

**Climate Change Expert Group**  
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# **Unpacking Provisions Related to Transparency of Mitigation and Support in the Paris Agreement**

Gregory Briner (OECD) and Sara Moarif (OECD)

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## FOREWORD

This document was prepared by the OECD and IEA Secretariats in response to a request from the Climate Change Expert Group (CCXG) on the United Nations Framework Convention on Climate Change (UNFCCC). The Climate Change Expert Group oversees development of analytical papers for the purpose of providing useful and timely input to the climate change negotiations. These papers may also be useful to national policy-makers and other decision-makers. Authors work with the CCXG to develop these papers. However, the papers do not necessarily represent the views of the OECD or the IEA, nor are they intended to prejudge the views of countries participating in the CCXG. Rather, they are Secretariat information papers intended to inform Member countries, as well as the UNFCCC audience.

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### **Questions and comments should be sent to:**

Gregory Briner and Sara Moarif  
OECD Environment Directorate  
2, rue André-Pascal  
75775 Paris Cedex 16  
France  
Email: [gregory.briner@oecd.org](mailto:gregory.briner@oecd.org) and [sara.moarif@oecd.org](mailto:sara.moarif@oecd.org)

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## ABSTRACT

### Unpacking provisions related to transparency of mitigation and support in the Paris Agreement

The agreement of an enhanced transparency framework was a key outcome of the COP 21 climate change conference in Paris. This enhanced transparency framework will play an important role in tracking progress towards the individual and collective goals agreed at COP 21 and in understanding achievement of nationally determined contributions under the Paris Agreement. This paper unpacks the transparency-related provisions within the Paris Agreement and Decision 1/CP.21 relating to mitigation and support. It also explores the relationship between the existing and future transparency framework, information required to track progress towards nationally determined contributions for mitigation, and fulfilling reporting provisions on finance provided, mobilised and received.

**JEL Classification:** F53, Q54, Q56, Q58

**Keywords:** UNFCCC, climate change, mitigation, climate finance, Paris Agreement, transparency, accounting

## RÉSUMÉ

Les dispositions en matière de transparence des mesures d'atténuation et de l'appui dans l'Accord de Paris

L'accord sur un cadre renforcé de transparence a constitué un résultat essentiel de la Conférence de Paris sur le climat (COP21). Ce cadre de transparence jouera un rôle important en permettant de suivre les progrès accomplis au regard des objectifs individuels et collectifs convenus lors de la COP21, et en permettant la compréhension des contributions déterminées au niveau national des Parties au titre de l'Accord de Paris. Le présent document éclairci les dispositions de cet accord et de la décision 1/CP.21 en matière de transparence des mesures d'atténuation et de l'appui. Il étudie aussi le rapport entre le cadre de transparence actuel et futur, les informations requises pour suivre les progrès accomplis dans la mise en œuvre des contributions déterminées au niveau national pour l'atténuation, et le respect des dispositions relatives à la notification des moyens de financement fournis, mobilisés et reçus.

**Classification JEL :** F53, Q54, Q56, Q58

**Mots clés :** CCNUCC, changement climatique, atténuation, financement climatique, Accord de Paris, transparence, obligation de rendre compte

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## List of acronyms

AC	Adaptation Committee
AF	Adaptation Fund
AI	Developed countries listed in Annex I of the UNFCCC
APA	Ad hoc Working Group on the Paris Agreement
BAU	Business as Usual
BR	Biennial Report
BUR	Biennial Update Report
CCXG	Climate Change Expert Group
CGE	Consultative Group of Experts on National Communications from non-Annex I Parties
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
COP	Conference of the Parties to the UNFCCC
CTF	Common Tabular Format
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GWP	Global Warming Potential
IAR	International Assessment and Review
ICA	International Consultation and Analysis
INDC	Intended Nationally-determined Contributions
IPCC	Intergovernmental Panel on Climate Change
ITMO	Internationally Transferred Mitigation Outcome
LDC	Least Developed Country
LEG	Least Developed Countries Expert Group
LULUCF	Land-use, land-use change, and forestry
MDB	Multilateral Development Bank
MRV	Measurement, Reporting and Verification
NAI	Developing countries that are not listed in Annex I of the UNFCCC
NC	National communications
OECD	Organisation for Economic Co-operation and Development
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCF	Standing Committee on Finance
SIDS	Small Island Development States
UN	United Nations
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

## **Executive summary**

The agreement of an enhanced transparency framework was a key outcome of the COP 21 climate change conference in Paris. This enhanced transparency framework will play an important role in tracking progress towards individual and collective goals, and in understanding achievement of nationally determined contributions (NDCs) under the Paris Agreement. There will be flexibility in the scope, frequency, and level of detail of reporting and the scope of review that takes into account the widely varying capacities of different Parties to the United Nations Framework Convention on Climate Change (UNFCCC).

This paper unpacks the transparency-related provisions within the Paris Agreement and Decision 1/CP.21 relating to mitigation and support. The aim of this exercise is to facilitate a shared understanding of the transparency-related provisions agreed at COP 21, and analyse the extent to which the information requested will be sufficient to meet the stated purposes of the enhanced transparency framework.

As part of the enhanced transparency framework, all Parties are to submit national inventory reports, as well as information on progress made towards implementing and achieving NDCs under Article 4 (mitigation) of the Paris Agreement. Developed country Parties shall report information on support provided and climate finance mobilised. Other Parties are also encouraged to report this information, and developing countries should report information on support needed and received, including its use, impact and results.

The future transparency framework outlined in the Paris Agreement and Decision 1/CP.21 represents an evolution from the existing transparency system. Several features of the existing transparency system under the UNFCCC will remain in place, such as reporting of greenhouse gas (GHG) inventories and biennial tracking of progress towards mitigation and support-related objectives. An important difference is that the future transparency framework will apply to all Parties, with flexibility in terms of the scope and frequency of reporting and scope of review.

The information needed to understand NDCs related to mitigation and track progress towards them varies for different types of NDC. This paper identifies at least nine types of NDC related to mitigation and lays out the information requirements for each one. For some NDC types, such as absolute emission reduction targets, there is considerable existing experience with accounting and reporting progress in implementation under the Kyoto Protocol and the Cancun Agreements. For other NDC types, such as goals to peak emissions by a given date, there is less existing experience. A small number of the intended nationally determined contributions (INDCs) communicated to date do not contain any specific quantitative or qualitative objectives; in these cases it will be challenging to measure progress or assess expected impacts on emissions.

To understand the expected cumulative impact of NDCs on global GHG emissions, it would be helpful for Parties with quantitative goals to report emission projections, and intended and actual use of international co-operative approaches under Article 6 of the Paris Agreement, including participation in internationally transferred mitigation outcomes (ITMOs) where possible. In the case of goals set relative to business-as-usual baselines, the extent to which guidance for setting baselines is needed remains an important open question. Further, the use of single-year goals (as opposed to multi-year goals for a continuous period, such as under the Kyoto Protocol) complicates accounting and measurement of progress, particularly when accounting for ITMOs.

Compared to mitigation, the obligations and commitments in the Paris Agreement relating to support are more similar to those currently in place under the UNFCCC, in that they reaffirm the commitment by developed countries to provide support and mobilise climate finance. The main new element is that other Parties are encouraged to also provide (or continue to provide) support. The main challenges for reporting information in this area are mostly familiar, unresolved issues regarding the availability and clarity of information requested and reported. The transparency and consistency of information on the provision of

public finance continues to improve, though more convergence is needed in reporting practices and the classification of climate-related activities. Work is being undertaken by the OECD Development Assistance Committee (DAC) to improve the information available on public finance provided. Information on climate finance from countries that do not report to the DAC is currently more limited. The form such support takes also differs, leading to diverse reporting practices and classifications.

Reporting on climate finance mobilised through public interventions remains more challenging due to the continuing lack of common definitions or applicable methodologies. Tracking progress towards collective commitments to mobilise climate finance may require information from non-Party actors such as multilateral development banks, environmental funds, international organisations and private actors, in addition to national governments. While the transparency framework for support also aims to provide clarity on support received by developing countries, this objective may take longer to fulfil since experience in this area is currently more limited and reporting of this information is not obligatory.

Developed countries shall also report ex-ante qualitative and quantitative information on indicative levels of climate finance to be provided and mobilised, as applicable. This information was previously requested on a voluntary basis, and may be challenging to provide. The Paris Agreement also includes various qualifiers related to climate finance. For example, financial resources provided must be “scaled up”, and take into account developing country needs and strategies. Mobilisation should also represent “a progression beyond previous efforts”. If the transparency framework is to provide clarity on whether these features are met, Parties need either a common understanding of “progression”, “scaled up”, and how country strategies are accounted for, or each would need to provide an explanation of how they interpret these requirements.

The information reported by individual Parties through the transparency framework will provide an important input for the global stocktake of collective progress towards the Paris Agreement’s long-term goals for mitigation, adaptation and finance. By itself, aggregation of the information requested from individual Parties on mitigation and support will be insufficient to meet the objectives of the stocktake.<sup>1</sup> This is because there are information gaps regarding the expected overall effect of NDCs, aggregate financial support provided and mobilised, and whether mitigation actions and finance flows are consistent with low-emission and climate-resilient development pathways. These information gaps are partly due to the lack of common methodologies for estimating the expected effects of mitigation policies, unresolved and divergent views on the definitions and methods to estimate mobilised climate finance, and limits to aggregating country-level information on climate finance provided and mobilised.

The Paris Agreement assigns the task of developing modalities, procedures and guidelines for the enhanced transparency framework to the Ad Hoc Working Group on the Paris Agreement (APA). A shared understanding of the transparency-related provisions in the Paris Agreement and Decision 1/CP.21 and how the existing system could evolve, will help to lay the groundwork for this task, together with agreement on the priorities and timeline for related work to be undertaken by the APA and other UNFCCC bodies. Coherence will be needed between the different sets of modalities, procedures and guidelines for mitigation, finance and other forms of support. To achieve the aims of the Paris Agreement, the transparency arrangements will also need to be workable and efficient from a practical point of view. Also, while many Parties have made significant improvements in recent years to their domestic measurement, reporting and verification systems, further ramping-up of capacity is needed in many developing countries in order to be ready to implement the enhanced transparency provisions under the Paris Agreement.

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<sup>1</sup> Issues related to the global stocktake for adaptation and associated information requirements are discussed in Kato and Ellis (2016).

## 1. Introduction

A key outcome of the COP 21 climate change conference in Paris was the agreement of an enhanced transparency framework. Transparency in the context of the international climate change negotiations generally refers to the measurement and reporting of information relating to mitigation, adaptation, finance, technology and capacity building, together with processes for the subsequent review and consideration of some of this information. Transparency is important because it helps to build trust between Parties to the United Nations Framework Convention on Climate Change (UNFCCC), increases confidence that Parties are meeting their obligations under the UNFCCC and doing what they say they are doing, helps countries identify gaps in climate change policies, and informs stakeholders of the importance of climate change action. Transparency also enables the tracking of progress towards individual and collective climate-related goals.

The Paris Agreement and its accompanying decision (Decision 1/CP.21) mark a new phase in the international climate change regime. The Paris Agreement contains global long-term goals on mitigation, adaptation and climate finance. At its core are cycles of nationally determined contributions (NDCs)<sup>2</sup> and provision of the support (finance, technology, capacity building) needed to implement them from 2020 onwards. The approach to implementation embodied in the Paris Agreement focuses on facilitative dialogue and collaborative processes, rather than punitive compliance mechanisms. The transparency framework will therefore play an increasingly important role by providing the information necessary to understand whether and how Parties are fulfilling their actions to tackle climate change under the Paris Agreement.

Transparency is specifically discussed in Article 13 of the Paris Agreement, which outlines the transparency framework. In addition, transparency-related provisions are contained in other parts of the Paris Agreement and Decision 1/CP.21. The aim of this paper is to unpack the transparency-related provisions in the Paris Agreement and Decision 1/CP.21, specifically those relating to mitigation and support (i.e. finance, technology and capacity building).<sup>3</sup> This paper highlights the extent to which the transparency-related provisions in the Paris Agreement are similar to or differ from the existing transparency provisions. The paper also briefly discusses two specific topics: (i) reporting of information needed to track progress towards NDCs related to mitigation, and (ii) reporting of information relating to the provision, mobilisation and receipt of climate finance.

The detailed modalities, procedures and guidelines for the enhanced transparency framework remain to be developed. The Paris Agreement lays out general principles for this future framework. For example, the enhanced transparency framework will be facilitative, non-intrusive, non-punitive, respectful of national sovereignty, avoid undue burden for Parties, and both build on and enhance the transparency arrangements under the UNFCCC. Decision 1/CP.21 contains further guiding principles that are to be taken into account, such as the need to provide flexibility to those developing country Parties that need it in the light of their capacities, ensure that Parties maintain at least the frequency and quality of their current reporting, avoid duplication, and facilitate improved reporting and transparency over time.

The paper is structured as follows: Section 2 lays out the provisions relating to the transparency of mitigation and support within the Paris Agreement, including actions by Parties and work to be undertaken by UNFCCC bodies. Section 3 highlights the main changes between the existing provisions and the enhanced transparency framework for mitigation and support proposed in the Paris Agreement, as well as lessons learned from existing experience under the UNFCCC.<sup>4</sup> Section 4 focuses on reporting of

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<sup>2</sup> The focus of this paper is on NDCs in the context of Article 4 (mitigation) of the Paris Agreement.

<sup>3</sup> A separate CCXG paper (Kato and Ellis, 2016) looks in greater detail at reporting information on adaptation.

<sup>4</sup> Support for capacity building for measurement, reporting and verification (MRV) and tracking progress in implementation could also be derived from non-UNFCCC initiatives and processes, including the Sustainable Development Goals, though discussion of these is beyond the scope of this paper.

information needed to track progress towards NDCs related to mitigation. Section 5 summarises key issues related to the reporting of information on provision, mobilisation and receipt of support. Section 6 presents some concluding remarks and discussion questions.

## **2. Unpacking the enhanced framework for transparency of mitigation and support in the Paris Agreement**

This section unpacks the text in the Paris Agreement and Decision 1/CP.21 (UNFCCC, 2015a) relating to the enhanced transparency framework for mitigation and support. The section covers the provisions on measurement, reporting, review and consideration of information provided by Parties, as well as related issues such as the global stocktake (for which information reported by Parties could be an important input). The main articles in the Paris Agreement containing provisions relating to transparency of mitigation and support are Article 13, which establishes the enhanced transparency framework, Article 4 on nationally determined contributions, Article 6 on co-operative approaches, Article 9 on finance, and Article 11 on capacity building. Further relevant provisions are contained in Decision 1/CP.21.

The purpose of the framework for transparency of action and support is laid out in Article 13.5 and Article 13.6 of the Paris Agreement. The purpose of the transparency framework for mitigation is to provide a clear understanding of climate change mitigation action, to track progress towards NDCs and to inform the global stocktake. The purpose of the transparency framework for support is to provide clarity on support provided and received by Parties, and to provide a full overview of aggregate financial support provided to inform the global stocktake.

The global stocktake will assess collective progress towards achieving the purpose of the Agreement and its long-term goals. The transparency framework could provide inputs to this process, including greenhouse gas (GHG) inventories and projections of anticipated GHG trajectories. At present, aggregating information on NDCs relating to mitigation is challenging, as NDCs have been developed using widely different methods and expressed using different metrics (UNFCCC, 2015b). Having common modalities, procedures and guidelines for accounting and reporting could therefore facilitate the global stocktake. Article 4.13 and paragraph 31 of Decision 1/CP.21 establish principles for accounting for the NDCs of all Parties, including transparency, accuracy, completeness, comparability, consistency, environmental integrity, and avoidance of double counting.

In addition to mitigation and adaptation, the global stocktake is to consider means of implementation. As will be discussed in Section 5, improved reporting by individual countries on climate finance provided, mobilised and projected, as well as needed and received in the case of developing countries, can facilitate an understanding of aggregate climate finance flows in relation to agreed goals. However, an assessment commensurate with the objective of the global stocktake will require further inputs, including from a range of actors and bodies outside the UNFCCC such as multilateral development banks (MDBs) and international organisations. The global stocktake shall also “inform Parties in updating and enhancing” their actions and support related to implementing the Paris Agreement. How this will be implemented in practice remains to be seen.

In terms of reporting, Article 13 stipulates that Parties shall regularly submit national inventory reports as well as information on implementation and achievement of NDCs. It requires that developed country Parties provide information on support provided, and recommends that other Parties providing support do so as well. It also recommends that developing country Parties communicate information on support needs and support received. Other support-related reporting provisions are specified in Articles 9 and 11 (see Table 2). The term “progress reports”<sup>5</sup> is used in this paper to refer to reports that contain this information.

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<sup>5</sup> The text of the Paris Agreement and Decision 1/CP.21 does not explicitly state a name for the reporting channel to be used for reporting information biennially on tracking progress towards NDCs and support provided. In this draft paper, the term “progress reports” is therefore used to refer to reports for this purpose. Note that progress reports

National inventory reports and progress reports are to be submitted no less frequently than on a biennial basis by all Parties except the least developed countries (LDCs) and small island developing states (SIDS).

Article 13 also establishes a two-step review and consideration process. The first step is a technical expert review of information on mitigation and support provided. The review will identify areas of improvement for the Party, review consistency with the modalities and guidelines to be developed under Article 13.13, and assist developing country Parties to identify capacity-building needs (for those that need it). The second step is a multilateral consideration of progress made towards the mitigation and support objectives of individual Parties.

The Ad Hoc Working Group on the Paris Agreement (APA) has been tasked with developing recommendations for modalities, procedures and guidelines for the enhanced transparency framework. These recommendations are to be considered at the 24<sup>th</sup> Conference of the Parties (COP 24) in 2018. A more detailed timeline regarding the transparency-related work to be undertaken by the APA and other UNFCCC bodies after COP 21 is provided in a separate CCXG document.<sup>6</sup> Much of this work is to be completed and adopted by the first meeting of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA 1).<sup>7</sup>

## 2.1 Enhanced transparency provisions for mitigation

The transparency provisions in the Paris Agreement and Decision 1/CP.21 related to mitigation are outlined in Table 1. A key outcome of COP 21 was the establishment of five-year cycles of NDCs (in Article 4 of the Paris Agreement). Each successive NDC is to “represent a progression” from the previous one. An NDC may be adjusted at any time, so long as the adjustment enhances its level of ambition. The INDCs that have already been submitted by Parties will become NDCs once the Parties concerned join the Paris Agreement. By 2020, Parties with INDCs for 2025 are to communicate new NDCs, and Parties with INDCs for 2030 are to communicate or update their contributions. Common timeframes for NDCs are to be considered at the first session of the CMA 1.

Parties have agreed to develop guidance on features of NDCs and accounting for NDCs, as well as information needed to facilitate clarity, transparency and understanding of NDCs and track progress in implementation. The Paris Agreement states that all Parties shall pursue domestic mitigation measures to meet their NDCs, and that methodological consistency is needed between the communication and implementation of NDCs. It remains unclear what information is to be reported on domestic mitigation measures and what methodological consistency means in practice.

In addition to information relating to NDCs, the Paris Agreement states that all Parties should strive to communicate low-emission development strategies in the context of sustainable development and poverty eradication. Parties are invited to communicate such strategies to the UNFCCC Secretariat by 2020. However, no further details are provided regarding the scope or content of these strategies, and no work programme has been established to develop guidance on these matters.<sup>8</sup>

A technical expert review shall be undertaken of national GHG inventories and the information submitted by Parties on progress made in implementing and achieving NDCs. Parties shall also participate in a facilitative, multilateral consideration of progress with respect to achievement of NDCs. The decision text

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could also contain an adaptation communication, or information on climate support needed and received. However, providing this information is not mandatory, and will not be subject to expert review.

<sup>6</sup> See background document prepared for the opening plenary of the March 2016 CCXG Global Forum on Environment and Climate Change, available at [www.oecd.org/environment/cc/ccxg-globalforum-march-2016.htm](http://www.oecd.org/environment/cc/ccxg-globalforum-march-2016.htm).

<sup>7</sup> The timing of CMA 1 remains unclear – see Box 1 in the background document.

<sup>8</sup> Previous CCXG work (Clapp, Briner and Karousakis, 2010) explored past experience with developing LEDS and identified common features of such strategies.

does not imply that the up-front information submitted by Parties when communicating their NDCs will be reviewed.

## **2.2 Enhanced transparency provisions for support provided, mobilised and received**

Unlike for mitigation, obligations relating to the provision of support, and associated reporting, are differentiated in a manner closer to the “traditional” differentiation seen in the UNFCCC. The Paris Agreement reiterated a clear obligation for developed countries to provide and mobilise financial support, as well as report information on these flows. However, other Parties are now also encouraged to provide such resources and to communicate related information.

The transparency framework is meant to provide clarity on whether and how Parties are fulfilling various actions related to financial support, namely providing it (Articles 9.1 and 9.2) and mobilising it (Article 9.3). Various qualifiers are also used to describe these actions; for example, mobilisation should represent “a progression beyond previous efforts”. If the transparency framework is to provide clarity on whether this is the case, Parties need either a common understanding of “progression”, or each would need to provide an explanation of how they interpret this term. The transparency framework could potentially be used to clarify whether financial resources provided are “scaled-up”<sup>9</sup>, whether these balance mitigation and adaptation, and how provision of these resources accounts for developing country needs, priorities and strategies (Article 9.4). Article 10 specifies that support shall be provided to developing countries for technology development, co-operation and transfer, but doesn’t specify who is to provide it.

In terms of the transparency of actions related to support, Article 13.9 requires developed countries to report on the support they provide (covering Articles 9, 10 and 11, or finance, technology and capacity building respectively), while other Parties providing support should do so. This information will be subject to an expert review (Article 13.11). Under Article 13.10, developing countries should report on support needed and received under Articles 9, 10 and 11. Some reporting provisions are also contained within Articles 9.5, 9.7 and 11.4 (see Table 2).

A large number of work programmes are outlined in the text of Decision 1/CP.21, to elaborate the modalities, provisions and guidelines for the transparency framework related to support provided and received, but also to enhance the clarity and understanding of support in other ways (Table 2). The modalities, provisions and guidelines of the transparency framework will likely interact with the accounting modalities for financial resources provided and mobilised (under Article 9.7). The transparency framework modalities will also cover information on support needed and received (paragraph 94d), and so could be informed by work focused on assessing adaptation needs (paragraph 42b). Various work programmes will also assess whether support for the technology mechanism and adaptation has been “adequate” and “effective”, even though this may be technically difficult. They might improve transparency, for example, if they lead to better monitoring of the outcomes and impacts of support provided, which the transparency framework is also meant to address (paragraph 94d). There is, however, no specific mandate for work on how best to monitor and report on non-financial support provided and received (e.g. technology development, capacity building).

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<sup>9</sup> Noting that the notion of “scaling up”, if applied only to the absolute volume of funds, is not a reliable indicator of whether the desired development, mitigation and/or adaptation outcomes were actually achieved. For example, in the 2014 *Global Landscape of Climate Finance* (Buchner et al., 2014), total flows in 2013 were USD 28 billion below the 2012 level, but this was largely explained by the falling cost of renewable energy technologies, and not a decrease in renewable energy deployment levels.

**Table 1. Provisions in the Paris Agreement and Decision 1/CP.21 related to transparency of mitigation**

<b>Topic</b>	<b>Actions / work programmes</b>	<b>Article / Paragraph</b>	<b>Provision</b>
<i>Tracking progress towards NDCs (Article 13)</i>	Obligations / actions by Parties	Article 13.7	<i>Each Party shall</i> regularly provide (a) a national inventory report and (b) information necessary to track progress made in implementing its NDC
		Para. 90	<i>All Parties except LDCs and SIDS shall</i> submit the information referred to in Article 13.7 no less frequently than on a biennial basis, and <i>LDCs and SIDS may</i> submit this information at their discretion
	Related work programme	Article 13.7a	Good practice methodologies for GHG inventories to be accepted by the IPCC and agreed by the CMA
<i>Review and consideration (Article 13)</i>	Obligations / actions by Parties	Article 13.11	Information submitted by <i>each Party shall</i> undergo a technical expert review. For those <i>developing country Parties that need it</i> , the review process <i>shall</i> include assistance in identifying capacity-building needs. <i>Each Party shall</i> participate in a facilitative, multilateral consideration of progress on, <i>inter alia</i> , implementation and achievement of its NDC.
	Related work programme	Para. 91	APA to recommend modalities, procedures and guidelines for the transparency framework for action and support by COP 24
<i>Communication of NDCs (Article 4)</i>	Obligations / actions by Parties	Article 4.2	<i>Each Party shall</i> prepare, communicate and maintain successive nationally determined contributions that it intends to achieve; Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions
		Article 4.6	The <i>LDCs and SIDS may</i> prepare and communicate strategies, plans and actions for low GHG emissions development
		Article 4.8	In communicating their NDCs, <i>all Parties shall</i> provide the information necessary for clarity, transparency and understanding
		Article 4.9	<i>Each Party shall</i> communicate a NDC every five years
		Article 4.11	<i>A Party may</i> at any time adjust its existing NDC with a view to enhancing its level of ambition
		Article 4.12	NDCs communicated by <i>Parties shall</i> be recorded in a public registry maintained by the Secretariat
		Article 4.13	<i>Parties shall</i> account for their nationally determined contributions.
		Para. 13	<i>All Parties that have not yet done so are invited</i> to communicate INDCs in a manner that facilitates clarity, transparency and understanding
		Para. 22	<i>Parties are invited</i> to communicate their first NDC no later than when the Party submits its instrument of ratification, accession or approval
		Para. 23	<i>Parties whose INDCs are for 2025 are urged</i> to communicate by 2020 a new NDC and to do so every five years thereafter
		Para. 24	<i>Parties whose INDCs are for 2030 are requested</i> to communicate or update by 2020 these contributions and to do so every five years thereafter
Para. 27	The information to be provided by <i>Parties</i> communicating their NDCs <i>may</i> include, as appropriate, <i>inter alia</i> , quantifiable information on the reference point, time frame for implementation, scope and coverage, planning processes, assumptions and methods, and how the NDC is fair, ambitious and contributes towards the objective of the Convention		

*Table 1 continued over page*

**Table 1. Provisions in the Paris Agreement and Decision 1/CP.21 related to transparency of mitigation (cont.)**

<b>Topic</b>	<b>Actions / work programmes</b>	<b>Article / Paragraph</b>	<b>Provision</b>
<i>Communication of NDCs (Article 4)</i>	Related work programmes	Article 4.10	CMA to consider common time frames for NDCs at CMA 1
		Article 4.11	CMA to adopt guidance on adjustments to NDCs at CMA 1
		Para. 26	APA to develop further guidance on features of NDCs by CMA 1
		Para. 28	APA to develop further guidance on information to be provided to facilitate clarity, transparency and understanding of NDCs by CMA 1
		Para. 29	SBI to develop modalities and procedures for the public registry for NDCs by CMA 1
		Para. 30	Secretariat to make available an interim public registry for NDCs in the first half of 2016
		Para. 31	APA to elaborate guidance for accounting for Parties' nationally determined contributions by CMA 1
		Para. 91	APA to recommend modalities, procedures and guidelines for the transparency framework for action and support by COP 24
<i>Low-emission strategies (Article 4)</i>	Obligations / actions by Parties	Article 4.19	<i>All Parties</i> <b>should strive</b> to formulate and communicate long-term low GHG emission development strategies
		Para. 35	<i>Parties</i> are <b>invited</b> to communicate mid-century, long-term low GHG emission development strategies by 2020
<i>Global stocktake (Article 14)</i>	Collective obligation	Article 14.1	The CMA <b>shall</b> periodically take stock of collective progress towards achieving the purpose of the Paris Agreement and its long-term goals
	Related work programme	Paras. 99, 101	APA to identify sources of input for the global stocktake and develop modalities for the global stocktake by CMA 1

Note: For obligations and actions to be undertaken by Parties, the Parties concerned are highlighted in *italic text* and the strength of the obligation is highlighted in **bold text**. Paragraph numbers refer to paragraphs in Decision 1/CP.21 and article numbers refer to articles in the Paris Agreement.

**Table 2. Provisions in the Paris Agreement and Decision 1/CP.21 related to transparency of support**

<b>Topic</b>	<b>Actions / work programmes</b>	<b>Article / Paragraph</b>	<b>Provision</b>
<i>Provision of support (Article 13)</i>	Obligations / actions by Parties	Article 13.9 Para. 90	<i>Developed countries shall</i> , and <i>other Parties</i> that provide support <b>should</b> , provide information on financial, technology transfer and capacity-building support provided under Articles 9, 10 and 11. <i>Except for LDCs and SIDS, Parties shall</i> submit this information no less frequently than on a biennial basis. <i>LDCs and SIDS may</i> submit this information at their discretion.
	Related work programmes	Para. 91	APA to develop recommendations for modalities, procedures and guidelines for the transparency of action and support by COP 24.
<i>Provision of support (Article 9)</i>	Obligations / actions by Parties	Article 9.5	<i>Developed country Parties shall</i> biennially communicate indicative quantitative and qualitative information related to the provision and mobilisation of financial resources, as applicable, including, as available, projected levels of public financial resources. * <i>Other Parties providing resources</i> are <b>encouraged</b> to communicate such information biennially on a voluntary basis.
		Article 9.7	<i>Developed country Parties shall</i> provide transparent and consistent information on support provided and mobilised through public interventions, in accordance with adopted modalities, procedures and guidelines for the transparency of support established in Article 13.13. <i>Other Parties</i> are <b>encouraged</b> to do so.
	Related work programmes	Para. 55	COP to initiate process to identify information to be provided under Article 9.5 in 2016 (COP 22), to be adopted by CMA 1.
		Para. 57	Subsidiary Body on Scientific and Technological Advice (SBSTA) to develop modalities for accounting of financial resources provided and mobilised through public interventions by COP 24.
		Para. 91 Para. 94d	APA to develop recommendations for modalities, procedures and guidelines for the transparency of action and support by COP 24. These are to consider issues considered by the SBSTA on methodologies for reporting financial information.
<i>Provision of support (Article 11)</i>	Obligations / actions by Parties	Article 11.4	<i>All Parties</i> that enhance the capacity of developing country Parties to implement the Agreement <b>shall</b> regularly communicate on actions or measures on capacity building.
	Related work programmes	Para. 91	APA to develop recommendations for modalities, procedures and guidelines for the transparency of action and support by COP 24.
<i>Review and consideration of support provided (Article 13)</i>	Obligations / actions by Parties	Article 13.11 Article 13.12	Information submitted by <i>each Party</i> [under Articles 13.7 and 13.9] <b>shall</b> undergo a technical expert review, which shall consist of consideration of support provided, as relevant. <i>Each Party shall</i> participate in a facilitative, multilateral consideration of, <i>inter alia</i> , progress with respect to efforts under Article 9.
	Related work programmes	Para. 91	APA to develop recommendations for modalities, procedures and guidelines for the transparency of action and support by COP 24.
<i>Support needed and received, incl. use, impacts and results (Article 13)</i>	Obligations / actions by Parties	Article 13.10 Para. 90	<i>Developing country Parties should</i> provide information on financial, technology transfer and capacity-building support needed and received under Articles 9, 10 and 11. <i>Except for LDCs and SIDS, Parties shall</i> submit this information no less frequently than on a biennial basis.

*Table 2 continued over page*

**Table 2. Provisions in the Paris Agreement and Decision 1/CP.21 related to transparency of support (cont.)**

<b>Topic</b>	<b>Actions / work programmes</b>	<b>Article / Paragraph</b>	<b>Provision</b>
<i>Support needed and received, incl. use, impacts and results (Article 13)</i>	Related work programmes	Paras. 91, 94d	APA to develop recommendations for modalities, procedures and guidelines for the transparency of action and support, by COP 24. These are to consider the reporting by developing country Parties on support received, including the use, impact and estimated results thereof.
		Paras. 69, 70	SBI to develop scope and modalities for periodic assessment of effectiveness of and adequacy of support provided to the Technology Mechanism, to be adopted at COP 25.
		Para. 45	AC, LEG, SCF and other relevant institutions to develop methodologies and make recommendations on how to review the adequacy and effectiveness of support provided for adaptation, by CMA 1.
		Para. 42b	Adaptation Committee to consider methodologies for assessing adaptation needs, by CMA 1.
<i>Support needed and received, incl. use, impacts and results (Article 11)</i>	Obligations / actions by Parties	Article 11. 4	<i>Developing country Parties</i> <b>should</b> regularly communicate progress made on implementing capacity-building plans, policies, actions or measures to implement this agreement.
	Related work programmes	Paras. 91, 94d	APA to develop recommendations for modalities, procedures and guidelines for the transparency of action and support, by COP 24. These are to consider the reporting by developing country Parties on support received, including the use, impact and estimated results thereof.
<i>Global stocktake (Article 14)</i>	Collective obligation	Article 14.1	The CMA <b>shall</b> periodically take stock of collective progress towards achieving the purpose of the Paris Agreement and its long-term goals.
	Related work programmes	Paras. 99, 101	APA to identify sources of input for the global stocktake and develop modalities for the global stocktake, by CMA 1.

Notes: For obligations and actions to be undertaken by Parties, the Parties concerned are highlighted in *italic text* and the strength of the obligation is highlighted in **bold text**. Paragraph numbers refer to paragraphs in Decision 1/CP.21 and article numbers refer to articles in the Paris Agreement.

\* As indicated in the text, this information relates to future, anticipated levels of finance to be provided and mobilised, and not information about finance that has already been provided.

### 3. Building on the existing transparency system

The Paris Agreement and Decision 1/CP.21 emphasise that the modalities, procedures and guidelines of the enhanced transparency framework will not be developed from scratch. For example, the decision text explicitly requests the APA to draw on experiences from, and take into account, other on-going relevant processes under the Convention (paragraph 93). The transparency framework is to build on the current measurement, reporting and verification (MRV) system, and will eventually supersede the MRV system established by COP 16 in Cancun and COP 17 in Durban (paragraph 99).<sup>10</sup> A possible timeline for a smooth transition from the existing transparency system to the future transparency framework under the Paris Agreement is presented in Figure 1.

The exact scope and timing of GHG inventories, progress reports, technical expert review and multilateral consideration of progress under the Paris Agreement remain to be decided. For example, Decision 1/CP.21 does not specify when the first national inventory reports and progress reports under the Paris Agreement are to be submitted. The decision text states that the enhanced transparency framework under the Paris Agreement shall “eventually supersede the MRV system established by [the Cancun Agreements] ... immediately following the submissions of the final biennial reports and biennial update reports” (UNFCCC, 2015a). However, the timing of final biennial reports (BRs) and biennial update reports (BURs) has not yet been set.<sup>11</sup> Further, Decision 1/CP.21 does not include any guidance regarding the future frequency of national communications for developed and developing country Parties.

Despite the uncertainties outlined above, there are various ways in which the future transparency framework outlined by the Paris Agreement and Decision 1/CP.21 is enhanced compared to the existing transparency system. The future transparency framework is likely to increase the overall frequency and quality of information on GHG emissions and climate support, for example by increasing the frequency of reporting for some developing country Parties, filling information gaps in the current system, reducing duplication and providing clearer guidance in areas such as accounting for NDCs relating to mitigation. Technical expert reviews and multilateral consideration of progress under the Paris Agreement may also provide improved feedback and assist Parties to improve their measurement and reporting systems over time. Further examples of ways in which the future transparency framework is enhanced compared to the existing system are provided in Section 3.2.

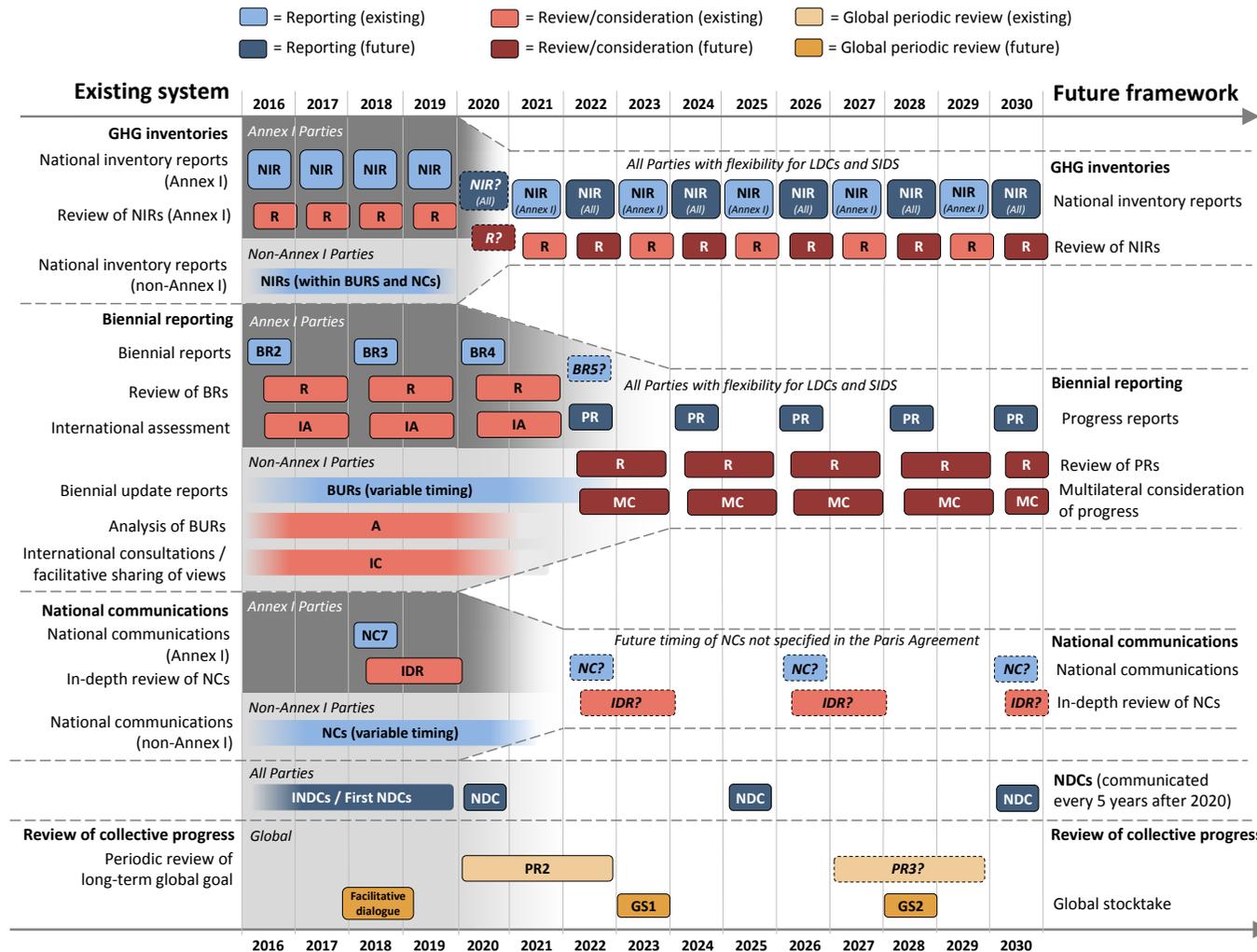
The enhanced transparency framework contains a combination of top-down and bottom-up elements. Top-down elements include principles, accounting guidance and common time frames for NDCs (should these be agreed), which can provide robustness and comparability. Bottom-up elements include nationally-determined mitigation goals, the provision and mobilisation of climate finance, and the determination of support needs, which can provide flexibility and ambition. Capacity building will be important if the enhanced transparency framework is to be successfully implemented in developing countries. Action will be needed in the pre-2020 period to build capacity and strengthen the reporting framework so that Parties are ready for implementation by the time the Paris Agreement comes into effect. The process of developing BURs can help to build capacity since one of the purposes of the BUR process is to identify capacity building needs.

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<sup>10</sup> Paragraph 99 of Decision 1/CP.21 refers to Decision 1/CP.16 and 2/CP.17, which establish biennial reports, biennial update reports, international assessment and review, and international consultations and analysis. These decisions also initiate revisions to Annex I national communications guidelines and request submission of national communications from non-Annex I countries every four years.

<sup>11</sup> GHG inventory data submitted by Annex I Parties is typically for the year (n-2) or earlier. Therefore the GHG inventory data needed to demonstrate whether emission reduction targets for 2020 were met is not likely to be available before 2022.

Figure 1. Possible timeline for a smooth transition from the existing transparency system to the enhanced transparency framework



Notes: Annex I Kyoto Protocol Parties have supplementary reporting and verification arrangements under the Kyoto Protocol. Developed countries are also requested under the Durban work programme on long-term finance to report biennially on their strategies and approaches for scaling up climate finance from 2014 to 2020. The first periodic review of the long-term global mitigation goal took place in 2013-15. Note that processes to agree long-term climate finance goals are not shown in the figure.

### 3.1 Evolution from the existing to the future transparency framework

In the existing transparency system, there are differences in terms of how provisions are implemented by different groups of Parties (e.g. Annex I Parties, non-Annex I Parties, Annex II Parties, LDCs and SIDS). The enhanced transparency framework outlined in the Paris Agreement has some elements that are common (such as the requirement to submit up-front information on NDCs) and some elements that are flexible for different groups of Parties (e.g. reporting on support provided by developed countries, timing of reports for LDCs and SIDS). The enhanced transparency framework places an emphasis on providing flexibility to those developing country Parties that need it in the light of their capacities.<sup>12</sup> The enhanced transparency framework also contains some elements that will be nationally determined, in line with the form of individual NDCs (e.g. accounting for and tracking progress made in achieving NDCs). A comparison of the existing and future transparency framework is provided in Tables 3, 4 and 5.

The current transparency system has different levels of obligation for different reporting provisions, such as “shall”, “shall” with qualifiers (e.g. “as appropriate” or “to the extent possible”), “should”, “encouraged”, and “may” (Ellis and Moarif, 2015). In addition, some reporting requirements are subject to technical review and recommendations, including explicit consequences for insufficient reporting, while others are not. The enhanced transparency framework also includes a mix of mandatory, encouraged, and optional reporting provisions. In the existing transparency system, there are also differences in how provisions are implemented in terms of timing. For example, only 9 non-Annex I Parties that are not LDCs or SIDS submitted their first BURs before the requested deadline of the end of 2014. Even fewer non-Annex I Parties have begun submitting their national communications every four years, as requested by the COP in Decision 1/CP.16.

Figure 2 shows the submission dates of national communications, biennial reports and biennial update reports from developed and developing countries from 1994 to May 2016. It illustrates how the submission dates of national communications have become more harmonised over time as countries have gained experience with reporting, particularly developed countries. It also highlights the limited experience with regular reporting in many developing countries, the majority of which have yet to submit their first biennial update report or third national communication. Over a decade elapsed between the first and second national communications in many developing countries. The transition to a biennial reporting cycle therefore represents a substantial step-up for such countries and significant capacity building efforts will be needed before and after 2020.

The concept of “tiers” is used to provide flexibility in the IPCC guidelines for calculating and reporting GHG inventories. There are various ways in which the concept of “tiers” could also be extended to other guidelines for reporting under the UNFCCC (Ellis, Briner and Moarif, 2010; Ellis et al., 2011; Dagnet et al., 2014; Deprez, Colombier and Spencer, 2015). The use of tiered guidelines for progress reports under the Paris Agreement might be one way to introduce flexibility that takes into account each country’s type of NDC, specific obligations (e.g. on provision of support), data availability and capacity.

### 3.2 Main changes between the existing and future transparency framework

The transparency framework outlined in the Paris Agreement shares many elements with the current system, such as an emphasis on national inventory reports and the biennial reporting of information on mitigation and support. There are also several important changes between the existing and future transparency framework, many of which enhance the coverage, frequency and/or quality of the information reported. Tables 4 and 5 provide an overview of the main changes between the current and future frameworks for transparency of mitigation and support.

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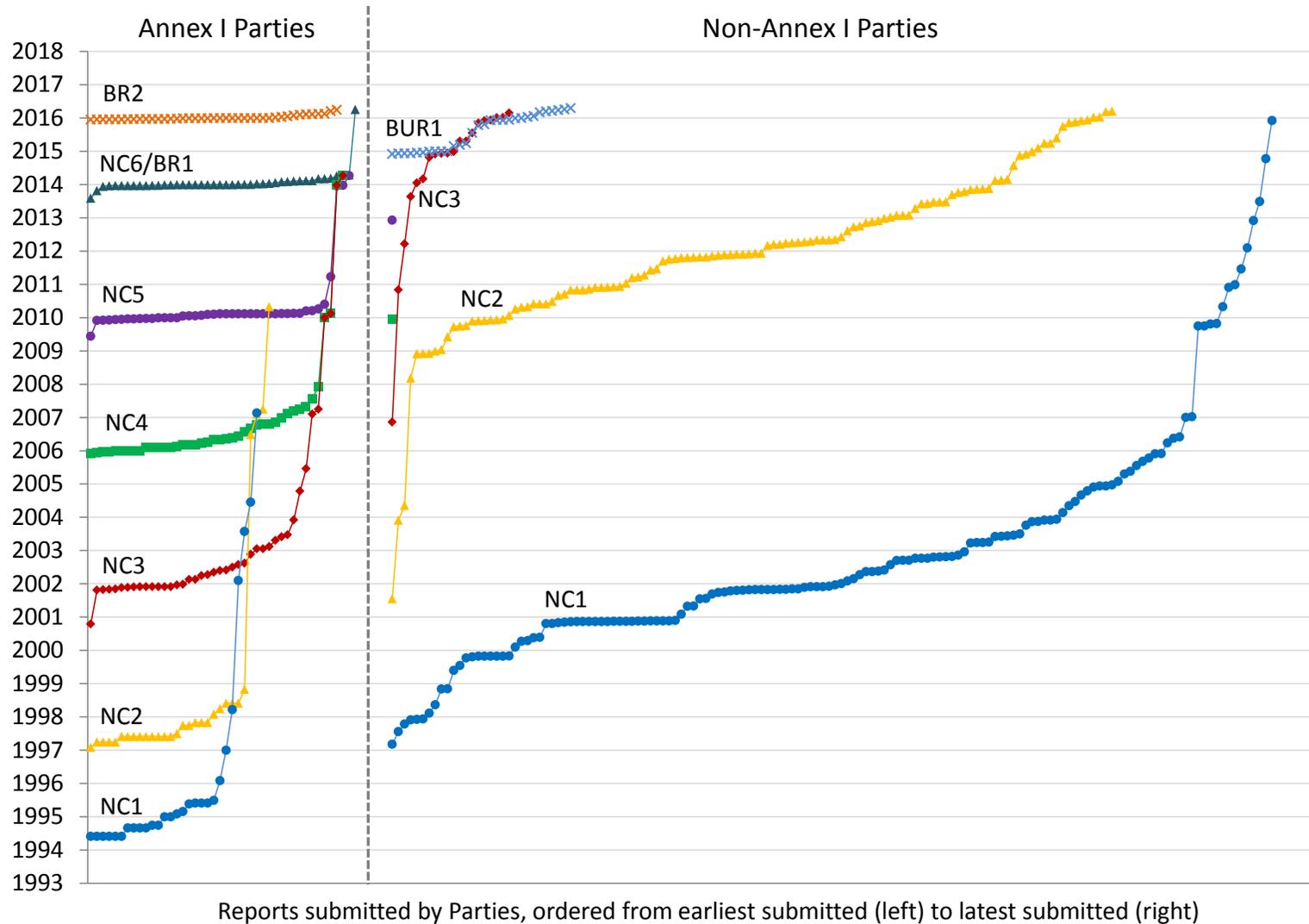
<sup>12</sup> Such as scope, frequency, level of detail of reporting, scope of review (including that it could provide for in-country reviews to be optional) (Decision paragraph 89).

**Table 3. Evolution from the existing to the future transparency system**

<i>Existing transparency system</i>		<i>Enhanced transparency framework under the Paris Agreement</i>	
<b>Same for all Parties</b>	<b>Implemented differently by different groups of Parties</b>	<b>Common for all Parties</b>	<b>Flexibility in implementation</b>
<ul style="list-style-type: none"> <li>All Parties submit GHG inventories</li> </ul>	<ul style="list-style-type: none"> <li><i>Frequency</i>: Annually for Annex I Parties; biennially for developing countries (as part of BURs) *; irregular for NAI Parties prior to COP16</li> <li><i>Methods</i>: Common set of IPCC guidelines for Annex I Parties, optional for non-Annex I Parties</li> <li><i>Review</i>: GHG inventories from Annex I Parties subject to in-depth technical review</li> </ul>	<ul style="list-style-type: none"> <li>All Parties submit GHG inventories</li> </ul>	<ul style="list-style-type: none"> <li><i>Frequency</i>: Developed country Parties to continue to submit annually; other Parties to submit biennially *</li> <li><i>Methods</i>: Good practice methodologies to be used by all Parties *; IPCC methodologies offer flexibility</li> </ul>
<ul style="list-style-type: none"> <li>All Parties submit national communications</li> </ul>	<ul style="list-style-type: none"> <li><i>Frequency</i>: Annex I must submit every 4 years, non-Annex I encouraged to, taking into account support provided *</li> <li><i>Reporting</i>: Different reporting guidelines for Annex I and non-Annex I Parties *; reporting on support provided mandatory only for Annex II Parties</li> <li><i>Review</i>: National communications from Annex I Parties subject to in-depth technical review by experts</li> </ul>	<ul style="list-style-type: none"> <li>All Parties submit national communications</li> </ul>	<ul style="list-style-type: none"> <li>No specific provisions in the Paris Agreement</li> </ul>
<ul style="list-style-type: none"> <li>All Parties submit reports biennially</li> </ul>	<ul style="list-style-type: none"> <li><i>Guidelines</i>: Different guidelines for Annex I BRs and non-Annex I BURs</li> <li><i>Frequency</i>: BURs to be submitted biennially consistent with the level of support *</li> <li><i>Scope</i>: Reporting on support mandatory only for Annex II Parties</li> </ul>	<ul style="list-style-type: none"> <li>All Parties submit reports biennially</li> </ul>	<ul style="list-style-type: none"> <li><i>Scope</i>: Content relating to provision and mobilisation of support mandatory for developed countries (both reporting and review)</li> <li><i>Flexibility in scope, frequency and level of detail of reporting</i> for developing countries that need it in light of their capacities</li> </ul>
<ul style="list-style-type: none"> <li>All Parties participate in review or analysis</li> </ul>	<ul style="list-style-type: none"> <li><i>Review/analysis</i>: Different guidelines for technical examination of BRs and analysis of BURs</li> <li><i>Assessment/consultations</i>: Separate processes for developed countries (multilateral assessment) and developing countries * (international consultations / facilitative sharing of views)</li> </ul>	<ul style="list-style-type: none"> <li>All Parties participate in review and consideration of process</li> </ul>	<ul style="list-style-type: none"> <li><i>Scope</i>: Flexibility in scope for those developing country Parties that need it *</li> </ul>

\* With additional flexibility in terms of timing and content for LDCs and SIDS.

Figure 2. Actual submission dates of national communications, biennial reports and biennial update reports



Notes: Only reports submitted electronically are shown above. A small number of NC1s and NC2s from Annex I Parties were submitted in hard copy only and the submission dates of these reports are not available on the UNFCCC website. As of May 2016, one non-Annex I Party (Mexico) had submitted its fourth and fifth national communications.

**Table 4. Main changes in mitigation-related transparency provisions**

<b>Provisions in Paris Agreement</b>	<b>Existing provisions</b>	<b>Main change</b>
<ul style="list-style-type: none"> <li>Each Party shall communicate a NDC every 5 years</li> </ul>	<ul style="list-style-type: none"> <li>Developed countries communicate mitigation targets and developing countries communicate Nationally Appropriate Mitigation Actions (NAMAs) under the Cancun Agreements</li> <li>AI KP Parties have Quantified Emission Limitation or Reduction Objectives (QELROs) under the KP</li> </ul>	<ul style="list-style-type: none"> <li>Transition to 5-year cycles of mitigation contributions for all Parties</li> </ul>
<ul style="list-style-type: none"> <li>NDCs may be adjusted at any time to enhance their level of ambition</li> </ul>	<ul style="list-style-type: none"> <li>Targets and actions under the Cancun Agreements may be adjusted at any time</li> </ul>	<ul style="list-style-type: none"> <li>Any adjustments to mitigation contributions will represent a progression from previous efforts</li> </ul>
<ul style="list-style-type: none"> <li>Parties shall account for their NDCs</li> </ul>	<ul style="list-style-type: none"> <li>Accounting rules agreed for KP commitments but not for targets and actions under the Cancun Agreements</li> </ul>	<ul style="list-style-type: none"> <li>All Parties will account for their NDCs, not just KP Parties. Guidance for accounting for NDCs to be used for 2nd and subsequent NDCs. Parties may elect to apply the guidance to their first NDC.</li> </ul>
<ul style="list-style-type: none"> <li>Guidance to be developed for up-front information needed to facilitate clarity, transparency and understanding of NDCs</li> </ul>	<ul style="list-style-type: none"> <li>Developed countries to submit relevant up-front information using a common template</li> <li>Developing countries invited to submit up-front information subject to availability</li> </ul>	<ul style="list-style-type: none"> <li>More guidance to be provided on up-front information to be communicated by all Parties</li> </ul>
<ul style="list-style-type: none"> <li>All Parties except LDCs and SIDS shall submit GHG inventories and progress reports no less frequently than biennially</li> </ul>	<ul style="list-style-type: none"> <li>AI Parties submit annual GHG inventories, biennial reports and national communications (NCs) every 4 years</li> <li>NAI Parties shall submit biennial update reports every 2 years (the date of their first BUR is to be consistent with their capabilities and level of support provided); NCs should be submitted every 4 years subject to provision of finance</li> </ul>	<ul style="list-style-type: none"> <li>Common modalities, procedures and guidelines to be developed for the content of information reported biennially</li> </ul>
<ul style="list-style-type: none"> <li>All Parties should strive to formulate and communicate mid-century, long-term low GHG emissions development strategies</li> </ul>	<ul style="list-style-type: none"> <li>Developed countries should develop low-carbon development strategies, developing countries encouraged to do so</li> </ul>	<ul style="list-style-type: none"> <li>All Parties should now strive to prepare mid-century low-emission development strategies, and a date has been set by which Parties are invited to communicate their strategies (by 2020)</li> </ul>
<ul style="list-style-type: none"> <li>Technical expert review of GHG inventories and information on tracking progress towards NDCs</li> </ul>	<ul style="list-style-type: none"> <li>Technical review of GHG inventories, biennial reports and national communications for developed country Parties</li> <li>Technical analysis of biennial update reports for developing country Parties</li> </ul>	<ul style="list-style-type: none"> <li>Common modalities, procedures and guidelines to be developed for technical expert review</li> <li>Technical expert review under the Paris Agreement will identify areas of improvement – this is new for developing country Parties</li> </ul>
<ul style="list-style-type: none"> <li>Multilateral consideration of progress towards NDCs</li> </ul>	<ul style="list-style-type: none"> <li>Multilateral assessment for developed country Parties</li> <li>Facilitative sharing of views for developing country Parties</li> </ul>	<ul style="list-style-type: none"> <li>Multilateral consideration under the Paris Agreement will consider implementation and achievement of NDCs – current focus of ICA for developing country Parties is on transparency of actions only</li> </ul>
<ul style="list-style-type: none"> <li>Global stocktake of collective progress towards long-term mitigation goal (every five years)</li> </ul>	<ul style="list-style-type: none"> <li>Periodic review of the adequacy of the long-term mitigation goal and overall progress made towards achieving it (after each IPCC assessment report or at least every seven years)</li> </ul>	<ul style="list-style-type: none"> <li>Global stocktake will be undertaken every 5 years and will consider collective progress towards long-term goals but not necessarily the adequacy of the long-term goals themselves</li> </ul>

**Table 5. Main changes in support-related transparency provisions**

Provisions in Paris Agreement	Existing provisions	Main change
<ul style="list-style-type: none"> <li>• Indicative information on future levels of climate finance provided and mobilised</li> </ul>	<ul style="list-style-type: none"> <li>• Information on strategies and approaches to scale-up climate finance to 2020, including quantitative and qualitative elements of a pathway, requested from developed countries biennially since 2014</li> <li>• No guidance; very diverse set of information</li> </ul>	<ul style="list-style-type: none"> <li>• Mandatory biennial reporting from developed country Parties. Other Parties providing resources encouraged to do so biennially, on a voluntary basis.</li> <li>• Guidance on information to be provided</li> </ul>
<ul style="list-style-type: none"> <li>• Transparent and consistent information on support provided to developing countries (finance, technology, capacity building)</li> </ul>	<ul style="list-style-type: none"> <li>• Mandatory for Annex II (AII) Parties in NCs and BRs. Increased and more specific information on finance required in BRs compared with NCs, through the use of revised common tabular format</li> <li>• No clear guidance or format for reporting on technology and capacity building support, done in a variety of ways</li> </ul>	<ul style="list-style-type: none"> <li>• Mandatory biennial reporting for developed country Parties, within the transparency framework. Other Parties encouraged to report this information. All countries to report information on measures to enhance capacity building in developing countries (reporting channel not clear).</li> <li>• SBSTA to develop modalities for accounting of financial resources provided.</li> </ul>
<ul style="list-style-type: none"> <li>• Information on climate finance mobilised for developing countries</li> </ul>	<ul style="list-style-type: none"> <li>• Requested of AII countries in their BRs (private financial flows leveraged by bilateral climate finance). Not consistently reported.</li> </ul>	<ul style="list-style-type: none"> <li>• Reporting mandatory for developed country Parties, specifically addressing financial resources <i>mobilised through public interventions</i>. Other Parties invited to report this information as relevant.</li> <li>• SBSTA to develop modalities for accounting of financial resources mobilised through public interventions.</li> </ul>
<ul style="list-style-type: none"> <li>• Technical expert review: information on support provided to developing countries</li> </ul>	<ul style="list-style-type: none"> <li>• Information on support reported by AII Parties in NCs and BRs subject to review</li> </ul>	<ul style="list-style-type: none"> <li>• Review of information applies to developed countries, not just Annex II, and to other Parties that submit information under Article 13.9.</li> </ul>
<ul style="list-style-type: none"> <li>• Information on support needs and support received</li> </ul>	<ul style="list-style-type: none"> <li>• NAI Parties encouraged to report this information in NCs and BURs</li> </ul>	<ul style="list-style-type: none"> <li>• Potentially more guidance and technical work: clarity on support received an objective of the transparency framework, including impacts and estimated results, to be considered within modalities. Work launched on methodologies for assessing adaptation needs, and to periodically assess adequacy and effectiveness of support for adaptation and the Technology Mechanism.</li> </ul>
<ul style="list-style-type: none"> <li>• Multilateral consideration of progress with respect to efforts under Article 9</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• Finance now included in scope of multilateral consideration process.</li> <li>• “Efforts” under Article 9 could apply broadly: obligations and reporting by developed countries; voluntary provision and mobilisation of finance (and associated reporting) from other Parties providing finance.</li> </ul>
<ul style="list-style-type: none"> <li>• Global stocktake of progress toward long-term goals, considering support.</li> </ul>	<ul style="list-style-type: none"> <li>• Review of adequacy of long-term global goal and collective progress toward achieving it</li> <li>• SCF produces biennial assessment and overview of climate finance flows</li> </ul>	<ul style="list-style-type: none"> <li>• Collective review of progress every five years, includes support</li> <li>• Long-term collective objective related to making finance flows consistent with a pathway towards a low GHG emissions and climate-resilient development pathway (Article 2.1c).</li> </ul>

### 3.3 Lessons from existing experience

The framework for measurement, reporting and review of information under the UNFCCC has been evolving since the 1990s, and expanded significantly in 2010 with the introduction of biennial reporting for all Parties (with flexibility regarding the timing for developing country Parties). Over the past decades, Parties have gained experience that may be useful in designing the future transparency framework under the Paris Agreement. Some important lessons from existing experience include:

- GHG inventories, calculated by countries using IPCC guidelines, are the foundation for accounting and tracking progress towards diverse mitigation goals in many cases (Hood, Briner and Rocha, 2014). The quality and breadth of emissions inventories has generally been improving over time, including improvements in the quality of underlying data and emissions factors. However, most developing countries have reported inventory information that is significantly out of date (Ellis and Moarif, 2015). The improvement of GHG inventories should therefore be a priority area for capacity building and other resources, particularly for developing countries that are significant emitters. In addition to capacity building under the UNFCCC, support for capacity building may also be provided by other processes such as the Sustainable Development Goals (Target 17.9 of the 2030 Agenda for Sustainable Development is dedicated to capacity building).
- Clear guidelines on what to measure and report, as well as methods for how to do this, can help to improve transparency (Ellis and Moarif, 2015). For example, GHG inventories from Annex I Parties have improved significantly over time, following clear and common IPCC methods for what to measure and how, combined with clear guidelines on what to report and input from expert review teams. By contrast, the clarity and consistency of information on support provided and climate finance mobilised has been limited to date. Work to improve the clarity of what to measure and report, and what methods to use for doing so is underway.
- Technical review processes have played an important role in improving the quality of information over time, as seen in reports from Annex I countries (Ellis and Moarif, 2015; Van Asselt, Sælen and Pauw, 2015). In the context of the Kyoto Protocol, review processes have also facilitated compliance by flagging implementation issues. Reviews can be flexible, for example by undertaking centralised desk reviews for the national communications of small Annex I countries rather than in-country reviews. Even where reporting provisions are not mandatory, the expert review team can encourage Parties to report information that enhances clarity and transparency, and records whether previously made recommendations and encouragements were implemented.
- In-country expertise on measurement and reporting systems should be maintained and developed over time. Reporting, assessment and review processes can be highly resource-intensive and many developing countries have struggled with meeting current reporting requirements (Ellis et al., 2011). The Paris Agreement recognises that significant capacity development will be needed through 2020 and beyond to implement the current and future transparency framework. For this reason the Paris Agreement explicitly requests the Global Environment Facility to establish a Capacity-building Initiative for Transparency. Many developing countries may have submitted only one BUR and undergone only one international consultation and analysis process by 2020, limiting the experience developing countries can draw on by the time the Paris Agreement comes into effect.
- Further, assessment and review requires Secretariat resources, a large number of technical experts whose time must be paid for, and in-country staff available to respond to questions and to follow-through on recommendations. Streamlining reporting and review guidelines (e.g. for national communications and biennial reports) could facilitate the technical review of reports (UNFCCC, 2015c).

Experience with the periodic review of the adequacy of the long-term global goal may also be useful for the global stocktake. The periodic review largely drew on information outside the UNFCCC, making use of a Structured Expert Dialogue, technical workshops and meetings for open and substantive discussions between FCCC delegates and external experts. The Structured Expert Dialogue concluded, among other things, that already “climate change impacts are hitting home” and “the ‘guardrail’ concept, in which up to 2°C of warming is considered safe, is inadequate and would therefore be better seen as an upper limit, a defence line that needs to be stringently defended, while less warming would be preferable” (UNFCCC, 2015e).

The UNFCCC bodies in charge of developing the transparency framework are well placed to take previous experience into account. The emphasis on national inventory reports in the enhanced transparency framework is important for filling what is currently a major information gap, and providing a sound basis for tracking progress towards a diverse range of NDCs. The specific work programmes on accounting for NDCs, and for financial resources provided and mobilised, should help provide guidance on what to measure and how to do so.<sup>13</sup> Further, conducting technical expert reviews of GHG inventories and progress reports from all Parties should assist Parties to continuously improve their measurement and reporting over time.

## **4. Tracking progress towards the mitigation component of NDCs**

Up-front information is needed to understand NDCs and make them “trackable”. Previous work on this topic (Briner and Prag, 2013; Levin et al., 2014) has emphasised that the up-front information needed to understand NDCs depends on the type of goal in question. Subsequent information is needed to regularly track progress towards NDCs. Figure 3 uses a decision tree approach to identify different types of NDC (catering for a wider variety of NDC types than previous categorisation exercises) and Table 6 shows the information needed to understand and track progress towards each NDC type. An additional issue is the information needed to track progress towards NDCs that require support – this issue is not covered in this paper but could be an area for future work.

There is a distinction between (i) up-front information needed to facilitate clarity, transparency and understanding (i.e. NDC submissions); and (ii) regularly-reported information needed to track progress in implementation and achievement (i.e. progress reports). Up-front information focuses on goals and how Parties expect to achieve them (e.g. intended use of international co-operative approaches under Article 6 of the Paris Agreement, including participation in international transfers of mitigation outcomes), while subsequent information focuses on progress made to date (e.g. actual use of international co-operative approaches under Article 6). Both can include forward-looking projections in addition to historical trends.

### **4.1 Goals for GHG emissions**

There is considerable experience with tracking progress towards absolute emission reduction targets (Type A), since this was the target type used by Annex I Parties for commitments under the Kyoto Protocol and by developed countries under the Cancun Agreements for 2020. Variations of this NDC type include emission reductions from a base year (e.g. a 20% reduction from 1990 levels), emission reductions to a specified emission level (e.g. 300 MtCO<sub>2</sub>-eq) or achievement of carbon neutrality by a given date (i.e. the specified net emissions level is zero). Some countries had previously expressed goals for carbon neutrality under the Cancun Agreements (Maldives and Costa Rica).

Some absolute emissions reduction targets have less than economy-wide coverage (Type B). In the event that the sector definitions used for the NDC are different to those used in the GHG inventory, an explanation of any such discrepancies could be provided in the NDC submission to facilitate clarity, transparency and understanding.

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<sup>13</sup> The experience gained under the Clean Development Mechanism with estimating emissions reductions could be relevant for estimating the impact of supported climate actions at the project or programme scale.

At least one Party (China) has communicated a goal to peak emissions in a given year (Type C). To facilitate the global stocktake, it would be helpful for such countries to report their expected peaking emissions level in addition to the date. More generally, it would also be useful for all major emitters, where feasible, to estimate the rate at which emissions are expected to decline once their emissions have peaked. This is because global average temperature rise depends on cumulative GHG emissions, rather than the emissions level in any given year.

A significant number of Parties have communicated economy-wide or sector-specific GHG emissions goals relative to a business-as-usual (BAU) baseline (Types D and E). For these types of NDC, up-front quantitative information on the BAU emission level and the assumptions behind it is essential to understand what is being proposed. It would also be helpful to state if the baseline is fixed for the duration of the NDC, or whether it might be updated. Paragraph 31 calls for “methodological consistency, including on baselines, between the communication and implementation of [NDCs]” and paragraph 95(b) refers to “consistency between the methodology communicated in the [NDCs] and the methodology for reporting on progress made towards achieving [NDCs]” (UNFCCC, 2015a). The extent to which methodological consistency between the emissions baselines of different Parties is needed (i.e. via guidance for setting baselines) remains an open question.

For goals expressed in terms of emissions intensity or emissions per capita (Type F), up-front indications of expected trends in the denominator (i.e. gross domestic product, GDP, or population) would facilitate estimation of the expected impact on total GHG emissions. Subsequent reporting of any updates made to GDP or population projections since the submissions of the NDC would enhance understanding of progress made in implementation.

## **4.2 Non-GHG goals**

In addition to goals expressed in terms of GHG emissions, NDCs encompass a wide range of possible non-GHG goals in energy, forestry and other economic sectors (Type G). Given the large number of different ways in which such non-GHG goals can be expressed, any further guidance on information to be provided for this type of NDC is likely to remain general. It is often challenging to estimate the expected impacts of Type G NDCs on national and collective emission levels, though methodologies exist to estimate the GHG impact of energy and other non-GHG targets (such as the WRI GHG Protocol Policies and Actions standard) (WRI, 2014).<sup>14</sup> Reporting requirements for such goals should not be overly rigid since this might discourage some Parties from taking action.

Some NDCs do not contain quantitative goals but do contain qualitative objectives (Type H) such as to prepare a national GHG inventory, to set up a national climate change office or other institution to enhance cross-ministerial co-operation on climate policy, or to implement specific measures such as feed-in tariffs, carbon pricing mechanisms and/or regulations. Like Type G, many different goals are possible and significant flexibility in the guidance will be needed to adequately capture the variety of qualitative goals that have been put forward in INDCs to date. A few NDCs do not contain any measurable quantitative or qualitative goals (Type I). The lack of specificity of this type of NDC makes it very challenging to understand and track progress in implementation and achievement.

## **4.3 Other issues related to tracking progress on mitigation**

An important dimension of accounting is the difference between goals for a single-year (e.g. the year 2030) and multi-year goals that cover a continuous period (e.g. the period 2025-2030). Single-year and multi-year goals may require different accounting guidance and different information to track progress under the Paris Agreement (Prag, Hood and Barata, 2013). The use of single-year goals increases the uncertainty associated with estimates of national and global cumulative emissions. Further, accounting and reporting on the use of ITMOs toward the achievement of NDCs will be

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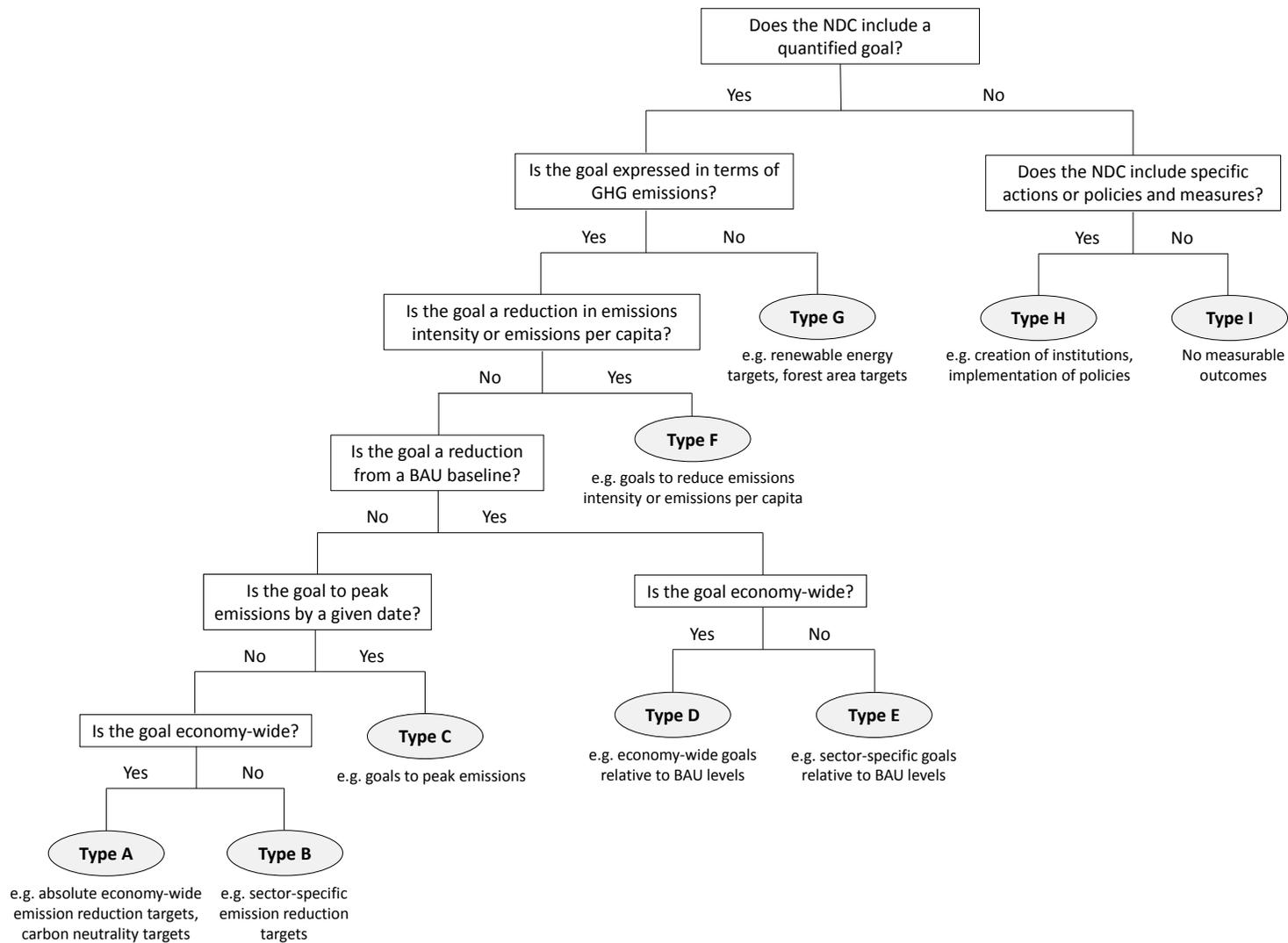
<sup>14</sup> Some country-specific studies have also been done – for example, IDDRI (2015) considers the impact of the GHG and non-GHG goals contained in INDCs on low-carbon transformations in the US, China, Japan, the EU, Brazil and India.

complicated in a system that features both single- and multi-year goals (Hood, Briner and Rocha, 2014). To date, most Parties have expressed their INDCs as single-year goals.

Several Parties have multiple goals in their INDCs, or combinations of quantitative goals and qualitative policies and measures. Such Parties would need to provide the information needed to track progress towards each of these goals and measures as outlined in Figure 3 and Table 6.

The aim of the global stocktake is to assess collective progress towards achieving the goals of the Paris Agreement. The global stocktake will consider, among other things, the overall effect of Parties' NDCs. For some types of NDC, estimating expected future GHG emissions is difficult and may depend heavily on external factors such as GDP or population growth. The Paris Agreement encourages developing country Parties to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances. As more Parties do this, it should become easier to gain a clearer picture of future expected GHG emissions levels and associated global average temperature rise.

Figure 3. Decision tree for determining information needed to track progress towards different types of NDC (to be read in conjunction with Table 6)



**Table 6. Information needed to understand and track progress towards different types of NDC**

Type	Goal and indicator	Examples of INDCs submitted	Up-front information needed to facilitate clarity, transparency and understanding *	Regularly-reported information needed to track progress in implementation
A	Economy-wide emission reduction targets (tCO <sub>2</sub> -eq)  Achievement of carbon neutrality	Annex I Parties, Botswana, Brazil, Ethiopia, Marshall Islands  Norway, Bhutan (goal to remain carbon neutral)	Time frame, base year, gases covered, GWPs used, approach used to account for LULUCF, intended use of international co-operative approaches under Article 6 including participation in transfers of ITMOs (if any), emissions projections if available	GHG inventory, actual use of international co-operative approaches under Article 6 including participation in transfers of ITMOs (if any), projections of achievement of NDC (applying forthcoming accounting guidance for LULUCF and ITMOs), any changes to up-front info reported
B	Non-economy-wide emission reduction targets (tCO <sub>2</sub> -eq)	Guyana, Liberia	<i>Same as A above</i> , plus definitions of sector(s) covered	<i>Same as A above</i>
C	Peaking emissions in a given year	China	<i>Same as A above</i> , plus expected peak emissions level**	<i>Same as A above</i>
D	Economy-wide goals to reduce emissions relative to a BAU baseline (tCO <sub>2</sub> -eq)	Algeria, Argentina, Bangladesh, Barbados, Côte d'Ivoire, Ecuador, Georgia, Iran, Kiribati, Korea, Mexico, Turkey, Viet Nam	<i>Same as A above</i> , plus info on BAU baseline and assumptions used (e.g. population and GDP projections), intentions to update baseline	<i>Same as A above</i> , plus updated info on baseline, population and GDP projections if applicable
E	Sector-specific goals relative to a BAU baseline (tCO <sub>2</sub> -eq)	Albania, Kiribati	<i>Same as D above</i> , plus sector(s) covered	<i>Same as D above</i>
F	Emissions intensity goals (kgCO <sub>2</sub> -eq per unit of GDP) Emissions per capita goals (tCO <sub>2</sub> -eq per cap)	Chile, China, India, Singapore  Ghana, Israel, Zimbabwe	<i>Same as A above</i> , plus GDP and/or population projections	<i>Same as A above</i> , plus updated GDP and/or population projections if applicable
G	Various non-GHG goals, including for non-fossil or renewable energy, energy efficiency, forest cover, etc.	Antigua and Barbuda, China (share of non-fossil energy, forest cover), India (share of non-fossil electricity), Myanmar	Time frame, sectors/sources covered, sectoral emissions projections if available	Progress made using chosen indicator, any changes to projections and up-front info reported
H	Implementation of qualitative policies and measures, creation of institutions etc.	Guinea-Bissau, Mozambique, Sierra Leone	Time frame and implementation milestones, estimated emissions impact if available	Progress made towards milestones, any changes to projections and up-front info reported
I	No measurable goals	Pakistan, Saudi Arabia	Implementation milestones, if available	Qualitative info on progress, if available

\* For all NDC types, transparency may be further enhanced by providing up-front information on planning processes, why the NDC is fair and ambitious, and how it contributes towards the objective of the Convention.

\*\* To facilitate estimates of cumulative global emissions, it would be useful for all major emitters, where feasible, to estimate the level at which emissions are expected to peak and the subsequent rate at which emissions are expected to decline.

## **5. Fulfilling reporting provisions on financial resources provided, mobilised and received**

As outlined in Section 2.2 of this paper, developed country Parties shall report information relating to financial, technology and capacity-building support provided, financial resources mobilised through public interventions, and anticipated future levels of financial resources provided and mobilised. Article 13 of the Paris Agreement also stipulates that other Parties providing support should report information on support provided and mobilised, and that developing country Parties should report information on support needs and support received. All Parties that undertake actions and measures to enhance the capacity of developing country Parties to implement the Paris Agreement are to communicate this information “regularly”. Article 11 also states that developing country Parties should “regularly” communicate on progress made with implementation of capacity-building activities.

The actual form and modalities of reporting provisions will be developed by Parties starting this year. Decision 1/CP.21 launches a work programme on accounting for finance provided and mobilised, and initiates a process to identify information needed regarding future anticipated levels of support provided and mobilised.<sup>15</sup> However, reaching agreement on how to account for climate finance may require political decisions in addition to technical work. This section discusses potential technical issues related to information on financial resources that shall or should be reported under the Paris Agreement, based on existing experience and practice.

### **5.1 Provision of public climate finance**

Annex II Parties have a long-running and clear obligation to provide financial resources to developing country Parties under the UNFCCC. Data on public provision of climate finance is therefore generally quite complete for these Parties (OECD, 2015). Annex II Parties currently report this information in their national communications and biennial reports (see Section 3), particularly on financial resources provided to developing countries (i.e. bilateral finance). Some countries not listed in Annex II (including Annex I Parties such as Poland and non-Annex I Parties such as Korea) also currently report this information in their BRs and BURs, as well as information on their official development assistance for climate purposes to the OECD Development Assistance Committee (DAC). EU members that are not Annex II Parties also report this information via the EU Monitoring Mechanism Regulation (GIZ, 2014b).

Article 9.7 of the Paris Agreement requests “transparent and consistent” information on support provided. The quantity and level of detail of information reported by developed countries on support provided for developing countries has improved over time with the introduction and revision of common tabular formats (CTFs) as part of BRs. Annex II countries also report on climate finance provided to multilateral organisations, with detailed information on channels and instruments now requested in CTFs (Decision 9/CP.21).

Despite the introduction of CTFs, reporting to date on public finance provided has not yet been fully consistent (UNFCCC, 2014c, 2014d; OECD, 2015). This is partly because different approaches can be taken when “tagging” financial flows and specific projects as being climate relevant (e.g. when using “Rio

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<sup>15</sup> There is currently no specific work programme outlined in the Paris Agreement or Decision 1/CP.21 to develop guidance and methods for reporting on support provided in the form of capacity building or technology development and transfer. Reporting such information is challenging for many reasons. In particular, it can be difficult to separate out financial resources for supporting capacity building and technology development and transfer activities from broader climate finance flows (Ellis et al., 2015).

Markers”<sup>16</sup>), and reporting can take place at different levels of aggregation or points of measurement (e.g. committed, provided or disbursed). The level of aggregation or point of measurement chosen can significantly affect the transparency of information, depending on the make-up of bilateral flows (i.e. whether they are primarily grant-based or include large multi-year loans). In addition, not all countries report on official financial flows that do not qualify as official development assistance under existing ODA-eligibility criteria, such as non-concessional loans and equity investments. Recently-updated OECD guidance for applying the Rio Markers to climate change adaptation activities (OECD, 2016), along with work on definitions being undertaken by bilateral and multilateral development finance providers, will hopefully improve the consistency of international reporting.

Other Parties that provide financial resources to developing countries are encouraged to report information on these flows voluntarily. Though several countries provide such support (Buchner et al., 2014), there has been very limited voluntary reporting of this information to date. Some countries have started reporting their official development assistance to the OECD DAC voluntarily, such as Turkey (which also receives ODA), Saudi Arabia, the UAE and the Kuwait Fund for Arab Economic Development.<sup>17</sup> Currently, such reporting is sometimes still done at an aggregate level, making it difficult to identify climate-relevant flows. Nevertheless, this approach could be used to report climate-relevant information voluntarily to the UNFCCC as well. Several countries that provide development support to developing countries also report on this information domestically, for example in financial yearbooks and public expenditure reports.<sup>18</sup>

Article 9.5 of the Paris Agreement stipulates that developed countries shall communicate “indicative quantitative and qualitative information” on finance provided and mobilised including, as available, projected levels of public financial resources. The use of the term “indicative” suggests this provision refers to communication of expected amounts of finance to be provided and mobilised in the future.<sup>19</sup> Such reporting, which is currently voluntary, could be made more complete and transparent (UNFCCC, 2015d). However, there are fundamental challenges associated with providing such information, such as internal budgetary processes that limit the availability of disaggregated, forward-looking information (OECD, 2014). Other Parties providing resources are also encouraged to provide forward-looking information on climate finance provided and mobilised. The ease of such voluntary reporting will also vary by country and similar fundamental challenges may be encountered.

## 5.2 Mobilisation of private climate finance

Reporting on private finance mobilised by developed countries through public interventions for climate action in developing countries, as requested in Article 9.7 of the Paris Agreement, is more challenging than reporting on public finance provided. This is because there are data limitations and work to develop common definitions and methodologies remains at an early stage (see OECD, 2015). When estimating mobilised climate finance, decisions need to be made at various points on the methodological option used. Key decision points include: (i) defining public and private finance, in particular in cases where entities or

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<sup>16</sup> The “Rio markers” are a set of statistical policy markers to monitor external development finance for environmental purposes within the OECD DAC. A scoring system of three values is used, in which development co-operation activities are “marked” as targeting the environment or the Rio Conventions as the “*principal*” objective or a “*significant*” objective, or as not targeting the objective. A marker for climate change mitigation was introduced in 1998, and one for climate change adaptation in 2010. These apply to all ODA, and since 2010 also to other official non-concessional development flows (excluding export credits).

<sup>17</sup> See [www.oecd.org/dac/dac-global-relations/non-dac-reporting.htm](http://www.oecd.org/dac/dac-global-relations/non-dac-reporting.htm) for a list of countries reporting to the DAC.

<sup>18</sup> For example, information on concessional finance for development from Brazil, Chile, China, Colombia, Costa Rica, India, Indonesia, Mexico, Qatar, and South Africa has been compiled from public sources (available at [www.oecd.org/dac/dac-global-relations/non-dac-reporting.htm](http://www.oecd.org/dac/dac-global-relations/non-dac-reporting.htm)). The organisation AidData has also been compiling data from “emerging” donors and working with non-DAC development agencies to organise and standardise their data.

<sup>19</sup> This interpretation of the term “indicative” is used by the UNFCCC Secretariat in UNFCCC (2014d).

funds are mixed; (ii) attributing mobilised private finance, where multiple public actors are involved; and (iii) assessing causality between public interventions and flows of private finance (Jachnik, Caruso and Srivastava, 2015).

Some donor countries (such as Belgium, Denmark, France, Germany and Norway) have conducted pilot studies to estimate the climate finance they have mobilised in developing countries (Mostert, Bolscher and Veenstra, 2015; Torvanger, Narbel and Lund, 2015; Abeille et al., 2015). Estimating finance mobilised by individual countries through multilateral public finance channels is challenging because there are data gaps and it is difficult to accurately attribute mobilised finance back to each country involved.<sup>20</sup> Collective reporting in this area could therefore be considered (OECD, 2015).

The type of public intervention that can mobilise climate finance is not limited to the provision of public finance; it can also include policy support, as highlighted by initial research in the field of renewable energy (Haščić et al., 2015). However, quantifying the indirect mobilisation effects of policy-related interventions is technically challenging.

The SBSTA will need to address these definitional and methodological issues when developing modalities for accounting of financial resources mobilised through public interventions.<sup>21</sup> The modalities will need to be dynamic so they can adapt as estimation methods are refined and different sources of data become available.

### **5.3 Support needed and received**

Developing countries are encouraged to report information on support needed to undertake climate action and support received to do so in their national communications and BURs (see Table 4). Providing this information in a concrete and useful way requires an assessment of financial, technical and capacity-building needs and receipts in specific areas. Most developing country Parties have provided information on their needs in various areas within their national communications, BURs and INDCs, though not all have reported on support received.<sup>22</sup> There are limited training materials and guidance to facilitate the reporting of such information, though several countries have experience with elaborating Technology Needs Assessments, and some participated in the UNFCCC NEEDS project to assess financing needs. A suggested table for reporting on support received in BURs is included in training materials but has not been used by any of the countries that have included information on support received. The categories countries use to report this information vary, as do the years covered, the sources included, and the level of detail on the type of financial flows (e.g. grants, concessional loans, other flows) and their status (e.g. committed, disbursed). The DAC Creditor Reporting System can also provide data on bilateral and multilateral flows received by a particular country, which have been tagged as climate relevant by the finance provider.

To report information on support received to the UNFCCC, countries would first need to monitor the financial and other types of support they receive. There are several benefits to doing so. While at the international level this builds confidence and improves the transparency of financial flows, the benefits of better tracking of support received and its allocation in budgets and expenditures are mostly national (Tirpak, Brown and Ronquillo-Ballestros, 2014; UNDP, 2015). As such, efforts to improve information on financial flows for climate change generally take place within broader efforts to improve domestic budget and expenditure processes, and are connected to overarching development and other strategic priorities. A reporting framework under the UNFCCC that is disconnected from national efforts to improve this information for national purposes may be counterproductive. There are many challenges to developing a

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<sup>20</sup> Attribution refers to a process by which a given amount of finance is assigned or attributed back to a given source, such as an individual country, or a specific public-sector actor.

<sup>21</sup> The OECD-led Research Collaborative on Tracking Private Climate Finance is undertaking ongoing work on these issues.

<sup>22</sup> Information based on 30 BURs, and the Compilation and Synthesis reports prepared by the UNFCCC Secretariat; note these have only been prepared for initial national communications, and the last synthesis dates to 2005.

tracking system at a domestic level, including co-ordinating between different government bodies, agreeing on a definition of what spending items count as climate relevant, and the human and other resources needed to develop and maintain a tracking system (Ibid.). Once in place, international reporting of this information will need to account for the varying approaches to classifying climate-relevant activities that are used in different countries.

Tracking the receipt of climate finance, and where such resources are allocated, is the first step to being able to assess the effectiveness of finance (or, as expressed in the text of Decision 1/CP.21, “the use, impact and estimated results thereof” of support received).

#### **5.4 Collective quantified goals for finance and the global stocktake**

Besides individual reporting requirements, Decision 1/CP.21 also calls on the CMA to set a new collective quantified goal to mobilise financial resources prior to 2025. Information on progress toward this collective goal may be a relevant input to the global stocktake, which is to consider information on “the mobilisation and provision of support”. The current collective mobilisation goal of USD 100 billion is to continue through 2025 “in the context of meaningful mitigation actions and transparency on implementation” (UNFCCC, 2015a).

While reporting by individual countries on finance provided and mobilised is improving, it remains insufficient for producing estimates of aggregate finance mobilised for the purpose of tracking progress towards collective climate finance goals (OECD, 2015; Jachnik, Caruso and Srivastava, 2015; UNFCCC, 2014b). For instance, measuring the total financial resources flowing out of multilateral climate funds and development banks is necessary both to properly attribute the source of such flows back to developed countries, and to capture the private finance mobilised by these public multilateral outflows. To do this, information is needed from MDBs, which have begun developing common classification and tracking systems, as well as multilateral climate change funds (such as the Global Environment Facility), which also report to the OECD DAC Creditor Reporting System (OECD, 2015). MDBs and other bilateral development finance institutions are working to measure the private finance mobilised by their climate finance interventions (Joint MDB Report, 2015; KfW, 2015). The global stocktake could take into account information from such actors in addition to UNFCCC bodies such as the Technology Mechanism, the Capacity Building Committee and the Standing Committee on Finance.

The mandate of the global stocktake is to assess collective progress towards the Paris Agreement’s long-term goals, one of which is to make finance flows “consistent with a pathway towards low greenhouse gas emissions and climate-resilient development” (Article 2.1c). This will require a wide range of inputs on financial flows, including (i) information on the resources required for a low-GHG emission and climate-resilient development path (in the context of sustainable development and poverty eradication); (ii) whether these resources are flowing and having an impact; and (iii) the magnitude of the gaps between resource needs and availability. However, as suggested above, there are numerous political and technical challenges to measuring and reporting this information. In addition, Parties are also not specifically requested to undertake, nor to report on, policies and actions that would contribute to making finance flows consistent with low-emission and climate-resilient development pathways. For information on such policies and actions, the global stocktake could draw on outside processes (e.g. the Millennium Development Goals, G20 work on climate finance and the work of other non-governmental and intergovernmental organisations).

## **6. Conclusions**

The Paris Agreement and its accompanying decision (Decision 1/CP.21) establish an enhanced transparency framework that will play an important role in understanding whether and how Parties have achieved their individual and collective actions, commitments and obligations from 2020 onwards. A key

characteristic of the future transparency framework is that it will apply to all Parties, with built-in flexibility for Parties that need it in the light of their capacities, rather than bifurcated differentiation along developed and developing country lines. The approach of the transparency framework under the Paris Agreement reflects the universal and self-differentiated nature of NDCs, and the specific obligations of developed countries to provide financial resources and other support to developing countries.

The enhanced transparency framework for mitigation and support has two primary aims. The first is to provide clarity and understanding of the goals and actions being undertaken by individual Parties, and progress being made towards them. The second is to inform the global stocktake that will assess collective progress towards the long-term goals of the Paris Agreement.

This paper finds that the new transparency framework outlined in the Paris Agreement is indeed “enhanced” in several ways compared with the existing transparency system. For example, the new framework addresses some of the gaps in the current system regarding how information is to be measured (e.g. guidance is to be developed for accounting for NDCs and how to measure finance mobilised). It also addresses gaps in terms of what information is to be reported (e.g. information shall be provided by all Parties on progress towards NDCs) and by whom (e.g. in addition to developed country Parties, other Parties that provide and mobilise support are encouraged to report information on support provided). Reporting is to be undertaken more frequently for developing country Parties that are not LDCs and SIDS (i.e. national inventory reports and information on progress towards NDCs shall be reported no less frequently than biennially), and to remain annual or biennial for developed countries.

A central challenge of the enhanced transparency framework will be to achieve the “right” level of flexibility. If there is too little flexibility, the framework may not sufficiently cater for the wide variety of country circumstances and capacities. If there is too much, the framework may not achieve its aims to inform the global stocktake and provide a clear understanding of climate change action. Different types of NDCs require different sets of information to track progress towards their implementation and achievement. Some NDC types (such as mitigation goals relative to BAU baselines and goals expressed in non-GHG terms) make it particularly challenging to assess the expected aggregate impact of NDCs on future trends of global GHG emissions.

In some areas of the Paris Agreement and Decision 1/CP.21 there are discrepancies between the aims of the enhanced transparency framework and its provisions. For example, to achieve its aim to provide clarity on support received (in addition to support provided), the transparency framework would need stronger provisions for Parties to report information on financial support received. Reporting this information is not mandatory, nor is it subject to technical review (which can help improve clarity). There are co-ordination, methodological and resource challenges with monitoring and communicating information on support received at a national level, which could make international reporting challenging as well.

Another objective of the enhanced transparency framework is to inform the global stocktake of collective progress towards the long-term goals of the Paris Agreement. This paper finds that the information Parties are asked to provide under the enhanced transparency framework alone is unlikely to be sufficient to meet the requirements of the global stocktake. For example, the stocktake will consider the overall effect of NDCs, yet information on the expected impact of NDCs on future levels of GHG emissions is unlikely to be reported or available for many NDCs. Further, a large number of INDCs have been expressed in non-GHG terms (e.g. goals for renewable energy, energy efficiency, forest cover, creation of institutions), and estimating the expected impact of such goals on future GHG emissions is often challenging. In addition to the information reported by Parties to the UNFCCC, the global stocktake could therefore draw on complementary external sources of information such as reports from the IPCC and other relevant organisations.<sup>23</sup>

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<sup>23</sup> This is also the case for the adaptation-related goals of the global stocktake – see Kato and Ellis (2016) for further discussion.

One of the purposes of the enhanced framework for transparency of support is also to provide a “full overview of aggregate financial support provided, to inform the global stocktake”. Reporting by individual Parties on support provided under the Paris Agreement is unlikely to provide such an overview, even with voluntary reporting by a larger number of Parties. Previous CCXG work (e.g. Ellis, Caruso and Ockenden, 2013) has highlighted that this is because (i) aggregation and attribution of financial flows to developing countries requires information on outflows from various multilateral climate funds and development banks, and (ii) reporting requirements do not require all the relevant information. Aggregation will also be difficult for information from other Parties providing support, some of whom may have their own tracking and reporting practices. Like for mitigation, external sources of information and analysis, beyond those provided by Parties under the enhanced transparency framework of the Paris Agreement, could inform the global stocktake.

A rapidly accelerated ramping-up of measurement and reporting capacity before 2020 will be needed in many developing countries if the enhanced transparency framework is to be successfully implemented from 2020. Many developing country Parties already find it challenging to meet the reporting obligations of the current transparency system; of the 63 non-Annex I Parties that are not LDCs or SIDS, 31 have submitted their first BURs and 9 did so before the deadline of end 2014. The Capacity-building Initiative for Transparency established in Decision 1/CP. 21 could help to provide sustained and focused support to enable full participation of all Parties in the new transparency framework, in line with national capacities and circumstances.

Now that general provisions for an enhanced transparency framework have been agreed, the next task facing Parties is to establish detailed modalities, procedures and guidelines taking into account the principles and guidance contained in the Paris Agreement and Decision 1/CP.21. This will require hard work over the next few years by the APA and other UNFCCC bodies. To achieve its aims, the arrangements of the enhanced transparency framework will need to be workable and efficient from a practical point of view. A shared understanding of what the transparency-related provisions in the Paris Agreement and Decision 1/CP.21 mean and how the existing system could evolve will help to lay the groundwork for this task, together with agreement on the priorities and timeline for the work to be undertaken.

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