will have to strike the right balance between preserving environmental integrity and preventing double counting, avoiding placing undue burdens on countries with fewer capabilities, and allowing progress that builds on different standards of data collection, monitoring, reporting, and implementation.

Defining what is meant by “built-in flexibility” is likely to drive the debate and design of common transparency guidelines. The risk of having multiple interpretations of the provisions of the Paris Agreement is a serious concern. Careful deliberation on these issues will be necessary so that all Parties can converge on an optimal outcome that provides quality measurement, better data, and greater confidence and trust among countries. Expert workshops and webinars should be organized, with inputs from government and non-Party stakeholders, to explore policy and technical options on these issues. Parties could use the UNFCCC submission process to get a wide range of inputs ahead of such

workshops. Other processes, initiatives, or fora outside the UNFCCC should of course be leveraged because they provide additional space for discussion. Defining “built-in-flexibility” could also benefit from sharing lessons on the implementation of the existing MRV regime, the transparency processes in other regimes, and the preparation of INDCs.

IMPROVE MRV OF SUPPORT

MRV of support is elevated in the Paris Agreement. Ensuring that the new finance reporting regime is sufficiently detailed and workable is key to enhancing predictability and effectiveness of finance flows. Every two years, developed countries are asked to communicate information on support provided and mobilized through public interventions.⁸⁷ Although the requirements for developing countries are not as stringent or prescriptive as they are for developed countries,⁸⁸ the Paris Agreement presents an opportunity to develop a double bookkeeping approach where both contributors and recipients prepare reports on finance provided and received, which can be compared to enhance transparency and tracking of flows. The consideration of developing a common tabular format as requested in the COP decisions⁸⁹ will certainly contribute to the enhancement of the process.

Finance will remain a sensitive topic in 2016, and time must be allowed for discussing the depth of work required to enhance the measurement, reporting, and verification of support from both developed and developing countries. Close collaboration with finance experts to advance the Agreement’s provisions on finance will be critical when drafting the reporting guidelines. From a sequencing point of view, some of the political discussions and methodological details on finance will need to be worked out before drafting the guidelines for reporting on support provided and received. (For more details, see Section 4 on Finance.)

IMPROVE THE COMMUNICATION, MONITORING, AND EVALUATION OF ADAPTATION EFFORTS

In line with the elevated status of adaptation in the Paris Agreement, the associated transparency provisions convey a willingness to create more parity between mitigation and adaptation actions. However, the requirements for enhancing transparency of adaptation actions remain quite generic and elusive. It is not clear how the reporting requirements under the transparency provisions differ from the requirements to communicate adaptation efforts or to inform on the national planning process, as outlined under the adaptation provisions. Guidance will be required from adaptation experts and the Adaptation Committee on how monitoring and

evaluation of adaptation action can be further advanced and reflected in the revised reporting requirements.⁹⁰

Adaptation priorities, actions, and needs can be communicated through different channels, such as NDCs, national communications, and national adaptation plans. In the future, other communication channels can also be used, such as technology needs assessments and biennial (update) reports, countries’ annual monitoring reports, or periodic evaluation reports. Some of these communication channels are nationally driven and are used for domestic planning purposes (e.g. NAPs), rather than as international reporting tools (e.g. national communications). Parties will have to decide whether the focus of discussions should be on standardizing communication channels or on the type of information that can and should be reported in adaptation communications, using a country’s channel of choice. Bearing in mind developing countries’ concerns over the potential undue burden generated by too many communication channels, as well as their demand to maintain or build flexibility in the transparency regime, Parties should focus first on content and carving out space for discussing the type of information required to monitor and evaluate efforts. This will also help clarify how the communication and evaluation of individual adaptation efforts can inform and facilitate an evaluation of progress against collective goals (including through the global stocktake). See also Section 2 on Adaptation.

ESTABLISH METHODOLOGIES TO ASSESS IMPACT OF POLICIES AND MEASURES

The accounting requirements for mitigation action are covered under three articles of the Paris Agreement—mitigation, cooperative approaches, and transparency of action and support. Substantive considerations are presented in Section 1 on Mitigation and Section 10 on cooperative approaches. But there is one additional issue worth considering under the transparency and accountability context.

Parties under the Paris Agreement are legally bound to pursue efforts to achieve their NDCs. This is different from the regime under the Kyoto Protocol, where developed country Parties were legally bound to achieve quantitative targets. This means that, in the post-2020 regime, policies and measures will need to be monitored closely for compliance purposes and for checking progress against the goals of the Paris Agreement. Efforts will be needed to estimate as accurately as possible the impact of the policies and measures to which Parties committed as part of their efforts to achieve emissions reductions. Developing methodologies to estimate these impacts will help facilitate the measurement, tracking,

reporting, and verification of countries' progress against their NDCs and global long-term goals. No standardized guidelines have been agreed under the UNFCCC to assess the effect of policies and actions (World Resources Institute 2014). The mandate given to the APA to design the reporting and methodological guidelines is quite general, but Parties have the opportunity at COP22 (2016) to specifically request the inclusion of such guidelines as part of the overall work program on transparency and accounting.

SCALE UP SUPPORT FOR TRANSPARENCY

A key condition for successful implementation of the Agreement's transparency requirements is the provision of adequate and sustainable financial support and capacity building. This is necessary to enable developing countries to significantly scale up their efforts to build robust domestic measurement, tracking, reporting, and verification systems, strengthen institutional frameworks for transparency (Dagnet et al. 2015), and help track finance received and determine further finance needed.⁹¹ Despite 20 years of international assistance, developing countries still have numerous capacity needs and are hindered by insufficient human and financial resources, lack of scientific or technical knowledge, and institutional weaknesses (Dagnet et al. 2015). So far, financial support has not been commensurate with the needs and demands of the existing MRV framework (Dagnet et al. 2014). Substantial effort will be needed to ensure that financing is adequate under a post-2020 regime and various funding sources will need to be mobilized to achieve this. More importantly, in addition to the absence of adequate and sustained funds to ensure the development and implementation of robust institutional arrangements, the following challenges hindered the sustainability of capacity building efforts (Dagnet et al. 2015):

- Poor data availability, including lack of permanent and qualified personnel at the local and regional levels for the purpose of preparing national reports
- Failure to retain staff and skills, mainly as a result of high staff turnover
- Lacking or inadequate institutional and regulatory frameworks to improve coordination among national bodies in their approach to addressing climate change and to facilitate access and better management of funding (see also Section 6 on Capacity Building).

These challenges make clear the important role of institutions, or initiatives on transparency and capacity building, in exploring and recommending concrete ways forward. By COP22, Parties will need to demonstrate progress by operationalizing the Capacity Building Initiative for Transparency (CBIT). Because CBIT is funded by the GEF, a key milestone will be the decisions emerging from the GEF council in June 2016. Given the magnitude of the undertaking, complementary initiatives supporting the Paris Agreement's objectives should also be welcomed.

The existing reporting requirements will be applicable until 2020, so there is still an opportunity to identify the capacity gaps and needs of developing countries—they are required to include them in their biennial update reports. The current and future verification process, which includes a facilitative and interactive formal assessment, should also be leveraged and used as a means to share experiences and best practices and to raise awareness and capacity within countries. Sharing experiences can also play a substantial role in catalyzing and enhancing individual countries' efforts and fostering cooperation on methodological and institutional improvements aimed at implementing and improving MRV processes. The training of reviewers, put in place by the Secretariat with the support and advice of the Consultative Group of Experts (CGE)⁹² will need to be updated, but such training also constitutes an important capacity building tool.

Finally, by introducing an intensive and thorough exercise for about 142 countries, the new review process will generate significant demand on the time, human, and financial resources of the Secretariat and of governments. Given past experience with other processes such as the review of Annex I national communications, members of teams of expert reviewers spend a minimum of 21 fully dedicated working days (UNFCCC 2013) to prepare the review, carry out the one-week assessment, and finalize any summary report.⁹³ The Secretariat will have to undertake preliminary checks,⁹⁴ quality control, and arrangements, whether the reviews are carried out in-country⁹⁵ or centralized⁹⁶ in Bonn. The Secretariat has struggled to find available and trained experts ready to support the review exercise.⁹⁷ In addition to scaling up support for the review exercise, promoting the participation of a wider range of stakeholders (tapping into the expertise and human resources of academics, NGOs, and think tanks) could address some of the identified challenges, while enhancing institutional, technical, political, and decision-making capacities.

ESTABLISH A WORK PLAN

With a return to only two negotiating sessions a year, there is little time for progress on substance within the UNFCCC. A clear work plan, sequencing the work ahead till 2018, must be elaborated and adopted at COP22 (2016), because so many guidelines, rules, and processes are to be designed by 2018.

The Agreement does not include requirements regarding the specific information to be included in Parties' national reports or NDC submissions. The features of NDCs can be treated under the mitigation agenda because they are referenced under the mitigation provisions in Article 4 of the Paris Agreement. However, the scope of most NDCs includes more than mitigation alone, and progress toward achieving both mitigation and adaptation commitments could be captured in the national reports under the transparency framework. We suggest that mitigation and adaptation be addressed together under the reporting requirements in the transparency provisions. The drafting of reporting guidelines could build upon both the lessons from the submission of national reports under the existing MRV regime and lessons from the preparation of NDCs.

Parties can make progress on transparency under the UNFCCC negotiations by leveraging other international fora. Emphasizing the benefits of enhanced data and national and international MRV frameworks will be key to spurring support for the highest standards possible. This narrative must recognize the need for time and sustained in-country capacity building in developing countries to fulfill the enhanced reporting requirements while avoiding undue burdens.

Existing initiatives such as the Low Emission Development Partnership, the International Mitigation and MRV Partnership, the NAMAs Partnership, the newly created Initiative for Climate Action Transparency (ICAT),⁹⁸ the Coalition for Capacity Building,⁹⁹ the NAPs Global Support Program and NAP Global Network, and the OECD Climate Change Expert Global Forum provide opportunities for constructive discussion on lessons learned from the preparation and implementation of NDCs and biennial update reports. These initiatives can provide experience in overcoming barriers for implementing mitigation and adaptation policies, filling data gaps, and identifying countries' needs. Leveraging the experience and work undertaken so far by UNFCCC thematic bodies such as the Least Developed Countries Expert Group (LEG),¹⁰⁰ the Consultative Group of Experts (CGE),¹⁰¹ and the Open Government Partnership (OGP)—launched in 2011 to provide an international platform for domestic reformers committed to

making their governments more open, accountable, and responsive to citizens—provides another opportunity to promote transparency and public participation to address the effects of climate change.

It is very important to remember that, while the Paris Agreement calls for more thorough transparency measures than have previously existed under the Convention, it is not necessary to start from scratch. As indicated in the Paris Agreement itself, much should be built on the lessons learned under the Convention and the Kyoto Protocol. In doing so, Parties should determine effective elements in the Kyoto Protocol and the Convention that should be retained. This will be particularly important with regard to the reporting and accounting of emissions from land use and forestry.¹⁰² The next four years offer two learning opportunities in the form of the reporting and review of biennial reports and biennial update reports.¹⁰³ This first submission and verification cycle will give Parties the immediate chance to improve the reporting and verification guidelines, based on lessons learned in 2016 and 2017. The concept of “improvement over time” is at the heart of the transparency framework. The next four years already provide tangible milestones for improving the quality of countries' data, consolidating the frequency of reporting and verification,¹⁰⁴ making the international transparency framework more robust and effective and strengthening capacity on the ground.

8. Global Stocktake

8.1 Overview

In Paris, Parties agreed to an ongoing and regular review process to increase action by all countries. The process will provide an important opportunity for Parties to regularly reflect on the collective effort for climate action. With the aim of supporting the cycle of ambition and informing future action, Parties agreed to a pivotal collective moment every five years to assess implementation and progress toward achieving the Agreement's long-term goals.¹⁰⁵ Referred to in the Paris Agreement as the “global stocktake,” it will occur every five years starting in 2023. The global stocktake has broad scope and purpose—assessing mitigation and adaptation action, means of implementation (including finance, technology transfer and development, and capacity building), and other support. Assessments will be based on equity and informed by the best available science, including the latest IPCC reports. Following each global stocktake, all Parties will be required to prepare and communicate new NDCs for mitigation, 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.

Cognizant that global emissions must peak as soon as possible and then rapidly decline, Parties agreed in Paris not to wait until the first global stocktake to be held in 2023 but rather to reconvene in 2018 for a “facilitative dialogue” to “take stock of collective efforts of Parties in relation to progress toward the long-term goal.”¹⁰⁶ This facilitative dialogue is expected to have a narrower scope than future global stocktakes and is limited to reviewing collective progress made toward the long-term goal to peak emissions and achieve net-zero emissions, rather than addressing implementation of the entire Agreement. The outcome of the facilitative dialogue will be used to inform Parties when they review their current NDCs ahead of 2020 and either submit new mitigation contributions (i.e. those whose current contributions contain a timeframe up to 2025) or update their existing contributions (i.e. those whose current contributions contain a timeframe up to 2030).

In 2023, the first global stocktake will occur, triggering another more comprehensive round of review for NDCs in 2025 and an increase in ambition. This review and revision process will continue every five years (in 2023, 2028, 2033...) as a mechanism for strengthening ambition.

8.2 Key Tasks and Recommendations

The global stocktake is key to the ambition mechanism created by the Paris Agreement. While the Paris Agreement created this assessment moment, it did not determine how it would function or how it would be used to increase climate action from all Parties every five years. The robustness of the global stocktake will determine whether or not the Paris Agreement can function to close the gap between the path created by current NDCs and the goal of holding the global temperature increase to 1.5°C (2.7°F), well below 2°C (3.6°F) of warming (UNEP 2015). The global stocktake will also determine whether enough efforts are being made to build a climate-resilient society and whether sufficient investment and support is being mobilized to support developing countries. It is crucial that all Parties come back before 2020 and consider increasing or strengthening the ambition of their current contributions. If Parties, especially the large emitters, don't use this moment as an opportunity to increase their ambition, achieving the temperature goal of limiting warming to below 2°C becomes significantly harder and puts 1.5°C potentially out of reach. Waiting until 2025 to increase ambition will also mean missed economic opportunities and benefits, given the rapid pace of technology, science, and policy development (Dagnet and Mountford 2015). The Paris Agreement and its accompanying decisions set out the broad parameters and timing of the facilitative dialogue and global stocktakes. The effectiveness of these moments in driving greater momentum, both within and outside the UNFCCC, will be determined by the detailed rules and modalities developed by the APA in the coming years.

Figure 8 | **Global Stocktake**



DEVELOP THE MODALITIES FOR THE FACILITATIVE DIALOGUE IN 2018

The Paris Agreement does not assign responsibility for determining the modalities of the 2018 facilitative dialogue to the APA or any other UNFCCC body. Accordingly, Parties should step up and make the necessary decisions at COP22 (2016) in Morocco to determine inputs, and clarify the scope and outcome of the facilitative dialogue, given that it will likely set a precedent for future global stocktakes. However, because the scope of the facilitative dialogue under the Agreement is limited to mitigation, the negotiating process will be particularly challenging this year. The following interrelated questions will need to be addressed:

- What lessons can be learned from the Technical Expert Meetings and technical examination processes set up to accelerate ambition pre-2020 and other relevant review processes undertaken within UNFCCC?
- How can the facilitative dialogue set a good precedent for the global stocktake?
- How can the IPCC special report on the impacts of 1.5°C of global warming above pre-industrial levels and related global greenhouse gas emissions pathways effectively support the implementation of the Paris Agreement?
- How meaningful can the facilitative dialogue be if it discards adaptation and the means of implementation?

Answering the first question would require a comprehensive assessment of the existing review and examination processes under UNFCCC—an exercise that is beyond the scope of this paper. But it is worth noting that the technical examination process set up to increase ambition pre-2020 could offer interesting lessons in terms of the format of the dialogue, because it managed to engage Parties in very facilitative discussions and sharing of best practices. In addition, this year, at COP22, Parties are expected to assess the progress made in increasing ambition pre-2020 with a view to further enhancing the ambition of mitigation efforts and identifying opportunities to scale up support and enhance the enabling environments.¹⁰⁷ This provides another opportunity to build experience in facilitating a constructive dialogue on ambition. The 2013–2015 review provides another stocktake model. Indeed, although this took place over a two-year period, it did involve a series of dialogues and meetings discussing possible scientific and political recommendations.

More can be learned from other review processes, both under and outside the UNFCCC, to ensure that the facilitative dialogue and, later, the global stocktake are effective. The Secretariat could also be asked to undertake a compilation and synthesis of the outputs from some of these UNFCCC processes. We strongly encourage the research and think-tank community to look into this issue and recommend ways to harvest the lessons within and outside UNFCCC.

The IPCC has just accepted the invitation to provide a special report in 2018 on the impacts of 1.5°C of global warming above pre-industrial levels and related global greenhouse gas emissions pathways.^{108, 109} This special IPCC report provides an opportunity to examine the feasibility and implications of 1.5°C emissions scenarios. Its findings can inform Parties' review of their NDCs ahead of 2020.¹¹⁰ The scoping of the special report will start soon. In order to further support implementation of the Paris Agreement, the special IPCC report should pay particular attention to low-emission development scenarios, implementation pathways, and needs assessments consistent with 1.5°C warming scenarios in different regions, taking account of differing national circumstances.

DETERMINE THE INPUTS, OUTPUTS, AND MODALITIES OF THE GLOBAL STOCKTAKE

The APA has been tasked to identify the sources of input to the global stocktake. These inputs will determine both the scope and quality of the global stocktake review and the strength of recommendations coming out of it. When considering inputs that should inform the global stocktake, the APA will need to consider the availability of national data, NDCs, and national adaptation communications. Analytical resources already exist under the UNFCCC that should form the basis of these inputs and ensure that the Parties have timely information needed to effectively assess implementation and provide relevant recommendations for enhancing actions and support (Morgan et al. 2014). The types of analytical inputs can be broadly categorized as:

- Individual national reports under the Transparency Framework for Action and Support (mitigation and adaptation): Review of implementation of NDCs, adaptation efforts, and needs and priorities communicated through the outcome of the verification process.
- Assessments of support provided and received: Review of assessment and reports from the SCF, Financial Mechanism, Technology Mechanism, and annual reporting of capacity-building activities, in addition to the technical expert review under Article 13 of the Paris Agreement.

- Best-available science and analysis, e.g. Review of the latest IPCC Assessment Reports and the UNEP Gap Reports.
- Other inputs from relevant UNFCCC thematic bodies, e.g. Review of reports from the Adaptation Committee and the Committee facilitating implementation and promoting compliance.

A number of specific inputs for consideration have already been identified in the Paris Agreement, but how their contents will inform the global stocktake remains to be seen. SBSTA was tasked to provide advice to the APA at its second session (held during COP22 in 2016), on how the IPCC assessments can inform the global stocktake, which may help to shape future NDCs. However, Parties will need to consider how other potential inputs will be used, what scientific assessments will be required, and which institution or body is best suited to undertake these reports. For example, the UNFCCC Secretariat could be requested to continue its synthesis reports on NDCs and adaptation communications, SBI and SBSTA could be tasked to undertake a summary analysis and assessment and provide a space for Parties and non-Party stakeholders to share their views, or the United Nations Environment Programme (UNEP) could be requested to continue its emissions gap assessment report.

One of the main questions for the APA will be how to sequence these inputs within the global stocktakes. Similarly, the APA should consider how to synchronize the timing of these inputs, particularly the national reports and inputs from other UNFCCC bodies, with the timing of future global stocktakes. The aim must be to promote coherence when identifying the inputs to and modalities of the global stocktake.

Perhaps the most sensitive issue will be the analysis of the outcome of the global stocktake and determination of the types of recommendations that should come out of the process. According to Article 14 of the Paris Agreement, the outcome of the global stocktake “shall inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the relevant provisions of this Agreement, as well as in enhancing international cooperation for climate action.” This sentence reflects a careful yet fragile balance between how much should be nationally determined and how much should be driven by potential international directions of travel. It also aims to reduce fears for national sovereignty on the part of some Parties. In order to secure effective and ambitious outcomes, the global stocktake could be driven by the following five objectives:

- **Update** Parties, not only on their collective progress toward—or away from—the global goals, but also on the successes, opportunities, and potential barriers to overcome
- **Motivate** Parties to increase the ambition of their actions and support, through constructive feedback and recognition of improvement, their efforts to achieve or exceed NDCs
- **Support** Parties by identifying means and areas for enhanced cooperation and strengthened capacity to enable them to adapt and go beyond their intended actions
- **Promote cross-level and cross-functional collaboration** among UNFCCC entities, organizations outside UNFCCC, and other stakeholders at national, regional, local, and corporate levels
- **Create a productive, cooperative, and learning environment** where peer pressure and sharing of best practices result in a race to the top and not a zero sum game

The output of this global assessment could include a number of products, including: (a) a summary document that covers the state of play in terms of temperature increase, emissions gap, adaptation and support needs and gap, best practices, new opportunities, and suggested ways to overcome some of the identified barriers (Morgan et al. 2015 and Oberthür et al. 2015); (b) declarations reflecting enhanced international cooperation among countries and wider stakeholders through new initiatives, and revised and more ambitious pledges; and (c) commitments by all countries to inform, in their subsequent national report or INDCs, how the outcome of the global stocktake was taken into account.

Regarding the modalities for the global stocktake itself, Article 14 of the Paris Agreement is purposefully broad in its component parts, providing no contours for the nature of the global stocktake. The APA will have the flexibility to determine whether it will take the form of a multilateral review process, a series of dialogues or expert meetings resulting in a report by the Secretariat, or a combination of these elements. The UNFCCC has a wealth of experience in various review and assessment processes. The APA should draw on this knowledge to ensure that the global stocktake is both forward looking—to provide inputs and useful information that could be taken into account in future NDCs—and backward looking to assess progress. Finally, further consideration should be given regarding the role that non-Party stakeholders could play in the global stocktake.

DEVELOP EQUITY GUIDANCE

In developing modalities for the global stocktake, the APA will need to consider how to incorporate both science and equity. The recognition of equity as a core component of the global stocktake provides a unique opportunity to develop guidance on key criteria and metrics that evaluate the fairness and equity of climate contributions based on national circumstances and capabilities. This guidance should be drawn from the criteria and metrics already communicated voluntarily by Parties in their INDCs. Such criteria and metrics could be developed based on assessments of the INDCs carried out by research organizations or think-tanks. Parties can then decide how such a framework should be applied in future cycles.

ADDRESS ADAPTATION AND SUPPORT

The Parties are required to use the global stocktake to inform the preparation of their next NDCs, but the Agreement is silent on how the assessments of the state of adaptation efforts, required support, experiences, and priorities from the adaptation communications will be used to inform future actions by Parties or the work of UNFCCC bodies, the Financial Mechanism, and Technology Mechanism.

Similarly, while the Paris Agreement made clear that the mobilization and provision of support (including finance, technology development and transfer, and capacity building) should be considered as part of the global stocktake, it is vague on what specific inputs should be considered. The APA will need to decide the sources of information that should be included in the stocktake to enable the COP to make a recommendation for the CMA to consider and adopt at its first session. Reviewing a broad range of information, including reporting from providers and recipients of support, would allow the global stocktake to capture a more holistic picture of the implementation of the Agreement.

The global stocktake is instructed to “take into account the relevant information provided by developed country Parties and/or Agreement bodies on efforts related to climate finance.”¹¹¹ The APA will need to define what is meant by the term “Agreement bodies”¹¹² and what constitutes “relevant information.” Given the Agreement’s aim to make all finance flows consistent with zero-carbon, climate-resilient development,¹¹³ the stocktake may also review progress in shifting broader investment flows to support implementation of the Agreement.¹¹⁴ In terms of outputs, there is a clear mandate for the stocktake to review the adequacy and effectiveness of adaptation support.¹¹⁵ The APA might consider ways to allow the stocktake to review the adequacy and effec-

tiveness of mitigation finance as well, to better fulfill its mandate to “inform Parties in updating and enhancing, in a nationally determined manner, their actions and support.”¹¹⁶ This could help Parties determine the new collective quantified finance goal.¹¹⁷ The Adaptation Committee and the Least Developed Countries Expert Group, in consultation with the SCF, are assigned to develop methodologies for how this review will take place and ways to facilitate the mobilization of adaptation support. Inputs from relevant bodies and outputs for their considerations should be given more attention.

9. Compliance

9.1 Overview

Compliance mechanisms in multilateral environmental agreements like the Paris Agreement fulfill important functions.¹¹⁸ In particular, they stabilize cooperation and enhance effective implementation by helping to: build and maintain trust among Parties, address capacity problems, clarify ambiguities, and protect against freeriding (Oberthür 2014).

The Paris Agreement establishes a new mechanism, a compliance committee, to facilitate implementation of and promote compliance with the obligations contained in the Agreement. The committee members shall be appointed by the Parties to the Paris Agreement on the basis of equitable geographical representation and the goal of gender balance, with two members from each of the five regional groups of the United Nations, one member from the small island developing states, and one from the least developed countries.¹¹⁹

The committee is non-adversarial and facilitative in nature—its objective is to facilitate implementation and promote compliance rather than enforce compliance through sanctions. The only other guidance provided in the Paris Agreement itself is that the committee should be expert-based and function in a manner that is transparent, non-adversarial, and non-punitive.¹²⁰ Because the mechanism will apply to all countries equally, the committee is charged with paying particular attention to the respective national capabilities and circumstances of Parties.¹²¹

The Paris Agreement leaves much to be decided before the committee can become operational. Through decisions at COP21, the Parties decided the composition of the committee and the nature of the expertise that would be required, but requested that the APA develop the modalities and procedures for the committee in time for adoption at CMA1.¹²²

Figure 9 | **Compliance**

○ events, moments, and decision points ▷ processes



9.2 Key Tasks and Recommendations

The inclusion of a compliance mechanism is a core element of the Agreement’s legal nature. By delegating oversight of implementation of the Agreement to a separate body, the Parties have strengthened the legal force of the obligations under the Paris Agreement. Public confidence in the robustness and enforceability of the Paris Agreement could be strengthened if progress is made in 2016, in terms of beginning to shape the modalities of the compliance mechanism. It will be necessary to clarify the triggers for action, and the scope of measures that can be taken by the committee to facilitate compliance.

Given the complexity of past negotiations on compliance regimes under the UNFCCC (Wang and Wiser 2002), the APA should establish a clear work plan at its first session in May 2016. The work plan should enable the compliance committee to hold its first meeting in conjunction with COP26 (2020) to align with the start of implementation of Parties’ first NDCs.

Within the broad mandate given to the APA, there are several core decisions that should be made in order to establish an effective compliance committee. These concern: the nature of facilitative measures, the scope or coverage of the mechanism, its authority and capacity (including triggers) (Oberthür 2014), and alignment with the efforts of other UNFCCC bodies to build and retain capacity.

DETERMINE WHAT IS MEANT BY FACILITATIVE MEASURES

Even though the compliance committee will operate in a non-punitive manner, a spectrum of options exists to facilitate implementation and promote compliance. Several mechanisms under other Multilateral Environmental Agreements include stronger measures, such as a finding and declaration of non-compliance and a request to develop a compliance action plan. The APA will have to develop guidelines for the deployment of different measures, and the factors to be considered, taking into account the broad range of capabilities and national circumstances. A review of lessons learned from existing facilitative measures under MEAs should be the basis for initial discussion under the APA. The experience of the facilitative branch of the compliance committee under the Kyoto Protocol should be drawn upon, although it has dealt with only one substantive case. The Montreal Protocol and Basel Convention could also provide useful lessons.

These measures will need to accommodate the range of obligations under the Paris Agreement.

ENSURE ADEQUATE SCOPE

The reference to facilitating implementation and promoting compliance suggests that a broad range of issues could come within the scope of the committee. This scope can be framed in three dimensions: substantive scope (the type of commitments the committee will be able to assess), geographic scope (whether the compliance committee will work with all countries or only certain countries based on agreed criteria), and temporal scope (the time when the compliance committee can take action, ex post or ex ante) (Oberthür 2014).

We recommend that the scope of the mechanism and role of the committee be broad enough to ensure that it has the means to promote the full implementation of all obligations under the Paris Agreement.

PROVIDE THE COMPLIANCE COMMITTEE WITH THE AUTHORITY AND CAPACITY NEEDED TO FULFILL ITS MANDATE

Triggering provisions determine the compliance mechanism's ability to address cases of potential non-compliance and support countries facing difficulty in implementation. There are various ways in which the committee's authority to act can be triggered, for example by other countries, independent experts, through the MRV system, the UNFCCC, or even non-governmental organizations. In developing the relevant modalities and procedures discussed above, the APA should align its work closely with the framework for transparency of action and support to ensure that the compliance mechanism builds on the enhanced system for generating and verifying information. This includes ensuring that the information available through the MRV process, in particular the technical expert review, is made available to the compliance committee and can serve as an input and trigger for action.

The APA should consider how often and when the committee should meet to allow for timely consideration of relevant information and notification on the status of implementation and compliance at COP22. The independence of the compliance committee from direct political interference should be ensured. On some compliance committees, the members act in their "personal" or "individual capacity," while in others they serve as Party representatives. Maintaining independence of compliance committee members in an effective and facilitative manner will require building on lessons learned from the Kyoto Protocol and from compliance mechanisms outside the UNFCCC to ensure that the mistakes of similar mechanisms are not repeated.

The compliance committees of several multilateral environmental agreements (MEAs) are mandated to develop recommendations or present draft decisions to the Conference of the Parties, while committees in other regimes may act on their own. The Kyoto compliance committee, for example, has the authority to adopt decisions. In some cases, compliance committees can take on at least the softer measures themselves (Bulmer 2012). These measures can include recommendations, facilitation of assistance, and, possibly, the withdrawal of specific privileges. The early-warning function under the Kyoto Protocol's compliance mechanism remained mostly unused, due in large part to a lack of an effective trigger.¹²³ As a result, the compliance mechanism's function is primarily in an ex-post or reactive manner, as opposed to a proactive approach that manages issues of implementation before they result in non-compliance.

ALIGN WITH EFFORTS TO BUILD AND RETAIN CAPACITY

There should be strong links between the compliance committee and efforts to build capacity. Indeed, one of the main policy instruments to facilitate compliance is capacity building (Wang and Wiser 2002). By enhancing efforts to build the capacity of developing country Parties, through the Capacity Building Initiative for Transparency and the Paris Committee on Capacity Building, the Paris Agreement has already gone further than the UNFCCC and the Kyoto Protocol to ensure that capacity building is built into its main framework. The work of the compliance committee, and the nature of measures employed to assist countries to comply with their obligations, must be closely aligned with the ability to assess capacity building assistance under UNFCCC bodies and institutions.

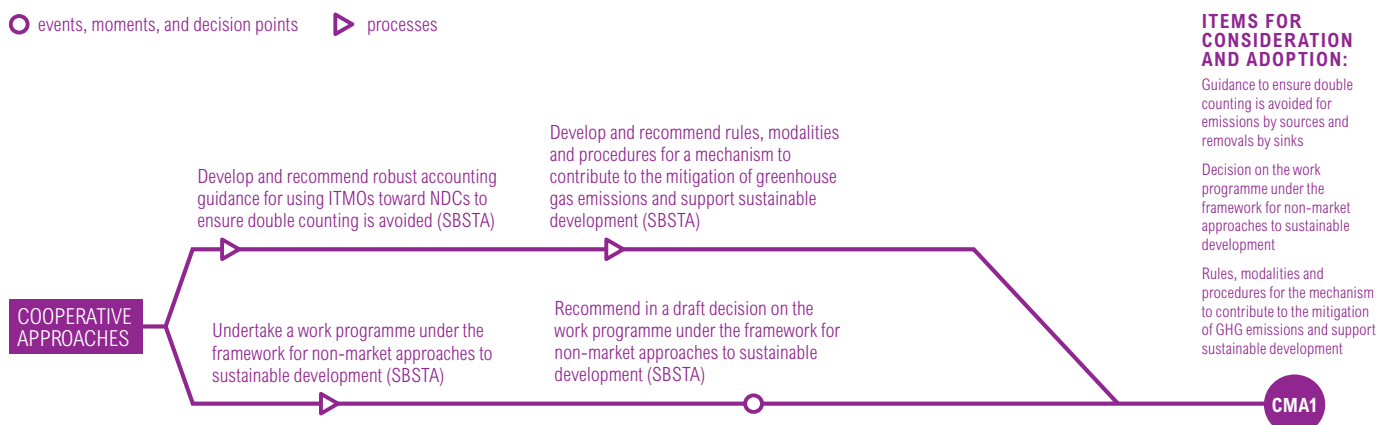
10. Cooperative Approaches

10.1 Overview

Parties are not always able to achieve their targets independently of each other and often rely on cooperation, for example, through the trading of emissions reductions. The Paris Agreement recognizes this and provides means to facilitate such cooperation in a way that ensures environmental integrity. Article 6 of the Paris Agreement is a combination of three different but closely related forms of cooperative approaches to implementation: trading of emissions reductions, a mechanism to support sustainable development, and non-market mechanisms. Given that pre-Paris negotiations on market and non-market mechanisms stalled under SBSTA,¹²⁴ it was a great success that the issue was taken forward in the Agreement, allowing space for Parties to advance conversations around cooperative approaches to implementation. The inclusion of these issues in the Agreement created space for work on safeguards for internationally transferred mitigation outcomes and a new mechanism to contribute to the mitigation of emissions and support sustainable development. Parties now have the opportunity to strengthen cooperative measures that promote implementation of their NDCs and enhance mutual trust.

Some Parties may participate in cooperative approaches to fulfill their NDCs. It will be important to ensure that there will be sufficient oversight of this cooperation under the Paris Agreement, to provide the necessary transparency in implementation of their commitments. However, the provisions in the Agreement that enable cooperative approaches leave a number of questions to be answered. One concerns how and whether cooperative approaches under the Kyoto Protocol, including the Clean Development Mechanism, will continue, evolve, or be replaced under the new Paris regime.

Figure 10 | **Cooperative Approaches**



10.2 Key Tasks and Recommendations

To fully operationalize the provisions on cooperative approaches, Parties will need to address three major issues laid out in the Agreement and accompanying decisions:

- guidance on safeguards for internationally transferred mitigation outcomes (ITMOs) including accounting rules;
- clarification and refinement of the new mechanism to contribute to mitigation of emissions and support for sustainable development; and
- elucidation of the framework for non-market approaches to sustainable development.

Climate change is a problem that does not conform to international borders and boundaries, and the Paris Agreement itself is a global cooperative approach to addressing this problem. Under the Kyoto Protocol, Parties sought to build on this global nature and established different mechanisms for countries to use to meet their commitments cooperatively. Since then however, these mechanisms have faced a number of challenges and have been heavily criticized. Getting things right on markets is important to the overall success of the Paris Agreement. If countries are participating in trading mechanisms to apply the effects of emissions reduction activities to their own commitments, other countries need reassurance that this does not result in double counting and truly contributes to overall reductions. Some countries' INDCs are dependent on operationalizing markets

under the Agreement, while others are conditional on correcting past market failures.¹²⁵ Making sure that the cooperative approaches in the Agreement are functional and instill confidence will be essential to achieving the maximum outcome of aggregate contributions.

ENSURE ENVIRONMENTAL INTEGRITY THROUGH SAFEGUARDS FOR ITMOS

Parties agreed in Paris that countries choosing to voluntarily trade mitigation outcomes and apply them toward their NDCs must also apply robust accounting guidance to ensure avoidance of double counting, among other aspects related to the promotion of sustainable development, environmental integrity, and transparency. Getting this guidance right will be essential to the successful implementation of activities to mitigate emissions and will enable the evaluation and assessment of Parties' efforts to fulfill their nationally determined contributions. The text of the Agreement creates an approach that is not limited to the exchange of ITMOs between any specific groups of Parties, but what exactly ITMOs are, including the units of measurement they will use, still needs to be defined. This important task of developing guidance to ensure the avoidance of double counting is the responsibility of SBSTA.

As noted above, the outstanding questions to be answered are numerous, complex and, in some instances, politically charged. Parties need to implement the cooperative approaches established under the Agreement in a way that promotes environmental integrity by developing precise accounting rules and guidance for existing markets. Parties will also need

to designate a body to supervise the mechanism and a process to develop clear guidelines for applying existing market systems to NDCs as well as provide guidance on participation by private entities.

SBSTA could begin this process with an analysis of the guidelines and procedures under the various existing emissions trading systems to identify what works well and what doesn't. It could also seek input from Parties to clarify what, specifically, they require in terms of maintaining environmental integrity and meeting the conditions in their NDCs. Given that the use of ITMOs may support the implementation and achievement of Parties' NDCs, APA and SBSTA should work together on the elaboration of accounting rules for NDCs and ITMOs. Both APA and SBSTA should aim to follow a common timeframe in order to adopt accounting guidance at the same time. (Please see Section 1 on Mitigation and Section 7 on Transparency for further details related to accounting.)

ELABORATE THE RULES, MODALITIES AND PROCEDURES FOR MECHANISM TO CONTRIBUTE TO MITIGATION OF GHG EMISSIONS AND SUPPORT SUSTAINABLE DEVELOPMENT

Significant discussion on the design and operation of the new mechanism to contribute to mitigation of emissions and support for sustainable development will also be needed. The mechanism aims to deliver "overall mitigation in global emissions."¹²⁶ What this means and how this can be assessed still needs to be agreed. Furthermore, as with the CDM,¹²⁷ a share of proceeds from activities under this new mechanism is to cover administrative expenses and assist developing countries to meet the costs of adaptation.

As with many of the new provisions of the Agreement, time is a limiting factor. It took nine years from its establishment for the CDM to become fully operational under the Kyoto Protocol,¹²⁸ and two years still remained before the start of the first commitment period. Parties today do not have the luxury of so much time, and they need to prioritize first steps for unrolling the new mechanism established by the Paris Agreement. In 2016, Parties should make efforts to clarify key framing elements including "overall mitigation in global emissions" as well as establish the basic principles and rules for the mechanism. SBSTA should draw up a clear work program and provide space for discussion among Parties to develop a common understanding of key terms

of the mechanism and clarify how the CDM under the Kyoto Protocol will relate to the mechanism of the Paris Agreement.

As part of SBSTA's mandate to develop and recommend rules, modalities, and procedures for the new mitigation and sustainable development mechanism, it should make recommendations on the share of proceeds that will support the adaptation efforts of particularly vulnerable countries, and how funds should be allocated. Building on experience with the 2 percent levy on CDM credits for the Adaptation Fund, one option might be to channel proceeds to one of the operating entities of the Financial Mechanism of the Agreement, which could meet the criteria of providing funding for adaptation to particularly vulnerable countries. The most appropriate body might, again, be the Adaptation Fund.

ELABORATE THE FRAMEWORK FOR NON-MARKET APPROACHES

A framework for non-market approaches to sustainable development was also established under the Paris Agreement. This could cover a broad range of activities including policies and development assistance and will need further clarification as to its purpose and operation. SBSTA is tasked with developing a work program to consider how to enhance linkages and synergies between different areas of work, including mitigation and adaptation, as well as how to facilitate the implementation and coordination of non-market approaches.

The framework for non-market approaches creates an opportunity to draw attention to the synergies between mitigation and adaptation actions, and promote greater coordination among various non-market activities to enhance and facilitate implementation by Parties. The work program to be designed by SBSTA should expand efforts that tackle both mitigation and adaptation in order to capture the maximum benefits and avoid trade-off situations between actions that build resilience and actions that reduce emissions. SBSTA should build on existing work, including Parties' submissions and previous reports on the framework for various approaches and non-market-based approaches, and it may be helpful for SBSTA to initiate a mapping exercise to identify the existing synergies and gaps among all non-market-based approaches under the UNFCCC.

IV. OTHER CONSIDERATIONS

1. Ratification Process

On December 12, 2015, at the conclusion of COP21, 196 Parties to the UNFCCC adopted the text of the Paris Agreement. However, the act of adopting a legal text does not bind countries to it. The Paris Agreement is a separate legal agreement under the UNFCCC, and each country must formally join the Paris Agreement and become a Party to it. This generally occurs in two stages. The first is to sign the Paris Agreement, either on April 22, 2016, when it is first open for signature, or at any time in the following year until the signature period closes on April 21, 2017.¹²⁹ Following signature, Parties will deposit an instrument of ratification, acceptance, approval, or accession to indicate their consent to be bound by the Paris Agreement.¹³⁰

In accordance with UN practice, most countries will sign the Paris Agreement “subject to ratification, acceptance, and approval,” making their signature conditional on obtaining the domestic approval required to join the Agreement.¹³¹ Most countries will undertake this domestic approval process after signing; however, some countries, namely Fiji, Palau, the Marshall Islands, and the Maldives and Tuvalu received the necessary domestic approval prior to signing.¹³² In some cases, in addition to following the required domestic approval process, countries may also need to enact legislation in order to implement the Agreement.

These domestic procedures are dependent on each country’s unique domestic legal system. National law, most commonly the national constitution, governs these procedures. It determines whether a given international agreement is to be ratified by the executive branch or by parliament, and which procedure must be followed. For example, in Australia, the only requirement is formal notification and introduction of the Agreement in Parliament.¹³³ In Mexico, the consent of the Senate is also required.¹³⁴ And in Indonesia, the approval of both houses of the National Parliament is also required.¹³⁵ By contrast, in the United States, many international agreements are joined based on Presidential authority (Garcia 2015).

Under Article 21 of the Paris Agreement, the Agreement enters into force “on the thirtieth day after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55 percent of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval, or accession.”¹³⁶ The percentage of emissions for each Party will be based on “the most up-to-date amount communicated...by the Parties,” which has been compiled in a table by the UNFCCC secretariat.¹³⁷ For many Parties, the percentage of emissions contained in this table does not reflect their current emissions. India’s data, for example, are more than 15 years old, and date from a time when India accounted for 4.1 percent of global emissions, as opposed to its current share of 6.9 percent.¹³⁸ This changes the ordering of countries considered to be the top emitters¹³⁹ for the purpose of determining entry into force of the Paris Agreement.

IMPLICATIONS OF ENTRY INTO FORCE OF THE AGREEMENT

In the lead-up to COP21, the expectation of Parties was that the Paris Agreement would enter into force after 2020, in accordance with the mandate of the ADP.¹⁴⁰ However, Article 21 of the Paris Agreement makes it impossible to predict accurately when the Agreement will enter into force, because it depends both on how quickly countries are able to complete their domestic approval processes and on their political will to do so. The United Nations Secretary General, Ban Ki Moon, has encouraged countries to sign and ratify the Paris Agreement in 2016 to ensure early entry into force of the Agreement.¹⁴¹ In all, 175 Parties (174 countries and the European Union) signed the Paris Agreement at the signing ceremony on April 22, 2016. A further 15 countries deposited their instruments of ratification, acceptance, and approval.

If both conditions for entry into force are met by October 7, 2016, the Paris Agreement would enter into force on November 6, 2016, and the first session of the CMA would take place in conjunction with COP22 in Morocco at the end of this year.¹⁴²

Many of the provisions of the Paris Agreement continue to reflect the expectation of the Parties that the Agreement will enter into force in 2020, meaning that the first meeting of the Parties to the Agreement would also be delayed until 2020.¹⁴³ If the Agreement enters into force early, especially in 2016 or 2017, most of the tasks that must be adopted by the Parties at CMA1 would not be completed. While the deadlines contained in the COP

decisions could be extended by subsequent decisions of the COP (i.e. at COP22), the timelines agreed within the Paris Agreement itself are more difficult to change and would run the risk of opening up negotiations on the Agreement text again. Ignoring those deadlines in the Paris Agreement, namely in Articles 6(7), 7(3), 9(7), 11(5), 13(13) and 15(3), could send the wrong message to the international community.

An additional, but unavoidable, implication of early entry into force would be that only those countries that had ratified the Agreement would be able to take decisions under the Agreement. Parties that will not have yet ratified the Paris Agreement, due to their domestic legal constraints, could only participate in sessions as observers.¹⁴⁴ The same would apply to SBSTA and SBI when these bodies serve as subsidiary bodies to the Paris Agreement (Linn 2016).

However the practice of the UNFCCC has been one of inclusiveness for observers. Parties to the UNFCCC that had not joined the Kyoto Protocol were still able to participate in discussions throughout negotiations, including making interventions and submitting textual proposals on drafts under consideration. It is likely that a similar process will be followed under the Paris Agreement.¹⁴⁵

One possible procedural solution to both issues would be to suspend, rather than close, the first meeting, so that those countries intending to join, but delayed in being able to do so, are not disenfranchised from taking the final decision to adopt key rules, modalities, and procedures.¹⁴⁶ It would also ensure that Parties have enough time to negotiate the large number of rules, guidelines, and modalities required and avoid being in breach of the timelines established in the Paris Agreement; there would also be no need to alter the timelines agreed by the COP decision at COP21. Pursuing this option would send a clear message of intention to comply with the Paris Agreement.

Suspending the first meeting would mean that the first meeting could continue for several years until the work is finished in accordance with the timeline already agreed by the Parties at COP21. There is already precedent for such procedural measures under the UNFCCC. The first was COP6, which was suspended in 2000

due to Parties being unable to reach agreement on key issues.¹⁴⁷ The November meeting at The Hague was suspended, and resumed in July 2001 in Bonn, Germany (termed “COP 6 bis”). There is also a more recent precedent relating to the ADP, which held only two sessions, each consisting of multiple parts over five years; the second session finally closed at COP21.¹⁴⁸

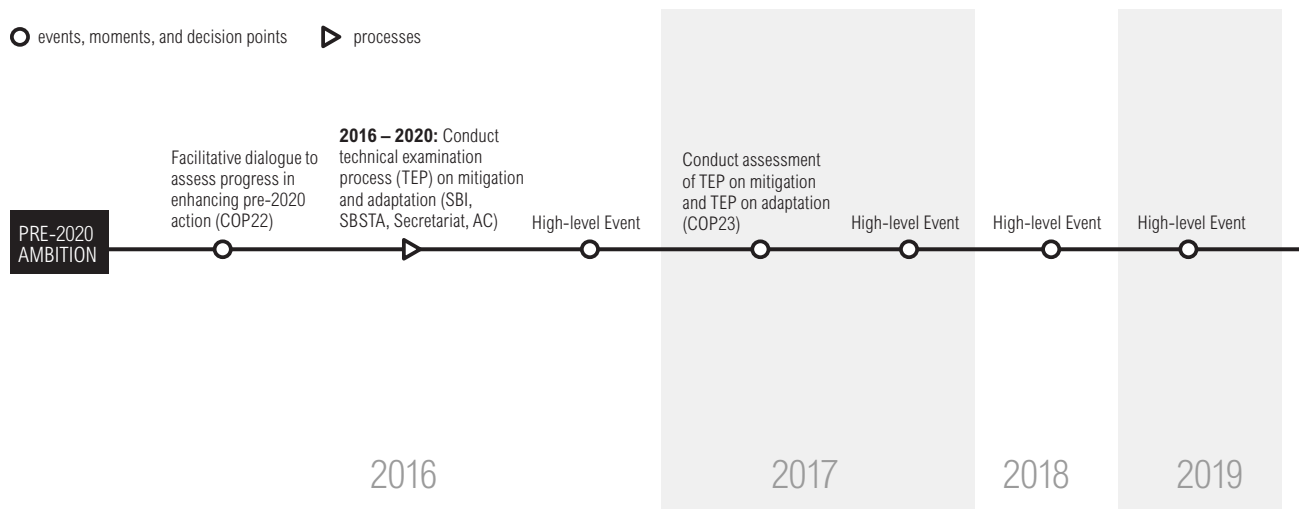
2. Raising Pre-2020 Ambition

2.1 Overview

Even before the Paris Agreement enters into force, clear and specific tasks can be undertaken to raise ambition and enhance action as soon as possible. The set of decisions on pre-2020 action provides opportunities to build up global climate action, not only by country governments, but also by the actions of non-state and subnational entities. Although Parties had already agreed in Lima, during COP20, to continue the Technical Expert Meetings, the flagship activity on pre-2020 ambition, additional progress was made in Paris to expand efforts to include adaptation and provide a strengthened process to engage non-Party stakeholders. The Lima-Paris Action Agenda (LPAA) provided a space for engagement by cities, businesses, and civil society and provided a platform for showcasing action that is taking place to address climate change. Considered one of the key outcomes of COP21, the LPAA featured over 70 cooperative initiatives involving almost 10,000 players from 180 countries.¹⁴⁹ The Non-State Actor Zone for Climate Action (NAZCA) web platform, established to track such efforts, already has more than 11,300 commitments and counting. This represents a massive mobilization of non-Party stakeholders by the UNFCCC, COP Presidencies, and UN Secretary General, and it should be encouraged to continue and grow through successive COPs.

Despite successfully raising awareness of the extent to which climate action is occurring at all levels of government and across all sectors, it will be important to continue building momentum for action. Parties, together with the COP Presidencies, the UNFCCC Secretariat, and other institutions within and outside the UN system will need to enhance efforts and transform the Technical Expert Process and annual high-level event from a space of recognition and encouragement to one that incubates innovation and expands implementation.

Figure 11 | **Raising Pre-2020 Ambition**



2.2 Key Tasks and Recommendations

MAINTAIN MOMENTUM AND ENSURE CONTINUITY

Parties have acknowledged and encouraged the efforts of non-Party stakeholders and agreed to convene further high-level events at each COP through 2020. To facilitate this process, the current and future COP Presidencies (France and Morocco) will appoint two high-level climate champions to act on behalf of the President of the COP and plan the future events on non-Party stakeholder actions. France recently appointed Laurence Tubiana, the French Ambassador responsible for climate change negotiations, as its climate champion to take this work forward. Her post will run until the end of COP22 in 2016. The champions are to serve overlapping terms and have a role to play in ensuring continuity between each successive high-level event held at a COP through 2020.

The aim of the high-level events will be to strengthen engagement with the implementation of policies, practices, and actions. How Morocco fulfills this mandate will inform how future COP presidencies continue engagement with non-Party stakeholders. The high-level events could be held on one day or over multiple days and could engage a variety of actors in different sectors. Broad stakeholder engagement before and during COP22 will be necessary to create a space to recognize efforts, highlight achievements and progress, and build momentum for further action on both mitigation and adaptation. The high-level events should resemble the broad, successful engagement organized under the Lima-Paris Action Agenda, and provide a space where initiatives and coalitions can announce new or improved

activities, receive recognition for their efforts, and highlight progress. High-level dignitaries should participate and draw attention to key areas of work.

While quantifying impact achieved by the broad diversity of cooperative initiatives has long been a challenge, it will be important to show that the initiatives launched in Lima, Paris, and future COPs are making progress. Providing a forum for initiatives to return and share success stories, challenges, and receive support for advancing their efforts will be essential to provide legitimacy of action and ensure their continued progression.

IMPROVE COORDINATION

One way to advance implementation efforts is to improve communication and coordination among the Technical Examination Process and the support bodies under the Convention. The Agreement requests the Financial Mechanism, Technology Mechanism, and Adaptation Committee to engage directly in the technical examination process. Operationalizing this relationship and clarifying the channels of communication will be key to ensuring that the policies and actions identified during the Technical Examination Process can be supported and implemented in other locations. In particular, the new technical examination process on adaptation will need to be developed in close coordination with the Adaptation Committee and existing efforts under the Nairobi Work Programme to ensure complementarity and avoid duplication of efforts.

Furthermore, the introduction of climate champions establishes a link between the technical examination process and the growing number of voluntary climate

initiatives underway outside the UNFCCC. The champions will play a role in organizing the meetings held under the technical examination process, as well as in the preparation of a summary document for policymakers highlighting scalable, replicable, and ambitious policies and actions to support advancing implementation. The first set of champions will establish a precedent for means by which the technical examination process and high-level events feed into each other. It will be important to use the opportunity to showcase best practices, developed by both Parties and non-Party stakeholders, to help identify ways that can support implementation.

TECHNICAL KNOWLEDGE-SHARING

In Lima (2014), Parties agreed to continue the technical examination process of mitigation opportunities. In Paris (2015), Parties agreed to strengthen this process, encouraging broad participation from within and outside the UNFCCC and outlining a clear relationship with the TEC and CTCN. A complementary process on adaptation was also established in Paris. The secretariat will be responsible for organizing the technical expert meetings; updating a technical paper on the benefits and co-benefits of mitigation actions, and means for supporting implementation; and updating a summary on best practices for policymakers.

A new stream of technical expert meetings—including new efforts around adaptation—will be undertaken during 2016. The COP Presidency, the UNFCCC, and climate champions can help shape implementation of the results of the meetings, and determine how those results inform other UNFCCC bodies such as the Financial Mechanism, Adaptation Committee, and the Nairobi Work Programme, as well as future processes including the 2018 facilitative dialogue. Using these opportunities to highlight the fact that Parties are already taking action and making efforts to raise ambition and increase action can help boost the next round of NDCs.

3. Maintain the Winning Narrative and Momentum with Various Stakeholders

Ahead of the Paris Agreement, the narrative highlighting the benefits of climate action emerged more strongly than ever and was more broadly accepted. Rather than seeing the economy and the environment as separate issues, countries are increasingly seeing these two challenges as intertwined and looking for ways to pursue economic growth and climate action in a holistic manner. This shift in perception was crucial for building momentum and catalyzing the unprecedented level of political will at COP21.

The Paris Agreement successfully harnesses the positive momentum of this narrative, but it is clear that a stronger and more far-reaching global movement is still needed. Mobilizing climate action requires an inspirational vision that resonates with the vast majority of the general public and fosters necessary shifts in technology, investment, and behavior, including consumption patterns. To reach new audiences, research from a wide array of disciplines, including science, technology, economics, politics, psychology, and sociology must consider the diversity and complexity of perceptions on the transition to a zero-carbon and climate-resilient society.

Non-Party stakeholders are mentioned in the Paris Agreement's preamble, which recognizes the importance of engaging a variety of actors in addressing climate change.¹⁵⁰ The Paris COP decision includes a more detailed section on non-party stakeholders, describing the category as one that includes civil society, the private sector, financial institutions, cities, and other subnational authorities, and inviting them to demonstrate and scale up their efforts via the NAZCA portal. L'Appel de Paris, the Paris Pledge for Action, is another call to action that brings together a multitude of voices in support of the Paris Agreement. Non-Party stakeholders have responded to this call with enormous enthusiasm. Cities, regions, business, investors, and other non-Party stakeholders have embraced the Agreement and declared themselves ready and willing to stand alongside governments to implement the provisions of the Agreement and limit global temperature rise. Soliciting support from a broader range of actors, including the military, legal and health sectors, architects, and engineers can help to shape an inclusive vision of the world. This pledge of cooperative action remains open for signature and is expected to expand even further around the world.

Moving forward, Parties, together with the COP Presidency, the UNFCCC Secretariat, and the United Nations Secretary General, need to continue efforts that draw attention to a number of key issues:

- success stories that link climate action with economic and sustainable development to catalyze higher levels of ambition by all nations;
- the need to build capacity and increase investment;
- the risks presented by resource scarcity, such as water shortages, energy price spikes, and economic and political destabilization; and
- social science research demonstrating that climate action is achievable.

4. Continue the Role of “Coalitions of the Willing” and Diplomatic Efforts

ROLE OF COALITIONS

Coalitions in the international climate process have played a critical role in securing breakthrough outcomes at many COPs. UNFCCC coalitions are particularly important for small and vulnerable countries like SIDS and LDCs in an international regime because they give greater voice to their concerns and interests. At COP16 (2011) in Cancun and COP17 (2012) in Durban, the Cartagena Dialogue¹⁵¹ served as an important counterweight to the positions of influential countries that were perceived, at that time, as less ambitious, leading to final agreement on a roadmap toward the Paris Agreement.

In mid-2015, a “High Ambition Coalition,” instigated by the Foreign Minister of the Marshall Islands, Tony de Brum, brought together the European Union, the United States, and a group of 79 developing countries from Africa and the Caribbean and Pacific, including the Climate Vulnerable Forum.¹⁵² At COP21, the High Ambition Coalition played a critical role in securing a successful outcome to negotiations by pushing a long-term goal, five-year reviews, common and robust transparency and accountability rules, and a fair deal on climate finance and support. Within the High Ambition Coalition, it was the Climate Vulnerable Forum that persistently advocated for inclusion of a 1.5°C temperature goal.

In future negotiations, coalitions like the High Ambition Coalition and the Climate Vulnerable Forum will continue to play an important role in driving the development of essential components of the Paris Agreement, including transparency rules and an effective ambition mechanism. These coalitions may also serve an important role in ensuring entry into force of the Paris Agreement by encouraging Parties to sign and ratify the Agreement in a timely manner. As highlighted in sections above, thematic alliances have also emerged, such as International Solar Alliance and Mission Innovation. Similar coalitions of Parties on key issue areas within the negotiations, such as technology development and transfer, and finance, can also become game-changers in the near future.

DIPLOMATIC EFFORTS

Both before and during COP21, the French Presidency managed to establish global climate policy as a strategic issue in international politics. This meant reaching beyond the arena of environmental policy to systematically include climate in other policy areas such as financial, economic, and foreign policy and, above all, building on foreign policy negotiating experience. Mainstreaming the unprecedented momentum from Paris will require sustained political and diplomatic mobilization. Climate change should continue to be advocated as a strategic priority in all diplomatic dialogues and should be factored into external policy discussions, particularly in high-level institutions such as the G7, G20, the UN (including the UN Security Council), the Clean Energy Ministerial, the World Humanitarian Summit, and other international fora.

Starting in 2016, there are particular opportunities to make progress on climate. For example, the G20 is a body with the potential to make transformational changes. The G20 Green Finance Study Group on green finance and climate finance could address the need for alignment of public and private financial flows with a zero-carbon and climate-resilient economy, and enhance disclosure of information both from and for the private sector. The Paris Agreement remains silent on emissions from international aviation and shipping and hydrofluorocarbons (HFCs). However, this might be remedied through diplomatic outreach and broader advocacy efforts, which should focus on negotiations scheduled for 2016 under the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO), and the Montreal Protocol. Ensuring that actions under the Paris Agreement address these important sources of emissions will be crucial to meeting the long-term goals of the Agreement.

International diplomacy also has an important role to play in supporting the implementation of the Paris Agreement and NDCs. Further, considering climate action in the context of sustainable development serves to highlight the detrimental effects that climate change will have on natural resources, prosperity, food and energy security, health, migration, and conflicts. Cooperation among countries should be strengthened in a way that fully accounts for the interconnections between the climate agenda and sustainable development goals (Northrop et al. forthcoming), while also recognizing the importance of gender equality, women’s empowerment, and respect for human rights¹⁵³ and indigenous peoples.

V. CONCLUSION

COP21 was a remarkable turning point in the continuing effort to bring about meaningful action on climate change. It sent clear short-term and long-term signals to multiple audiences and set in motion tremendous momentum toward a zero-carbon and climate-resilient world. Yet, despite the progress made in the Paris Agreement, it was never meant to be an end point. In their statement welcoming the adoption of the Paris Agreement, the South African delegation quoted Nelson Mandela to describe the journey and accomplishments thus far, and the challenges that lie ahead in the just transition to a zero-carbon and climate-resilient society:

“I have walked that long road to freedom. I have tried not to falter; I have made missteps along the way. But I have discovered the secret that after climbing a great hill, one only finds that there are many more hills to climb. I have taken a moment here to rest, to steal a view of the glorious vista that surrounds me, to look back on the distance I have come. But I can only rest for a moment, for with freedom come responsibilities, and I dare not linger, for my long walk is not ended.”

Just as Mandela states, there is no time to rest and now is the moment Parties must pick up their shovels and begin transforming the ambition of the Paris Agreement into a reality. The year 2016 is a year for the international community to sustain and continue forward progress; build on the national climate plans; and amplify the tremendous momentum that has developed among nations, cities, companies, civil society groups, and other stakeholders.

Even when NDCs are faithfully implemented, global temperatures will continue to rise. Limiting temperature increase to well below 2°C and pursuing efforts to keep warming to 1.5°C by 2050 will require comprehensive changes to economic activities and human behavior. In Paris, Parties reiterated their existing goal to provide \$100 billion a year in climate finance by 2020 and committed to maintain those levels of mobilization for adaptation and mitigation in developing countries until 2025. This amount represents less than 1 percent of forecasted global Gross Domestic Product (GDP) in 2030.¹⁵⁴ But the Global Commission on the Economy and Climate and the World Bank estimate that the funding required to facilitate developing countries’ transition to zero-carbon and climate-resilient economies is in the trillions, not billions, of dollars.¹⁵⁵ Smarter and more ambitious policies to address climate change

and other environmental problems must be developed to improve efficiency, encourage new technology, and provide predictability to investors. Greater certainty in the economy, provided by credible short-term and long-term signals, will increase clean energy investments, encourage a shift from brown to green financing, and facilitate the expansion of markets.

For the first time in the history of global climate policy, the Paris Agreement establishes a process for all Parties to regularly increase the ambition of their climate actions. This ambition mechanism ensures that the Paris Agreement will remain a dynamic and long-lasting accord, responsive to evolving climate science, shifts in technology, greater economic opportunities, and growing public support for climate action. The Agreement’s transparency and accountability provisions will play an essential role in tracking the steps that countries are taking toward these goals, facilitating assessments for further climate action, and building international trust and confidence that action is being taken.

However, there is still significant work to be done to operationalize the tools of the Paris Agreement. If Parties do not take up the numerous tasks before them with determination, focus, and effective cooperation, there is a significant risk that the long-term goals and functions of the Agreement may not be realized or fulfilled. With a strong framework in place, the climate community must get to work and establish the critical details of each element of the Agreement to make sure it fulfills its purpose of facilitating and catalyzing action to limit global warming and help countries adapt to the impacts of climate change. We hope the suggestions and considerations set out in this paper can help provide guidance and direction as Parties determine how best to fulfill the tasks ahead of them.

In the months leading up to COP22, and at the negotiations themselves, there is an opportunity for progress if the global community identifies clear options, a roadmap, and a sequence for consolidating the rules-based regime, especially on transparency and the ambition mechanism. Stakeholders will need to begin unpacking and clarifying key issues, such as how to integrate a common approach for transparency with flexibility for developing countries. Options for designing the facilitative dialogue due in 2018 must emerge in 2016, and be consolidated in 2017. With 78 percent of INDCs indicating that additional international support is needed to achieve countries’ full level of ambition (World Resources Institute 2015), the international community must make tangible progress on finance, technology

development and transfer, and capacity building. Over the coming months, the international community should aim to achieve greater clarity on key remaining finance issues, including the pathway to mobilizing \$100 billion annually and adaptation finance. Given the increasingly frequent and devastating impacts of climate change, efforts and support for building resilience and tackling loss and damage must be enhanced. There is also a critical opportunity to acknowledge capacity building and education as prerequisites if all countries are to be able to take action and put in place the enabling domestic conditions that will spur effective implementation of INDCs. Concrete commitments to increase support for capacity building in developing countries and to help them build domestic conditions for action are essential.

Early entry into force of the Paris Agreement can send a positive signal of a global commitment to implementation and action. It is important for countries to embark on their domestic approval processes to join the Agreement as soon as possible, following the lead of the Fiji and 14 other countries; Palau, and the Marshall Islands; these countries have already taken the necessary steps, by the April signing ceremony, to ensure domestic rati-

fication upon signature of the Agreement. Policymakers, diplomats, negotiators, and other stakeholders have many other opportunities to maintain the momentum generated in Paris within the UNFCCC and in other fora, such as the Clean Energy Ministerial, the G7 and G20, the World Humanitarian Summit, and at critical decision points in the Montreal Protocol and the ICAO.

The road from Paris will raise many important questions as the global climate community figures out how to transition to a zero-carbon and climate-resilient economy in a sustainable and equitable way. Successful implementation of the Paris Agreement relies not only on governments. It is also in the hands of the public, civil society organizations, academia, subnational governments, and businesses—all of whom will need to remain engaged, as they were on the road leading to Paris. The dynamic nature of the Paris Agreement allows for a review of the effectiveness of the regime and the fairness of the outcome on a regular basis. These high stakes offer a unique opportunity to demonstrate the power of collective action that the global community can achieve when working together to protect the Earth's climate.

APPENDIX I GLOSSARY OF TERMS

ACRONYM	FULL TITLE	ACRONYM	FULL TITLE
AC	Adaptation Committee	IPCC	Intergovernmental Panel on Climate Change
ACT 2015	The Agreement for Climate Transformation 2015	ITMOs	Internationally Transferred Mitigation Outcomes
ADP	Ad Hoc Working Group on the Durban Platform for Enhanced Action	LDC	Least Developed Countries
Annex I	The industrialized countries listed in Annex I to the Convention	LEG	Least Developed Countries Expert Group
APA	Ad Hoc Working Group on the Paris Agreement	LPAA	Lima-Paris Action Agenda
AR5	Fifth Assessment Report of the IPCC	MEA	Multilateral environmental agreements
CBDR-RC-NC	Common but differentiated responsibilities and respective capabilities, in the light of different national circumstances	MRV	Measurement, reporting, and verification
CBIT	Capacity Building Initiative for Transparency	NAMAs	Nationally appropriate mitigation actions
CDM	Clean Development Mechanism	NAZCA	Non-State Actor Zone for Climate Action
CGE	Consultative Group of Experts	NDAs	National Designated Authorities
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement	NDC	Nationally Determined Contribution
CMA1	The first session of the conference of the Parties serving as the meeting of the Parties to the Paris Agreement	NDEs	National Designated Entities
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol	NGO	Organisation for Economic Development
COP	Conference of the Parties	OECD	Organisation for Economic Development
CTCN	Climate Technology Centre & Network	PCCB	Paris Committee on Capacity Building
GCF	Green Climate Fund	R&D	Research and development
GEF	Global Environment Facility	RD&D	Research, development and deployment
GHG	Greenhouse gas	REDD	United Nations collaborative initiative on Reducing Emissions from Deforestation and forest Degradation
G7	Group of Seven	SBI	Subsidiary Body for Implementation
G20	Group of Twenty	SBSTA	Subsidiary Body for Scientific and Technological Advice
HFC	Hydrofluorocarbon	SCF	Standing Committee on Finance
ICAT	Initiative for Climate Action Transparency	TEC	Technology Executive Committee
ICAO	International Civil Aviation Organization	TNA	Technology Needs Assessments
IMF	International Monetary Fund	UNDP	United Nations Development Programme
IMO	International Maritime Organization	UNEP	United Nations Environment Programme
INDCs	Intended Nationally Determined Contributions	UNFCCC	United Nations Framework Convention on Climate Change
		WIM	Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts

APPENDIX II SUGGESTIONS FOR UNFCCC PROCESS

MITIGATION

TASKS IDENTIFIED FOR THE IMPLEMENTATION OF THE PARIS AGREEMENT'S PROVISIONS	SUGGESTED STEPS
Agree features and information to be communicated for future NDCs	UNFCCC secretariat to organize expert workshop or webinars to discuss further guidance on the features of future NDCs and the information to be provided by Parties in order to facilitate clarity, transparency, and understanding of the NDCs, building on the guidance adopted at COP20 and lessons learned from the preparation of INDCs. In particular, further guidance needs to be provided to Parties regarding how they can specify assumptions and methodological approaches, especially relating to baseline scenario emissions calculations (as relevant), accounting for the land sector, the use of market mechanisms, and demonstration of fairness and ambition.
Adopt a common timeframe for future NDCs	APA to invite Parties to submit their views on common timeframes for NDCs in order to facilitate a discussion ahead of CMA1.
Develop accounting approaches applicable to all	APA to provide space to identify areas of convergence in order to sequence the drafting and adoption of rules, and explore ways to build effectively from the existing frameworks under the Convention and Kyoto Protocol. COP22 to decide a work program with clear timeline for developing accounting approaches, consistent with the Paris Agreement's principles, on metrics and methodologies, the land sector, and international transferable mitigation outcomes, among others.
Operationalize mid-century low carbon strategies	COP22 to invite developed country Parties, the operating entities of the Financial Mechanism, and any other organizations in a position to do so to provide support for the development of mid-century low-carbon development strategies. COP22 to mandate SBSTA to identify good practices for the voluntary preparation of mid-century low-carbon development strategies that pay particular attention to meeting the long-term goals of the Paris Agreement, including establishing a pathway toward achieving net-zero emissions in the second half of the century, as well as to equity considerations and national circumstances.

ADAPTATION

TASKS IDENTIFIED FOR THE IMPLEMENTATION OF THE PARIS AGREEMENT'S PROVISIONS	SUGGESTED STEPS
Align key adaptation provisions	Technical Expert Process for Adaptation and Long-Term Finance workshops to clarify the links between the needs assessment, effectiveness of the review, adaptation communications, and modalities for recognizing developing countries' efforts. Adaptation Committee to provide methodological guidance for (a) assessing adaptation needs, and (b) reviewing the adequacy and effectiveness of adaptation and support. Adaptation Committee to provide guidance on how best to align the reporting requirements for (a) the adaptation component of INDCs, (b) the National Adaptation Plan reporting guidelines, and (c) reporting requirements under the transparency provisions.
Create an effective cycle of improvement for adaptation	Adaptation Committee to produce guidance on how the global stocktake will inform the next round of adaptation communications in ways that highlight support needs, share lessons learned, and facilitate greater ambition in adaptation action. Call for submissions from Parties and observers on how the Paris Agreement can enhance adaptation efforts and the role of the global stocktake.

LOSS AND DAMAGE

TASKS IDENTIFIED FOR THE IMPLEMENTATION OF THE PARIS AGREEMENT'S PROVISIONS	SUGGESTED STEPS
Demonstrate “early wins”	The WIM's Executive Committee to report at COP22 on progress on the establishment of a clearinghouse for risk transfer and the creation of a task force for developing recommendations on climate change displacement. COP22 to consider further recommendations to advance effectively the work of the WIM, based on the review of the WIM.
Enhance collaboration and coordination with other institutions	WIM's Executive Committee to design a process that can effectively incorporate and synthesize the work of multiple institutions and report annually on progress.
Address fundamental definitional issues	WIM to collaborate with and commission reports from relevant external organizations and expert bodies to address fundamental definitional issues. WIM to organize workshops or fora that provide opportunities for cross-institutional dialogue.

FINANCE

TASKS IDENTIFIED FOR THE IMPLEMENTATION OF THE PARIS AGREEMENT'S PROVISIONS	SUGGESTED STEPS
Scaling up by 2020 and beyond	Developed country Parties, in dialogue with developing country Parties, to agree on a concrete roadmap as soon as possible for meeting the goal of mobilizing \$100 billion annually, including an assessment of current levels of financial flows, projections of what existing commitments will amount to in 2020 if delivered, identification of any gaps, and intermediate targets for the years prior to 2020. Parties to begin informal discussions on the process the CMA should take to determine the new collective finance goal before 2025.
Getting the balance for adaptation right	COP22 to consider setting a quantified adaptation finance target (either a dollar amount or ratio) within the Long-Term Finance work program, and take a decision if applicable.
Ensure robust reporting and accounting of finance	COP22 to adopt decision establishing a process to identify feasible and genuinely forward-looking finance information that developed countries will report biennially. SBSTA to develop modalities for accounting of financial resources provided and mobilized, drawing on past work and identifying technical improvements to enhance the consistency of reporting. (See Section 7 on Transparency for recommendations on tasks related to ex-post finance reporting.)
Strengthen institutional coherence	COP22 to mandate the APA to consider different possible ways in which the Adaptation Fund can serve the Paris Agreement. COP22 to request that the APA provide interpretive guidance on what is expected by the Paris Agreement requirement for funds to ensure efficient access to financial resources through simplified procedures and enhanced readiness support.

TECHNOLOGY DEVELOPMENT AND TRANSFER

TASKS IDENTIFIED FOR THE IMPLEMENTATION OF THE PARIS AGREEMENT'S PROVISIONS	SUGGESTED STEPS
Expanded scope of the technology mechanism and need for effective coordination	COP22 to recognize the outcomes of workshops on the linkages between the Technology Mechanism and the Financial Mechanism and formalize sustained engagement between the two bodies to facilitate the expanded workload of the Technology Mechanism and support implementation of technology-related activities.
Elaborate the technology framework	SBSTA to establish a work program to identify the challenges of transforming the Technology Needs Assessment process and initiate a study to identify technologies that are "ready for transfer."
Support for Technology Development and Transfer	SBSTA to consider and identify new and future funding needs as it elaborates the elements of the technology framework.

CAPACITY BUILDING

TASKS IDENTIFIED FOR THE IMPLEMENTATION OF THE PARIS AGREEMENT'S PROVISIONS	SUGGESTED STEPS
Develop the Terms of Reference for the PCCB	COP22 to operationalize the PCCB by adopting the Terms of Reference of the PCCB, including its membership, to drive effective, expert-based changes in a way that does not duplicate the role of the Durban Forum on Capacity Building.
Develop the details for the 2016–2020 work plan	SBI to initiate discussion starting in May 2016 on the PCCB work plan based on the result of the Third Review of the Capacity Building Framework, with a view to making recommendations to the PCCB. PCCB to identify capacity gaps and needs and the collection of best practices and lessons learned on ways to enhance ownership and retain capacity at national, regional, and subnational levels.
Leverage the Doha Work Programme to foster progress on education	COP22 to adopt decision that includes concrete steps to enhance education, based on the outcome of various expert meetings and related initiatives. Inclusion of education and capacity building efforts as part of the features of INDCs, which should be conveyed during the drafting in 2016 and 2017.
Make concrete commitments for more effective capacity building on the ground	COP22 to decide to encourage Parties to integrate capacity building into any projects or program of activities. COP22 to adopt decision launching an initiative to enhance the enabling environment in developing countries. Over the next 2–3 years, SBI and PCCB to explore ways to set up and support training; regional and international cooperation; means to leverage the expertise of NGOs, the private sector, research institutes, and academia; and crosscutting networks and centers of excellence.

TRANSPARENCY OF ACTION AND SUPPORT

TASKS IDENTIFIED FOR THE IMPLEMENTATION OF THE PARIS AGREEMENT'S PROVISIONS	SUGGESTED STEPS
Create conducive negotiating environment to unpack new and sensitive concepts	UNFCCC secretariat to organize expert workshops, sessions, and webinars, and solicit inputs from governments and non-Party stakeholders on policy and technical options on the following issues: flexibility within a regime applicable to all, reporting and accounting of finance, and lessons learned on accounting of policies and measures and communication of adaptation efforts. APA to provide space for Parties to share lessons learned on the preparation and assessment of INDCs and the implementation of existing MRV systems within and outside UNFCCC.
Improve MRV of support	APA to mandate SBSTA to develop finance reporting modalities, procedures, and guidelines, building on the methodological work of the SCF and lessons from the biennial reports and biennial assessments undertaken so far. SBSTA to develop options for the modalities, procedures, and guidelines for finance reporting under the framework for transparency of support. SBSTA also to consider options and make recommendations on how to build complementarity in the reporting of support provided and received and how to foster a system of double-entry bookkeeping. APA and SBSTA to ensure adequate information sharing and updating as each body undertakes related work regarding transparency and accounting of finance. APA and SBSTA to take into account the outcome of existing work and initiatives.
Improve the communication, monitoring and evaluation of adaption efforts	APA to request input from the Adaptation Committee on how monitoring and evaluation of adaptation action can be further advanced and reflected in the revised reporting requirements. APA to provide a convening space to discuss the type of information required to monitor and evaluate efforts for identifying the content that should be included in national reports and promoting alignment of information requirements in order to minimize burden on countries. APA to explore how the communication of individual adaptation efforts can inform and facilitate an evaluation of progress against collective goals (including through the global stocktake). APA and SBSTA to take into account the outcome of existing collaborative research programs, methodological work, and other relevant initiatives by other international and observer organizations.
Establish methodologies to assess impact of policies and measures	COP22 to mandate SBSTA to develop guidance for assessing the impacts of policies and measures, with input from international and observer organizations or for adoption by 2019.
Scale up support for transparency	COP22 to operationalize CBIT following the report by the GEF to the COP. COP22 to welcome the efforts of complementary initiatives and encourage synergies. Parties to leverage the existing international verification process as effective means to build capacity, and raise awareness. COP22 to urge developed country Parties, the operating entities of the Financial Mechanism, and any other organizations in a position to do so to provide support for Parties to facilitate the verification process. Parties to consider how to increase participation of non-Party stakeholders in the review process.
Establish a work plan	APA to adopt a work program at COP22 that includes a series of expert workshops and submissions between 2017 and 2018 to advance the drafting of the required modalities, guidelines, and processes. APA to take into account the lessons and experience from the existing reporting and verification requirements (the first round of BRs, BURs, ICA and IAR), lessons from the Kyoto Protocol and REDD+ on land use accounting, and preparation of INDCs. APA to make progress by leveraging and engaging with relevant existing and new initiatives within and outside UNFCCC, as well as UNFCCC thematic bodies.

GLOBAL STOCKTAKE

TASKS IDENTIFIED FOR THE IMPLEMENTATION OF THE PARIS AGREEMENT'S PROVISIONS	SUGGESTED STEPS
Develop the modalities for the facilitative dialogue in 2018	UNFCCC secretariat to undertake a compilation and synthesis of the outputs from some of these UNFCCC processes. APA to ask non-Party stakeholders to submit their views on ways to harvest the lessons within and outside UNFCCC on review mechanism. APA to ask government and non-Party stakeholders to submit their views and inputs on ways to enhance the provision and mobilization of support and enabling environments to meet the goals of the Agreement (on mitigation, adaptation, and support). COP23 to adopt decision on the modalities for the facilitative dialogue.
Determine the inputs, outputs, and modalities of the global stocktake	COP22 to adopt decision on a more comprehensive and detailed set of inputs to the global stocktake. APA to facilitate discussions on the sequencing of inputs for the stocktake, how to facilitate inputs and collaboration among existing UNFCCC bodies, and what the outputs should be. These discussions could consider the six objectives suggested in Section 8 of this paper on the Global Stocktake: update, motivate, support, promote collaboration, and create a productive, cooperative, and learning environment. COP22 to adopt decision calling for submissions by Parties and non-Party stakeholders on the modalities and outputs of the global stocktake. The following outputs could be considered: (a) a summary document; (b) declarations reflecting enhanced international cooperation; (c) commitments to include in subsequent national reports and/or NDCs about how the outcome of the global stocktake was taken into account by Parties.
Develop equity guidance	APA to facilitate discussion on equity guidance, based on the understanding that this would build on criteria and metrics already communicated voluntarily by Parties in their INDCs, and based on inputs and submissions from government and non-Party stakeholders.
Address adaptation and support	COP22 to adopt decision clarifying that the scope of the global stocktake will include the review of adequacy and effectiveness of both adaptation and mitigation. COP22 to mandate relevant UNFCCC bodies (e.g. Adaptation Committee, LEG, SCF) to develop relevant methodologies to facilitate the assessment of adaptation efforts and support provided and received.

COMPLIANCE

TASKS IDENTIFIED FOR THE IMPLEMENTATION OF THE PARIS AGREEMENT'S PROVISIONS	SUGGESTED STEPS
Determine what is meant by facilitative measures	UNFCCC secretariat to invite submissions from government and non-Party stakeholders on ways to build on the lessons learned from existing facilitative branches of compliance mechanisms, including Kyoto Protocol, Montreal Protocol, and Basel Convention, among others.
Ensure adequate scope	APA to facilitate discussion with a view to clarifying the objectives of the committee. UNFCCC secretariat to organize workshops and webinars on the scope of the committee, based on submissions and inputs from government and non-Party stakeholders on the procedure to facilitate implementation of, and promote compliance with, the Paris Agreement.
Provide the compliance committee with the authority and capacity needed to fulfill its mandate	APA to facilitate discussion on (a) how to ensure independence of the committee from direct political interference; and (b) identification of sufficient “triggers” for the committee to act to ensure that the committee has the authority and opportunity to assist Parties before non-compliance occurs.
Align with efforts to build and retain capacity	APA to initiate discussion on the nature of the facilitative measures employed to assist countries to comply with their obligations and how they relate to decisions or recommendations made by other bodies under UNFCCC.

COOPERATIVE APPROACHES

TASKS IDENTIFIED FOR THE IMPLEMENTATION OF THE PARIS AGREEMENT'S PROVISIONS	SUGGESTED STEPS
Ensure environmental integrity through safeguards for ITMOs	SBSTA to identify lessons learned from existing emissions trading systems and collect input from Parties regarding their perspective on upholding environmental integrity and avoiding double counting. SBSTA also to establish a timeframe for developing accounting guidance and work in conjunction with the APA as it develops broader accounting guidance for NDCs.
Elaborate the rules, modalities, and procedures for the mechanism to contribute to the mitigation of GHG emissions and support sustainable development	SBSTA to provide convening space for in-depth conversations and develop a work program to clarify the meaning of key terms of the mechanism, including "overall mitigation of global emissions," as well as to clarify the intended use of the proceeds collected from this mechanism. SBSTA to organize expert workshops and webinars based on inputs and submissions from government and non-Party stakeholders.
Elaborate the framework for non-market approaches	SBSTA to conduct mapping exercise to identify existing non-market-based approaches and synergies, gaps, and opportunities involving them.

Table A1 | **A Guide to Adaptation Issues across the Paris Agreement**

Because of the cross-cutting nature of adaptation and resilience, many different sections of the Paris agreement mandate action and next steps that will affect adaptation. Table 2 presents a brief summary of relevant issues and where they are addressed in the agreement, and in this paper.

ADAPTATION-RELATED TASK OR ISSUE	LOCATION IN PARIS AGREEMENT	RELEVANT 1.CP.21 PARAGRAPH	DISCUSSION IN THIS PAPER
Balance the provision of finance between adaptation and mitigation	Art 9.4, 10.6	n/a	III: 4.1, 4.2
All Parties will submit reports showcasing progress made on emissions reductions, adaptation efforts and tracking of support	Art 4.13, 4.14, 13.7, 13.8	27, 31, 105	III: 1.1, 1.2, 7.1, 7.2
Improving the Communication, Monitoring, and Evaluation of Adaptation Efforts	Art 7.3, 7.4, 7.10, 7.11, 7.14, 7.9(d), 13.8	42, 100	III: 2.1, 2.2, 7.2, 9.2
Global Stocktake	Art. 4.9, 7.14, 9.6, 10.6, 13.5, 13.6, 14	100, 101, 102	III: 9.1
Elaborate the mechanism to contribute to mitigation of GHG emissions and support sustainable development	Art 6.4, 6.8, 6.9	40	III: 10.2
Non-market approaches work program	Art 6.	40	III: 10.1, 10.2
Technical Examination Process to include adaptation—Adaptation Committee to engage directly in process	n/a	125, 126, 127, 129, 130	IV

REFERENCES

- Bodnar, P., S. Nakhooda, and J. Brown. 2015. "What Counts: Tools to Help Define and Understand Progress Towards the \$100 Billion Climate Finance Commitment." Washington, D.C., San Francisco, CA, and London, UK: World Resources Institute (WRI), Climate Policy Initiative, and Overseas Development Institute. <http://www.wri.org/publication/what-counts-tools-help-define-and-understand-progress-towards-100-billion-climate>.
- Bulmer, J. 2012. "Compliance Regimes in Multilateral Environmental Agreements." In J. Brunnée, M. Doelle, and L. Rajamani (Eds.) *Promoting Compliance in an Evolving Climate Regime*. Cambridge, UK: Cambridge University Press: 55–73.
- Dagnet, Y., T. Fei, C. Elliott, and Y. Qiu. 2014. "Improving Transparency and Accountability in the Post-2020 Climate Regime: A Fair Way Forward." Working Paper. Washington, D.C.: Agreement for Climate Transformation 2015 (ACT 2015). www.wri.org/our-work/project/act-2015/publications.
- Dagnet, Y. and H. Mountford. 2015. "Why a Mechanism to Increase Countries' Climate Ambition over Time Makes Good Economic Sense." Washington, D.C.: WRI. <http://www.wri.org/blog/2015/12/why-mechanism-increase-countries%E2%80%9999-climate-ambition-over-time-makes-good-economic-sense>.
- Dagnet, Y., E. Northrop, and D. Tirpak. 2015. "How to Strengthen the Institutional Architecture for Capacity Building to Support the Post-2020 Climate Regime." Working Paper. Washington, D.C.: WRI. <http://www.wri.org/publications/capacitybuilding>.
- Fransen, T., and K. Levin. 2015. "INSIDER: Why Are INDC Studies Reaching Different Temperature Estimates?" Washington, D.C.: WRI. <http://www.wri.org/blog/2015/11/insider-why-are-INDC-studies-reaching-different-temperature-estimates>.
- Gallagher, E., and A-L. Amin. 2014. "Aligning Finance to Deliver Climate Ambition and Climate Resilience in a 2015 Climate Agreement." Washington, D.C.: ACT 2015. www.wri.org/our-work/project/act-2015/publications.
- Garcia, M.J. 2015. "International Law and Agreements: Their Effect upon U.S. Law." Washington, D.C.: Congressional Research Service, <https://fas.org/sgp/crs/misc/RL32528.pdf>.
- Gençsü, I. and M. Hino. 2015. "Raising Ambition to Reduce International Aviation and Maritime Emissions." Working paper. London, UK, and Washington, D.C.: New Climate Economy. <http://newclimateeconomy.report/misc/working-papers>.
- Government of France. 2015. "Ministerial Preparatory Meeting ahead of COP21—'Pre-COP' Aide-mémoire." <http://www.cop21.gouv.fr/wp-content/uploads/2015/11/EN-Aide-m%C3%A9moire-de-la-pr%C3%A9-COP.pdf>.
- Institute for Sustainable Development and International Relations (IDDRI) and Sustainable Development Solutions Network (SDSN) 2015. "Pathways to Deep Decarbonization." Paris, France: IDDRI and SDSN. http://deepdecarbonization.org/wp-content/uploads/2015/12/DDPP_2015_REPORT.pdf.
- Intergovernmental Panel on Climate Change (IPCC) 2014. "Climate Change 2014: Synthesis Report." Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. R.K. Pachauri and L.A. Meyer (eds.). Cambridge, UK, and New York, NY: Cambridge University Press. https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full.pdf.
- Levin, K., D. Rich, J. Finnegan, P.M. Barata, Y. Dagnet and K. Kulovesi. 2015. "Accounting Framework for the Post-2020 Period." Washington, D.C.: WRI. <http://norden.diva-portal.org/smash/get/diva2:799242/FULLTEXT01.pdf>.
- Linn, Amelia. 2016. "Next Steps for the Paris Agreement: When and How will the Agreement Enter into Force?" Issue Brief. New York, NY: NYU School of Law, Guarini Center. <http://guarinicenter.org/wp-content/uploads/2016/03/Paris-Entry-into-Force-Final-30-Mar-16.pdf>.
- Morgan, J., Y. Dagnet and D. Tirpak. 2014. "Elements and Ideas for a 2015 Paris Agreement" Working Paper. Washington, DC: ACT 2015. www.wri.org/our-work/project/act-2015/publications.
- Morgan, J., Y. Dagnet, N. Höhne, S. Oberthür, and L. Li. 2014. "Race to the Top: Driving Ambition in the Post-2020 International Climate Agreement." Working Paper. Washington, D.C.: ACT 2015. www.wri.org/our-work/project/act-2015/publications.

- Muick, Barbara. 2013. Planning for the International Assessment and Review process. Presentation. Warsaw, Poland. 13 November 2013. 19th UNFCCC Conference of the Parties.
- Northrop, E., and D. Waskow. 2015. "A Framework for Describing Fairness and Ambition in Intended Nationally Determined Contributions." Working Paper. Washington, D.C.: WRI. <http://www.wri.org/publication/framework-fairness-indc>.
- Northrop, E., H. Biru, S. Lima, R. Song, and M. Bouye. Forthcoming. "Understanding the Synergies between Intended Nationally Determined Contributions and Sustainable Development Goals." Working Paper. Washington, D.C.: WRI.
- Oberthür, S. 2014. "Options for a Compliance Mechanism in a 2015 Climate Agreement." Working Paper. Washington, D.C.: ACT 2015. www.wri.org/our-work/project/act-2015/publications.
- Oberthür, S., A.G.M. La Viña, and J. Morgan. 2015. "Getting Specific on the 2015 Climate Change Agreement: Suggestions for the Legal Text with an Explanatory Memorandum." Working Paper. Washington, D.C.: ACT 2015. www.wri.org/our-work/project/act-2015/publications.
- Rogelj, J., G. Luderer, R.C. Pietzcker, E. Kriegler, M. Schaeffer, V. Krey, and K. Riahi. 2015. "Energy System Transformations for Limiting End-of-Century Warming to Below 1.5°." *Nature Climate Change* 5. <http://www.nature.com/nclimate/journal/v5/n6/pdf/nclimate2572.pdf>.
- Sachs, J.D., G. Schmidt-Traub, J. Williams, L. Segafredo, M. Colombier, T. Ribera, and H. Waisman. 2015. "Why Climate Policy Needs Long-Term Deep Decarbonization Pathways." Working Paper. Paris, France: SDSN and IDDRI. http://unsdsn.org/wp-content/uploads/2015/11/151130-Why-Climate-Policy-requires-long-term-Deep-Decarbonization-Pathways_rev.pdf.
- UNFCCC. 2015. Paris Agreement. http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf.
- UNFCCC. 2015. Decision 1/CP.21. <http://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf>.
- United Nations Environment Programme. (UNEP). 2015. *The Emissions Gap Report*. November 2015. http://uneplive.unep.org/media/docs/theme/13/EGR_2015_301115_lores.pdf.
- United Nations Framework Convention on Climate Change (UNFCCC). 2013. Review Process. http://unfccc.int/national_reports/annex_i_ghg_inventories/review_process/items/2762.php [Accessed November 13, 2015].
- Wang, X., and G. Wiser. 2002. "The Implementation and Compliance Regimes under the Climate Change Convention and its Kyoto Protocol." Review of European, Comparative & International Environmental Law (RECIEL). Volume 11, Issue 2, pages 181–198.
- World Resources Institute (WRI). 2014. GHG Protocol Policy and Action Standard: An accounting and reporting standard for estimating the greenhouse gas effects of policies and actions. <http://www.ghgprotocol.org/policy-and-action-standard>.
- WRI. 2015. CAIT Paris Contributions Data. <http://www.wri.org/resources/data-sets/cait-paris-contributions-data> [Accessed November 13, 2015].

ENDNOTES

1. For the purposes of this paper, zero-carbon refers to a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases as used in the Paris Agreement, or net-zero greenhouse gas emissions.
2. The ACT 2015 consortium is a group of the world's top climate experts and institutions from developing and developed countries: Ateneo School of Government, the Philippines; E3G (Third Generation Environmentalism), the U.K.; Ecofys, Germany; Energeia, Latin America; Institute for European Studies, Vrije Universiteit Brussel, Belgium; PBL Netherlands Environmental Assessment Agency, the Netherlands; New Climate Institute, Germany; Tsinghua University, China; and the World Resources Institute, Global.
3. Through extensive research and stakeholder consultation over two years, the ACT 2015 consortium identified eight key functions necessary for the Paris Agreement to be successful. See Oberthür et al. (2015) and Morgan, J., Y. Dagnet, and D. Tirpak. (2014).
4. The ACT 2015 consortium is a group of the world's top climate experts and institutions from developing and developed countries: Ateneo School of Government, the Philippines; E3G (Third Generation Environmentalism), the U.K.; Ecofys, Germany; Energeia, Latin America; Institute for European Studies, Vrije Universiteit Brussel, Belgium; PBL Netherlands Environmental Assessment Agency, the Netherlands; New Climate Institute, Germany; Tsinghua University, China; and the World Resources Institute, Global.
5. For a review of 12 of the leading assessments of the INDCs see Fransen and Levin (2015).
6. United Nations Framework Convention on Climate Change (UNFCCC). Paris Agreement, Art. 4.2.
7. The Paris Pledge for Action or L'Appel de Paris has already been signed by over 400 businesses, 120 investors, 150 cities, and regions representing 150 million people and \$11 trillion. These pledges are available at <http://www.parispledgeforaction.org/whos-joined/>.
8. Paris Agreement's preamble: *Taking into account* "the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities."
9. Paris Agreement's preamble: *Also recognizing* "that sustainable lifestyles and sustainable patterns of consumption and production, with developed country Parties taking the lead, play an important role in addressing climate change."
10. UNFCCC. 2015. Paris Agreement, Art. 2.2.
11. Paris Agreement's Preamble: *Acknowledging* that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity...
12. The Ad Hoc Working Group on the Paris Agreement (APA) was established by the same decision to prepare for the entry into force of the Paris Agreement and for the convening of the first session of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA).
13. SBI and SBSTA
14. The CMA is the supreme decision-making body of the Paris Agreement. All States that are Parties to the Paris Agreement are represented at the CMA, at which they review the implementation of the Paris Agreement and any other legal instruments that the CMA adopts, and take decisions necessary to promote the effective implementation of the Paris Agreement, including institutional and administrative arrangements.
15. UNFCCC. 2015. Paris Agreement, Art. 2.
16. UNFCCC. 2015. Paris Agreement, Art. 4.1.
17. UNFCCC. 2015. Decision 1/CP.21, para. 22.
18. UNFCCC. 2015. Paris Agreement, Art. 4.2.
19. UNFCCC. 2015. Paris Agreement, Art. 4.2.
20. UNFCCC. 2015. Paris Agreement, Art. 4.2.
21. UNFCCC. 2015. Paris Agreement, Art. 4.4.
22. UNFCCC. 2015. Paris Agreement, Art. 4.3.
23. UNFCCC. 2015. Decision 1/CP.21, paras. 23 and 24.
24. UNFCCC. 2015. Paris Agreement, Art. 4.9.
25. UNFCCC. 2015. Decision 1/CP.21, paras 26 and 28.
26. UNFCCC. 2015. Paris Agreement, Art. 4.10.
27. UNFCCC. 2015. Decision 1/CP.21, para. 31.
28. UNFCCC. 2015. Decision 1/CP.21, para. 31.
29. UNFCCC. 2015. Decision 1/CP.21, para. 36.
30. UNFCCC. 2013. Decision 2/CP.19.
31. UNFCCC. 2015. Paris Agreement, Art. 8.5.
32. UNFCCC. 2015. Paris Agreement, Art. 2.1(c).
33. UNFCCC. 2015. Paris Agreement, Art. 2.1(a).
34. UNFCCC. 2015. Paris Agreement, Art. 4.1.
35. UNFCCC. 2015. Paris Agreement, Art. 9.1.
36. UNFCCC. 2015. Paris Agreement, Art. 9.2.
37. UNFCCC. 2015. Paris Agreement, Art. 9.4.
38. UNFCCC. 2015. Paris Agreement, Art. 9.3.
39. UNFCCC. 2015. Decision 1/CP.21, para. 114.
40. UNFCCC. 2015. Decision 1/CP.21, para. 53.

41. UNFCCC. 2015. Paris Agreement, Art. 9.6 and Art. 14.1.
42. UNFCCC. 2015. Paris Agreement, Art. 9.8.
43. UNFCCC. 2015. Decision 1/CP.21, para. 58.
44. UNFCCC. 2015. Decision 1/CP.21, para. 59.
45. UNFCCC. 2015. Paris Agreement, Art. 9.9.
46. UNFCCC. 2015. Decision 1/CP.21, para. 114.
47. Building on a proposal from the ACT 2015 consortium to identify indicative national pathways or interim targets by 2017. See Gallagher and Amin (2014).
48. UNFCCC. 2010. Decision 1/CP.16, para. 98.
49. UNFCCC. 2015. Decision 1/CP.21, para. 114.
50. UNFCCC. 2015. Decision 1/CP.21, para. 53.
51. UNFCCC. 2015. Decision 1/CP.21, para. 114.
52. UNFCCC. 2015. Paris Agreement, Art. 9.4.
53. UNFCCC. 2015. FCCC/ADP/2015/1 Geneva Negotiating Text, F. Option I: 82.2 Option (a) a. Option (ii); 82.2 Option (b) a.; 116.1; F. Option II: 80.
54. UNFCCC. 2015. FCCC/ADP/2015/1 Geneva Negotiating Text, F. Option I: 82.2 Option (d) a.; 116.1; 127.a.
55. UNFCCC. 2015. Decision 1/CP.21, para. 42.(b).
56. UNFCCC. 2015. Paris Agreement, Art. 7.14(d).
57. UNFCCC. 2013. Decision 1/CP.19, para. 10.
58. UNFCCC. 2015. Decision 1/CP.21, para. 55.
59. UNFCCC. 2015. Decision 1/CP.21, para. 91.
60. UNFCCC. 2015. Decision 1/CP.21, para. 57.
61. For example, developed country multi-year pledges to multilateral climate funds such as the GCF and the GEF, as well as their announcements throughout 2015 of finance commitments toward meeting the \$100 billion goal.
62. Particularly in order to avoid the executive branch of contributor governments having to make announcements to the UNFCCC before spending proposals have been brought before national legislatures.
63. UNFCCC. 2015. Decision 1/CP.21, para. 57.
64. See Organisation for Economic Cooperation and Development (OECD) Research Collaborative: Tracking Private Climate Finance. <http://www.oecd.org/env/researchcollaborative/>.
65. See: World Bank. 2015. "Developing Common Principles for Tracking Climate Finance." <http://www.worldbank.org/en/news/feature/2015/04/03/common-principles-for-tracking-climate-finance>.
66. UNFCCC. 2015. Decision 1/CP.21, paras. 59 and 60; UNFCCC. 2015. Decision 1/CMP.11, para. 9.
67. UNFCCC. 2015. Decision 1/CMP.11, para. 9.
68. UNFCCC. 2015. Decision 1/CMP.11, para. 8; Decision 1/CP.21, para. 60.
69. UNFCCC. 2015. Paris Agreement, Art. 6.6.
70. UNFCCC. 2015. Paris Agreement, Art. 9.9.
71. UNFCCC. 2015. Paris Agreement, Art. 10.1.
72. UNFCCC. 2015. Decision 13/CP.21 Linkages between the Technology Mechanism and the Financial Mechanism of the Convention <http://unfccc.int/resource/docs/2015/cop21/eng/10a02.pdf#page=28>.
73. UNFCCC. 2016. TEC/2016/12/8. http://unfccc.int/ttclear/misc/_StaticFiles/gnwoerk_static/TEM_TEC_meetings/e470de17ba7f4f1c8137deb924fb1362/4d260840e82f4584ad5ddb42c0d23da5.pdf.
74. UNFCCC. 2015. Decision 13/CP.21 Linkages between the Technology Mechanism and the Financial Mechanism of the Convention <http://unfccc.int/resource/docs/2015/cop21/eng/10a02.pdf#page=28>.
75. The creation of the Durban Forum on Capacity Building reflects the need for a dialogue among all stakeholders involved in capacity building. http://unfccc.int/cooperation_and_support/capacity_building/items/6802.php.
76. UNFCCC. 2015. Decision 1/CP.21, para. 83.
77. UNFCCC. 2015. Decision 1/CP.21, paras. 72 and 73.
78. The Transparency framework is supposed to enhance the reporting and verification of capacity building information.
79. See references in Section 7 on Transparency.
80. The Durban Forum has been designed as a place where representatives from Parties, UN organizations, intergovernmental and non-governmental organizations, research, academia and the private sector can share ideas, experiences, lessons learned and good practices on implementing capacity-building activities in developing countries.
81. UNFCCC. 2015. Decision 1/CP.21, paras. 72-84.
82. The third review began at the Bonn Climate Change Conference in 2012. The draft decisions, agreed unanimously during the discussions, were recommended by SBI for adoption by the COP and the CMP in Doha, Qatar. http://unfccc.int/cooperation_and_support/capacity_building/items/7203.php.
83. See: UNFCCC. 2015. Decision 15/CP.21. "Terms of reference for the intermediate review of the Doha work programme on Article 6 of the Convention."
84. See COP decision 84. *Invites* "the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement at its first session to explore ways of enhancing the implementation of training, public awareness, public participation, and public access to information so as to enhance actions under the Agreement."

85. Ahmedabad Framework for Action. See UNFCCC website: <http://newsroom.unfccc.int/unfccc-newsroom/experts-education-crucial-for-success-of-paris-agreement/>.
86. The 13 member organizations of the UN Alliance on Climate Change Education, Training, and Public Awareness are: FAO, ILO, UNDP, UNEP, UNDP, UNFCCC, UNESCO, UNICEF, UNITAR, UNU, WHO, WMO and UN Women.
87. UNFCCC. 2015. Paris Agreement, Art. 9.7 and 13.9.
88. Not obligatory, since they “should” do such reporting (not “shall”).
89. UNFCCC. 2015. Decision 1/CP.21, para 95 (d).
90. The Advisory Committee could also leverage the work by non-Party stakeholders.
91. UNFCCC. 2015. Paris Agreement, Art. 13.10, Art. 13.14 and Art. 13.15.
92. See: UNFCCC. 2014. “Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention (CGE)” http://unfccc.int/national_reports/non-annex_i_natcom/cge/items/2608.php.
93. The review cycle for IAR (40 countries) will take a minimum of 31 weeks for preparation, review, and finalization of the report; multilateral assessment, including questions and responses; and record of the outcome nine weeks after the multilateral assessment under SBI to allow Parties to raise further questions. See Muick (2013).
94. A preliminary check entails ensuring that the inventory is complete and in the correct format. See UNFCCC. 2014. “Review Process.”
95. An in-country review consists of a “single inventory being reviewed by an ERT in the Party under review. This is the most important and detailed review stage.” See UNFCCC. 2014. “Review Process.”
96. A centralized review consists of five to eight reports being reviewed by an expert review team (ERT) convened by the Secretariat. See UNFCCC. 2014.
97. UNFCCC. 2012. “Efficient, Cost-Effective and Practical International Consultations and Analysis Process.” FCCC/SBI/2012/INF.9. unfccc.int/resource/docs/2012/sbi/eng/inf09.pdf.
98. See: Initiative for Climate Action Transparency (ICAT). 2016. “About the Initiative.” <http://www.climateactiontransparency.org/about/>.
99. See more on the Coalition on Paris Agreement Capacity Building—Leadership for Empowering People and Institutions in the New Era of Climate Action: <http://capacitybuildingcoalition.org>.
100. The LEG was established by the COP in 2001. The LEG is requested by the COP to provide technical support and advice to the least developed countries (LDCs) on the national adaptation programmes of action (NAPAs) and the LDC work programme, and to provide technical guidance and support to the national adaptation plan (NAP) process. http://unfccc.int/adaptation/groups_committees/ldc_expert_group/items/4727.php.
101. In order to improve national communications (NCs) and the Biennial Update Reports (BURs) from developing country Parties through technical advice and support, in 1999 the COP established the Consultative Group of Experts on National Communications from non-Annex I Parties (CGE). This group is the key technical support element under the Convention to assist developing country Parties in meeting their reporting obligations. http://unfccc.int/national_reports/non-annex_i_natcom/cge/items/2608.php.
102. How much do we take from the Kyoto protocol and from REDD+. Reducing Emissions from Deforestation and Forest Degradation (REDD) is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. “REDD+” goes beyond deforestation and forest degradation, and includes the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks.
103. Reports every two years for developing countries.
104. As of March 2016, only 26 BURs have been submitted, which means that only 26 ICA can currently be scheduled. This will delay the completion of the first round.
105. In addition to the long-term temperature goal in Article 2, the Paris Agreement contains a long-term mitigation goal in Article 4 to “reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty,” and a long-term adaptation goal in Article 25 of “enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2.”
106. UNFCCC. 2015. Decision 1/CP.21, para. 20.
107. UNFCCC. 2015. Decision 1/CP.21, para 116.
108. Intergovernmental Panel on Climate Change (IPCC). 2016. “Special Report on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways.” <https://www.ipcc.ch/report/sr15/>.
109. UNFCCC. 2015. Decision 1/CP.21, para. 21.
110. UNFCCC. 2015. Decision 1/CP.21, paras. 23 and 24.
111. UNFCCC. 2015. Paris Agreement, Art. 9.6.
112. A narrow definition would likely include the Financial Mechanism and other committees and mechanisms under the Agreement. A broader definition might also include the Standing Committee on Finance, which was established under the Convention but will serve the Agreement (UNFCCC. 2015. Decision 1/CP.21, para. 63), as well as the other funds not part of the Financial Mechanism but serving the Agreement (UNFCCC. 2015. Decision 1/CP.21, para. 58).
113. UNFCCC. 2015. Paris Agreement, Art 2.1(c).
114. This could include available reporting by the IMF, central banks and national financial regulators.

115. UNFCCC. 2015. Paris Agreement, Art. 7.14(c).
116. UNFCCC. 2015. Paris Agreement, Art. 14.3.
117. UNFCCC. 2015. Decision 1/CP.21, para. 114.
118. The development of compliance regimes in multilateral environmental agreements (MEAs) as opposed to the use of the International Court of Justice (ICJ) is in large part due to the nature of MEAs regulating issues of the global commons with very little causal link between an injury suffered and an act of non-compliance. ICJ proceedings tend to be time consuming and highly confrontational, undermining the aims of these agreements to promote international cooperation and prevent the issue of freeriding. Compliance regimes under MEAs must therefore focus on preventing non-compliance rather than punishing non-compliance.
119. UNFCCC. 2015. Decision 1/CP.21, para. 103.
120. UNFCCC. 2015. Paris Agreement, Art. 15.2.
121. UNFCCC. 2015. Paris Agreement, , Art. 15.2.
122. UNFCCC. 2015. Decision 1/CP.21, para. 104 and UNFCCC. 2015. Paris Agreement, Art. 15.3.
123. Questions of implementation under the Kyoto Protocol could only be raised by expert review teams under Article 8 of the Protocol, any Party with respect to itself, or a Party with respect to another Party (supported by corroborating information). These triggers were insufficient to raise issues in a timely and ex-ante manner.
124. See: UNFCCC. 2014. "Market and non-market mechanisms." http://unfccc.int/cooperation_support/market_and_non-market_mechanisms/items/7551.php.
125. See: CAIT Climate Data Explorer. 2016. "Paris Contributions Map." <http://www.cait.wri.org/INDC/>.
126. UNFCCC. 2015. Paris Agreement, Art. 6.4 (d).
127. See: Clean Development Mechanism (CDM) Rules, Practice & Procedures. <http://www.cdmrulebook.org/369.html>.
128. See: UNFCCC. 2014. "Clean Development Mechanism." http://unfccc.int/kyoto_protocol/mechanisms/clean_development_mechanism/items/2718.php.
129. UNFCCC. 2015. Decision 1/CP.21, para 2 and 3.
130. Vienna Convention on the Law of Treaties, Article 2(1)(b).
131. United Nations glossary of terms relating to Treaty actions. See https://treaties.un.org/Pages/Overview.aspx?path=overview/glossary/page1_en.xml.
132. Cuff, Madeline. 2016. "Fiji becomes first country in the world to ratify Paris Agreement." Business Green. <http://www.businessgreen.com/bg/news/2447113/reports-fiji-becomes-first-country-in-the-world-to-ratify-paris-agreement>.
133. Australian Government, Department of Foreign Affairs and Trade. "Treaty Making Process." <http://dfat.gov.au/international-relations/treaties/treaty-making-process/pages/treaty-making-process.aspx>.
134. Constitution of Mexico, Article 76.1.http://www.oas.org/juridico/mla/en/mex/en_mex-int-text-const.pdf.
135. Constitution of the Republic of Indonesia, 1945 (As amended by the First Amendment of 1999, the Second Amendment of 2000, the Third Amendment of 2001 and the Fourth Amendment of 2002), article 11. http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_174556.pdf.
136. UNFCCC. 2015. Paris Agreement, Art. 21.
137. UNFCCC, Information provided in accordance with paragraph 105 of the decision related to entry into force (Art. 21) of the Paris Agreement, FCCC/CP/2015/10, Annex 1.
138. Based on 2012 data and excluding land-use change and forestry emissions, CAIT Climate Data Explorer. <http://cait.wri.org/>.
139. In order, the top 16 emitters are China, United States, European Union, Russia, India, Japan, Brazil, Canada, Republic of Korea, Indonesia, South Africa, Australia, Iran, Turkey, Ukraine and Sierra Leone.
140. The mandate of the ADP is to develop a protocol, another legal instrument, or an agreed outcome with legal force under the Convention applicable to all Parties, which is to be completed no later than 2015 in order for it to be adopted at the twenty-first session of the Conference of the Parties (COP) and for it to come into effect and be implemented from 2020, Decision 1/CP.17.
141. In his invitation letter, the Secretary-General said that leaders' participation could also facilitate the early entry into force of the Paris Agreement and "provide for the smooth finalization of the operational details needed to give effect to the provisions of the new Agreement."
142. UNFCCC. 2015. Paris Agreement, Art. 16.6.
143. UNFCCC. 2015. Paris Agreement, Art 6.7, Art.7.3, Art. 9.7, Art. 11. 5, Art. 13.13, and Art. 15.3. See also UNFCCC. 2015. Decision 1/CP.21, paras 43, 56, 58, 82, which contain timelines for preparatory actions by the APA that could fall after actual entry into force.
144. In the same way that the United States participates in sessions of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol.
145. UNFCCC. 2016. "Entry into force of the Paris Agreement: legal requirements and implications." Information note. http://unfccc.int/files/paris_agreement/application/pdf/entry_into_force_of_pa.pdf.
146. The COP President has the power to open and close sessions, according to rule 23 of the Rules of Procedure of the UNFCCC, which apply mutatis mutandis to Conference of the Parties serving as the meeting of the Parties to the Paris Agreement in accordance with UNFCCC. 2015. Paris Agreement, Art. 16.6.
147. UNFCCC, Decisions Adopted by the Conference of the Parties at the First Part of its Sixth Session, FCCC/CP/2000/5/Add.2.
148. The ADP held only two sessions, each consisting of multiple parts over five years, the second session finally closed at COP21.
149. See: UNFCCC. 2015. "Lima-Paris Action Agenda Matures into Major Force Driving Climate Action." <http://newsroom.unfccc.int/lpaa/lpaa/massive-mobilization-by-non-state-stakeholders-summarized-at-cop21/>.

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150. Paris Agreement's Preamble: "*Recognizing* the importance of the engagement of all levels of government and various actors, in accordance with respective national legislations of Parties, in addressing climate change."
151. The Cartagena Dialogue is a group of around 40 countries working toward an ambitious legally binding agreement under the UNFCCC, and who are committed to becoming or remaining low carbon domestically. Participates include: Antigua & Barbuda, Australia, Bangladesh, Barbados, Burundi, Chile, Colombia, Costa Rica, Denmark, Dominican Republic, Ethiopia, European Union, France, Gambia, Georgia, Germany, Ghana, Grenada, Guatemala, Indonesia, Kenya, Lebanon, Malawi, Maldives, Marshall Islands, México, Netherlands, New Zealand, Norway, Panama, Peru, Rwanda, Samoa, Spain, Swaziland, Sweden, Switzerland, Tajikistan, Tanzania, Uganda, UAE, and the United Kingdom. See: http://unfccc.int/essential_background/glossary/items/3666.php.
152. See the statement by Deborah Barker-Manase, Deputy Permanent Representative of the Republic of the Marshall Islands to the United Nations. http://www4.unfccc.int/submissions/Lists/OSPSubmissionUpload/213_153_130938028210854989-Marshall%20Islands%20ADP%20closing%20plenary%20STATEMENT.pdf; and <http://www.theguardian.com/environment/2015/dec/08/coalition-paris-push-for-binding-ambitious-climate-change-deal>.
153. COP21 established a process that would elaborate further the link between human rights, sustainable development, and climate change.
154. Pathways to a low-carbon economy, Version 2.1 of the global greenhouse gas abatement cost curve.
155. Global Commission on the Economy and the Climate. 2014. "Better Growth, Better Climate." Available online at: http://newclimateeconomy.report/wpcontent/uploads/2014/08/NCE_GlobalReport.pdf.

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Yamide Dagnet is a Senior Associate at WRI.

Contact: YDagnet@wri.org

David Waskow is the Director of WRI's International Climate Initiative.

Contact: DWaskow@wri.org

Cynthia Elliott is a Research Analyst at WRI.

Contact: CElliott@wri.org

Eliza Northrop is an Associate at WRI.

Contact: ENorthrop@wri.org

Joe Thwaites is a Research Analyst at WRI.

Contact: JThwaites@wri.org

Kathleen Mogelgaard is an Associate at WRI.

Contact: KMogelgaard@wri.org

Melisa Krnjaic is a Research Assistant at WRI.

Contact: MKrnjaic@wri.org

Kelly Levin is a Senior Associate at WRI.

Contact: KLevin@wri.org

Heather McGray is a Director of WRI's Climate Resilience Practice.

Contact: HEMcGray@wri.org

ABOUT WRI

World Resources Institute is a global research organization that turns big ideas into action at the nexus of environment, economic opportunity and human well-being.

Our Challenge

Natural resources are at the foundation of economic opportunity and human well-being. But today, we are depleting Earth's resources at rates that are not sustainable, endangering economies and people's lives. People depend on clean water, fertile land, healthy forests, and a stable climate. Livable cities and clean energy are essential for a sustainable planet. We must address these urgent, global challenges this decade.

Our Vision

We envision an equitable and prosperous planet driven by the wise management of natural resources. We aspire to create a world where the actions of government, business, and communities combine to eliminate poverty and sustain the natural environment for all people.

Our Approach

COUNT IT

We start with data. We conduct independent research and draw on the latest technology to develop new insights and recommendations. Our rigorous analysis identifies risks, unveils opportunities, and informs smart strategies. We focus our efforts on influential and emerging economies where the future of sustainability will be determined.

CHANGE IT

We use our research to influence government policies, business strategies, and civil society action. We test projects with communities, companies, and government agencies to build a strong evidence base. Then, we work with partners to deliver change on the ground that alleviates poverty and strengthens society. We hold ourselves accountable to ensure our outcomes will be bold and enduring.

SCALE IT

We don't think small. Once tested, we work with partners to adopt and expand our efforts regionally and globally. We engage with decision-makers to carry out our ideas and elevate our impact. We measure success through government and business actions that improve people's lives and sustain a healthy environment.