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ELEMENTS AND IDEAS FOR THE 2015 PARIS AGREEMENT

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EXECUTIVE SUMMARY

Context

The Global Commission on the Economy and Climate Change recently found that "major structural and technological changes in the global economy are now making it possible to achieve lower carbon development and better economic growth" and that the "scale of investment over the next 15 years means we now have a huge opportunity to create better growth and reduce the risk of dangerous climate change."[1] In other words, there is no longer a choice to be made between economic growth and tackling climate change; rather, they are positively reinforcing goals that result in multiple benefits. These findings come in the context of increasing scientific evidence that climate change impacts will be a major obstacle to achieving economic and development goals[2] and that the window of time to avoid devastating impacts is rapidly closing.[3] Climate change impacts are already visible, they are hitting the poor and vulnerable the hardest, and they pose economic and ethical challenges to governments and citizens around the world.

Governments are now confronted with the growing economic costs of climate change impacts as well as the environmental costs of high-carbon development. Much has to be done at the national, city, business, and citizen levels. However, international cooperation is also essential, and the ongoing UN Framework on Climate Change (UNFCCC) negotiations for a new international Agreement in Paris in December 2015 are central to inform thinking.

CONTENTS

Executive Summary....1
Background and Methodology....6
Functions of the 2015 Agreement....8
Two Long-Term Goals....9
Equity....10
Continuous Cycle of Improvement: Mitigation....11
Continuous Cycle of Improvement: Adaptation....16
Loss and damage (L&D)....20
Role of Land Use Change in Mitigation and Adaptation....22
Continuous Cycle of Improvement: Support....23
Foundation of Transparency and Accountability....32
Other Cross-cutting Issues....35
Conclusion....36
Bibliography....38
Annexes....41

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Over the past year, the Agreement on Climate Transformation 2015 (ACT 2015) consortium[4] has focused intensively on thinking through the core elements of the Paris Agreement. The consortium, with expert representation from key geographic regions, was formed to engage a broader group of stakeholders around the world, in-country, to inform thinking, and to bring ideas into the formal negotiations. The effort has involved dialogue with hundreds of people on five continents as well as research and analysis on the core elements of the Agreement. This document offers the consortium's ideas on how the international Agreement can play the most effective and transformational role in shifting the world to a low-carbon, climate-resilient economy as quickly and fairly as possible.

Core Functions

There are many climate change actions and initiatives under way around the world, operating nationally and bilaterally, and at local community and business levels. What is the function of this new UN Agreement, relative to other initiatives, as it seeks to advance and inspire much greater international cooperation to achieve fair and ambitious actions to address climate change? In order to be successful, and secure implementation, the Paris Agreement needs to speak to all countries and constituencies. In order to play an important role in the transition to a low-carbon, climate-resilient economy that is fair and ambitious, it should fulfill a set of core functions:

Send a clear signal to policy makers, businesses, investors, and the public that the low-carbon, climate-resilient economy is inevitable – governments, the world's largest private and state-owned companies, and their investors must be convinced of the sincerity and seriousness of governments' intent to decarbonize in line with the agreed 2°C goal and scientific recommendations.

Link to science with a sense of urgency – the Agreement should be informed by and respond to the latest scientific information in a formal way, and links should occur in the form of scientific inputs to the Agreement's further development.

Connect the global Agreement to the "real economy" and "real people" and enhance sustainable development – governments and organizations responsible for infrastructure, planning, and development must incorporate the risks of climate impacts and the risks of stranded high-carbon assets in their planning processes. People must see that the shift away from dirty to clean energy is going to be accelerated. The Agreement should provide a sense of agency and momentum to real people in their efforts to address climate change.

Demonstrate fairness, equity and justice in climate actions and outcomes – the Agreement must fully integrate equity considerations that address both differentiated historical responsibilities and responsibilities to future generations, as well as current and future capabilities, in order to reduce the risks and capitalize on the opportunities that lie ahead.

Provide transparency and accountability for country commitments – the 2015 Agreement must build confidence and trust among governments and stakeholders regarding the delivery of each country's respective commitments. Trust and confidence will help support cooperation, reduce freeriding, and support the collective action required to achieve the below-2°C goal.

Accelerate the investment shift to low-carbon and climate-resilient economies – the 2015 Agreement must provide incentives for global and local action, mobilize broader financial flows, align them with long-term climate goals, and provide support to developing countries to help them address climate change.

Protect the most vulnerable – the Agreement must seek to ensure that vulnerable communities have the capacity to build resilience, manage, and adapt to the impacts of climate change.

Incentivize action - the Agreement should also include incentives for countries to go further and faster than they would have otherwise done, not only with respect to mitigation and adaptation, but also in the areas of technology development, innovation, and knowledge transfer.

These functions outline the purpose of the Agreement, whereas the Elements and Ideas noted below describe components that could be included in the Agreement itself. The Agreement as a whole should contain three core components: two long-term goals; three cycles of continuous improvement in the areas of mitigation, adaptation and support; and a foundation of transparency and accountability. All three of these components need to be equitably designed and implemented. The italicized text below, and throughout the main report, indicates ideas that could be included in the Paris Agreement itself.

I. Two Long-Term Goals

In order to send clear long-term signals to governments, investors, businesses and the public, the Agreement should include two long-term goals, which operationalize the overall objective of the UNFCCC.[5] It should also build upon the decision of all governments in 2010, at the Cancun Conference of the Parties, to keep the global average temperature below an average 2°C increase over preindustrial levels,[6] and recognize the growing need to adapt to the impacts of climate change that are already occurring. These signals should be captured in the Agreement in the following manner:

The long-term goals of the Agreement are:

- to ensure that global temperature increase stays below an average of 2°C in comparison to preindustrial levels, by implementing a phase-out of all GHG emissions to net zero as early as possible in the second half of this century;[7] and

- to reduce the vulnerability, and build the resilience, of communities to climate change impacts, through collective actions applicable to all countries, based on their common but differentiated responsibilities and respective capabilities.

By providing clear signals, the two goals, independently and combined, fulfill a number of the functions noted above, catalyzing and facilitating investment far beyond the financial components of the Agreement itself in climate-resilient, low-carbon growth activities around the world. While every Party should assimilate the long-term goals as part of its national commitment, it is clear that developed countries should phase out GHG emissions first, with staggered phase-outs for developing countries, combined with support to achieve the goals. All countries should put forward long-term, deep decarbonization plans that capture their approach to achieving the long-term goals.

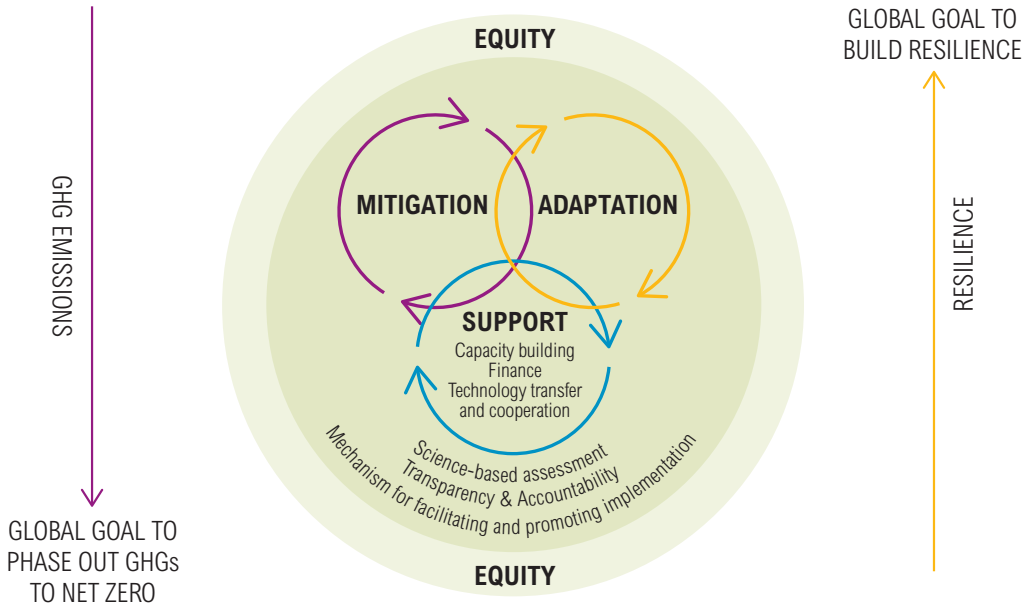
Across the Agreement, Least Developed Countries (LDCs) and Small Island Developing States (SIDS) in need should be given flexibility regarding stringency and type of commitment. These countries, in particular, will require support to act and submit mitigation contributions over a slightly longer time frame.

II. Three Continuous Improvement Cycles

One of the themes that arose from the ACT 2015 convening process was the need to build on the UNFCCC and create a new Agreement that is durable but that also will be continually reviewed and strengthened, and that is capable of identifying and supporting action and leadership wherever they emerge. To this end, three continuous improvement cycles, guided by the two goals, should be put in place to create a predictable, confidence-building cycle of improvement for the Agreement over time. The three cycles described below are deeply interconnected, with the success of each built on transparency and accountability and equity. However, each is also quite distinct in content and nature, because the issues addressed in each cycle are fundamentally different. All three cycles should be run on a five-year schedule, and organized in a manner where they support and inform each other. (See Figure 1.)

The aggregate level of mitigation action would inform the amount and types of adaptation activities that must be undertaken, as well as the support cycle.

Figure 1 | **Core Components of the 2015 Paris Agreement: Driving Continuous Improvement Toward Long-Term Goals**



1. Mitigation Cycle. Create a clear and predictable commitment cycle to strengthen national mitigation commitments on a regular schedule, for example every 5 years, and continue this cycle until the long-term mitigation goal is met. The cycle should include clear steps that are followed every time, and should ensure that Parties have access to information and analysis that is of sufficient quality to underpin strengthened mitigation ambition. Countries should agree upfront that every cycle will result in greater ambition for each Party aiming toward a long-term goal, and that there will be no backsliding from the commitments to which each Party has already agreed under the UNFCCC.[8] Each Party should put forward, in a highly transparent manner, its own proposed contribution in terms of what it will strengthen, for example, policies, measures, targets, or a combination of them, and how this will be done. Support should be provided to developing countries to assist them in achieving their commitments and in increasing their level of ambition. The proposed contributions would then be assessed individually and in the aggregate, to identify the gap between collective ambition and the below-2°C goal. The science-based assessment phase is a crucial step for the process because it will focus the debate on how each Party can further strengthen its proposal before it is anchored into the Agreement as a nationally determined commitment.

2. Adaptation Cycle. The Paris Agreement must signal to the world that adaptation is a fundamental and central part of the climate change regime. It can do so by creating a robust and meaningful adaptation cycle, an opportunity moment on adaptation every five years at the beginning of the adaptation cycle, which builds on already existing UNFCCC processes and elements. Such a cycle, guided by the long-term resiliency goal, would also increase the political and operational attention necessary for this crucial issue in the Agreement. Clearly, the substance and approach of an adaptation cycle will be fundamentally different from that of the mitigation cycle, although synergistic approaches between mitigation and adaptation are possible. The links between current emissions trajectories and efforts to adapt to the impacts of subsequent temperature rises are crucial.

   The Agreement should include a provision that all Parties have in place a process to elaborate a National Adaptation Plan, as soon as possible but no later

than by 31 December 2018, taking into consideration the climate change scenarios of 2°C, 3°C, and 4°C temperature increases. The higher temperature scenarios are included in order to outline the risks of overshooting the 2°C goal. Capacity should be built so that every country, step-by-step, can undertake the modeling required to include these temperature scenarios. Such plans should be updated regularly (for example, every four to eight years).

Every five years, all countries should commit to strengthen their adaptation efforts and submit relevant information in a standardized format that includes, for example, information on projected impacts from climate change, adaptation planning, programs and projects and international cooperation. These would draw from the National Adaptation Plans and other national processes underway. Developing countries should include information on gaps in support needed. This can be part of their national investment/financial strategies that can inform the Green Climate Fund and other financial institutions' funding decisions. These commitments should aim to achieve the long-term global resiliency goal. An aggregate assessment of the collective mitigation ambition and the two- degrees goal would serve as one of the input to the review of the adaptation activities.

3. Support Cycle. Although a low-carbon and climate-resilient economy is beneficial, many poorer countries will need support to make the shift. These countries not only have less capacity, in many cases they also have done little to cause the problem. The Agreement should include a package of support involving finance, technology and capacity building that is continually strengthened and reviewed every five years, until the long-term goals are met. Such a package should include a replenishment of the Green Climate Fund and other funding mechanisms at a minimum of every four years, in support of the mitigation and adaptation cycles, as well as transparency and accountability requirements. The support cycle is a vital lever to trigger ambition across the board.

   The scale of climate change means that international public climate finance, while fundamental to build trust, will not alone be sufficient to keep decarbonization trajectories below a 2°C increase. The core of the finance package therefore should include: a combination of continued targeted public climate finance, with greater transparency around the delivery of that finance; the development of national investment/financial plans from developing countries; and alignment of international financial institutions to a lower carbon and more climate-resilient pathway by the promotion of a climate change stress test of major financial institutions. Such a package would assist in shifting trillions of dollars of investments from current brown investments to green. The Agreement has an important role to play in that shift.

   Building capacity in countries around the world on all of the issues covered in the Paris Agreement is a fundamental condition for success. The past practice where capacity building was treated as an afterthought must be radically changed if the world is to succeed in addressing climate change. Therefore, the Paris Agreement should include a Capacity Building Facility, dedicated exclusively to meeting the requirements of the Convention and serving as a focal point for implementation actions.

   Innovation, technology cooperation and transfer are central to any strategy to address climate change. The Agreement should provide a means to link the existing technology mechanism to other parts of the Paris Agreement in order to leverage the links between technology cooperation, capacity building and finance.

III. Foundation of Transparency and Accountability

The Agreement should include robust transparency and accountability provisions so that governments, companies, and the public have a clear understanding of what countries are doing to shift their economies, build resilience, and, in the case of developed countries, provide support to poorer countries. Information and data can support and facilitate stronger collective action towards a low-carbon, climate-resilient economy.

The two goals and three cycles should be built on a solid foundation of transparency and accountability rules and mechanisms that will build the trust and confidence of all actors. Much of this foundation already exists but it should be strengthened in the Paris Agreement to support the five-year mitigation, adaptation, and support cycles. Particular attention should be paid to the assessment of the quality of information and scale of actions made by individual countries to fulfill their commitments. It is vital that non-state actors such as NGOs and think tanks are formally included in the assessment process.

Beyond reporting, measuring and verifying, it is vital for the credibility of the Agreement that countries are held accountable regarding their commitments. Therefore, a specific mechanism for facilitating and promoting implementation, operated by an Implementation Committee, should be included in the Agreement. Key elements of the design of such a mechanism should be decided in Paris, with further details to be completed soon thereafter.

Equity

The issue of equity is inherent in every aspect of the Agreement and thinking through how to make this Agreement, and its outcomes, broadly fair, equitable and just is key to success in Paris and to implementation in the future. Equity is a cross-cutting principle across all three core components.[9]

A multi-dimensional approach to equity, based on the principle of common but differentiated responsibilities and respective capabilities, is important to the development of the new agreement in several ways:

- consideration of the multiple elements in the UNFCCC regime that are relevant to equity, including not only mitigation policies, but also finance, adaptation, loss and damage, capacity building, technology, and transparency and accountability;
- consideration of how much and what type of action a Party should take from a number of perspectives, including not only emissions responsibility (including historical responsibility), but also economic and development capabilities, vulnerability to climate impacts, relative costs of action, and benefits of action. These should be applied in a consistent manner by all countries; and
- consideration of the timetable governing when countries would take on certain commitments, for example, MRV provisions, finance, long-term goals.

It should also be taken into account that climate actions are not just a burden-sharing exercise, but also can provide benefits and opportunities and involve transformational innovation.

Encouraging Action by All

It is important that the Agreement, and its package of decisions, should catalyze greater ambition on the part of all. First of all, no Party or group of Parties that is willing to capture development and economic opportunities that go beyond what they have agreed should be inhibited from doing so. The Agreement should therefore encourage countries that express an interest in going further, faster. These countries could explore ways to support various forms of cooperation, for example, the financial and legal aspects of developing carbon trading systems and greater technology cooperation.

Additionally, the Agreement should acknowledge the importance of both sub-national and non-state actor initiatives. Cities, businesses, and civil society are all working to raise collective ambition and their growing importance should be encouraged and recognized.

Legal Form

The legal form of the Agreement raises many issues that should be recognized and captured in the '"Paris package." The legal form of the Agreement itself is one key issue to be decided, guided by the language in the Durban decision, which states that Parties are working to adopt a "protocol, another legal instrument or an agreed outcome with legal force" by the end of 2015.[10]

Additionally, and equally importantly, however, are the aspects of (1) the specific object of regulation (for example, quantified objectives/results or international/national action/conduct); (2) the legal intent of such regulation (precision and bindingness of language, for example, the use of the words shall versus should); and (3) the placement of different elements in a core agreement and/or decisions (or elsewhere).

BACKGROUND AND METHODOLOGY

In 2013, a group of experts from ten universities and institutes[11] around the world came together to consider how they could support the deliberations and negotiations of countries as they prepare for the 2015 Paris Agreement. Recognizing the importance of the moment and the opportunities and benefits that collective action can provide for all countries, they formed the ACT 2015 consortium. The consortium focuses on two main objectives:

- The engagement of a diverse set of people (including members of governments, NGOs, business, labor, faith groups) from around the world in a conversation about what the 2015 Agreement should look like.[12] What functions should it perform? How can it leverage the benefits of early action? How can it be equitable, fair and just?

- Analysis and research to develop ideas about the content of the Agreement, for consideration by the Parties. What do the different pathways to 2°C look like? What are possible timeframes for a phase-out of GHG emissions globally or by region? What elements could be included in the Agreement and how could they potentially fit together to support Parties in the transition to a low-carbon, climate-resilient world?

In working toward these two objectives, the consortium has benefitted from twelve convenings around the world in Africa, Europe, North and South America, and Asia.[13] It will continue such convenings through the end of 2014. These convenings provided a confidential open space for a range of governmental and stakeholder representatives to think aloud and voice their views about the functions of the Agreement and what they thought the Agreement itself should include. In order to foster discussion, the consortium provided participants with three propositions for the Agreement[14] to react to, engage with, and use as a basis to create their own proposals for the Agreement. The convenings sought to engage individuals who were not deeply involved in the climate negotiations directly. It was important to pull the conversation back, therefore, and place it in a broader context, one that could be understood by business people, local government officials and civil society representatives who are not familiar with the UNFCCC language. These convenings were of the utmost value to the consortium, which listened carefully in order to capture the ideas and the questions of participants.

In parallel with the convenings, members of the consortium began deeper research on the key questions of the Agreement. Through specific research papers[15] and the review process associated with those papers, the consortium was able to explore questions and ideas in more depth and receive detailed review comments from experts. It is our hope that the research papers will support Parties and stakeholders as they think through the key choices for Paris, and provide some inspiration during the process.

Additionally, an analytical body of work was undertaken to model the pathways to avoid a two degrees rise in temperature above preindustrial levels according to the three propositions that were tested during the convenings. It was clear in all propositions that a business-as-usual pathway has substantially higher costs in terms of adaptation and loss and damage. Work was also undertaken to understand potential financing needs of different groups of countries and ways to meet those needs.

Members of the consortium came together in August 2014 to discuss what they had heard, learned and discovered and how the various pieces of the puzzle could potentially fit together in one Agreement. In October 2014, a draft of this paper was shared at the Ad hoc Working Group on the Durban Platform for Enhanced Action (ADP) meeting with governments and stakeholders, generating a set of comments and questions that have informed this final publication. "Elements and Ideas for the 2015 Paris Agreement" is the result of the convenings, research, and comments received. It is worth noting that the consortium heard many convergences of opinion across both Parties and stakeholders regarding many of the elements of the Agreement. This document attempts to capture those convergences as an input to the official process.

After Lima, and based on further inputs, the consortium will produce a more formal legal proposal and a memorandum that explains why certain choices were made. The issue of legal form is therefore not covered in this document. However, the convenings and comments have made it clear that the issue of legal form has many facets that should be recognized and captured in the "Paris package." The legal form of the Agreement itself is certainly one key issue to be decided, guided by the language in the Durban decision that states that Parties are working to adopt a "protocol, another legal instrument or an agreed outcome with legal force" by the end of 2015.[16]

Additionally, and equally importantly, however, are the aspects of (1) the specific object of regulation (for example, quantified objectives/results or international/national action/conduct); (2) the legal intent of such regulation (precision and bindingness of language, for example, the use of the word "shall" versus "should"); and (3) the placement of different elements in a core agreement and/or decisions (or elsewhere). It is fair to say that numerous conversations are underway around the world on this topic, which we hope to inform further through our legal proposal after Lima.

There are a number of limitations to the methodology that was used. First, it was not possible to hold convenings in all countries and therefore not all perspectives are necessarily captured in the document. Second, each convening included only a small number of individuals (relative to the entire population), therefore not all perspectives in each country were captured. Finally, the research and analysis could not cover all issues and the analysis could not probe as deeply into each country as some might desire. Separate analytical exercises will be important to assist countries in understanding the implications of the Agreement for their national circumstances.

We are grateful to all those who have taken the time over the last year to engage in the ACT 2015 process, whether as convening participants or reviewers, and we look forward to further inputs to improve and refine these ideas.

FUNCTIONS OF THE 2015 AGREEMENT

The convenings each began with the question, "What functions should this Agreement fulfill?" This question was developed because the climate regime has become substantively more complex over time and because there is now a wider set of actors - cities, states, business, civil society, as well as other UN agencies and governments - engaged in a range of activities and initiatives. This greater complexity forces the climate community to focus on what, exactly, this Agreement should do. What functions should it perform that are essential for the transition to a low-carbon, climate-resilient world? In each section of the paper below, various functions, and proposals on how they might be operationalized, are identified.

There was consensus from the convenings that one of the key functions of the Agreement is to send **a clear signal to governments, businesses, investors, and the public that the low-carbon, climate-resilient economy is not only essential, but also inevitable** if we are to have a liveable world. To be optimal, this signal should have long- and short-term elements and would be one of the main levers to **accelerate the investment shift** to low-carbon and climate-resilient economies and **provide support** to those countries in need. Such a signal would provide greater predictability about how the global economy will evolve in the future. Such a signal would also draw on another function identified by the convenings: **a link to the science with a sense of urgency**. The Agreement should be science-based and include mechanisms and means to respond to the science as it evolves.

There was also strong resonance around the idea that the Agreement should be relevant and connected to the **"real economy" and "real people"** and **enhance sustainable development**. This connection reflects the fact that, in most countries, the priorities are local and national and the political economy of those countries is a much more dominant factor than an international Agreement. The Agreement, therefore, has to be relevant and link into the "real economy" of countries and not just present a set of targets or indicators that sit outside the national debate about future prosperity and sustainability of the country.

The convenings also indicated a growing need for investors and government planners to know what climate actions other countries are taking or planning. Companies need to understand potential future investment opportunities, and countries want to understand the competitiveness of their industries (either because they are high-carbon players or because of worries about carbon leakage or because of a desire to keep up with the clean energy race). The function to address this uncertainty and clarify pathways to prosperous low-carbon growth is to build confidence and trust and provide **transparency and accountability** for country commitments.

Across the board, many people noted the fact that the Agreement should demonstrate **fairness, equity and justice** in climate actions. There are many levels and elements to this function and the point was often made that equity is not simply a consideration in how the mitigation commitments are set, but rather is a principle that cuts across the Agreement as a whole, from mitigation to finance to transparency to adaptation.

Ensuring that **vulnerable communitie**s have the capacity to **build resilience, manage, and adapt to the impacts of climate change** was noted as a key function at all convenings, but particularly at those involving highly vulnerable countries. The fact that the impacts of climate change are already affecting peoples' lives around the world has not gone unnoticed and people were keen to develop ideas on how such capacity can be built and maintained.

Finally, many people made the point that the Agreement should also **incentivize action**, not only with respect to mitigation and adaptation, but also in the areas of technology development, innovation, and knowledge transfer. Therefore, the Agreement must promote cooperation and collaboration that can augment and facilitate all countries' efforts and actions towards a low-carbon and climate-resilient future.

Indeed, the entire philosophy of the Agreement is to be facilitative, that is, it should help countries to do more, allowing, supporting, or rewarding faster action by those that wish to take it. The Agreement should not prevent countries from taking action because they fear being pushed into new and stringent commitments. Rather, the Agreement should reinforce and support domestic priorities, holding countries accountable to their commitments, through facilitative means.

These eight functions serve as a foundation for the elements and ideas in this paper.

The sections that follow outline the two long-term goals, the three continuous improvement cycles, and the foundation of transparency and accountability, noted in the Executive Summary. All sections address mitigation, adaptation, land use, finance, capacity building, technology transfer and cooperation, MRV (measurement, reporting and verification), a mechanism for facilitating and promoting implementation and market mechanisms. They reflect a common and collective viewpoint of the consortium and are guided by the research undertaken and deliberations at the convenings. The substantive matters that should be included in the Agreement are captured in a box at the end of each section, so the reader can see the essential elements of the Agreement in one place. The use of the words "shall" or "should" and similar terms is deliberate. The terminology used throughout this paper for intended nationally determined contributions for the next set of contributions is as follows: "proposed contributions" refers to proposals that the Parties put forward; the word "commitment" is used once the proposed contribution has been finalized and anchored in the Agreement. Throughout this paper, we refer to the "anchoring" of certain elements in the Agreement without prejudice as to whether or not these elements would formally be part of the Core Agreement (or be linked to it in some form).

TWO LONG-TERM GOALS

To provide clarity and predictability regarding an emissions reduction pathway, and the need for adaptation measures, Parties should further specify the global long-term mitigation goal of the Agreement. This would be an operationalization of the ultimate objective of the Convention.[17] The establishment of such a collective global goal would provide guidance and direction to the commitments cycle process described below. Without a more specific mitigation goal, the ultimate end-point that Parties are aiming to reach would not be clear. Setting a goal, on the other hand, can further clarify the long-term objective of an iterative approach to raising ambition. The clear signal sent by such a goal thus fulfills one of the main functions of the Agreement identified in ACT 2015 convenings, as well as the function of shifting investments.

Given the urgency of the problem, which has been clearly outlined in the latest IPCC reports, and the fact that global emissions have to peak before 2020 for any realistic possibility of meeting the 2°C target at least cost,[18] the Core Agreement should operationalize its ultimate objective to include a global long-term mitigation goal as follows:

The long-term mitigation goal of the Agreement is to ensure that global temperature increase stays below an average of 2°C in comparison to preindustrial levels by implementing a phase-out of all GHG emissions to net zero as early as possible in the second half of this century.

Annex I, included at the end of this paper, outlines the scientific background for the phase-out goal, noting the references in the IPCC and other scientific studies.[19]

Each Party should assimilate this long-term goal as part of its national commitment. Industrialized countries should phase out GHGs first, with staggered phase-outs for developing countries. This long-term goal is consistent with IPCC findings that global GHG emissions need to be reduced by 40-70 percent, in comparison with 2010 levels, by 2050 to have a likely chance (>66 percent) of keeping warming below 2°C.[20] Developed countries should provide support through capacity building, technology transfer, and cooperation and finance to developing countries in order to achieve national phase-outs.

All countries should put forward long-term deep decarbonization plans that capture their approach to achieving the long-term goals.

Additionally, it is important that the Agreement should send the signal that adaptation is as weighty a matter as mitigation and must be considered with equal seriousness. To achieve this, Parties, to operationalize the ultimate objective of the Convention, should commit to a global goal to ensure the resilience of vulnerable communities in the context of adaptation and mitigation and ensure that finance and support are scaled up to meet that goal. Each Party commits to working toward strengthening their national efforts and advancing international cooperation on adaptation over time, in the framework of the Agreement, so as to realize the adaptation goal. This goal and its implications are outlined further below in the Adaptation section.

If the two goals are combined, a potential unified goal for the Agreement emerges that operationalizes the ultimate objective of the Convention.

Box 1 | **Summary of proposed critical issues for an Agreement**

The long-term goals of the Agreement are to:

- ensure that global temperature increase stays below an average of 2°C in comparison to preindustrial levels, by implementing a phase-out of all GHG emissions to net zero as early as possible in the second half of this century; and
- reduce the vulnerability, and build the resilience, of communities to climate change impacts, through collective actions applicable to all countries, based on their common but differentiated responsibilities and respective capabilities.

EQUITY

The issue of equity is inherent in every aspect of the Agreement, and thinking through how to ensure that this Agreement is broadly fair, equitable and just, and also delivers a below-two-degree outcome, is key to success in Paris and to implementation in the future. Equity must be addressed not only across mitigation policies, but also in policies concerning finance, adaptation, loss and damage, capacity building, technology, and transparency and accountability. In the area of mitigation, countries have varying capabilities and responsibilities that can be taken into account in determining contributions. These national differences of responsibility and capabilities are relevant to other areas of the Agreement as well, including action to address climate impacts, and improve adaptation. It also must be stressed that an agreement that is fair in effort and builds resilience capacity across parties, but that does not deliver the below-2°C outcome, will not be fair to those who are most vulnerable.

The national contributions process in the negotiations, in particular, provides an important opportunity for each Party to consider the "equitability" of its contribution. Parties can include a justification for the equitability of their contributions as part of the information provided with them. However, the equity assessment should not prevent Parties that are willing to lead by doing more to do so, as early as possible. While incorporating equity considerations in the 2015 contributions in this way is helpful, it might not be adequate to address fully the equity concerns of countries with little responsibility for the problem or countries that are more concerned with development priorities in the future.

In future cycles, it will be important to develop a more systematic approach to equity than now appears possible in the Agreement. The ACT 2015 research paper on equity[21] suggests developing a broader, more holistic approach to assessing relative equity among countries in their proposed contributions. The paper suggests a multi-dimensional approach that accounts for the many criteria that are involved in determining equity, including not only emissions responsibility (including historical responsibility), but also economic and development capabilities, vulnerability to climate impacts, relative costs of action, and benefits of action. While not providing specific recommendations on measures or targets for countries, the application of these equity criteria aims to create the context for constructive dialogue and decision-making on equity. Using these criteria will suggest that countries be considered in terms of their position on a spectrum, rather than in the context of a binary division between developed and developing countries, though differences between developed and developing countries will still be evident when the indicators are applied. The constructive use of these criteria to create a dialogue will depend on countries transparently describing their use of equity considerations, and, over time, on Parties

reaching agreement over the principle considerations that should consistently be used in assessing equity at the international level.

The Agreement should therefore mandate a UNFCCC-mandated body to create an equity framework by 2017,[22] which can then guide future commitment cycles. This framework should consider not only emissions responsibility (including historical responsibility), economic and development capabilities, but also vulnerability to climate impacts, relative costs of action and benefits of action.

The framework would provide a common reference for all Parties in the preparation of future proposed contributions. Equity will also be enhanced if the future mitigation commitments of developed countries are more ambitious than they are at present, and more consistent with staying below the 2°C threshold.

Additionally, the Agreement has to take into account the different capabilities of countries to implement various parts of the Agreement, whether implementation of a long-term goal, the MRV provisions, or treatment in the Implementation Response Mechanism (see below). The Agreement should also include a pillar of support for developing countries that would provide them with considerable capacity building, as well as financial support, technology transfer, and cooperation.

Moreover, the equity debate and the 2015 agreement can be shifted to include sharing of transformational opportunities. Past approaches have tended to see climate action as a zero-sum endeavor, driven by a formula. However, even in the fairly short run, many countries would gain substantially from benefits involved in taking climate action. Funding, information, and capacity building would facilitate progress by addressing the hurdles to cooperation and catalyzing market forces. An important component of this shift to benefits is to press for innovation and improved technologies and practices that enhance equity. Wider availability of low-carbon technology at lower cost could help reconcile climate action with the need for developing countries to pursue strong economic growth. Production of low-carbon technology might provide financial, employment, health, and other benefits that outweigh the costs of climate action.

Box 2 | **Summary of proposed critical issues for an Agreement**

The Agreement should mandate that a UNFCCC-mandated body create an equity framework by 2017, which can then guide future commitment cycles. This framework should consider not only emissions responsibility (including historical responsibility), economic and development capabilities, but also vulnerability to climate impacts, relative costs of action and benefits of action.

CONTINUOUS CYCLE OF IMPROVEMENT: MITIGATION

Background

The Climate Change Convention and its Kyoto Protocol have prompted a wide range of "climate actions;" steps taken by governments and the private sector to increase the share of sustainable and efficient energy, reduce deforestation and increase restoration of degraded lands, and increase the efficiency and productivity of cities and economies as a whole. These actions emerge from the mitigation commitments made in the form of binding targets or pledges over fixed time periods.[23] These actions are taken for other reasons too, because they can bring a range of benefits to citizens and countries alike, including reduced air pollution, increased energy security and more efficient transportation systems. Such actions and related benefits connect the Agreement to the "real economy" and "real people," another one of the key functions that emerged from the convenings.

These contributions, therefore, represent not only a burden, but also an opportunity. The New Climate Economy report[24] recently found that benefits from reduced air pollution to increased energy security go hand-in-hand with climate action.

While many activities are underway, it is also clear that actions taken to date will not prove adequate to keeping the world below the 2°C threshold agreed upon at the Cancun meeting in 2010.[25] The question for the Agreement, therefore, is how to encourage and capture such actions in the future in a way that supports a spiraling up

of ambition, provides the local and national benefits that countries are seeking, and recognizes the different capabilities and responsibilities of Parties.

There are a number of key choices that Parties need to make in the Paris Agreement, including what types of "mitigation commitments" countries could take on in the post-2020 timeframe; how to support countries willing to do more; how equity should be reflected in this part of the Agreement; and how binding these commitments should be. In addition, there are good reasons for Parties to consider establishing a process for the regular strengthening of commitments over time (commitments cycle).

Proposed Elements and Ideas for Consideration

Mitigation Commitments

All countries shall adopt transparent mitigation commitments that include targets and/or policies and measures, or a combination thereof, to reduce GHG emissions (or their rate of growth), consistent with their common but differentiated responsibilities and respective capabilities as well as national circumstances.[26] There shall be no weakening of existing commitments in the scale, form or type of the post-2020 commitments of any Party.

All countries will continue to put forward their proposed national contributions. The targets and measures proposed should be those that are most likely to succeed in decarbonizing their economies and that are consistent with national capabilities. Support should be provided to developing countries to assist them in achieving their commitments and in increasing their level of ambition.

In order to ensure that progress continues on commitments made by countries at the 2010 Cancun conference, there should be no backsliding on the scale, form, or type of actions to which countries have already committed. For example, those countries that established national, economy-wide targets or pledges in the past should continue on this pathway. In addition, countries should be encouraged to put forward policies and measures such as sectoral, multi-sectoral, or program-based approaches including, for example, renewable energy targets, efficiency standards for appliances or buildings, phase-out of fossil fuel subsidies, or sectoral targets and programs for energy intensive sectors. Other countries should agree to quantifiable commitments consistent with their capabilities and national circumstances in order to achieve the benefits noted above. Examples of such commitments are provided in Annex II.

Economy-wide emissions limitation and reduction targets could determine a floor for ambition, while other policies or measures adapted to national circumstances could support them, with a goal of possibly overachieving the economy-wide targets (for those Parties that adopt such targets). This approach would also be more reliable than committing to only one type of emission limitation or reduction; if one approach fails to reduce emissions significantly, other commitments could compensate for the deficit. In addition, at the international level, it is also worthwhile to explore sectoral or regional mitigation measures and targets that have significant abatement potential across countries. These would link into the real economy and address sectors that are internationally competitive.

In order to encourage collective action, and enable Parties to understand what other Parties are committing to, and implementing, all commitments shall have the same end date, and review date, of 2025. This simplicity will be necessary to facilitate the understanding of a range of stakeholders in the Agreement – whether companies looking to make investments or the public trying to understand what their countries have signed up for. The signal will be clear. Parties could, in addition, include a target for 2030 but in this case they would be obliged to revisit and finalize it in the next round of proposed contributions, in order to prevent a potentially low level of ambition from being locked in to 2030. Some policy measures may need to include longer timeframes; for example, increasing the share of renewables in the national energy mix will require a long-term action plan. It is therefore essential that the Agreement communicate to all stakeholders, and the global community, a direction-of-travel for the whole regime, including clear long-term signals. Information on the long-term pathway of the country would assist in combining the short-term commitments, for example, actions to be achieved by 2025, with the long-term goal, thus providing confidence that the country has a credible pathway for achieving the long-term goal.

As noted above, this paper focuses on the post-2020 Agreement. The elements in the Agreement could and probably should go beyond what was possible to agree upon in the timeframe leading up to the Paris meeting.

However, it is clear that decisions before COP21, regarding issues such as the upfront information provided in national contributions, will provide a basis on which to operate in the future.[27] Parties should think of both what has to be done before Paris, and what should be included in the Agreement for the next set of processes and cycles. The time constraint on developing the pre-Paris INDC process should not be a barrier to creating something more robust for the future.

Cycle of Mitigation Commitments

Proposed Features of the Cycle

The process should not halt with the year 2025, but rather it should be the first of many "commitment cycles" to come. One of the lessons from past experience under the UNFCCC has been that the lack of a clear forward-looking decision-making process on mitigation created uncertainty amongst governments, business and the public. The 2015 Agreement offers an opportunity to improve upon this situation and create more long-term predictability and confidence regarding the way the international Agreement will work far into the future. In order to achieve this, a simple and clear set of new rules and norms should be included in the Agreement.

The "mitigation cycle" below is linked to both the "adaptation cycle" and "support cycle" described later in the paper. The level of mitigation achieved will influence the level of adaptation necessary, and the support cycle will inform the level of mitigation action that will be possible in many developing countries. LDCs and SIDS in need should be given flexibility in the timing and scope of their proposed contributions.

The Agreement should:

- Create a clear and predictable assessment and revision cycle to raise the ambition of national commitments every five years and to do so until the long-term goal is met. This cycle should include a series of clear steps that is followed to ensure that Parties have adequate and dependable information and analysis to strengthen ambition.

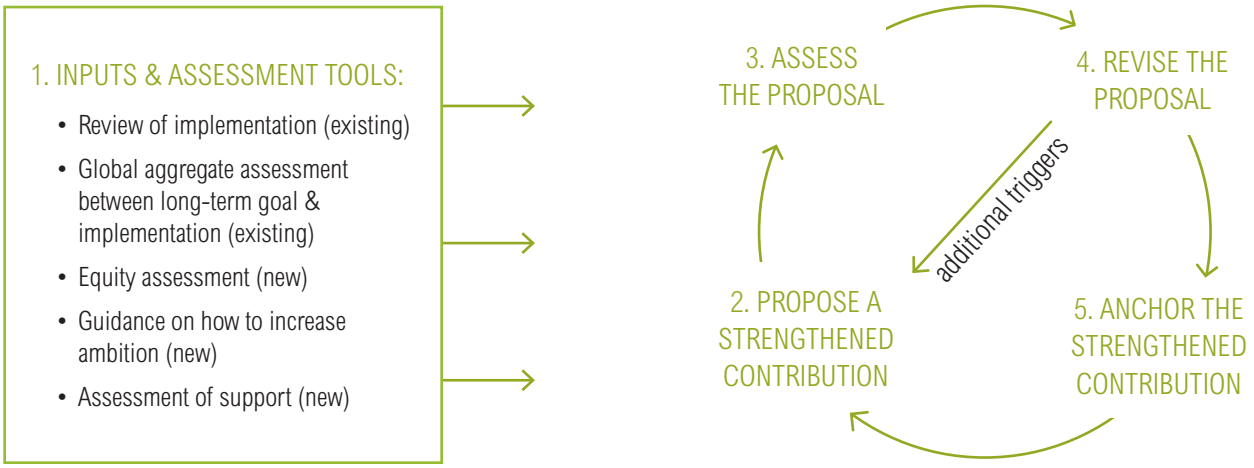
- Determine upfront that every cycle will result in greater ambition for each Party aiming towards a long-term goal.[28] Each Party will put forward its strengthened proposed national contribution.

- Encourage Parties to revise commitments upwards at any point in time.

- Establish that the international science-based assessment and revision cycle shall consist of two inputs: an assessment of the proposed national contribution and an assessment of the aggregate international gap. Assessments provided ex ante at national and international level are important inputs to the deliberations of countries which can then take them into account before putting forward their proposed contributions. The two assessments combined will provide information not only on the gap but also on the potential pathway forward:
  - Assessment of the proposed national contribution.[29] This assessment could provide recommendations on how to overcome barriers and how the efforts could potentially be enhanced or scaled up. It would draw from existing MRV reports but would be able to go into more depth about the future. In the case of developing countries, the assessment could include analysis on the type and amount of support that would be necessary to enable greater ambition. It could also support Parties in identifying areas of collaboration.
  - Assessment of the aggregate international gap between the combined effect of what countries put forward and the goal of preventing an increase in global temperatures of 2°C over pre-industrial levels. The aggregate gap information will also be useful to assess adaptation needs. This assessment is relevant at the beginning of each cycle to inform proposed contributions and also after the proposed contributions have been tabled to assess how much the new proposed contributions have closed the gap.

- As noted above, establish an equity framework, considering both efforts and opportunities[30] shall be developed to facilitate consideration of equity starting in the next cycle. This paper assumes that equity will continue to be a central factor after 2015 in any cycle of contributions. Various indicators, for example, emissions responsibility, development indicators, vulnerability to climate impacts, relative costs of action and benefits of action,[31] could be incorporated into such a framework. An equity framework could be used both to inform Parties in the development of their proposals and to assess those proposals once they have been tabled.

Figure 2 | **Steps in a continuous cycle of commitments**



Learning from the production of the UNEP gap report, other Agreements (for example, the Montreal Protocol) and national institutional frameworks (for example, the UK Climate Committee), the Agreement might choose to create an independent technical panel made up of experts from around the world to undertake these assessments.

Assessment and revision process for national contributions

As noted above, once a Party's proposed contribution has been tabled,[32] an assessment process should begin. The elements in Figure 2 could be inputs both before and after the assessment of proposed contributions. Additional elements of the assessment process could include:

- an agreed common set of metrics and information that could be applied to the proposed contributions to facilitate the assessments, while acknowledging the diverse range of actions and different capabilities among countries;[33]
- a domestic consultation process in the lead-up to submitting a proposed national contribution, to build a national consensus and legitimize the contribution;
- presentation of proposed contributions internationally in an agreed consistent format, allowing a systematic comparison across countries;
- a request to the Secretariat to prepare a synthesis of the information provided by Parties; and
- a request to the Secretariat to set up an electronic bulletin board that allows Parties and stakeholders to post comments and allows a Party to respond and discuss. Non-state inputs are recognized in a number of multilateral environmental Agreements, such as CITES.[34]

Since the International community is already struggling to implement the existing cycle of ex post review, Parties may wish to consider the following means for rationalizing these assessments:

- A staggered approach: this means that the 192 countries might not be assessed at the same time or at the same frequency.[35] As with other multilateral processes (for example, the World Trade Organization), major economies could be assessed more frequently. At the same time, the possibility of regional or "group of countries" assessments could be explored
- Set up permanent teams for undertaking the various assessments (to overcome the current scarcity and availability of experts)

Parties could develop the modalities after the Paris meeting, drawing on the lessons from existing verification processes, the International Assessment and Review (IAR) for developed countries / the International Consultation and Analysis (ICA) for developing countries, as well as others.

The assessment and revision process shall encourage input by non-Party actors such as competent expert institutions, companies, cities, and others.

If a Party does not submit a proposed contribution it should be referred to the Mechanism for Facilitating and Promoting Implementation (see below) so it can clarify how and when the contribution will be proposed. Party privileges could be removed if a proposed contribution is not submitted within a certain time frame.

For countries with limited capabilities, a parallel cycle of "support" for commitments is also needed. The finance, technology and capacity segments of the Agreement (covered below) therefore also need to be on a five-year cycle, whereby the support needs of countries are assessed along with delivery of support by developed countries and those other countries in a position to do so. The mitigation cycle could also consider providing additional support to those pioneers willing to move earlier.

For a more detailed description of the timeline see Annex III.

Box 3 | Summary of proposed critical issues for an Agreement

To operationalize the ultimate objective of the UNFCCC, the long-term mitigation goal of the Agreement should be to ensure that global temperature does not increase by more than 2°C above preindustrial levels. This goal should be achieved by phasing out all GHG emissions to net zero as early as possible in the second half of this century, through the collective actions of all countries based on their common but differentiated responsibilities and respective capabilities.

All countries shall adopt transparent mitigation commitments that include targets and/or policies and measures, or a combination thereof, to reduce GHG emissions (or their rate of growth), consistent with their common but differentiated responsibilities and respective capabilities, as well as national circumstances.[36] There shall be no weakening of existing commitments in the scale, form or type of post-2020 commitment of any Party.

LDCs and SIDS in need are to be given flexibility regarding stringency and type of commitment. These countries, in particular, will require support to act and submit mitigation contributions over a slightly longer timeframe.

All commitments shall have the same end date of 2025. Additional commitments for 2030 might be possible, but shall be subject to revisiting in the next round of commitments.

If a Party does not submit a proposed contribution it should be referred to the Implementation Committee (see below) so it can clarify how and when the contribution will be proposed. Party's privileges could be removed if a contribution is not submitted within a certain timeframe.

There shall be a continuous assessment and revision cycle to raise the ambition of national contributions every five years until the long-term goal is met. LDCs and SIDS in need shall have flexibility in the timing and scope of this process.

Every cycle will result in greater ambition for each Party aiming towards the long-term goal. Parties are encouraged to revise their commitments upwards at any point in time.

The assessment and revision cycle shall consist of three inputs: an assessment of the proposed national contributions; an assessment of the aggregate international gap between the combined effect of what countries put forward and the goal of preventing an increase in global temperatures of 2°C over pre-industrial levels; and an equity framework to facilitate consideration of equity starting with the next cycle.

The assessment and revision process shall encourage input by non-Party actors such as competent expert institutions, companies, cities, and others.

Anchoring the strengthened contribution: It would be beneficial to develop a simplified procedure for agreeing new contributions and recognizing them as commitments under the Convention after they have gone through an assessment and revision process. If such contributions are updated regularly, the revised contributions could be collectively endorsed by the COP by consensus or, as a last resort, by a simple majority or three-fourths majority of the Parties and could become effective/enter force automatically thereafter.

Countries with limited capabilities will be supported as they undertake the development of a proposed national contribution. The finance, technology and capacity segments of the Agreement (covered below) shall be on a five-year cycle, whereby the support needs of countries are assessed along with delivery of support by developed countries.

CONTINUOUS CYCLE OF IMPROVEMENT: ADAPTATION

The "Adaptation Cycle" should be independent of, but linked to, the mitigation and support commitment cycles. It provides an opportunity, every five years, to review "adaptation efforts" of all countries, with a particular emphasis on assessing the gaps in support and implementation for developing countries. The adaptation cycle would be informed by, and complement, the global assessment of the mitigation gap (the comparison of mitigation commitments with projected emissions). This approach acknowledges that adaptation and mitigation are complementary and choices in the near term will both affect the risks of climate change throughout the 21st century.[37]

Background

Adaptation to climate change is a complex and multi-faceted issue. Addressing it throughout the world will ultimately require a diverse set of actions at local, national and international levels. At the same time, adaptation is linked to broader international issues such as food security, water management, migration and international security.

The challenge that has been before the Convention from its inception has been to determine what special role it should play vis-à-vis international goals in these areas and in relation to national and local efforts.

This paper explores elements and ideas concerning the question of how to address adaptation in the medium- and longer term in the 2015 Agreement in a way that builds the necessary processes, support and institutional clarity. The paper assumes that an integrated approach will need to address adaptation, mitigation, and loss and damage synergistically, at both the international and national levels. Such an approach will be essential to fulfill the functions identified in the convenings; to ensure that vulnerable communities have the capacity to build low-carbon resilience, manage, and adapt to the impacts of climate change; and to send a signal to investors regarding the need to address climate risk.

Much has already been done to address adaptation in the Nairobi Work Programme, the Cancun Adaptation Framework, and their follow-up. In addition, a large amount of action on the ground is already underway. Key objectives of the adaptation component of the Agreement should be to accelerate that action and to safeguard the progress that has been made.

Adaptation is not only on developing countries' agendas. All countries are impacted by climate change and therefore should be putting in place plans and activities to build domestic resilience.

The Agreement should recognize the close links, positive and negative, between adaptation and mitigation. The links are many, but some are particularly important. Firstly, it is quite clear that any laxity in mitigation will necessitate greater focus on adaptation. Secondly, in the long run, adaptation without the required prompt and early levels of mitigation will not be sustainable. Finally, on the positive side, it is clear that sustainable development and low-carbon pathways and actions can go hand-in-hand with many adaptation actions. Indeed sustainable development and adaptation actions can often be mutually reinforcing. Thus, properly sequenced and supported, mitigation and adaptation actions combined in a synergistic manner can deliver greater mitigation outcomes than a purely mitigation-centered approach. This can operate as a powerful incentive for action for many parties.

Proposed Elements and Ideas for Consideration

I. Adaptation Goal

As noted above, while setting an adaptation goal applicable to all countries would be quite complex, it is important that the Agreement send the signal that adaptation is as weighty a matter as mitigation and must be considered with equal seriousness. It should build on the objective of the Convention noted above. The primary adaptation goal of the 2015 agreement should be to:

- Reduce the vulnerability, and build the resilience, of communities to climate change impacts, through collective actions applicable to all countries, based on their common but differentiated responsibilities and respective capabilities by providing guidance and support for coping with the impacts of climate change.

To achieve this, Parties should commit to:

- Strengthen and advance international cooperation on adaptation over time to ensure the resilience of vulnerable communities in the context of adaptation and mitigation and ensure that finance and support are scaled up to meet that goal
- Fully integrate adaptation into all relevant international organizations, for example, the Food and Agriculture Organization, the World Health Organization, and the UN Refugee Agency, and encourage those organizations to focus on the tools and systems necessary to deliver on the adaptation goal
- Ensure that those international agencies report on their actions to achieve the UNFCCC adaptation goal

II. Cycle for Adaptation

The negotiations currently are focused on whether to include adaptation in the intended nationally determined contributions. This paper looks beyond the current moment; assumes that there will be a vehicle to provide ex ante information, in a common format, on adaptation "contributions" by the time of the Paris meeting; and further assumes that many Parties will wish to provide such contributions. However the paper recognizes that further work is needed for Parties to table such contributions and that the format and nomenclature for such contributions in the future would benefit from more detailed consideration of how to capitalize on existing platforms, such as National Adaptation Plans, NAPAs and National Communications.

The terms used here, therefore, are "proposed adaptation contribution" in connection with the time period until such a contribution is included formally in the Agreement in Paris, and "Adaptation Efforts" for the timeline afterwards. This is consistent with the approach used on mitigation outlined above although, due to the different nature of adaptation, "Adaptation Efforts" is utilized instead of "commitment."

By the time of the Paris meeting, or shortly thereafter, all Parties should have put forward a "proposed adaptation contribution" in a structured format.[38] As with mitigation goals, it could be based on either actions or outcomes, where an action is a commitment to implement specific means of achieving a determined goal, such as policies, plans or adaptation actions, and an outcome is a commitment to achieve a specific result, for example, the protection of a specific length of coastline.[39] Although some Parties will submit proposed contributions by 2015, there should be flexibility for others to do so later in 2016.

The final "Adaptation Efforts" will be informed by existing National Adaptation Plans (NAPs), National Communications (NCs), and National Adaptation Programmes of Action (NAPAs). If necessary, LDCs and SIDS in need would be allowed more time to strengthen their efforts.

In order to create a focused "opportunity moment," the Agreement should include provisions that every five years, all countries commit to strengthen their Adaptation Efforts, in an effort to achieve the long-term global resiliency goal. All countries should put forward their strengthened strategies in a standardized format that includes, for example, information on their projected impacts, adaptation planning, programs and projects, in particular for their vulnerable communities, as well as international cooperation efforts. That standard format should be developed by the Adaptation Committee and decided upon by 2017.

Financial issues are central to almost all negotiations on adaptation and loss and damage (see finance section below). The seventeenth COP has indicated that a significant share of new multilateral funding for adaptation should flow through the Green Climate Fund and that the fund should strive to maximize the impact of its funding for adaptation and mitigation, and seek a balance between the two.[40] Subsequently, the GCF board decided on a 50/50 balance as a target for its funding.[41] The adaptation funding should come, predominantly, from public funding.

Developing countries should therefore include information, in their proposed adaptation contributions, on gaps in implementation and the support needed to achieve the proposed contribution. Such information should also be included in the national investment/financial strategies that can inform the GCF and other financial institutions' funding decisions. (See Finance section below.)

As noted above, there are already a range of processes and plans underway that will provide inputs to the development of adaptation commitments. These should be coordinated to avoid duplication of effort.

Inputs to the Adaptation Cycle

National Adaptation Plans

The Parties to the UNFCCC established the NAP process in 2011 in Durban, emphasizing flexible planning elements[42]. It is a continuous, progressive and iterative process, which follows a country-driven approach. It can identify capacity gaps, and the need for planning and for integrating climate change adaptation into national development planning processes. It can contain activities, policies, and programs for adapting to climate change; identify a monitoring and evaluation system; include a communication strategy on climate change; and it could identify areas of collaboration across sectors and ministries. The process of preparing a NAP is, in itself, one of the main benefits of the plan.

The results of the NAP process can be reported in a National Communication, or used to support a finance plan to the GCF (and other Funds under the Convention). NAP results could also form an input to an Adaptation Efforts. The NAP is a domestically driven effort and, as such, need not undergo review by an international audience vs the Adaptation Efforts which would have an international assessment.

The Agreement should include a provision that all Parties elaborate NAPs by 1 January 2018 and update them every four to eight years. Requiring all countries to prepare NAPs will facilitate learning across countries and no country big or small will be left behind.

NAPs should be developed with primary reference to a 2°C temperature rise but they should also take into consideration climate change scenarios of 2°C, 3°C and 4°C temperature increases. The higher temperature scenarios are included in order to highlight the risks of overshooting the 2°C goal. Capacity should be built so that every country, step-by-step, can undertake the research to develop such temperature scenarios.

National Communications

National communications (NCs) are one of the most important means of exchanging information on how each Party is implementing the Convention, in terms of its emissions trends, mitigation and adaptation actions, support provided or received, research, education, and awareness-raising. NCs also highlight national circumstances, institutional arrangements, problems, gaps, and constraints faced by Parties. The national communication has been the main tool to monitor national progress with implementing the Convention. It also provides the COP with the information it requires to assess the overall aggregated effects of implementation of the Convention.[43]

Updates on NAPs and NAPAs would be included in national communications. The NCs could be assessed regularly to track progress on their implementation, and identify barriers and possible solutions.

LDCs and SIDS in need are to be provided flexibility regarding timing and comprehensiveness for the Adaptation Efforts and NAPs. These countries in particular will require support to act and submit proposed adaptation contributions over a slightly longer timeframe.

Assessment

The adaptation cycle would also include an assessment phase determined by the COP that would occur every five years. The assessment would be informed by the global assessment of the gap between the long-term mitigation goal and the level of mitigation action put forward by Parties.

For all countries, the assessment should focus on issues of greater than national significance. There are a number of local and national impacts that could, if not planned for, have major implications for other countries. For example, does a country have a strategy in place to avoid reductions in domestic crop production, which could result in global food shortages? Beyond the issues of global relevance, the assessment could also provide a best practice platform that could facilitate exchange of experiences with similar types of challenges.

For developing countries, the assessment would identify the gaps in both elaborating and implementing national adaptation strategies and activities and the necessary support for building resilience. The format of the Adaptation Efforts, as noted above, would include a specific section on countries' gaps in implementation and the support needed to achieve the commitment.

Guidelines for the assessment of Adaptation Efforts should be developed by the COP by 2017.

III. Institutions

A key role of the Agreement is to ensure that the various adaptation institutions created under the Nairobi Work Programme and the Cancun Framework (including the Adaptation Committee, Adaptation Fund, the Least Developed Country Fund, and sthe Special Climate Change Fund) have clear mandates, and that, together with the GEF and GCF, they are effectively coordinated and perform at maximum potential. The Adaptation Committee should be included in the Agreement and should be mandated to perform a number of tasks. Those tasks could include identifying options to create a more efficient institutional arrangement for consideration by the COP, carrying out the assessment process for the Adaptation Efforts, developing metrics and benchmarks, among others.

Box 4 | Summary of proposed critical issues for an Agreement

The Agreement should establish an adaptation goal to ensure the resilience of vulnerable communities and ensure that finance and support are scaled up to meet that goal. All Parties shall commit to work toward strengthening and advancing international cooperation on adaptation over time, in the framework of the Agreement, so as to realize the adaptation goal.

International organizations should report on their actions to achieve the UNFCCC adaptation goal.

Within the adaptation cycle, with a view to improving the decision-making process and adaptation efforts, Parties should be subject to the following requirements:

- Every five years, all Parties should commit to strengthen their adaptation efforts to build resilience. Such efforts should be informed by NAPs and National Communications
- These efforts should be communicated and assessed every five years
- All Parties shall provide an update of the elaboration of their NAP by 1 January 2018 taking into consideration climate change scenarios of 2°C, 3°C and 4°C temperature increases

A standard format for capturing the adaptation efforts should be developed by the Adaptation Committee and decided upon by 2017.

Guidelines for assessing these efforts should be developed by the COP by 2017.

The Adaptation Committee should be included in the Agreement and should be mandated to perform a number of tasks to provide the necessary guidance and metrics to monitor, evaluate adaptation efforts.

LDCs and SIDS in need are to be given flexibility regarding timing and comprehensiveness for strengthening their adaptation efforts and have in place NAPs. These countries in particular will require support to act and submit proposed adaptation contributions over a slightly longer timeframe.

The GCF board has decided on a 50/50 balance between mitigation and adaptation as a target for its funding, with public funding being the primary source for adaptation. Whether or not this balance is being achieved would be reported in the Support Cycle process. An assessment of the gap between adaptation needs and the resources mobilized to address these needs will also be performed as part of the overall assessment of adaptation efforts.

LOSS AND DAMAGE (L&D)

Background

Loss and Damage (L&D) is an important issue for many Parties, and it has been raised repeatedly over the years. COP16 (2010) established a work program on L&D under the Subsidiary Body on Implementation (SBI) of the UNFCCC, the elements of which were discussed in COP17 (2011) and COP18 (2012). In 2013, at COP19, the Warsaw International Mechanism for Loss and Damage (WIM) was established under the Cancun Adaptation Framework (Decision 2/CP.19, para. 1).

In March 2014, the Intergovernmental Panel on Climate Change Assessment Report, Working Group II (IPCC AR5 WGII) clearly acknowledged the limits of adaptation when it asserted with high confidence that, "greater rates and magnitude of climate change increase the likelihood of exceeding adaptation limits"[44] and further noted that, "residual loss and damage will occur from climate change despite adaptation and mitigation action."[45] Knowledge of such limits to adaptation is therefore important not only to "inform the level and timing of mitigation needed" to avoid dangerous climate change, but also to inform governments how best they can cope with such residual impacts, especially since insufficient responses to emerging impacts are already eroding the basis for sustainable development.[46]

IPCC AR5 WGII describes the limits to adaptation as constraints that "occur when adaptive actions to avoid intolerable risks for an actor's objectives or for the needs of a system are not possible or are not currently available."

Like many elements of climate change, loss and damage exists on a spectrum where impacts may be felt immediately and/or over time, as single events or multiple impacts, and with temporary or permanent implications. Considering the relationship between the impacts of climate change and the measures sought to avoid them could help to address these issues more effectively and help the international community to sharpen its focus on this emerging issue.

How L&D will be addressed in the 2015 Agreement will depend mainly on the future L&D mechanism's functions and the nature of the institutional relationship between L&D and adaptation and other institutions or frameworks outside the UNFCCC (for example, the framework for disaster risk reduction). These factors and, more especially, the review that will be finalized in 2016, will ultimately determine how L&D activities will be supported.

Proposed Elements and Ideas for Consideration

The Executive Committee recently adopted a two-year work plan as the first step to operationalize WIM that is subject to review at the twenty-second session of the COP in 2016. The plan will be delivered to the Subsidiary Bodies (SBs) of the UNFCCC for consideration at COP20 in Lima and COP21 in Paris. The action areas in this work plan include, inter alia:

- Enhancing knowledge and understanding of comprehensive risk management approaches, including identifying gaps or developing methodologies to be used by national governments
- Enhancing data and knowledge on, and response measures to, non-economic losses associated with climate change, including slow onset events such as sea-level rise or glacial melt

The latest meeting of the Executive Committee, in September 2014, made further progress in outlining specific activities and timelines. However, the Warsaw international mechanism needs to be more than just an information repository. This could be achieved by expanding its mandate and accelerating its work so that it by a) gives guidance to help countries undertake an initial assessment of the level of risk, as well as assessments of direct and indirect impacts (for example, migration, displacement, human health and mobility, economic and non-economic losses, such as damage to sites or artifacts of cultural value); b) identifies the most appropriate mechanisms to cope with risk or transfer risk (for example, through insurance), including comprehensive risk management approaches such as the development of social protection instruments; and c) where those risks are unavoidable, provides direction on how to approach the problem.

Further research could be initiated, in collaboration with relevant organizations,[47] to explore options for dealing with permanent loss (for example, land lost to sea level rise) and identify mechanisms that might be put in place to help people cope with permanent loss. However, there is still no clarity on the means of implementation, which include financial, technological and capacity building support.

The Agreement should include reference to the Warsaw International Mechanism for Loss and Damage. Additionally, there are a number of institutional options that Parties can consider, taking into account that the WIM review will be delivered in 2016:

- Expand the Adaptation Committee to include work of the Executive Committee of the Warsaw International Mechanism (WIM).
- Create a new institution or mechanism on L&D mandated to undertake particular activities that will incorporate the outcomes of the 2016 review by the Executive Committee of the WIM. A detailed work plan could be developed through COP decisions.

There should be a decision in Paris to accelerate the work of the Executive Committee and provide reassurance that loss and damage will not be treated on an ad hoc basis, by establishing the basis for a permanent and dynamic process beyond 2016. The COP could be mandated to periodically review the outcome of the Executive Committee's work and give guidance to its operations. The work and functions of the Loss and Damage mechanism should incorporate the outcomes of the 2016 review by the Executive Committee of the WIM. A detailed work plan could be developed through COP decisions to accelerate the program and expand its technical functions (as mentioned above).

The Cancun Adaptation Framework and the Warsaw International Mechanism have already established the necessity of forging strong relationships with external institutions, especially the post-2015 framework for disaster risk reduction (DRR), as well as with the UN's post-2015 development agenda.[48] Synergistic leverage should be created through specific joint activities.[49] This would help to establish a mutually reinforcing partnership among all three institutions. However, creating the right synergies should not lead to a shift in responsibilities. The Agreement could acknowledge the synergies between the Sustainable Development Agenda, the Disaster Risk Reduction framework and UNFCCC, could encourage Parties to take advantage of such synergies, but would recognize that there are also differences among them. It would emphasize the responsibility of the UNFCCC to help countries cope with loss and damage that occur when adaptive actions to climate change to avoid intolerable risks are not possible or are not currently available.

Box 5 | Summary of proposed critical issues for an Agreement

The agreement should establish the Warsaw International Mechanism as the platform for enhanced cooperation on loss & damage, beyond 2016.

A decision in Paris should accelerate the work of the Executive Committee of the WIM. The COP could be mandated to periodically review the outcome of its work. Further research could be initiated, in collaboration with relevant organizations, to explore options for dealing with permanent loss.

The work and functions of the Loss and Damage mechanism should incorporate the outcomes of the 2016 review by the Executive Committee of the WIM. A detailed work plan could be developed through COP decisions.

ROLE OF LAND USE CHANGE IN MITIGATION AND ADAPTATION

Background

The land-use sector is impacted by climate change and it also contributes to the problem. Land use is a complex issue that should be an integral part of any global Agreement. Emissions from land-use change, primarily deforestation, are estimated to contribute up to 17 percent of global GHG emissions (IPCC, 2007). The best estimate of the Intergovernmental Panel on Climate Change (IPCC) is that land use, land-use change and forestry (LULUCF) activities, mainly tropical deforestation, contributed 1.6 GtC/year of anthropogenic emissions in the 1990s. While there is still some uncertainty regarding the size of the contribution of land-use processes to GHG emissions in general, the land-use sector – particularly forestry and agriculture in both developed and developing countries – provides opportunities for quick and meaningful gains in both adaptation and mitigation.

The Kyoto Protocol and the COP decisions that implement the LULUCF provisions include an elaborate set of reporting and accounting rules on how LULUCF emissions from Annex I Parties are to be accounted for in the GHG inventory of those Parties. The most important objective of these rules is to ensure transparency and environmental integrity. Major distortion in accounting for GHG emissions can result from unclear LULUCF guidelines. While acknowledging differences in national circumstances, the rules should be harmonized to the extent possible between developed and developing countries.

Following the mandate of the Bali Action Plan agreed in 2007, the COP adopted decisions that implement what is called the REDD+ mechanism (reducing emissions from deforestation and forest degradation, plus conservation, conservation of forest carbon stocks, sustainable management of forests, and enhancement of forest carbon stocks). The mechanism includes detailed rules on reporting, verification, and accounting, which also involve environmental, social, and governance safeguards to accompany implementation. COP19 consolidated many of the REDD+ decisions into what has been collectively called the "Warsaw Framework for REDD+."

While there is broad agreement on the importance of agriculture for adaptation, including it in mitigation has been more controversial. Many developing countries are concerned about the impact of such inclusion on an economic sector that is critical to their economies. In this context, it might make sense to adopt a phased approach and to consider the guidelines on agriculture at a later stage, while aiming to have them converge with the LULUCF and REDD+ rules at some point in the near future.

Proposed Elements and Ideas for Consideration

Proposed national contributions and later commitments of all Parties should include the land-use sector where it is relevant. It is a sector that matters deeply to "real people" and the "real economy," a core function of the Agreement. In the pre-Paris stage, countries should use IPCC guidelines so that actions can be reported and compiled effectively. The Agreement, however, should create a new set of rules for measurement, reporting and verification (including accounting) that brings about a convergence and harmonization of the existing LULUCF and REDD+ rules (see MRV section).

The new harmonized rules should be guided by a set of principles including:

- Environmental integrity of the proposed national contributions in the land use sector – this should be conveyed in the accounting rules
- Environmental, governance and social safeguards that accompany their implementation, including the recognition of the rights of indigenous peoples and community land rights – this should be embedded in the set of mitigation actions and adaptation activities that inform countries' national contributions
- Comparability and transparency of the rules, including mechanisms to prevent double counting – this would inform the design of both accounting and reporting rules

- An integrated approach that connects mitigation programs and activities with adaptation priorities. Such an approach could be reflected in Parties' national communications

Parties should base their next set of proposed contributions on the new set of rules for MRV (including accounting). The Agreement should encourage countries to include the impacts of climate change on the land-use sector in their National Adaptation Plans as well as in the National Financing Strategies and national communications. Efforts should be made to show how mitigation programs and activities are also effective adaptation strategies. Such an approach can be used when preparing national contributions and reflected in National Adaptation Plans, National Communications or Financial Strategies.

Box 6 | **Summary of proposed critical issues for an Agreement**

The Agreement should mandate the convergence and harmonization of LULUCF and REDD+ reporting, verification and accounting rules, leading to a new set of rules guided by the following principles:

- Environmental integrity of the proposed national contributions in the land use sector
- Environmental, governance and social safeguards that accompany their implementation, including the recognition of the rights of indigenous peoples and community land rights - this should be embedded in the set of mitigation actions and adaptation activities that inform countries' national contributions
- Comparability and transparency in the rules, including mechanisms to prevent double counting

The Agreement should encourage an integrated approach that connects mitigation programs and activities with adaptation priorities. Such an approach can be used when preparing national contributions and reflected in National Adaptation Plans, National Communications or Financial Strategies.

CONTINUOUS CYCLE OF IMPROVEMENT: SUPPORT

The Agreement should include a package of support involving finance, technology, capacity-building and cooperation that is assessed and strengthened every five years, in support of the mitigation ambition and adaptation cycles described above. Such a support package and cycle are fundamental, not only to reach an Agreement in Paris, but to achieve the transition to a low-carbon, climate-resilient economy. Parties should sequence the cycles so that they are mutually reinforcing. Annex III includes greater detail on sequencing.

Finance

Background

Under current OECD growth projections, investment in the water, agriculture, power, transport, buildings, industrial, and forestry sectors will be approximately US$5 trillion per year to 2020. However, such business-as-usual investment will not deliver stable growth and prosperity. New kinds of investments are needed that also achieve sustainability goals. For example, in addition to the challenging task of greening the estimated US $5 trillion dollar per year projected investment required for business-as-usual, at least US$0.7 trillion per year in, incremental investment is necessary to meet the challenge of climate change.[50] This investment will help to ensure clean energy infrastructure, low-carbon transport, energy efficiency and afforestation to limit the global average temperature increase to 2°C above pre-industrial levels. The IEA predicts that fuel savings from efficiency gains will more than compensate for these investment needs. At present, significant policy, market and financial barriers discourage business from taking advantage of these profitable investments.[51]

The current level of global climate finance is in the range of US$340-US$650 billion.[52] It is likely that this level of international public climate finance alone will not solve the profound challenge of tackling climate change. It is a key element of the solution but it should be considered in the context of the broader investment patterns noted above. Because current levels of both public and private international climate finance are dwarfed by the total

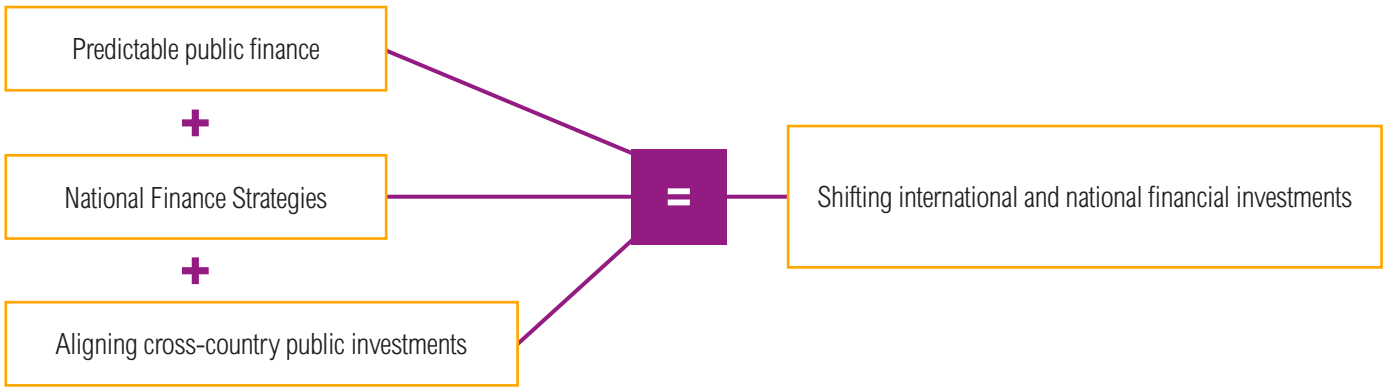
domestic and international investment required to avoid dangerous climate change, international climate finance must catalyse broader shifts in financial investments to align them with sustainable development objectives.[53]

Climate finance will play two critical roles in the 2015 climate Agreement. Firstly, it is required to provide the means and incentives for countries to achieve a below 2°C outcome and to effectively build climate resilience. Secondly, it is needed as a signal of political intent by developed countries to build confidence and trust amongst the Parties regarding delivery of previous commitments.

There needs to be a pragmatic understanding of which financial flows count toward climate finance and of how developed countries will mobilize and report on the US$100 billion by 2020 to which they committed in the Cancun Agreements. Without such clarity, the negotiations in Paris are likely to be unsuccessful. In addition, a meaningful contribution to the Green Climate Fund, as part of developed countries' commitments to the US$100 billion, is required to support the means of implementation in the run-up to 2020.

The Agreement should address three main issues: enhancing predictability of public finance, enhancing ownership, and creating enabling conditions by building national strategies and aligning broader investments with the objectives of the Convention. Each of these issues is key to the functions of shifting investment, supporting developing countries, and incorporating fairness, equity and justice into the Agreement.

Figure 3 | **Core Elements of the 2015 Agreement**



Achieving Predictable Public Finance

Predictability of resources is of central importance for planning, programming and implementing activities. Predictability is primarily composed of three elements– a certainty regarding the future scale, the potential sources, and the timeframe of financial support that will be provided. Parties could pursue some combination of the following measures:

- Set a longer-term political target for scaling up to a certain level of international public climate finance, in the form of either a quantified aggregate sum or individual contributions, with the aim that at least half the finance will be directed towards adaptation and building climate resilience
- Identify indicative national pathways or interim targets for public climate finance by 2017 for developed countries, building on structures effective under the Fast Start Finance period, with improved transparency arrangements
- Establish a formal link between the Mitigation and Adaptation cycles to the institutions and collective levels of finance available
- Initiate a replenishment process for the GCF that builds upon and is consistent with the initial resource mobilization process
- Request the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) to make progress in securing innovative sources of public climate finance

In order to support the five-year commitment cycle for mitigation and adaptation, the Agreement should commit Parties to making contributions at an increasing scale at least every [four] [five]years, using both bilateral and multilateral channels. As there currently is no set schedule for many of these financial institutions, it would be helpful to put them on a timeline consistent with the Agreement cycles. This resource mobilization should be guided by a qualitative pathway aimed at the overarching political goal noted above. Informed by Fast Start Finance levels, and looking towards the future, the GCF should initially be funded by developed countries, through a political commitment of at least US$10 billion and scaled over the next four-year replenishment cycle to US$20 billion. To achieve this level of finance, all developed country Parties should commit to scaling up their contributions and to assessing and promoting complementary contributions from other sources.

The Agreement should welcome financial contributions from all Parties and should begin a process, linked to delivery of outcomes by developed countries, of phasing in financial commitments from more Parties over time. The GCF should be requested, in a COP decision, to begin such a process, which should be completed by 2017.

Predictability also needs to be underpinned by convergence and coherence of criteria and norms within climate finance institutions, to encourage the most effective use of climate finance flows. While the mandates and rules of institutions vary, alignment of common practices and evaluation criteria, to the extent that is possible, would simplify and shorten the project application and approval cycle.

To promote transparency, much additional work is needed to improve methods of estimating and reporting public finance flows and expenditures. For example, the guidelines for reporting finance provided by Annex I Parties to developing countries will need to be further developed and revised as experience is gained with their use.[54] Therefore:

- All countries shall commit to financial reporting based on guidelines developed by the Standing Committee on Finance in consultation with the OECD, international finance institutions and developing country experts, taking into consideration the capacity of different countries. The guidelines shall undergo a continuous cycle of improvements based on the experience of countries with their use.
- All countries shall commit to applying methodologies developed by the SCF for assessing the impact of domestic and international financial support on major infrastructure projects and other activities such as those identified in NAPs and INDCs by 2020.[55]

National Financing Strategies

The Agreement should promote country ownership[56] through the creation and promotion of national finance strategies. Country ownership is critical to ensuring that climate finance delivers a meaningful shift in investments towards low-carbon, climate-resilient outcomes. This concept of country ownership is now widely recognized as essential within the UNFCCC discussions.[57] One way to operationalize this concept is to develop national finance strategies, in developing countries, that can ensure that international climate finance support is aligned with national finance priorities and is attractive to investors; that is, countries can identify financial pathways to meeting different national strategic goals. National finance strategies would help to articulate what countries are already doing to mitigate climate change and adapt to its impacts, while clearly signaling what more countries could do if their domestic resources were supported by international finance. Such strategies would also create the necessary enabling environments, transparency, and accountability required to build confidence. If financial strategies were developed in concert with the GCF replenishment cycle and if they resulted in "bankable" projects and programs, then such strategies should be funded by the GCF and should attract additional finance from the full range of domestic and international sources.

The Agreement should strongly encourage developing countries to develop voluntary national finance strategies within a certain timeframe. These strategies, informed by the mitigation and adaptation proposed contributions should then form the basis for investment plans submitted to the GCF.

Countries undertaking the development of financial strategies would benefit from the availability of (non-binding) guidance on how to develop a financial strategy. Such guidance could be developed by the Standing Committee on Finance (SCF) or by the Subsidiary Body on Implementation (SBI), in conjunction with or by the Green Climate Fund. Informal initiatives such as the LEDS Global Partnership and Green Growth Best Practice (GGBP)[58] Initiative are already picking up on the importance of such concepts.

Aligning Investment

The Agreement should aim to transform financing from high-carbon to low- carbon programs and projects and ensure that new infrastructure supports resilient societies by promoting the application of climate change stress tests to major international financial institutions. Initially this would impact agencies providing Development Assistance, Foreign Direct Investment, and Export Credit Agencies.

At present, there is no mechanism to ensure that public or private financial institutions and their investments overseas are consistent with objectives of the Convention. To promote consistency with the objectives of the Convention, cross-country flows from major international financial institutions and national development banks should be stress-tested and benchmarked against the long-term mitigation and adaptation/resilience objectives in the Agreement. One option would be for the COP, in cooperation with international institutions and national regulatory authorities, to develop a common methodology for a stress test of cross-country finance flows and benchmarks that can measure progress toward the long-term goals of phasing out GHGs emissions to net zero as early as possible in the second half of this century and increasing climate resilience.[59] These goals would have to take equity into account in timing and level.[60]

Consequently, the Agreement needs to send strong signals to public and private financial institutions to ensure that their portfolios or their investments are aligned with climate change mitigation and adaptation objectives, and that they report in a transparent manner to their shareholders and other stakeholders.

Box 7 | **Summary of proposed critical issues for an Agreement**

The Agreement should commit developed countries to making contributions at an increasing scale at least every [four][five] years, using both bilateral and multilateral channels.

The Agreement should invite additional Parties to make contributions, where they are in a position to do so. By 2017, the COP should recommend a process to include additional Parties.

The Agreement should promote country ownership by encouraging developing countries to create and promote national finance strategies.

The Agreement should send a signal that will provide the means and incentives to transform financing from high-carbon to low-carbon programs and projects and ensure that new infrastructure supports resilient societies, for example, by promoting the application of climate-change stress tests to major international financial institutions.

The Agreement should also require that:

- All countries commit to reporting on finance based on guidelines developed by the Standing Committee on Finance in consultation with the OECD, international finance institutions and developing country experts, taking into consideration the capacity of different countries. The guidelines shall undergo a continuous cycle of improvements based on the experience of countries with their use
- All countries commit to applying methodologies developed by the SCF for assessing the impact of domestic and international financial support on major infrastructure projects and other activities, such as those identified in NAPs and INDCs by 2020
- Building on an initial resource mobilization for the GCF, each replenishment cycle will see the level of financial commitment increase by a certain percentage, for example, such that resources pledged to the GCF in 2015 are doubled by 2020
- Outside of the Agreement, a longer-term political target should be agreed for scaling up to a certain level of international public climate finance, in the form of either a quantified aggregate sum or individual contributions, with the aim that at least half the finance will be directed towards adaptation and building climate resilience

Capacity Building

Background

Capacity building is an activity that takes place either as an element of larger projects and programs or as a focused activity that aims to inform and train individuals, groups, and institutions to perform core functions and achieve objectives relevant to the Convention. Many efforts have been made bilaterally and by multilateral institutions over the last 20 years to build capacity, some with considerable success. However, few efforts have lasted more than five years; at best they have evolved with changing priorities, more often they have faded as funding has declined. As a result, despite these efforts, many governments in the poorest developing countries still lack the basic ability to undertake the planning and analysis that is in their own interest and that is required as members of the global climate change community.[61]

Why does capacity building so often fall short? Trainees and trainers depart for other jobs, developing country governments lack the resources to continue the effort or give it a low priority, proper enabling institutions do not exist, funding from development partners dries up, funding gets diverted to other forms of implementation, supporting financial institutions fail to recognize the long-term nature of the effort or in some cases may view such activities as being "unattractive and not cutting edge." A combination of these factors has often led to situations where capacity building is added on to projects on a short-term basis and as a stand-alone component, rather than as an integrated, comprehensive, long-term intervention.

UNFCCC formally established the framework for capacity building in developing countries at COP7 in Marrakech (2.CP.7)[62] in circumstances that are broadly comparable

to the situation in 2015. At COP6 bis, a small group of developed countries pledged €450 million yearly as a confidence-booster for the Bonn agreement, under which the international community decided to implement the Kyoto Protocol without the participation of the United States. Three "Bonn Funds" (Special Climate Change Fund (SCCF), Least Developed Countries Fund, and Adaptation Fund) were immediately created to accept donations pledged to build the capacity of developing countries to plan and develop both their response to climate change and their capacity to efficiently manage further scaled-up downstream funding. Since then, the momentum for creating a co-ordinated capacity building mechanism faded, until the recent creation of a capacity building forum.

The most recent report of the GEF to the UNFCCC reveals the limited effort to build capacity.[63] It indicates that, of the US$1.26 billion that will be allocated for climate change activities over the 2014-18 replenishment cycle, approximately US$130 million is allocated to NCs and Biennial Update Reports. The report also indicates that a total of US$295 million was allocated to build capacity over two fiscal years during the last replenishment, but it provides no total for the entire period. Nor does the report make it easy to determine an accurate projection for all capacity building efforts during the 6th replenishment period that extends to 2018. It may be as little as 10 percent or as much as 20 percent or more of the projected GEF allocation for the 6th replenishment.[64] Those Parties with finance commitments (Annex 2) also report annually to UNFCCC (through the SBI) on their support for capacity building activities in developing countries. However, very few provide any specific detail on the exact composition of capacity building activities carried out, nor do they report costs and resources in quantified ways that enable independent measurement, reporting.and verification.

Proposed Elements and Ideas for Consideration

Given the repeated concerns about capacity building over the last two decades, this issue requires a radically different approach that should be sustainable, substantial, and responsive to the needs of national governments and to the requirements of the Convention. It is a fundamental condition for success in the effort to shift to a low-carbon, climate-resilient economy. It fulfills the functions both of support to developing countries but also equity, fairness and justice, for many countries do not yet have the capacity to adapt or respond to the challenge ahead.

Therefore, the Agreement should propose the creation of a dedicated Capacity Building Facility (CBF), to be entirely dedicated to meeting the requirements of the Convention and based on the unique circumstances of each country. The Facility would act as a focal point to design, coordinate, support and manage all capacity building activities under the Convention. Its financial resources should be administered by either the GEF or the GCF. In addition, Parties should agree to strengthen capacity building through bilateral programs, and through UN agencies in all relevant areas of the Agreement, including mitigation, adaptation, technology transfer and cooperation, and MRV.

To be successful the approach must:

- Be designed to last a minimum of 20 years so that it can take a long-term approach and make strategic investments in building capacity in priority areas
- Aim to allocate a minimum of 90 percent of its resources to in-country activities, noting the importance of building long-term national institutions and systems
- Build on the experience of previous programs and projects, but be independent of existing institutions
- Be capitalized at no less than US$300 million annually; and/or a certain percentage of project costs is allocated to capacity building
- Be responsive to existing national coordination mechanisms and complementary to existing technical and policy institutions
- Coordinate with other international institutions and donors and encourage them to be more coherent and coordinated in their approaches. The new facility could look across national, regional and international efforts and provide a coherent link among them
- Focus solely on delivering products required by or relevant to the Convention, for example, Biennial Update Reports, GHG inventories, national communications, assessment of emission-reduction policies, projections of impacts and assessment of adaptation options, development of NAPs and NAMAs, creation of low-emis-

sion development plans, and systematic tracking of climate finance from all sources. It would thus provide the technical foundation to enable participation in the five-year cycle of mitigation and adaptation commitments described elsewhere in this paper

- Encourage, at the national and regional levels, greater co-ordination, integration, and streamlining of capacity building activities relating to mitigation, adaptation, forestry, agriculture and land-use, MRV, technology, and finance

Where are the financial resources to come from?

Financing at the proposed level would not be easy given the current budget issues facing development partners. Consequently, such financing will require significant changes to existing institutions, if a serious effort is to be mounted to address what has been a problem since the inception of the Convention. It will not be without costs because other worthy activities would have to be foregone and the implementation challenges would be significant. However, not addressing the issue in a serious way will lock the Convention into the path it has been on for 20 years, one that has not produced the desired result of an Agreement that has the full and active participation of all countries.

This paper suggests consideration of two options:

- The Agreement could designate the GEF as the principal institution responsible for providing administrative support to the CBF, but not the management of the CBF. All GEF climate finances would be dedicated to capacity building. This would come at some cost because it would be disruptive of the culture and existing program priorities of the GEF. It would likely require the GEF to transfer some projects to the GCF, depending on the project lifetime. However, it would harmonize the activities of the GEF with those of the GCF - something that is required independently of the need to address capacity building. The facility would form a multinational core for all capacity building efforts but it would not seek to replace bilateral programs.

- Alternatively, the Agreement could designate the GCF as the principal institution responsible for providing administrative support to the CBF. The GCF has been requested in its governing instrument to support strategies and plans, such as low-emission development strategies or plans, nationally appropriate mitigation actions (NAMAs), national adaptation plans of action (NAPAs), national adaptation plans (NAPs) and other related activities. Such an arrangement would require the COP to designate the CBF as an important program priority. This would be less disruptive to current programs of the GEF, but it would do little to rationalize the priorities of both institutions. The Agreement should encourage the CBF to work with other UN agencies, and international and national financial institutions, and encourage them to support and supplement financing for the facility.

Both of these arrangements should be considered in developing a new Capacity Building Facility to address the issues strategically, systematically and over the long term.

Box 8 | Summary of proposed critical issues for an Agreement

The Agreement should propose the creation of a dedicated Capacity Building Facility (CBF), to be entirely dedicated to meeting the requirements of the Convention and based on the unique circumstances of each country. The facility would act as a focal point to design, coordinate, support and manage all capacity building activities under the Convention.

The Agreement should designate either the GEF to be the institution responsible for providing administrative support to the CBF and call on the GEF to dedicate ALL its climate resources for that purpose, or it should designate the GCF as the principal institution responsible for providing administrative support CBF and call on the GCF to dedicate a portion of its resources to that program priority.

The Facility should focus solely on delivering products required by or relevant to the Convention, for example, Biennial Update Reports, GHG inventories, national communications, assessment of emission reduction policies, projections of impacts and assessment of adaptation options, development of NAPs and NAMAs, creation of low-emission development plans, and the systematic tracking of climate finance received from all sources.

The Capacity Building Mechanism would be assessed every five years, as part of the Support Cycle review.

Technology Cooperation and Transfer

Background

Innovation and technology transfer are central to implementing both mitigation and adaptation. Delivering genuine sustainable development will require significant changes to consumption and production patterns, while adapting to existing climate impacts will require new models to resilience and manage shocks. Research suggests that the global diffusion rate of climate technology needs to at least double by 2025 if the world is to have a realistic chance of staying on a below-2°C pathway.[65] At the same time, public funding support for Research, Development and Deployment (RD&D) needs to be scaled up, with some estimates suggesting that a global increase of US$15-US$20 billion per annum over the next 10-15 years is needed to manage the risks of climate impacts.[66] Innovation and technology transfer must therefore address not only the physical technology itself (for example, photovoltaic cells), but also the business models and supporting infrastructure necessary to utilize the technology effectively. There are, therefore, strong links between the technology cooperation, capacity building, and finance elements of the Agreement.

A technology mechanism, comprising the Technology Executive Committee (TEC) and Climate Technology Centre and Network (CTCN), has already been established under the UNFCCC. However, within both the negotiations and the ongoing work of the TEC and CTCN, a number of critical issues need consideration. For example: Should the Technology Mechanism be anchored in the Agreement, and if so, how? Should there be a global goal for the Technology Mechanism? What should be the link between the mechanism and finance? This latter point will be crucial to ensure that there is sufficient funding to make a meaningful difference to technology innovation, capacity building, and diffusion rates. There are also questions as to whether the current role of the mechanism should be expanded.

Proposed Elements and Ideas for Consideration

The Agreement should provide a means to link the existing mechanism to other parts of the Paris Agreement that are relevant. This would increase visibility of the mechanism and put it on solid ground for the long term, which is a key component of a fair, equitable and just Agreement. The easiest approach would be to include the Technology Mechanism in the Agreement as the platform for enhanced cooperation on technology.

There is also an opportunity to identify a global technology goal or goals in the Agreement. Consideration could be given to one or more of the following options:

- Set a global goal to increase climate-relevant technology diffusion rates and call on countries to set nationally determined diffusion rates
- Set a global goal to increase public funding support for research and development for climate technology to $ x billion by YYYY and/or call on countries to create national enabling environments that foster RD&D. The first case might require setting national RD&D targets for increases in government support, while the second case might require tax credits that encourage industry to undertake research
- Set a goal to bring the cost of a certain technology down to a particular level

There is a clear link between advancing technology innovation and finance. One way to foster this link is to encourage countries to adopt enabling policies that promote technology innovation and deployment and therefore draw in private capital. Another way is to use public money to promote innovation or to help transfer technologies, which could be achieved by creating a dedicated program within the Green Climate Fund (GCF) to finance the Technology Mechanism. The creation of a dedicated program within the GCF for the Technology Mechanism would provide certainty and predictability over technology finance. However, while it is desirable that this relationship be identified in the Agreement, it may also be possible to scope out the details of a dedicated program/project through a separate COP decision.

Although the supply-side factors of technology transfer are important, the demand-side factors should not be neglected. These include such critical technology transfer catalysts as absorptive capacity (including the rule of law), infrastructure, universities, and incubation support. The Technology Executive Committee, for example, has just launched a workplan on “National Systems of

Innovation" which could inform policies and institutional arrangements. Similarly, the CTCN is building support capacity to assist Parties with establishing the necessary structures to catalyze and accelerate technology development and diffusion.

There is a question as to whether the current role of the Technology Mechanism should be expanded. It could explore means to foster innovation, with the help of expert organizations such as the World Intellectual Property Organization (WIPO), International Renewable Energy Agency (IRENA), Food and Agriculture Organization (FAO) and the private sector.

The monitoring and reporting of commitments to reach technology goals also needs consideration. This should be done as part of a Framework for Monitoring, Reporting and Verification (see section on Transparency and Accountability below). The Technology Mechanism should be reviewed every five years as part of the review of the Support cycle.

Box 9 | **Summary of proposed critical issues for an Agreement**

Establish the Technology Mechanism in the Agreement as the platform for enhanced cooperation on technology.

Establish a global technology goal with, for example, one or more of the following aims:

- To increase climate-relevant technology diffusion rates and call on countries to set nationally determined diffusion rates
- To increase public funding support for research and development for climate technology to $ Y billion by YYYY and call on countries' national enabling environments to foster RD&D
- To bring the cost of a specified technology down to a particular level

Establish a dedicated program within the Green Climate Fund (GCF) to finance the technology mechanism.

The Technology Mechanism would be assessed every five years, as part of the Support Cycle review.

Market Mechanisms

Background

Market mechanisms have had an important place in the global climate regime, particularly since 1997 when the Kyoto Protocol included articles on emissions trading, joint implementation and the Clean Development Mechanism. Since that time, many countries have put in place national market mechanisms, either to comply with international commitments or to advance domestic implementation. Clearly, a number of Parties have found that such mechanisms can provide incentives and bring benefits. Since 2011, the Framework for Various Approaches (FVA) and New Market Mechanism (NMM) negotiations have been underway to identify potential new market mechanisms. It is fair to say that there is much uncertainty about the future of market mechanisms at the international level. The Agreement must therefore provide greater clarity on potential uses of market mechanisms that promote environmental integrity and avoid double counting.

Proposed Elements and Ideas for Consideration

The Agreement should incorporate all current Kyoto mechanisms and launch a process to reform them in line with current demands and interests and with a view to making them more effective and equitable. The reform should include a review of all existing methodologies and should be completed by 2017. In particular, the environmental integrity of all emission crediting or transfer schemes should be included, supported by adequate policies and technical capacity building. A more robust, common, and comprehensive accounting system will be vital to ensure that both developed and developing countries are able to accurately reflect and account for emissions trading, when appropriate. This should be reflected in the MRV decisions.

Additionally, Parties should mandate the COP to take a decision on the new market mechanisms discussed under the FVA, and the inter-linkages between these and other systems, either at a later stage or by a particular year (for example, 2018). There are risks involved in managing this fragmented system, so particular focus should be placed on ensuring environmental integrity across the board.

Box 10 | **Summary of proposed critical issues for an Agreement**

The Agreement should incorporate all current Kyoto mechanisms and launch a process to reform them in line with current demands and interests and with a view to making them more effective, equitable, and preserve environmental integrity.

FOUNDATION OF TRANSPARENCY AND ACCOUNTABILITY

Measurement, Reporting, and Verification (MRV)

Background

A comprehensive Measurement, Reporting and Verification (MRV)[67] system is a crucial element of the 2015 Agreement. It will be essential to build trust and confidence among countries, and ensure that there is a strong foundation for future actions. Hence, the objectives, nature, scope, and principles guiding the design of an enhanced MRV regime should be included in the Agreement. In line with the overall approach developed here, Parties should agree to work toward continuous improvement of the rules and implementation of those rules over time.

The post-2020 MRV regime must be designed to cover all commitments embodied in the Agreement: finance, mitigation, adaptation, capacity building, and technology transfer and cooperation. It should build on the progress made over the past few years and on lessons learned. It should be based on principles of transparency, completeness, comparability, accuracy and relevance;[68] recognizing that some of these principles may apply differently to different forms of commitments and taking account of different capabilities and national circumstances. The post-2020 framework should aim to create a pathway whereby all countries account, report, and are verified in a manner that increases the environmental integrity, consistency, and comparability of effort, while differing national capacities and the need for some degree of flexibility and adequate financial support are recognized.

A challenge for the Agreement is to build on the areas where there is a strong history (for example, MRV of emissions, emission reductions and mitigation actions) and encourage efforts in areas where less has been done (such as adaptation and support), while distinguishing what should be mandatory for Parties and international institutions under the Convention from that which should be encouraged as good practice. Another challenge is that the Agreement must strike a balance between addressing differentiation and providing a common direction for continuous improvement and enhanced action. In order to overcome these challenges, Parties will need to acknowledge that the Agreement in Paris must reflect where Parties want to be at least five years after the Agreement is adopted, not where they are between now and 2015.

Proposed Elements and Ideas for Consideration

To ensure that Measurement, Reporting and Verification (MRV) are treated in a comprehensive and consistent way, the Agreement shall build on a first round of revised and new MRV guidelines by 2017, followed by a testing period, resulting in a second round of enhance guidelines by December 2019. The MRV Framework will consist of a series of guidelines and decisions that cover mitigation actions, adaptation activities, and the means (finance, capacity building and technology transfer and cooperation) to achieve them. Where possible, the post-2020 MRV guidelines will build on existing guidelines. The Agreement will, however, need to clarify how the whole MRV Framework will develop over time and which Parties should implement which provisions by when – in other words, it must provide a pathway for ensuring more transparent data and holding Parties accountable more effectively. It will be absolutely essential to have a strong commitment to capacity building and other support for developing countries as they go down this pathway. Provisions of all previous UNFCCC (including the KP) decisions shall apply unless revised.

The Durban provisions for revising the recently adopted reporting and verification guidelines in 2016 and 2017 already provide opportunities to strengthen the existing regime, building on the lessons learned in implementing the reporting and verification requirements. The Agreement will acknowledge the critical role that national

inventories and national communications will continue to play in underpinning climate actions and demonstrating countries' efforts. The verification framework will also need to be enhanced with both ex ante and ex post assessment processes to support continuous improvement. Methodological gaps on adaptation, mitigation and support will need to be filled. Therefore, during the transition period between 2015 and 2020, Parties could:

- Strengthen the enabling environment by exploring how to create a more effective capacity building process and scale up support for lasting institutional frameworks and human resources
- Develop and test the necessary methodological tools and rules to account for the effects of mitigation actions, assess impact of climate change, effectively track progress against countries' commitments, and track public and private financial flows
- Revise existing guidelines so that the requirements for both developed and developing countries result in more transparent, accurate, complete, consistent and comparable data, and allow for the inclusion of a common set of guidelines that can accommodate different types of commitments. In particular, the reporting guidelines for preparing national communications should be revised to include a standardized format table to capture the most relevant information, and allow for updates on countries' progress against their mitigation, support and adaptation commitments (including regarding their National Adaptation Plans).[69] Guidelines should be developed or revised to enable the review of national communications from all countries
- Specify the criteria and accounting principles and general rules to guide improvements and ensure environmental integrity. More detailed guidelines should be elaborated later. The Agreement should also highlight the need for more stringent reporting, verification and accounting rules for countries using carbon market units. Flexible but common rules should be elaborated for accounting practices in the land use sector (as mentioned in see boxes 6 and 10 above).
- Ensure that the complete set of guidelines is ready by no later than 2019 for implementation from 2020 onwards
- Clarify how to deal with non-compliance and enhance the implementation of Parties' commitments (see Mechanism for Facilitating and Promoting Implementation on page 34)

The differentiation between developed and developing countries is likely to be maintained but gradually reduced during the transition period to 2020. The 2015 Agreement would go further by indicating when and how all countries could be subject to a common MRV framework that still acknowledges different capabilities (for example, by the use of a tiered approach, similar to the one used successfully to produce national inventories[70]) and allows some degree of flexibility, taking into account national circumstances and potential socio-economic and technological changes. Such a pathway to a common framework could be the most cost-effective way to build a more robust, efficient and lasting MRV regime, which promotes a virtuous cycle of improvement as countries gain experience and capacity. As in the case of commitments, the application of the guidelines would be ratcheted up over time, with a general provision for frequent reviews (for example, every four years) of the MRV requirements to sustain continuous improvement and effectiveness of the process. Developing countries could benefit by voluntarily applying guidelines in the lead-up to the common framework in 2020, before the requirements become mandatory, as developed countries did before the obligatory period of the Kyoto Protocol.[71] Discretion will continue to be given to LDCs and SIDS in need.

Box 11 | **Summary of proposed critical issues for an Agreement**

In order to keep the 2015 Agreement relatively short and simple, the MRV provisions should lay the foundation for a post-2020 common framework, starting with requirements no lower than currently exist (no backsliding), with provisions for regular revisions of the guidelines (every four years), and a timeframe for developing and applying methodological guidelines by no later than 2019.

More specifically, the Agreement shall establish a work program for a series of new or revised MRV guidelines to cover all commitments embodied in the Agreement: financial, mitigation, adaptation, capacity building and technology transfer and cooperation. The Agreement shall establish a process and timeline to develop these guidelines, test them, and shall specify, for developing countries, how long these guidelines should be followed on a voluntary basis before mandatory implementation comes into effect in the post-2020 regime.

The Agreement shall specify the process and frequency for reviewing all MRV guidelines to ensure continuous and cost-effective improvements in the reported data and supporting institutional arrangements.

The Agreement shall specify the criteria, principles and general accounting rules to guide improvements and ensure environmental integrity. These criteria may include enhancing transparency, completeness, relevance, and accurate information, taking into account the latest scientific information and supporting decisions to strengthen actions.

The Agreement should specify more stringent reporting, verification and accounting rules for the use of carbon market units. Flexible but common rules should be elaborated for accounting practices in the land use sector.

The outcome of the verification process should be considered by an implementation mechanism.

The Agreement should include provisions for scaling up the support required to implement this enhanced MRV framework and strengthening capacity building and institutional arrangements in developing countries.

Discretion will continue to be given to LDCs and SIDS in need.

Mechanism for Facilitating and Promoting Implementation

Background

There is a strong rationale for including an effective compliance or implementation response mechanism in the 2015 Agreement. Such arrangements are a standard element of multilateral environmental Agreements and they have proven their potential to enhance trust among parties, support effective implementation, and protect against the danger of freeriding. Implementation facilitation mechanisms are also closely linked to a system of measurement, reporting, and verification (MRV). Including a separate body ("implementation committee") can help to identify and address the barriers and challenges countries face in implementation. The Capacity Building Facility could then support with specific programs and projects.

Parties need to develop additional methods to support implementation of their commitments in the 2015 Agreement. This fact was clearly reflected in questions asked in the ACT 2015 consortium convenings around the world. What if countries don't deliver what they promised or backtrack on their contributions? What if countries do not receive the finance and support they need to effectively implement their commitments? How can Parties work to strengthen and improve implementation over time? Overall, the accountability and facilitation provided by an effective implementation response mechanism is also part of ensuring that the 2015 Agreement provides a clear signal, one of the core functions, that countries are serious about implementing what they promise.

Proposed Elements and Ideas for Consideration

A mechanism for facilitating and promoting implementation of the Agreement, realistically, could best be fully developed after the Agreement itself is adopted. The specific design of such a mechanism depends to a large extent on other elements of the overall system, especially the obligations or commitments to be implemented. However, the Agreement could mandate the establishment of a

mechanism for facilitating and promoting implementation operated by an implementation committee. In addition, it might be possible to define certain parameters of, and give guidance to, a future mechanism in the Agreement. For example, the Agreement could define key design features of the mechanism such as the nature of the mechanism, the membership and composition and the institutional platform. Agreement on such key design features of a mechanism may promote credible commitments and may be required if parties are to have sufficient clarity about the key components of the overall Agreement.

As differentiation figures prominently in international discussions on climate change, Parties may wish to explore options for addressing differentiation with respect to the mechanism. This could include different arrangements for different kinds of countries or different measures for different kinds of commitments or groups of parties. However, it might be most efficient and effective if the Implementation Committee could operate in a uniform manner, with any differentiation built into, and resulting from, the substantive rules it applies.

Box 12 | **Summary of proposed critical issues for an Agreement**

The Agreement should mandate the establishment of an implementation committee operating a mechanism to facilitate and promote implementation. A clear process and timeline for the full elaboration of the mechanism should also be agreed. The rules of the mechanism should be ready for adoption by 2017 at the latest in order to provide Parties with clarity by the time of ratification and before entry into force.

The Agreement could also stipulate the design features of a mechanism. Key features could include:

- Determination of the nature (for example, non-adversarial, facilitative) and objective/purpose (for example, to facilitate and promote compliance) of the mechanism
- Establishment of an Implementation Committee of 10-15 members who can make determinations, as a last resort, by two-thirds or three-fourths majority
- Composition of the Committee (for example following a formula similar to that of bodies under the Kyoto Protocol or equal geographical representation)
- Institutional platform (for example, use of multilateral consultative process under Article 13 of the Convention or elaboration of a new, separate procedure)

In addition, provisions on triggering the procedure and on categories of measures could be determined.

OTHER CROSS-CUTTING ISSUES

Climate Action by Groups of Parties

Background

There are many different initiatives underway among countries that are consistent with, but do not fall under, the UNFCCC.[72] There is an increasing literature and experience on "groups" or "clubs" of countries that cooperate in managing these initiatives. This situation often raises the question – what is the relationship of such actions or groups to the UNFCCC? Group actions include both mitigation initiatives and adaptation initiatives.

Proposed Elements and Ideas for Consideration

The Agreement should encourage groups of countries that wish to lead by undertaking cooperative actions to do so.

There will likely be a number of countries that find it in their self-interest to move forward more quickly and at greater scale than perhaps the full plenum is able to agree together. These countries may in fact wish to join together with other Parties that have similar interests in forging ahead in certain areas. These could be groups of countries that are all working toward rapidly increasing the share of renewable energy in the electricity sector, or enacting ambitious efficiency standards for automobiles, or establishing a carbon price.

The Agreement should stipulate that a process shall be established to explore how best to promote and enable such actions. For example, Parties in such clubs or groupings could be encouraged to set their own rules regarding their chosen area of action. Groups of countries might agree on more stringent rules for particular areas of action amongst their members—with the members then enjoying agreed-upon group benefits, which might include specially enhanced finance, technology and capacity-building initiatives. Rules should not be permitted that promote MRV or carbon accounting schemes that are less stringent than those adopted under the Agreement, and the objective of Group actions should be aligned with the aims of the Convention.

Box 13 | **Summary of Critical issues for an Agreement**

The Agreement should encourage groups of countries that wish to lead by undertaking cooperative actions to do so. The Agreement should establish a process to explore how best to encourage and enable such actions. It should mandate the COP to take follow-up decisions, including how to further incentivize cooperative actions by groups of parties that are consistent with the objective of the Convention.

Actions by Non-State Actors and Sub-National Actors

Background

In addition to groups of countries that are acting together, non-state actors are also joining together in various ways to take action. Companies, investors, and other members of civil society have undertaken a number of initiatives to shift to a low-carbon economy and increase climate resilience. Importantly, sub-national governments at the level of regions, states, and cities are also active.[73]

Proposed Elements and Ideas for Consideration

The Agreement should welcome and encourage both sub-national and non-state actor initiatives. They are a key driving force for closing the existing gap between current country pledges and global climate goals. Such initiatives can promote innovation, leverage local drivers, and may play a growing role in climate action in the future. Sharing experiences among such entities is very important, consequently the Agreement should explore how information should be shared and potentially reported to the UNFCCC.

Box 14 | **Summary of Critical issues for an Agreement**

The Agreement should acknowledge the importance of both sub-national and non-state actor initiatives. It should establish a process to explore how best to encourage and enable such actions, including how they could report to the Convention.

CONCLUSION

Governments are at a pivotal moment – one that provides an opportunity to create a new international climate Agreement that both responds to the growing impacts of climate change and supports and catalyzes a shift to a low- carbon economy. While there is already much activity underway around the world at all levels to address climate change, it is clear that the UNFCCC and its emerging 2015 Agreement has a unique and necessary role in addressing this urgent problem.

An Agreement at the Paris conference needs to speak to all countries and constituencies to secure implementation. In order to play an important role in the transition, the Agreement should fulfill a set of core functions. It should:

- Send a clear signal to policy-makers, businesses, investors, and the public that the low-carbon economy is inevitable
- Link to science with a sense of urgency
- Connect the global Agreement to the "real economy" and "real people" and enhance sustainable development
- Demonstrate fairness, equity and justice in climate actions
- Provide transparency and accountability for country commitments
- Accelerate the investment shift to low-carbon and climate-resilient economies and provide support to developing countries
- Protect the most vulnerable
- Provide incentives

To fulfill these functions, the Agreement as a whole should contain three core components: two long-term goals; three cycles of continuous improvement in the areas of mitigation, adaptation, and support; and a foundation of transparency and accountability. All three of these components need to be equitably designed and implemented. The long-term goals of the Agreement are to ensure that global temperature does not increase more than 2°C above preindustrial levels (thus operationalizing the ultimate objective of the Convention) by implementing a phase-out of all GHG emissions to net zero as early as possible in the second half of this century; and to reduce the vulnerability, and build the resilience, of communities to climate change

impacts, through the collective actions of all countries based on their common but differentiated responsibilities and respective capabilities.

Introduced in the executive summary, Figure 1 shows the relationship of the three cycles, the two long term goals and the foundation for building the Agreement.

Cycles for mitigation, adaptation, and support should be put in place to achieve these two long-term goals in a manner that is fair, equitable and just. Five-year cycles of improvement for each, with attention to identifying the interlinkages and the sequencing between them is one of the key ideas the consortium puts forward for consideration. "Support" is a key component of this Agreement, and building capacity is particularly identified as a fundamental condition for success. Having a strong foundation of transparency and accountability across the board will build trust in the Agreement and its implementation for years to come.

In this paper, authors acknowledge that there is merit in increasing the efficiency of the existing institutional arrangements, to the extent possible, before creating new international institutions.[74] The performance of existing institutions and better linkages between institutions, as suggested in this paper, will have to be monitored. In a number of instances, the Agreement should allow for strengthening institutions over time before creating new ones. However, this paper does recommend the creation of one new instrument and one new institution in order to fill existing gaps:

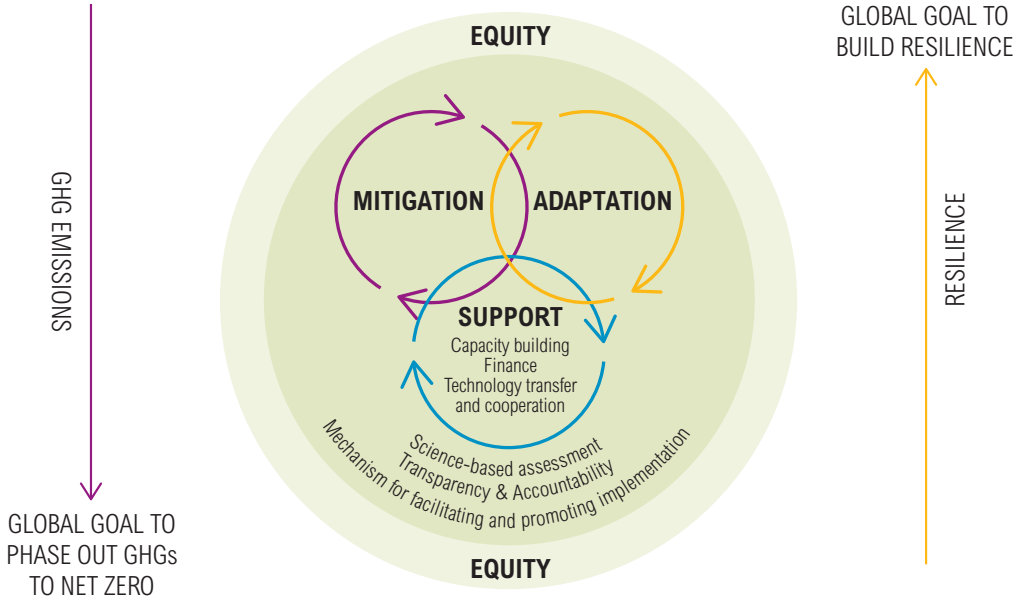
- A capacity building facility, which could be operated by an existing institution
- An Implementation Committee to facilitate and promote implementation of action

In addition to identifying and addressing the barriers and challenges to implementation that countries face, the Implementation Committee could provide input to the Capacity Building Facility to support specific programs and projects.

This paper also makes the case for an independent technical panel, mandated by the COP, to undertake a number of analytical tasks to inform Parties in developing proposed contributions.

The ACT 2015 Consortium offers this Elements and Ideas paper as an input to the UNFCCC negotiating process. It reflects conversations from a series of national convenings and inputs from research papers that have been undertaken over the last year. A revised version of this paper will be available before the Lima Conference of the Parties.

Figure 1 | **Core Components of the 2015 Paris Agreement: Driving Continuous Improvement Toward Long-Term Goals**



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ANNEXES

Annex I. Details on Phase-Out Dates of GHG Emissions

The IPCC Fifth Assessment Report provides indications of the dates when GHG emissions would have to be net zero. The following statements can be derived from analysis that is contained in the report (Figure 1):

- **Carbon budget = eventually zero emissions:** The climate science working group of the IPCC re-emphasized the carbon budget concept: Stabilization of the global temperature at a specific level requires that only a fixed amount of GHG emissions is emitted in the future (the carbon budget). This means that, if the budget is depleted, GHG emissions have to be zero. If it is overspent, emissions have to be negative.

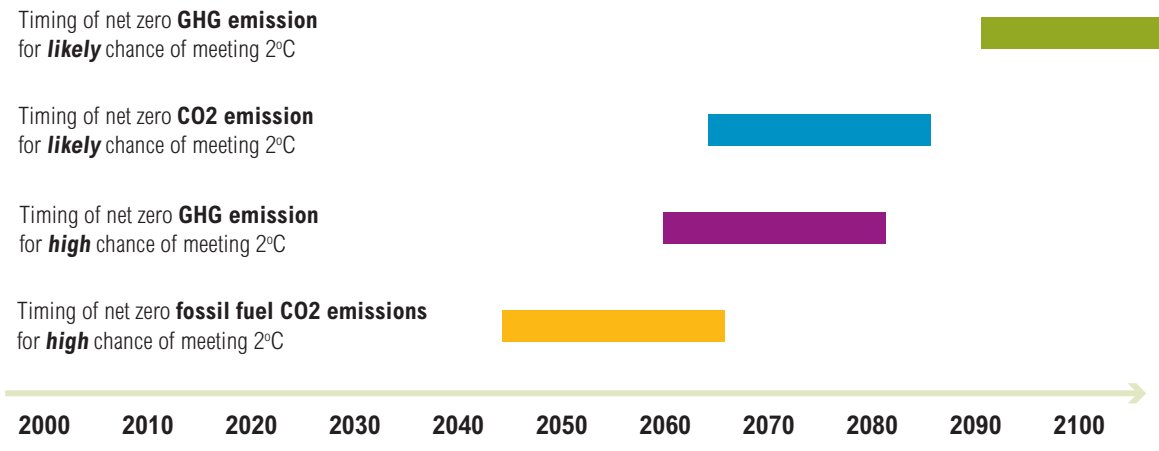
- **For a likely chance of meeting the 2°C target, emissions of all greenhouse gases need to be net zero at least by 2100:** The working group of the IPCC covering options to reduce GHG emissions (WGIII) has analyzed hundreds of modeled scenarios of future emissions. The working group shows that, in scenarios with a 66 percent likelihood of keeping the temperature increase below 2°C, global greenhouse gas emissions are roughly zero in 2100. The full range is 18 percent below zero to 22 percent above zero (as a percentage of 2010 emissions) (Table SPM.1).

- **For a likely chance of meeting the 2°C target, CO_2 emissions need to be net zero in the middle of the second half of the century:** The models usually assume that it is possible to reduce CO_2 faster than the other gases. Options like clean fuels and reducing deforestation are assumed to be readily available, while options to reduce emissions of N_2O and CH_4 from agriculture and land use are more difficult. The scenarios with a 66 percent likelihood of keeping the temperature increase below 2°C, show global CO_2 emissions are around 30 percent above zero (as a percentage of 2010 emissions) in 2050 and 30 percent below zero in 2100. Therefore, they need to cross the zero line between 2050 and 2100 (Figure 6.11).

- **For a high chance of meeting the 2°C target, total GHG emissions would need to be net zero between 2060 and 2080 and likely negative thereafter.** The Climate Action Tracker used the same IPCC scenario database to assess only scenarios that have an 85 percent likelihood of meeting 2°C, so a high chance to implement the precautionary principle.[75] Under these conditions emissions have to be net zero earlier.

- **For a high chance of meeting the 2°C target, CO_2 emissions from fossil fuel combustion and industry would need to be zero between as early as 2045 and no later than 2065, and be negative thereafter.** The Climate Action Tracker separated out CO_2 emissions from fossil fuels and industry, which are assumed to be phased out earlier. For a high certainty of meeting 2°C this must occur by the middle of the century.

Figure 1 | **Timing of global net zero emissions using the scenarios of the IPCC Fifth Assessment Report**

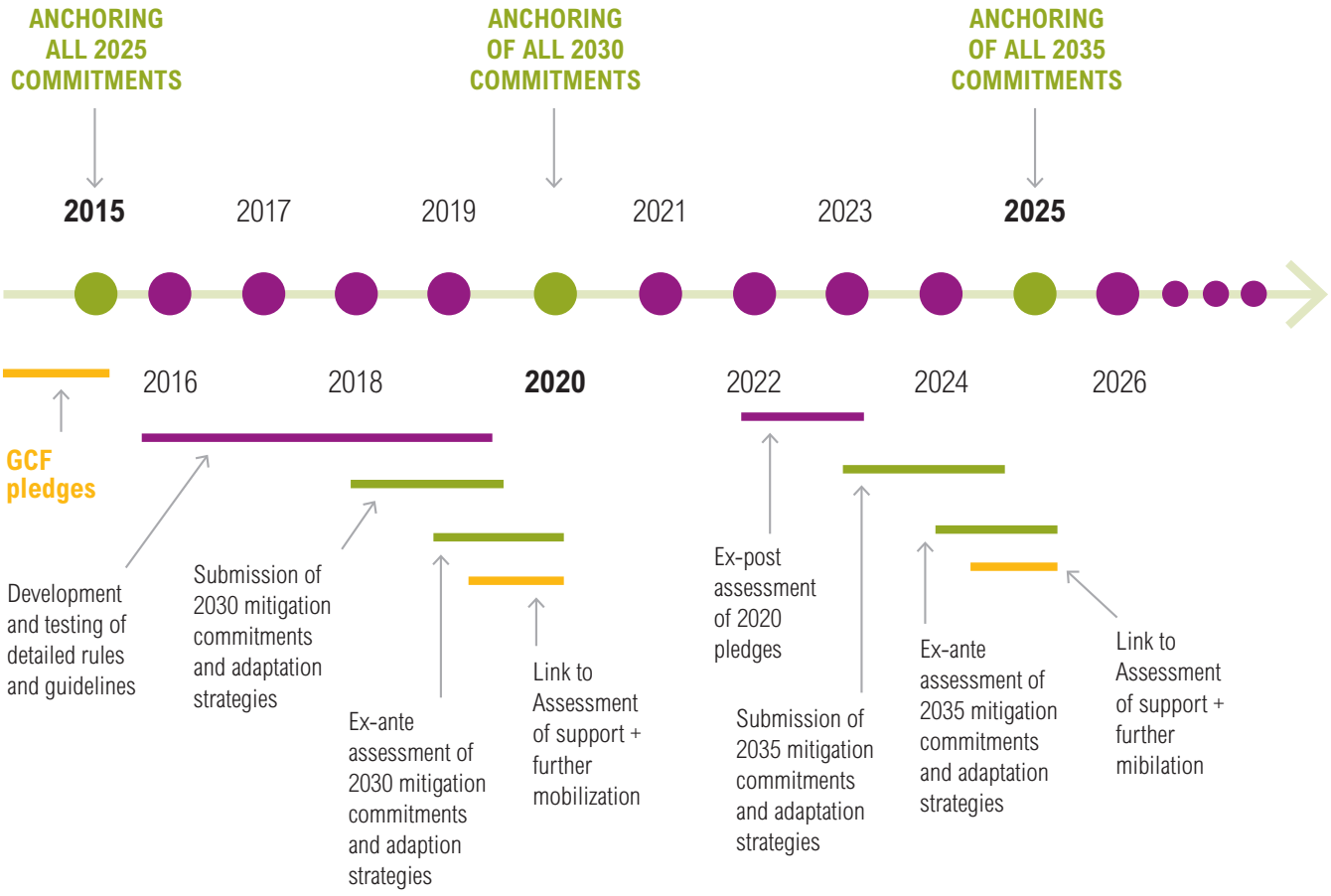


Annex II. Overview of Options for GHG Reduction Commitments

Table 1 | **Illustrative examples of mitigation commitments that could be provided by three illustrative countries (cells shaded in light orange are possible focus areas of the contribution).**[76]

ELEMENT	ILLUSTRATIVE COUNTRY WITH HIGH CAPABILITY	ILLUSTRATIVE COUNTRY WITH MEDIUM CAPABILITY	ILLUSTRATIVE COUNTRY WITH LOW CAPABILITY
Inspirational national long term emissions goal	Year of intended phase out of GHG emissions	Long-term peak and decline pathway or range	–
National short term emissions target	Precisely defined, economy wide, multi-year target until 2025 and/ or 2030	Indication of mitigation ambition until 2025 and/or 2030 without and with support (below BAU, intensity, range)	–
Energy and sectoral targets	National energy efficiency or renewable targets Targets related to land-use and forestry	National energy efficiency or renewable targets Targets related to land-use and forestry	National energy efficiency or renewable targets, if existing
Highlight policies and projects	Governance structures Highlight policies / projects with intended impacts	Governance structures Highlight policies / projects with intended impacts	Selection of a few, yet ambitious policies and/or projects
International support needs	–	Precise purpose and value of support needed	Order of magnitude of support needed
Intended provision of support	Source, use and value of intended support	Intended south-south provision of support	–
Explanations	Detailed explanation why this contribution is an ambitious and equitable contribution to the global goal	Explanation why this contribution is an ambitious and equitable contribution to the global goal	–

Annex III. Timeline for the Submissions and Assessments of Proposed Contributions, with a link to Support



ENDNOTES

1. The Global Commission on the Economy and Climate. 2014. The New Climate Economy report.
2. Schellnhuber, Hans Joachim; Hare, Bill; et al. 2013. *Turn down the heat: climate extremes, regional impacts, and the case for resilience - full report*. Washington DC; World Bank.
3. IPCC. Synthesis Report. 2014.
4. The Agreement on Climate Transformation 2015 (ACT 2015) consortium is a group of the world's top climate experts from developing and developed countries who have come together to catalyze discussion and build momentum toward reaching a global climate Agreement at the forthcoming UN Framework Convention on Climate Change (UNFCCC) summit in 2015. See http://www.wri.org/our-work/project/act-2015.
5. The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a timeframe sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.
6. The Durban Platform references holding the increase of global average temperature to below 2°C or 1.5°C.
7. This is consistent with the IPCC's Synthesis Report findings: "Such a limit would require that global net emissions of CO2 eventually decrease to zero and would constrain annual emissions over the next few decades." Figure SPM.10. High Confidence.
8. Developed countries should continue with economy-wide targets, deepening the level of ambition put forward previously. Developing countries that have national targets should also continue with that form of commitment. All countries should consider ambitious policies and measures.
9. Waskow, D., Joffe, P. Forthcoming. "Equity in a 2015 Climate Agreement." Working Paper. Washington, DC: Agreement for Climate Transformation 2015 (ACT 2015).
10. United Nations Framework Convention on Climate Change (UNFCCC). 2012. Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action. FCCC/CP/2011/9/Add.1.
11. 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 Brussels, Belgium; PBL Netherlands Environmental Assessment Agency, the Netherlands; Tsinghua University, China; the World Resources Institute, Global; Chukwumerije Okereke, Associate Professor, the University of Reading, the U.K.; and Youba Sokona, former Coordinator of the African Climate Policy Centre, Mali.
12. Sometimes referred to as the 'core agreement' or the 'agreement' in this document.
13. ACT 2015 has met with climate change negotiators, government officials and other stakeholders in China; the U.S.; Brazil; Germany; AILAC countries together with Mexico and the Dominican Republic; the African Group; the U.K.; the Philippines and other countries in Southeast Asia; Poland, together with other East European countries through the Climate-East Network; France; and South Africa. ACT 2015 also engaged with AOSIS countries, India and Least Developed Countries before COP 20 in Lima.
14. See www.wri.org/act 2015 for further details on the propositions.
15. ACT 2015 will produce a series of working papers on specific issues related to the 2015 Agreement including: adaptation; an ambition mechanism; characteristics of commitments; compliance options; equity; finance; incentives and variable geometry; legal form; and measurement, reporting and verification (MRV). See references for full citations. In addition to the nine papers, technology, market mechanisms and land use were identified as critical areas by participants at the convenings. As a result, ACT 2015 consulted with experts to consider options for these issues. The resulting unpublished research also contributed to this paper.
16. Decision 1/CP.17, Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action, para. 2.
17. The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a timeframe sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.
18. IPCC. 2014.
19. In addition to the scientific studies, it is worth noting statements by governments and stakeholders on this matter as well as the Secretary General's Summary on the Climate Summit.
20. IPCC). 2014. Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change
21. Waskow, D., Joffe, P. Forthcoming. Equity in a 2015 Climate Agreement; Klinsky, S, Waskow, D., Bevins, W., Northrop, E., Kutter, R., Weatherer, L. and Joffe, P. Forthcoming. "Building Climate Equity". Report. World Resources Institute, Washington, DC.
22. A number of Parties, or groups of Parties, and experts have put forward ideas for an equityframework. See Ngwadla, 2014, pg. 14,16. May 2012 AWG-LCA Workshop, Report on the workshop on equitable access to sustainable development, Report by the Chair, 15 August 2012 FCCC/AWGLCA/2012/INF.3/Rev.1. pg. 7, 9. Baer, et al.,(2008).
23. See the binding targets in the Kyoto Protocol and "pledges" included in the Cancun Agreements.
24. The Global Commission on the Economy and Climate. 2014. The New Climate Economy Report.
25. UNEP. 2013 and 2014. The Emissions Gap Report 2013 and The Emissions Gap Report 2014.

26. It is noted that the capacity of LDCs and countries in need to take on mitigation commitments is much more limited than that of other countries, as is their responsibility. Those countries, in particular, will require support to act, and also may be on a slightly longer timeframe to submit mitigation commitments.
27. For instance, the issue of what constitutes an Intended Nationally Determined Contribution (INDC), as well as the upfront information for contributions are ongoing discussions.
28. LDCs and Small Island Developing States in need to be provided flexibility regarding stringency and type of commitment.
29. This process would focus on reviewing the proposed contributions. It would differ from the existing ex post review of implementation undertaken by expert review teams (ERTs), which consider the efforts made by Annex I Parties to meet their commitments. However, the results of the review of implementation could be an element in the assessment and review process of the potential national contribution.
30. An equity framework could form part of a multilateral assessment process that would determine the extent to which the Parties' contributions conform to their ambition (science) and fairness benchmarks. On the other hand, this equity framework should also consider not only the effort of the parties, but also the outcomes their collective action can deliver. See for instance, Ngwadla, X., and Rajamani, L. 2014;and Garibaldi (2014).
31. Waskow, D., Joffe, P. Forthcoming.
32. The process of national contributions allows countries to self-differentiate and put forward what each Party considers to be its appropriate contribution to solving the climate problem. While this is a helpful approach, it will be challenging for countries with less capability and little responsibility for the problem. The cycle described above should also consider support needs and commitments. The finance, technology, and capacity segments of the Agreement (covered below) therefore also need to be on a five year cycle, whereby the support needs of countries are assessed along with delivery of support by developed countries.
33. Parties would agree to the set of metrics and information. This could be informed by the GHG Protocol Mitigation Goals Standard. See World Resources Institute, 2014.
34. Raustiala, K. 2001. Reporting and Review Institutions in 10 Selected Multilateral Environmental Agreements. UNEP, Nairobi.
35. Ellis, Jane, Briner, G., Dagnet, Y. and Campbell, N. 2011. Design Options for International Assessment and Review (IAR) and International Consultations and Analysis (ICA). OECD.
36. It is noted that the capacity of LDCs and countries in need, as well as their responsibility, to take on mitigation commitments is much more limited than other countries. Those countries particularly will require support to act, and also might be given a slightly longer timeframe to submit mitigation commitments.
37. IPCC AR5 SPM WGII and IPCC AR5 Synthesis Report: Adaptation and mitigation are complementary strategies for reducing and managing the risks of climate change. Substantial emissions reductions over the next few decades can reduce climate risks in the 21st century and beyond, increase prospects for effective adaptation, reduce the costs and challenges of mitigation in the longer term, and contribute to climate-resilient pathways for sustainable development.
38. The format for a proposed adaptation contribution would be decided as part of the COP20 decision on upfront information. It is likely, however, that more detail will be needed for future proposed contributions and therefore guidelines for Adaptation Strategies should be developed by 2017.
39. WRI. 2014. Mitigation Goals Standard: An accounting and reporting standard for national and subnational greenhouse gas reduction goals; GHG Protocol Policy and Action Standard: An accounting and reporting standard for estimating the greenhouse gas effects of policies and actions.
40. UNFCCC. 2012. Annex to Decision 3/CP.17, FCCC/CP/2011/9/Add.1. Decision 3/CP.17 Launching the Green Climate Fund – see section 8. Requests the Board to balance the allocation of the Green Climate Fund resources between adaptation and mitigation activities;
41. See page 4 of the decision document (from the sixth meeting of the GCF Board,) for the reference to 50:50 balance over time, as well as the decision on the floor amount for SIDS, LDCs and African States. GCF. 2014. Decision of the Board – Sixth Meeting of the Board 19-21 February 2014. http://gcfund.net/fileadmin/00_customer/documents/pdf/GCF_B06_Decisions_Sixth_Meeting_final.pdf
42. UNFCCC. 2013. Introduction to the Four Elements of the Technical Guidelines.
43. UNFCCC. 2009. Resource Guide for Preparing the National Communications of Non-Annex I Parties.
44. IPCC, 2014: Summary for policymakers. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.
45. Klein, R.J.T., G.F. Midgley, B.L. Preston, M. Alam, F.G.H. Berkhout, K. Dow, and M.R. Shaw, 2014: Adaptation opportunities, constraints, and limits. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Page 903.
46. Ibid.
47. E.g. Caribbean Catastrophes Risk Insurance Facility (CCRIF) or the African Risk Capacity (ARC), another one emerging in the pacific region.
48. Also known as the Hyogo Framework.
49. Okereke, C., Prajwal, B., Dagnet, Y. Forthcoming. Adaptation and Loss & Damage in a 2015 Agreement. Working Paper. Washington, DC: Agreement for Climate Transformation 2015 (ACT 2015).
50. World Economic Forum. 2013. The Green Investment Report: The ways and means to unlock private finance for green growth.
51. Ibid.
52. UNFCCC. 2014. Standing Committee on Finance, Biennial Assessment and Overview of Climate Finance Flows Report 2014.
53. Sustainable development objectives must combine outcomes from the post-2015 development agenda and incorporate climate actions to promote a more sustainable development paradigm
54. This can be accomplished through decisions of the COP.
55. Examples that could be considered in the development of methodologies are the CPEIR process for estimating domestic public expenditures and the results management frameworks of international banks.

56. In terms of climate finance, "country ownership comprises three elements: alignment of climate finance and national strategies and priorities; decision-making responsibilities vested in national institutions; and the use of national systems for ensuring accountability in the use of climate finance." WRI. 2013.
57. UNFCCC. 2012. FCCC/CP/2011/9/Add.1.
58. See the LEDS Global Partnership, http://en.openei.org/wiki/LEDSGP/home and Green Growth Best Practices, http://www.ggbp.org/.
59. The development of a methodology to stress test major financial institutions would require the cooperation of other sustainable development finance initiatives and institutions, for example, national financial regulatory authorities, the IMF which is mandated to oversee the international monetary and financial system and monitor the economic and financial policies of its member countries and the UN Intergovernmental Committee of Experts on Sustainable Development Financing (ICESDF) which was set up by the General Assembly to identify options for effective sustainable development financing strategies which facilitate the mobilization of resources and their effective use.
60. The long-term goals should guide this work, but it may be more practical to develop specific long-term goals such as increasing the share of "climate friendly projects" (based on a common and agreed methodology) by some specified amount.
61. UNFCCC. 2014. FCCC/SBI/2014/2
62. UNFCCC. 2001. The Marrakesh Accords. FCCC/CP/2001/13/Add.1.
63. UNFCCC. 2014. FCCC/CP/2014/2
64. Thirty six applications have been submitted for BUR support as of 4 June 2014 for over $49 million – UNFCCC. 2014. UNFCCC/SBI/2014/8
65. Lee, B. Iliev, I. & Preston, F. 2009.
66. Tomlinson, S. Zorlu, P. & Langley, C. 2008.
67. Some of these terms may not apply in all cases. For example, for technical parameters the term measurement may be appropriate, but for other forms of commitments estimating may be more appropriate. Similarly the term review may be more appropriate than the term verification.
68. The principles adopted for national inventories (transparency, comprehensiveness, completeness, comparability, accuracy) have guided the improvements in national inventories over the past 15 years. Some may be less relevant than others when applied to all forms of commitments. Relevance is another principle to be considered to reflect further national circumstance and diversity of types of commitments and actions. This would be in line with the principles under GHG Protocol standards.
69. As per the sections on Adaptation and on Finance.
70. IPCC. 2003. Good practice guidance for LULUCF. Chapter 3
71. Building from the lessons of the Kyoto Protocol, where the MRV requirements became binding only from 2008. Before, there were no compliance implications. For instance: Submission of the annual inventory became mandatory under the Kyoto Protocol beginning in 2010 to cover the beginning of the first Kyoto Protocol period (2008-2012). See UNFCCC. 2008. Kyoto Protocol Reference Manual on Accounting of Emissions and Assigned Amounts.
72. UNEP. 2013. Emissions Gap report, Chapter 5; IPCC. 2014. Mitigation of Climate Change, Chapter 13: International Cooperation: Agreements and Instruments.
73. UNEP. 2013. See also UNSG Climate Summit 2014, http://www.un.org/climatechange/summit and UNFCCC Momentum for Change, http://unfccc.int/secretariat/momentum_for_change/items/6214.php.
74. Options for Streamlining the UNFCCC Process and Enhancing Interlinkages in the Post-2020 Period
75. Climate Action Tracker. 2014.
76. Based on Höhne, N., Ellermann, C., Li, L. 2014. Intended Nationally Determined Contributions under the UNFCCC. Discussion Paper.

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ABOUT ACT 2015

The Agreement on Climate Transformation 2015 (ACT 2015) consortium is a group of the world's top climate experts from developing and developed countries that have come together to catalyze discussion and build momentum toward reaching a global climate agreement at the forthcoming UN Framework Convention on Climate Change (UNFCCC) summit in 2015.

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