LDC PAPER SERIES

Differentiated mitigation commitments in a new climate agreement

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KEY POINTS

- Differentiation of commitments in the post-2020 period can take place either through the **type of commitment**, its **ambition**, and/or the **process through which the commitment is determined**.
- A good balance is needed between the **initial level of ambition** inscribed in the agreement, and a **process to move to even more ambitious commitments** later on. How country proposals will be **reviewed for technical correctness, fairness and against the 1.5°C or 2°C limit** is another critical point.
- Country positions on principles like equity, responsibility and capability vary broadly. An **Equity Reference Framework could help bring them together in the form of acceptable ranges**, and serve as guidance to propose or review commitments – as part of the formal process, or informally.
- **High ambition** in the new agreement is vital to LDCs, as they are worst affected by climate impacts. The LDC Group could pursue an agreement that includes **a global commitment to phase out greenhouse gas emissions**, to motivate the international community to higher ambition. **Active positioning on the use of equity principles** is another option to push ambition.
- **Pre-2020 ambition can significantly influence mitigation opportunities afterwards**. Renewable energy deployment, the phase-out of fossil fuel subsidies, and leveraging of the energy efficiency potential are available short-term options. The LDC Group could **propose a UNFCCC mechanism to track progress of countries in these areas**.

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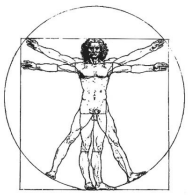

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Introduction

In 2011, at the 17th Conference of Parties (COP 17) to the UN Framework Convention on Climate Change (UNFCCC) in Durban, South Africa, the international community agreed to negotiate a new climate agreement, to enter into force in 2020. Negotiations for this new agreement are taking place under the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP), and are to be finalised in 2015.[1] The structure and the content of the "2015 agreement" is still open, but among other elements referred in paragraph 5 of the 2011 Durban Decision 1/CP.17, mitigation will play an essential role.

In the coming months and years, countries will propose and negotiate their mitigation commitments.[2] The objective of this paper is to support the Least Developed Countries (LDCs) Group in negotiating mitigation commitments for the 2015 agreement.

While it is clear that the LDCs themselves have only limited impact on global greenhouse gas (GHG) emissions, they are most vulnerable to climate change. Current emission reduction pledges for 2020 under the Copenhagen Accord are not sufficient to be in line with the 2°C limit, let alone the 1.5°C limit which could prevent drastic climate change impacts, especially affecting LDCs.[3] It is therefore the aim of the LDC Group to assure a significantly higher level of global ambition for the new agreement. In its submission to the ADP, Nepal on behalf of the LDCs "reaffirms its demand that the commitments to be made under the ADP result in an emission pathway that can limit warming below 1.5°C, and in particular result in the closing of the emissions gap by 2020".[4]

This paper analyses some points for consideration of the LDC Group to raise ambition levels. It focuses mainly on potential elements of the 2015 agreement related to mitigation commitments. At the same time, however, it is clear that adaptation and international support are closely linked to climate change mitigation and equally important.

The paper picks up most relevant aspects related to mitigation commitments under the UNFCCC and explains various options for differentiation. First, we give an overview of the **types of commitments that are theoretically possible** with some examples. Second, we elaborate on **equity considerations** that could be used to determine the expected level of mitigation of countries and determine to whom, and when, they might apply. Third, we describe the **process to determine and revise commitments** and fix them in an international agreement. In the last section, we showcase a number of **actions through which the LDC Group can effectively influence the negotiations in a positive way** to contribute to a high global ambition level. We consider the opportunities of an "Equity Reference Framework", the potential of finding other highly ambitious allies, and possibilities for increasing short-term action before 2020.

Types of mitigation commitments

Scope of commitments

Commitments can be result-based (focusing on outcome) or activity-based (focusing on behaviour). UNFCCC negotiations include result-based emission reduction targets under the Kyoto Protocol and activity-based commitments for some Nationally Appropriate Mitigation Actions (NAMAs). In this section, we describe potential types of targets and compare their characteristics.

Result-based commitments can focus on different target dimensions. Possible options are:

- Greenhouse gas (GHG) emission reduction targets
  - Absolute or relative economy-wide emission targets
  - Absolute or relative sectoral targets
- Other quantifiable targets
  - Energy intensity targets
  - Renewable energy targets (for instance, capacity or share of electricity generation)
  - Area to be afforested
  - Other technology targets

Activity-based commitments cover the following groups (building upon Vieweg *et al.* 2013):

- Commitment to implement policies
  - Emission price commitments
- Technology-oriented agreements
- Commitment to implement individual actions and projects

Table 1, on the next page, summarises main characteristics of the different types of targets and describes their implications.

Table 1: Overview of scope of targets

Scope of commitment	Main characteristics	Implications
Absolute economy wide emission reduction targets	Mostly expressed relative to a historic base year May allow trading of emissions internationally **Current examples:** Kyoto targets	• Allows ex ante determination of results, however effectiveness depends on stringency. Setting targets does not automatically lead to action • Absolute cap prevents rebound effects • If trading is allowed, less ambitious targets can affect effectiveness of complete system and target can also be the effective maximum of emission reductions (additional reductions are sold) • Provides flexibility to countries on where to reduce emissions. However, this may also lead to picking low-hanging fruits or short-term impact activities only
Relative economy wide emission reduction targets	Relative to business as usual or to GDP (emission intensity) **Current examples:** Pledges of various non-Annex I countries relative to Business as Usual, India and China relative to GDP	• Resulting emission level changes depending on development of country. This makes the result more difficult to project, but flexible to unexpected changes in economic development
Absolute or relative sectoral targets	Possible on national level or internationally **Current examples:** Brazil's Copenhagen pledge broken down by sectors	• Can be more targeted to specific sector needs, costs and potentials • Does not necessarily allow for most cost-efficient mitigation solutions (if those are not covered by the sector) • If coordinated internationally, competitiveness would not be an issue • Could allow action at the sectoral level, when political reasons or issues in other sectors limit action at the national level
Other quantifiable targets	**Current examples:** Over 100 countries have domestic renewable energy targets and many have domestic energy efficiency targets	• Can be targeted to key emission drivers • If ex ante information is available, most cost-efficient option can be chosen • Intermediate outcomes easier to influence
Commitment to implement policies	Commitment would often consist of a broad set of policies **Current examples:** Argentina's proposal to implement various activities in different sectors until 2020	• Can be directly targeted to deliver development co-benefits • Commitment to action, but outcome very difficult to predict • Emission reductions depend heavily on policy design
Emission price commitments	Putting a price on emissions through taxation or emissions trading **Current examples:** EU Emission Trading System or Norwegian carbon tax	• Effectiveness depends on price • "Polluter pays" principle • Costs are not the only potential barrier, therefore needs to be complemented by other instruments

Scope of commitment	Main characteristics	Implications
Technology oriented agreements	May relate to collaborative research and development and/or to requirements for common standards for key technologies	• Outcome very difficult to predict • May speed up diffusion of sustainable technologies and lower their costs globally • Approach would favour technology providers
Commitment to implement individual actions and projects	**Current examples:** Ethiopia listing, as NAMAs, 40 emission reducing projects that are planned	• Clearly defined boundaries of action • Step by step approach
Individual actions and projects	**Current examples:** Several NAMAs submitted include lists of projects that are to be implemented	• First step towards mitigation • Individual project may not be able to deliver long-term transformational changes

Source: Authors' elaboration, based on Vieweg *et al*. (2013)

Independently of the scope of the commitments, countries may choose to make commitments completely or partially dependent on activities of other Parties or on international support. For example, several countries have made their pledges under the Copenhagen Accord conditional to either reaching a global agreement and comparable efforts by other developed countries (the EU's target of 30 per cent below 1990);[5] or to support by developed countries (Mexico's target for 2020 of 30 per cent below business as usual).[6]

Such conditional commitments decrease the risk for individual countries to have to tackle potential disadvantages of going first or implementing activities alone, where combined efforts could lead to important synergies. On the other hand, however, the development of the Copenhagen pledges shows that countries usually remain at their unconditionally pledged level.[7] Conditional commitments therefore raise the risk of countries remaining at an ambition level that is below their potential.

Commitments that are conditionality to international support, as mentioned in Article 4.7 of the UNFCCC,[8] can reflect the need of developing countries to receive finance, technologies or capacity building to be able to effectively implement mitigation measures. These commitments can only be understood fully when the support necessary for certain targets is clearly specified. Various NAMAs submitted to the UNFCCC registry in search of support for preparation or implementation are good examples of mitigation conditional to support,[9] and specify expected emission reductions as well as the support needed.

Party positions on the table for the 2015 agreement regarding types of commitments

Several Parties have provided suggestions on how to design commitments under the 2015 Agreement. While the different types of commitments themselves are only discussed in little detail in the submissions, countries focus on the approach to determine Parties' commitments under the 2015 Agreement. A key question is whether a specific type of commitment can be prescribed to certain countries or country groups, or if each country should be allowed to choose its preferred type. This also includes the question of whether certain countries could end up with no emission reduction commitments.

The EU stresses that all Parties should take on legally binding mitigation commitments. Furthermore, its submission to workstream 1 of the ADP calls for provision of information to enable the ex ante quantification of emission reductions that the commitment will imply.[10] This will be difficult for certain types of commitments.

The US calls for a flexible approach, proposing that each country can define the nature of its targets itself, consistent with national circumstances.[11]

Other Parties suggest that depending on the development of the countries, some of them should adopt absolute emission reductions targets, while others are allowed to choose more flexible commitments. South Africa for example states that "the future agreement should contain binding absolute emission reduction targets for developed countries and relative emission reduction targets for developing countries, e.g. improvements in emissions intensity". Furthermore, South Africa suggests that developed countries should establish zero carbon development plans.[12]

This discussion is closely related to the discussion on the differentiation of countries in Annex I and non-Annex I Parties, or developed and developing countries. Canada writes in its submission that "it is essential to acknowledge that the world of today is very different from that of 1992, when the Convention was first established".[13] This view is, for example, supported by the US[14] but also by Ethiopia, which suggests revising Annexes in five-year periods according to countries' GDP and per capita GDP.[15] Amongst others, also the EU, Independent Alliance of Latin America and the Caribbean (AILAC) and Belarus call for a more flexible handling. In contrast, the like-minded developing countries group is strictly against renegotiating Annexes, arguing that those reflect historic responsibility and thus indicate respective obligations of Parties.[16]

Equitable distribution of mitigation efforts

The aim to distribute climate change mitigation efforts across countries in an equitable manner is deeply anchored in the UNFCCC Article 3.1 as the principle of "common but differentiated responsibilities and respective capabilities". This aspect is also essential to any future agreement. While Parties have agreed that a fair approach is necessary, the definition of equity has been the subject of on-going discussion and no agreement has been found so far. Equity considerations and respective indicators can determine the stringency of commitments, and to whom and when they apply.

This section of the paper identifies existing dimensions of equity, and gives an overview on commonly used indicators and how different effort sharing approaches use those to distribute necessary emission reductions. It highlights the aspect of participation regarding equity and provides insights on how an Equity Reference Framework (ERF) could function. Furthermore, the positions of different Parties regarding equity are explained.

Equity in climate change mitigation

Possible dimensions for distributing efforts

Höhne *et al*. (2013) have identified four main dimensions that can be found repeatedly in the discussions on how to share the burden of reducing emissions between countries: responsibility, equality, capability and cost effectiveness. These principles are used in different effort sharing approaches developed by countries or research institutions.

Responsibility

Responsibility represents "the historical contribution to global emissions or warming".[17] The historical contribution can manifest itself in the cumulative historical emissions of a particular country, which represents its contribution to global warming, absolute or per capita. Müller *et al*. (2009) describe ways to differentiate responsibilities further.[18]

Capability

Capability represents the ability to pay for mitigation.[19] Capability can be represented by the GDP (per capita) or the Human Development Index (HDI) of a particular country. The 'Oxford Approach' develops criteria for the ability to pay based on the income and poverty indicators.[20] Other approaches also address capabilities focusing on the "right to development" of a particular country.[21] These approaches argue that the less capable a country is, the more it should have a right to fulfil its basic needs first before undertaking an effort to reduce emissions.

Equality

The equality principle emphasises equal rights to global commons for each person in the world. In effort sharing approaches, this often translates into equal emission allowances allocation per person – that is, that each person on the globe has the same right to emit as everybody else. This can either refer to one particular point in time (for instance, today) or to an average over a time period (for instance, from 1990 till today).

Cost effectiveness

The dimension of cost effectiveness expresses the availability of mitigation potential at relatively low costs in comparison to other countries. Approaches that base effort sharing on cost effectiveness allocate emissions on the basis of emission reduction potential: countries with a high emission reduction potential have to undertake more actions than countries with a low emission reduction potential. Marginal abatement costs, representing the additional costs for reducing emissions over a given baseline situation, are often used as a basis to determine this cost effective allocation of emissions reductions.

Cost effectiveness is controversial as a dimension for equity and rather seen as another input to effort sharing calculations than an equity principle. An argument for using it in effort sharing calculations is that countries with high domestic mitigation potential at negative costs should tap this potential, independently of the country's development, as it results in net benefits for the country. From this point of view the mitigation action is therefore not a burden, but a benefit. On the other hand, the pure availability of abundant potential does not necessarily mean that the country should be made responsible for exploiting it, or that it is capable of implementing activities at this point in time, even if they result in a positive impact in the mid- or long-term. An additional problem is unavailability of reliable data.[22]

Equitable participation

Besides the question of how to distribute emission reductions among countries, participation is another criteria for differentiation, determining who should be regarded when distributing efforts and to what extent. Possibilities could be to exclude countries with currently low capabilities, or countries with little responsibility. Countries should be included once they pass a certain threshold of capability or responsibility levels.[23]

The 2015 agreement is supposed to be "applicable to all Parties".[24] Participation is therefore not to be seen as inclusion or exclusion in the agreement, but rather that the Agreement should accommodate contributions of all Parties based on differentiation of type, ambition and timing of commitments.

Equity Reference Framework: Providing a frame for equitable distribution of efforts

An ERF can allow for quantitative and qualitative interpretation of the UNFCCC principles of "equity" and of "common but differentiated responsibilities and respective capabilities" for application in the agreement, in light of the current need for action, responsibilities as of today, and current capabilities. As such, it may mean the re-evaluation of some of the principles used in the Kyoto Protocol, such as the split of Annex I and non-Annex I countries, and integration of mechanisms and approaches that have been developing since, such as the NAMAs.

An ERF can guide Parties on which range their emission reductions should be in order to distribute efforts equitably and to remain within globally agreed temperature limits.[25] It can also help independent stakeholders to evaluate Parties' proposals. In a more rule-based agreement, it could be the basis for all countries' commitments. The major advantage of including an ERF is that once this is agreed, it provides a reliable system and assures Parties that the efforts are equitably split. The difficulty of the ERF is that it is extremely difficult to negotiate commitments dependent on such an agreement. Even with the option of providing only ranges of required emission reductions per country, the negotiation will be highly political. A different approach could be to use the ERF as an unofficial guide for Parties.

Differentiation approaches

Approaches to differentiate emission reductions or allocate emission rights use the above-mentioned principles to distribute necessary global emission reductions to countries or regions. Many suggestions have been made on how to quantify the principles and convert them into a distribution of emission allowances. In many cases, the suggestions are a combination of a number of principles. Table 2, on the next page, gives an overview of which principle, or combination of principles, is used in proposed effort sharing approaches.

Table 2: Overview on effort sharing approaches by category

Category	Description	Application in approaches	Indicators applied (examples)
Responsibility	The basic concept is to use historical impact on climate change to derive emission targets	Brazilian Proposal	Cumulative emissions (per capita)
Capability	Frequently used for allocations relating to reduction targets or reduction costs to GDP or HDI. This includes approaches that are focussed exclusively on basic needs	Convergence of emissions per GDP Equal reduction of emissions per GDP Percentage reduction based on indicator for capacity[26] Equal cost per GDP Satisfying basic needs	GDP per capita HDI Emissions per GDP Poverty intensity of GDP National income distribution costs
Equality	A multitude of studies provide allocations based on immediate or converging per capita emissions.[27] Later studies refine the approach by using per capita distributions within countries[28]	Contraction and Convergence Reduction based on emissions per capita	Emissions per capita
Responsibility, capability and/or need	Approaches use responsibility and capability as a basis	Greenhouse Development Rights[29] Responsibility, Capability and Sustainable Development[30] Oxford Approach[31]	Emissions per capita GDP per capita National income distribution Poverty intensity of GDP
Equal cumulative per capita emissions	Studies that allocate equal cumulative per capita emission rights based on a global carbon budget.[32] Studies diverge on how they assign the resulting budget for a country to individual years	Carbon budgets Equal cumulative per capita emission rights	Carbon budget Cumulative emissions per capita
Staged approaches	Countries take differentiated commitments in various stages. Also approaches based on allocation for sectors such as the Triptych approach[33] or sectoral approaches are included here. Categorisation to a stage and the respective commitments are determined by indicators using all four equity principles. Finally, studies using equal percentage reduction targets, also called grandfathering, are also placed in this category	Multistage Common but differentiated convergence EU commission illustrative calculations for Copenhagen Convergence of sectoral efficiencies (Triptych)	Mix of indicators, for instance: For multistage: emissions per capita, GDP per capita, per cent reduction below base year For Triptych: various sector specific indicators such as "Share of renewables and emission free fossil in 2050" for electricity
Cost-effectiveness (for reference)	Assumption that all countries are supposed to have similar relative mitigation costs and on that basis distribute targets	Equal marginal mitigation costs	Marginal abatement cost (US$/tCO2)

Source: Adapted from Höhne *et al*. 2013

Suggestions by Parties currently on the table for the 2015 agreement regarding equity

Parties have expressed their specific preference of certain dimensions over others in the UNFCCC negotiations in the past. This section focuses on suggestions for the 2015 Agreement submitted to the ADP so far. While all Parties of the UNFCCC acknowledge the principles of equity and of common but differentiated responsibility (CBDR) and respective capabilities in general, the importance of these varies in the submissions. Most countries do not state how the principles should be quantified or otherwise converted into mitigation commitments. Some countries suggest a very flexible approach. Japan suggests that the commitments should not be determined using any of the principles, but be put forward by the countries themselves, independently of a global dimension to evaluate equity. The United States represents the same opinion.[34] The group of like-minded developing countries sees the CBDR principle as the basis for a clear differentiation between current Annex I and non-Annex I countries, and says that developing Parties' contributions should not be measured against any principle.[35]

In the submissions to ADP, countries mostly focus on their understanding of responsibility and some provide additional insights on how this dimension should be converted into concrete results.

While Parties agree that the efforts should be distributed according to the principle of common but differentiated responsibilities and respective capabilities, a fault line between countries is how to quantify the distribution of emission reduction efforts. Various developing countries in the past have suggested the incorporation of historic emissions as an indicator for responsibility – for instance, Brazil in a proposal in 1997[36] or a number of studies from Chinese research organisations focussing on a carbon budget.[37] These views are sometimes also reflected in recent submissions. Brazil has reiterated its past proposal that historic responsibility should be the main criterion to determine future targets under the 2015 Agreement. It suggests 1850 as a starting year, and consideration of the accumulative effects of emissions on global temperature increase.[38] Brazil also presented this proposal during COP 19 in Warsaw, 2013, suggesting that the Intergovernmental Panel on Climate Change should develop a reference methodology to quantify targets based on responsibility.[39]

Ethiopia states that the definition of Annex I Parties should be dependent on cumulative per capita emissions.[40] The submission assumes that Annex I countries will keep having stronger responsibilities in the future. The LDC Group opts for "allowing for some degree of differentiation for developed countries, emerging economies, middle-income countries, the most vulnerable and the least developed countries based on agreed criteria".[41]

Process to reach equitable commitments

To reach a global agreement on a distribution of mitigation efforts in form of commitments, different approaches are possible in theory. Various elements can be used and combined to get to an agreement in 2015, as illustrated in Figure 1 on the next page. This section describes exemplary processes to reach an agreement and puts most recent developments in the negotiations during 2013 in this context.

Possible elements of the process for 2015

The first question when developing the criteria for commitments in the 2015 Agreement is how countries come up with and present their proposals for commitments. Possible options could include top-down via an ex ante (negotiated) ERF, or bottom-up with countries putting forward the proposals themselves. Further, there is a difference whether commitments are put forward with (stringency) figures and indication of conditionality or whether initially the type of commitment alone is put forward, thus allowing an informal application of ERF parameters to establish focal ranges for stringency figures. All options not allowing Parties to negotiate their commitments/contributions may decrease the risk of locking in to low initial ambition levels.

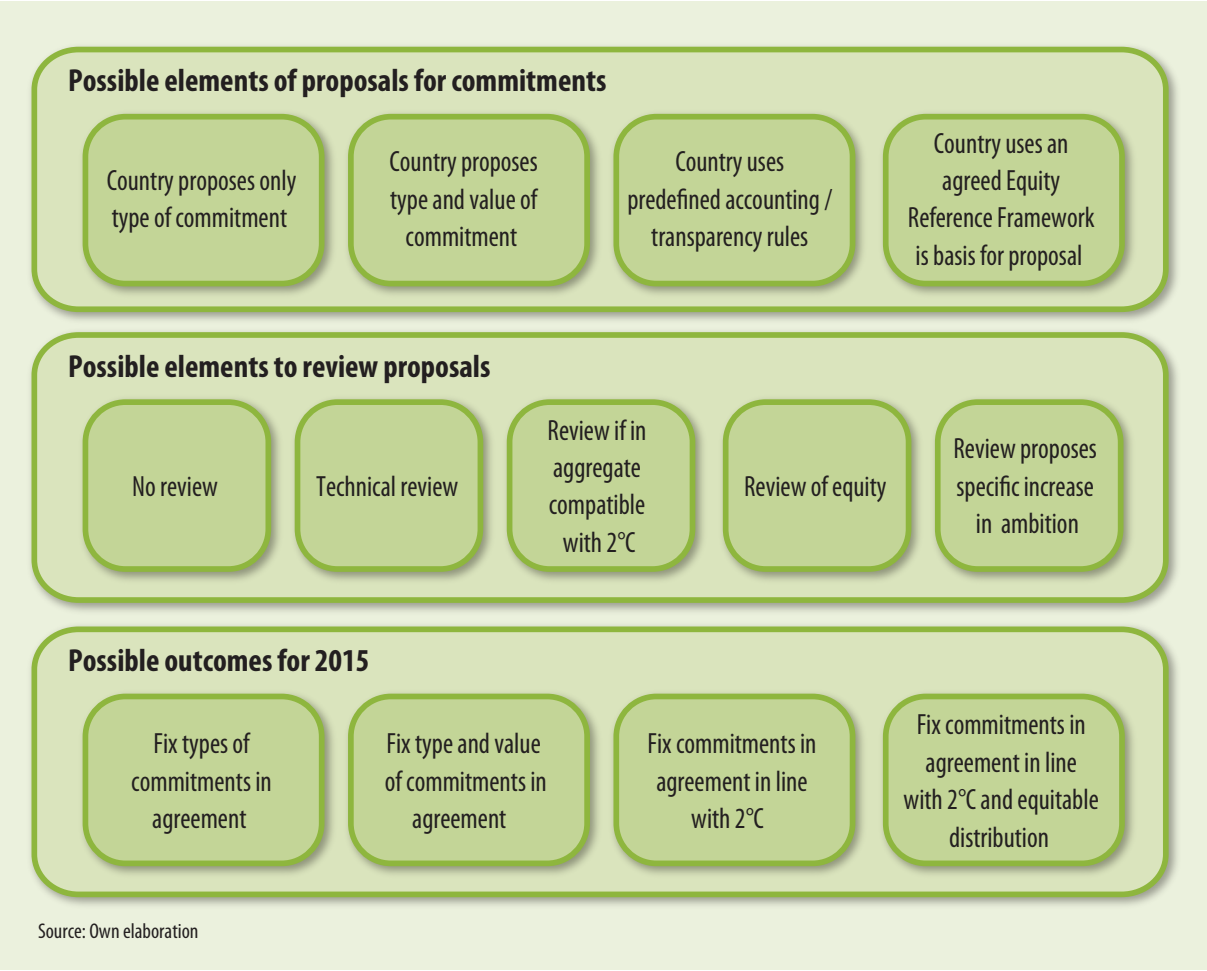
Additionally, rules on accounting and guidelines on which information needs to be provided together with the proposals can complement this part of the process. The US suggests that countries should be prepared to justify their commitments.[42]

A second main area of the process could be a formal assessment or review of proposals. The possibilities range from no review at all, via a review of technical correctness of the calculation of the commitment, to a detailed review regarding the equity of the proposal and the aggregation to a global pathway. The EU mentions the need for a review process covering those three elements in its submission of May 2013,[43] while the US suggests that proposals should undergo a public consultation phase, in which civil society and independent international bodies review the proposals.[44] The group of like-minded developing countries is against any kind of review of proposals of developing countries.[45] Depending on how these review processes are anchored in the overall set-up, they may lead to countries reviewing their proposals and increasing their ambition.

Depending on the elements agreed on for the process until 2015, different outcomes on mitigation commitments are possible in the 2015 Agreement. The Agreement could contain only a framework for commitments and the types of commitments for all countries, without actual numbers for emissions reductions. Or, those commitments could already be quantified, equitable and in line with 2°C – or not.

Additionally to the elements presented in Figure 1, there could be a mechanism to increase ambition afterwards in case initial commitments are not sufficient, and to adapt commitments to actual developments. However, such revisions after the Agreement is in place will require additional efforts both at the international as well as the national level, and may not always be possible. It is therefore essential to come to a sufficiently ambitious initial agreement.

Figure 1: Possible elements of the process regarding mitigation commitments in the 2015 agreement



Source: Own elaboration

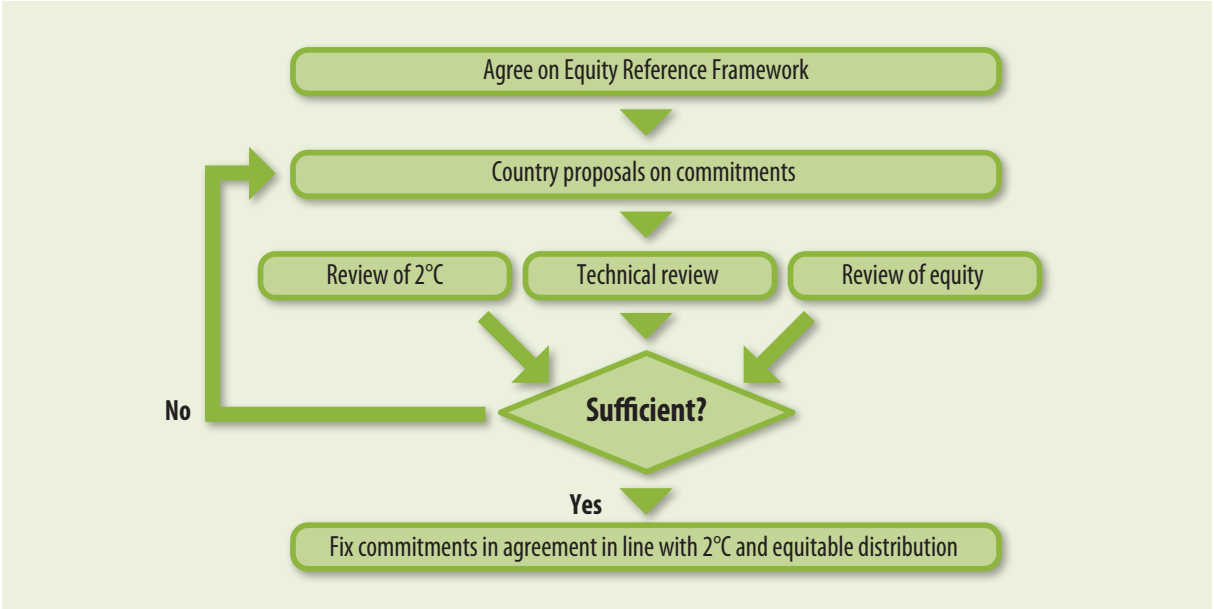
Also, the targets and associated rules have to be set in a way that they incentivise an increase in ambition, rather than present a barrier to ambition. For instance, in the Kyoto Protocol system, increasing mitigation ambition would mean losing emission allowances that could be transferred to future periods. This is a barrier to increasing ambition. One way of dealing with this problem could be to allow for the excess allowances to be used only by the same country in the distant future. Another option could be to set the future stringency of targets based on a common endpoint, so that reaching it earlier is a benefit.

Exemplary processes to reach agreement in 2015

The process of reaching an agreement on commitments will depend on many different factors, especially the overall political landscape, which goes beyond the scope of this paper. Here, we present examples of how a process could lead to a comprehensive agreement in 2015, or possible processes to agree on emission reduction commitments. The options presented here illustrate theoretic ideas and meant to serve as guidance for the overall approach and to put the process elements decided in Warsaw into context.

We assume here that the process involves initial proposals by countries on their possible commitments. Guidance could be developed on what information is necessary when countries report their proposals, to avoid clarifications on the basis of the proposals after they are made.

Option A: Pre-agreed Equity Reference Framework

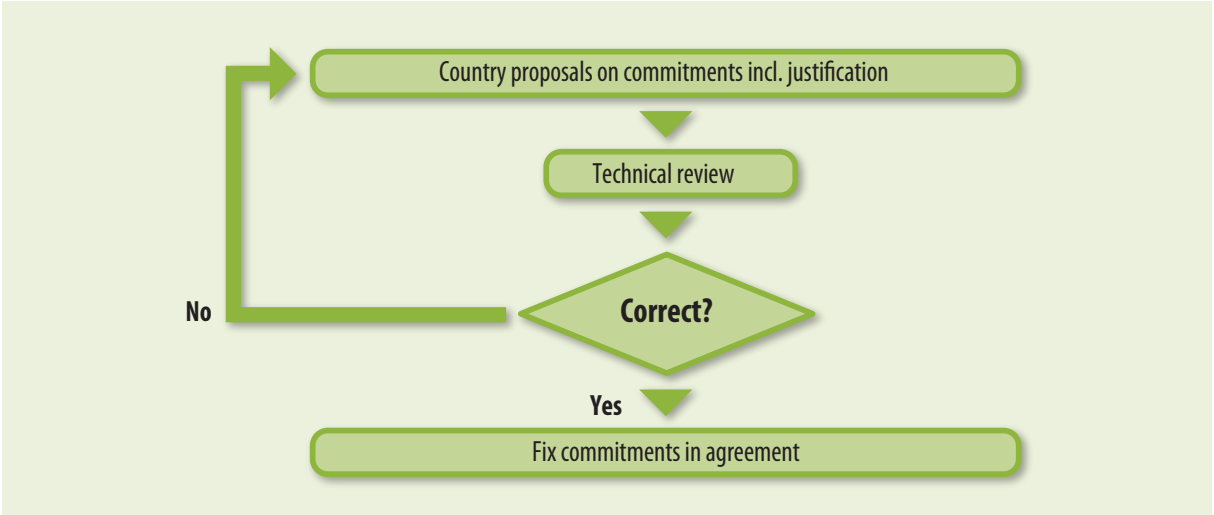


This option is based on the assumption that an ERF is agreed as the basis for all mitigation commitments. The necessary range of emission reductions per country are thus pre-defined and in line with the agreed global temperature limit. Countries then put forward their emission reduction proposals. To assure consistency with the ERF, an independent technical review is necessary. If a proposal does not comply with the requirements of the ERF, the country will be asked to provide a revised offer. The cycle of review and revising the offer continues until it meets the requirements of the ERF.

The big advantage of this option is the consistency with the agreed temperature limits and an equitable approach (assuming that the ERF is agreed to be equitable). Countries still

have the possibility to design their targets themselves, within the pre-defined frame of the ERF. The downside of this approach is that such an ERF, on which future commitments will be based, will be very difficult to negotiate. The short timeline of 2015 makes this approach even more challenging.

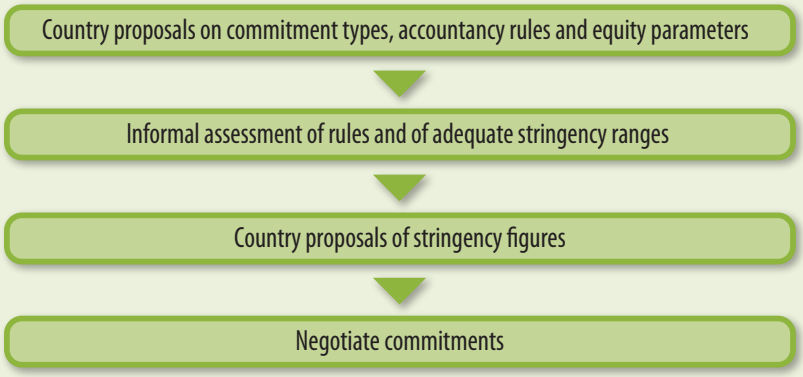
Option B: Self-explained equitable commitments



The second option gives more space to countries to design their own commitments.[46] Here, countries would put forward a proposal, together with an explanation of why this is equitable. Up to here, this process is similar to the latest suggestion by the US.[47] The review of this proposal would only include a check whether the proposal and the application of the equity principle is technically correct. Only if this is not the case will the country be asked to review its offer.

This approach will make it much easier for countries to submit an emission reduction proposal while still ensuring technical consistency. As a result, there are fewer barriers to participate under such a framework. However, an equitable distribution of efforts is not necessarily a given under this approach, as countries are mostly free in their interpretation of the equity principles. Furthermore, the coherence with agreed temperature limits is unsure and cannot be guaranteed.

Option C: The two-stage approach



A third option, based on the two-stage approach used to negotiate the Kyoto Protocol, and as put forward at the recent Nordic-Belgian Workshop on Operationalising Equity in the 2015 Agreement,[48] combines elements of the first two options. In a first stage, Parties are asked propose types of commitments, including accounting / transparency rules and equity parameters. Based on the proposed equity parameters, fair target ranges are elaborated informally (outside the UNFCCC process) for different temperature scenarios to guide Parties in proposing their initial stringency figures. In a second stage, Parties are then requested to submit their stringency figure proposals to the negotiations, against the background of the fair target ranges.

Current pathway set by the Warsaw decisions

The decision taken at the Warsaw conference in 2013 request the ADP to identify, by COP 20 in December 2014, the information that Parties should provide together with their contributions. They "invite all Parties to initiate or intensify domestic preparations for their intended nationally determined contributions".[49] Many Parties stressed the necessity to receive national proposals at the earliest. The Warsaw decision refers to the first quarter of 2015; however, it requires Parties to provide the information well in advance of the COP 21.

Besides the guidance on information to be submitted, there is currently no official process planned to influence the submissions. No input related to the type or stringency of commitments the Parties should take on is foreseen, nor is there a review process anchored in the decisions. A possible scenario is that civil society (observers' organisations) will take up this role, providing ideas on an equitable distribution of emission reductions and analysing the proposals outside the official UNFCCC processes. Although the resulting suggestions are not binding, they may provide useful guidance to negotiators.

While the current pathway may be feasible politically and time-wise in the current situation, it also runs the risk of agreeing on commitments with too little ambition in 2015. A mechanism to increase ambition afterwards therefore becomes much more important, and will have to be included in the 2015 agreement.

Possible points of action for the LDC Group

The LDC Group is in a good position to contribute to the process of reaching an equitable agreement in many ways. Here we examine some of the possible "access points" in this process, that are most crucial and promising in moving towards a commitment in line with the overarching goal of the LDC Group. Besides this non-exhaustive list, we further consider some opportunities to increase the short-term ambition in order to bridge the ambition gap until 2020.

Equity Reference Framework

The establishment of a commonly agreed ERF is key for two reasons:

- It can ensure that the new international agreement is in line with the goals of ambitious climate change mitigation; and
- It can provide confidence to all countries within the process that the division of tasks is fair, and facilitate an Agreement that is acceptable to all.

Such an ERF could be the basis for countries/groups to develop their proposals, and the backdrop against which these proposals are evaluated. LDCs can contribute to shaping the ERF to include the fundamental principles that the Group supports, such as the interpretation of the "common but differentiated responsibilities and respective capabilities" principle, as well as in the establishment of the indicators that are to be used – such as targets, pathways, capacity, equity, etc.[50] It is likely that the ERF itself would also be informed by options being discussed with respect to commitment types.

What should be considered in the framework?

There are two possible angles to consider content proposals for an ERF:

- What is fair? Or, what should normative equity principles and indicators in an ERF look like?
- What are possible consequences of (insisting on) certain principles and indicators for a negotiated outcome of an agreement?

With regard to the former consideration, on normative principles and indicators, environmental effectiveness and distributional considerations are of prime concern for LDCs. If a goal of maximum 1.5°C or 2°C warming is to be guaranteed by future commitments, *outcomes* should take a central role in an ERF, with related indicators such as (absolute/relative) targets and mechanisms covering the currently largest emitters. A focus on outcomes can, for example, be achieved by reference to the longer term UNFCCC objective, made concrete in the form of a 1.5°C or 2°C target, or a clearly stated goal to phase out GHG emissions by 2050 or thereafter.[51] This is compared to *efforts* collected in a bottom-up manner. Effort sharing approaches that equally consider responsibility, capability and need (instead of focusing on a single indicator like historical responsibility in a certain base year) are likely to be suitable to the considerations of LDCs, while also being expedient for a goal of maximum 1.5°C or 2°C warming.

With regard to the latter consideration regarding fostering "buy in", the nature of the principles and indicators laid out in the ERF may to some degree determine the level of participation and scope of future proposals, and ultimately agreement. An ERF with a clear effort distribution with more stringent targets for certain Parties may be agreeable to a more limited set up participants. An ERF that leaves more room for interpretation could be conducive to broader participation, albeit with shallower proposals and agreements. In any case, it would be advisable if commitments made in an agreement and under the longer-term guidance of the ERF are not fixed beyond a period of five years, after which they may be readjusted based on emerging science.[52]

In light of the 1.5°C / 2°C constraint, participation, commitments and near-term actions by the largest emitters are imperative, so the ERF must achieve a balance between ambitiousness (normative targets) and participation ("buy in"), as well as pragmatism (institutional, cost-effectiveness) and fairness (per capita and historical responsibility) when it comes to the related cost-sharing regime.

Possible actions

The obvious impact of an ERF on the new agreement leads to some questions: who should develop it, and can it be successfully negotiated at all, or in time, to serve as a basis for individual proposals for a new agreement? LDCs can begin to consider parts of an ERF, including the main principles and possible indicators, alone and with other Parties. These parts can be established as starting points for proposals brought up by LDCs, or for the evaluation of proposals by other Parties.

Work towards an LDC endorsed Equity Reference Framework

- Base the ERF on the climate policy goals of LDCs, including the 1.5°C / 2°C target and eventual phase out of GHG emissions
- Establish the boundaries for equitable mitigation policy according to LDCs
- Use it as a reference to check proposals individually and cumulatively
- Motivate other Parties and groups to endorse the LDC ERF

In the absence of an ERF jointly developed and endorsed by the international community, LDC Group members can internally start a process of drafting, discussing and agreeing on a ERF that is in line with the key goals of the group, namely a maximum 1.5°C / 2°C global warming while ensuring impact resistant, sustainable development.

Such an ERF would represent the LDC Group's understanding of the necessary levels of mitigation, as well as principles and indicators of equity. In this way, the LDC Group would publicly establish its stance on this overarching and key issue. The ERF proposal could also be formally submitted to the UNFCCC. The aim would be to use the LDC endorsed ERF as a reference point to check individual proposals whenever they are submitted by Parties. It would enable LDCs and the public to pinpoint possible issues with Party proposals based on a clearly formulated and communicated framework that ensures compatibility with the Group's overarching goals. It would also facilitate a check whether proposals are cumulatively on track for an equitable and ambitious agreement.

Having established and publicised a LDC ERF, it will serve as a "opening bid" against which other Parties' equity-related proposals can be measured. The LDCs can work towards motivating like-minded Parties to join and endorse the LDC ERF and thereby multiply its standing and impact. It may also leverage the influence of non-government organisations and other UNFCCC observers in promoting equitable mitigation along the lines of the LDC Group's understanding.

Building strategic alliances with other ambitious Parties and pushing leadership

Some of the Parties to the UNFCCC share the level of ambition and sustainable development focus of the LDC group. The Group may consider developing or strengthening strategic alliances with other Parties or groups of Parties that share the Group's overall vision, or stance on individual issue topics.

Group with like-minded Parties to increase influence

- Current and previous LDC alliance with groups such as EU, AOSIS, AILAC could be strengthened
- Align and coordinate on overall vision and key issue topics
- Bring together and thereby multiply the ability to influence outcomes

It is important to realistically identify those Parties that hold a shared vision and/or stance on particular issues, which are of importance to the LDC Group. The LDC Group can consider strategic alliances to work towards an overall agreement or to influence individual strings of the negotiation. Naturally, various possibilities can be explored as negotiation positions evolve and new points of overlap become apparent. When considering building strategic alliances with other ambitious Parties, it will be useful to consider additional affiliations and existing collaborations of many LDCs through other groupings, in order to make use of synergies, but also to have a realistic assessment of possible limitations.

Increasing short-term ambition pre-2020

Increasing short-term ambition for mitigation pre-2020 is necessary in order to increase the likelihood of achieving a 1.5°C / 2°C long-term goal under a 2020 agreement. To some degree, it will also reduce the scale of efforts that will need to be implemented no later than 2020.[53] While Parties may want to reserve their efforts and commitments for a comprehensive global treaty, work should be done towards increasing the ambition level already, which would lead to a better starting point for reaching a 1.5°C / 2°C target with future commitments, in line with the overall goal of the LDC Group.

Focus on key issues and partners for pre-2020 action

- Quick mitigation action through more rapid renewable energy deployment, the phase-out of fossil fuel subsidies, and leveraging of the energy efficiency potential
- Motivate Parties which can most easily achieve their 2020 pledges as first-movers
- Create UNFCCC process to ask Parties for regular progress reports on defined short-term actions

As current government pledges are not sufficient to close the gap to the 2°C goal, there are processes exploring short-term opportunities for mitigation from a technical and political angle[54] and related best practice examples, which could be actively endorsed and supported by LDCs as a group.[55] Areas for which considerable agreement exists include the phase-out of fossil fuel subsidies; the more rapid deployment of renewable energy; and the leveraging of energy efficiency potentials.

Scaling up and speeding up flows of climate finance to these areas can play an important role in raising pre-2020 ambition and the ability to speed up reductions. LDCs may choose to work on motivating or creating alliances for this purpose with Parties, which are expected to achieve their current pledges with comparative ease.

To firmly establish the importance of pre-2020 mitigation activities, a process under the UNFCCC could be created even before 2015. The Warsaw decision accelerates activities under the work plan on enhancing mitigation ambition, intensifying, as from 2014, the technical examination of opportunities for actions with high mitigation potential. Such process should lead to effective actions paving the way for ever-increased actions up to 2020 and beyond. Under the pre-2020 process, Parties would have to make regular submissions on their implementation progress in defined areas of short-term action. The additional benefit would be that the progress reports would represent an activity baseline, which can be considered during later discussions on equitable mitigation effort sharing.

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