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Taking Stock of the UNFCCC Process and its Inter-linkages

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FOREWORD

This document was prepared by the OECD and IEA Secretariats in 2014 in response to a request from the Climate Change Expert Group (CCXG) on the United Nations Framework Convention on Climate Change (UNFCCC). The CCXG 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 in a collaborative effort. 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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Executive summary

A new international climate change agreement is currently being negotiated under the auspices of the Ad hoc Working Group on the Durban Platform for Enhanced Action (ADP) that aims to enhance action on adaptation, mitigation, finance, technology, capacity building and transparency. The new agreement is to be applicable to all Parties to the United Nations Framework Convention on Climate Change (UNFCCC), to be adopted at COP 21 in Paris and to come into effect from 2020. The ADP process represents an opportunity to re-focus the UNFCCC process on its core business; reducing emissions to avoid dangerous climate change, adapting to the unavoidable climate impacts that do occur, and providing scaled up flows of finance and other resources to developing country Parties to enable all Parties to take action.

The aim of this paper is to take stock of existing UNFCCC institutions and arrangements and the inter-linkages between them in the areas of mitigation, adaptation, means of implementation, and measurement, reporting and verification (MRV), with a view to informing discussions under the ADP on the possible elements of a 2015 agreement. The new agreement is not aiming to build a new climate change regime from scratch. A plethora of institutions and arrangements for tackling climate change already exists, both within and outside the UNFCCC. This proliferation is partly because when progress in the negotiations is slow, the process tends to broaden and expand outwards rather than move forwards.

A pragmatic approach to the post-2020 international climate regime would focus on using existing institutions and arrangements more effectively before creating new ones. Some institutions and arrangements have been established only recently, and time is needed before their effectiveness can be fairly assessed. For example, the Cancun Adaptation Framework (including the Adaptation Committee and arrangements for National Adaptation Plans) was only established in 2010, while the Warsaw International Mechanism for Loss and Damage was established in 2013. The 2015 agreement could focus on maximising the potential of established institutions and reviewing their effectiveness over time, where possible, rather than setting up new institutions.

Two types of inter-linkage are identified in the paper: (i) process inter-linkages between institutions and arrangements; and (iii) policy inter-linkages between different policy areas. An example of a process inter-linkage is the linkage between the Clean Development Mechanism (CDM) and the Adaptation Fund, whereby the Adaptation Fund is partly funded by a share of proceeds from the CDM. Examples of policy inter-linkages include the synergies (and potentially also trade-offs) that climate policies can have with other policy areas, such as poverty reduction, biodiversity, air quality, health and energy security.

Inter-linkages already exist between many of the existing institutions and arrangements inside and outside the UNFCCC. These inter-linkages could be further strengthened in the post-2020 period, with a view to enhancing ambition, participation and implementation of the 2015 agreement. While strengthening process inter-linkages can improve co-ordination and minimise overlap of work streams, too many inter-linkages could become burdensome and risk slowing down rather than accelerating the process. Therefore care should be taken not to over-engineer the process.

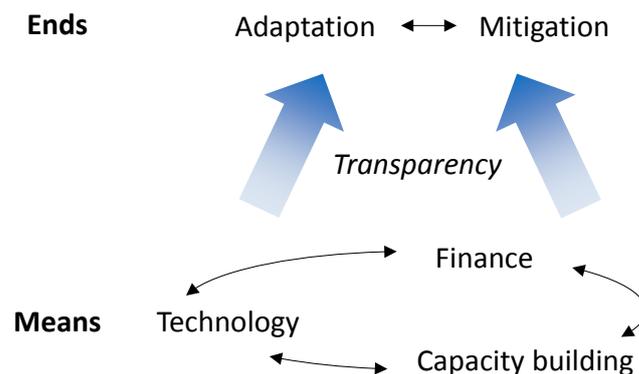
Outside of the UNFCCC there is an extensive and vibrant web of other UN organisations and non-State actors working on climate change. There is growing recognition that national governments alone cannot solve the climate challenge – the private sector, sub-national governments (including cities and local governments) and civil society groups will all have important roles to play. However, open questions remain regarding how this growing momentum amongst non-State actors and International Co-operative Initiatives (ICIs) on climate action could best be harnessed to drive forward the UNFCCC process.

1. Introduction

Governments are currently negotiating the elements of a new climate change agreement to be adopted at the forthcoming COP 21 conference in Paris in 2015. The aim of this agreement is to enhance implementation of the UN Framework Convention on Climate Change (UNFCCC), the ultimate objective of which is to stabilise greenhouse gas (GHG) atmospheric concentrations at a level that would prevent “dangerous anthropogenic interference” with the climate system. Parties have agreed to limit the rise in global average temperature to below 2 °C above pre-industrial levels (UNFCCC, 2011a). World leaders reaffirmed their commitment to tackle climate change at the UN Climate Summit in September 2014 (UN, 2014a).

To achieve the below 2 °C global goal, deep decarbonisation pathways will be needed (SDSN and IDDRI, 2014) with a view to achieving zero net emissions at the global level by the second half of the century (Gurría, 2013).¹ Enhanced action on the ground is needed on climate change mitigation and adaptation over the coming decades. In addition to mitigation and adaptation, the 2015 agreement will address means to achieve these ends, i.e. finance, technology, and capacity building, as well as transparency (Figure 1). The 2015 agreement is to be “applicable to all” Parties and to come into effect from 2020. Negotiations on the design of the agreement are currently taking place under the Ad hoc Working Group on the Durban Platform for Enhanced Action (ADP).

Figure 1: Means and ends of the 2015 agreement



The aim of this paper is to take stock of existing UNFCCC institutions and arrangements² and the inter-linkages between them, with a view to informing discussions under the ADP on the possible elements of a 2015 agreement. A pragmatic approach would focus on using existing institutions and arrangements more effectively, before creating new ones. Some institutions and arrangements have been established only recently, and time is needed before their effectiveness can be fairly assessed.

The ADP negotiations are an opportunity to take a step back and consider the UNFCCC process as a whole, including the inter-linkages between the various areas. These negotiations also represent a chance to streamline and re-focus efforts on the core business of the UNFCCC. This core business includes

¹ Reductions of global CO₂ emissions of between 78% to 118% below 2010 levels by 2100 would be consistent with a 450 ppm scenario and a “likely” chance of meeting the below 2 °C goal (IPCC, 2014b).

² Examples of “institutions” include the Adaptation Committee, the Standing Committee on Finance, the Technology Executive Committee, etc. Examples of “arrangements” include the arrangements for mitigation commitments under the Kyoto Protocol, the provisions for national adaptation plans, the Nairobi Work Programme, the measurement, reporting and verification arrangements, etc.

tracking progress towards the Convention's ultimate objective of preventing dangerous climate change, establishing and implementing clear mitigation contributions by Parties that can be understood by climate change experts and the public alike, assisting Parties to adapt to a changing climate, and scaling up flows of finance and other support to developing country Parties to facilitate climate action.

The paper is structured as follows: Section 2 provides an overview of the existing UNFCCC process and different types of inter-linkages. Section 3 provides a stocktake of institutions, arrangements and inter-linkages in the areas of mitigation, adaptation, finance, technology, capacity building, and transparency. Section 4 concludes.

2. Background and context

2.1 Overview of existing institutions and arrangements

A plethora of climate change institutions and arrangements has been built up over time, both within and outside of the UNFCCC. Figure 2 provides a snapshot of existing institutions and arrangements under the UNFCCC (a glossary of acronyms used is provided at the back of this paper). There are several possible explanations for this proliferation. In some cases, thorny issues that have yet to be resolved in the negotiations may have been outsourced to new bodies (such as the Warsaw International Mechanism for Loss and Damage). Sometimes new institutions may have been created because it proved too difficult to reform existing institutions (e.g. it proved too difficult to reform the Kyoto Protocol to be applicable to all Parties). In other cases new institutions and arrangements may have been established partly to create a balanced package of decisions or outcomes and ensure that no issues are left behind. Another factor is the observation that it is generally easier to create new institutions than it is to discontinue existing ones (Najam, Papa and Tajab, 2006).

The propagation of institutions and arrangements over time presents process and logistical challenges. For example, having a large number of events taking place in parallel at UNFCCC meetings makes it difficult for Parties with small delegations to participate effectively. There are frequently protracted discussions regarding agendas and procedural issues, leaving little time to negotiate actual content and substance. Further procedural challenges stem from the fact that the rules of procedure for negotiations under the UNFCCC have yet to be formally adopted. This has led commentators to conclude that “the duplication of work, agenda disputes, and slow progress have contributed to the overall sentiment that formal inter-sessional meetings do not constitute the most efficient use of negotiating time and resources”, and call for the UNFCCC to “streamline its work programme, cut sessions, eliminate overlaps, and delete agenda items” (Vihma, 2014).

The Conference of the Parties (COP) and the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP) are the highest-level decision-making institutions under the UNFCCC and the Kyoto Protocol respectively. Below them, the Subsidiary Body for Implementation (SBI) discusses issues of implementation while the Subsidiary Body for Scientific and Technical Advice (SBSTA) provides a link between the political process and the scientific and technological communities. The ADP is the ad hoc group charged with designing the new 2015 agreement as well as increasing pre-2020 ambition. The COP, CMP, SBSTA, SBI and ADP are not shown in Figure 2. These bodies cover multiple issues and their mandates are summarised in Table 1. For a comprehensive description of existing arrangements within the UNFCCC, see UNFCCC (2013a).

A large number of actors are undertaking work of relevance to the ADP negotiations. This vibrant web of institutions includes UN organisations, intergovernmental organisations (IGOs) such as the OECD and the IEA, and a wide range of non-governmental organisations representing business and industry, environmental groups, farming and agriculture, indigenous populations, local governments and municipal

authorities, research and academic institutes, trade unions, women and gender groups, faith-based groups, and youth groups (Figure 3). As of 2012, 1 719 observer organisations were registered with the UNFCCC process (UNFCCC, 2014a). It is likely that these actors and international co-operative initiatives (ICIs) will play an important role in driving and implementing climate action in the post-2020 period,³ although the UNFCCC will remain the principal channel for multilateral action on climate change.

2.2 Different types of inter-linkages

This paper identifies two different types of inter-linkages. These are (i) **process** inter-linkages (i.e. between institutions and arrangements); and (ii) **policy** inter-linkages (i.e. between adaptation and mitigation policies, as well as between climate policy and other policy areas).

Process inter-linkages refer to links between institutions and arrangements for mitigation, adaptation, means of implementation and transparency. These can be links between institutions and arrangements within the UNFCCC, such as processes for linking short-term mitigation targets to long-term goals. They can also include links between UNFCCC processes and non-UNFCCC processes, for example between cycles of mitigation contributions under the UNFCCC and cycles of IPCC assessment reports. Inter-linkages between institutions and arrangements can consist of:

- Co-ordination of the mandate, scope or sequencing of two or more institutions or arrangements, to maximise effectiveness and minimise duplication of effort.
- Organisation of joint events and cross-participation in events and meetings.
- Use of the outputs from one process as inputs to another process.
- Agreement to work through a non-UNFCCC institution or body to tackle a specific area of climate policy.

Policy inter-linkages are links between multiple policy areas that can result in synergies and/or trade-offs. In the case of mitigation and adaptation policies, adaptation needs are clearly linked to local or regional climatic changes, which in turn are influenced by the aggregate level of mitigation achieved by all Parties. Policies with multiple benefits including mitigation and/or adaptation outcomes can be an effective way to muster domestic support for climate policies and achieve greater levels of ambition. Examples of such multiple benefits include economic growth and development, poverty reduction, and improved air quality, health, energy security, job creation, biological diversity and water management (UNFCCC, 2013b). The IPCC Fifth Assessment Report provides an in-depth analysis of climate policy inter-linkages (2014a).

³ For a detailed mapping of key government-led multilateral initiatives for low-carbon energy technologies, see Barnsley and Ahn (2014).

Figure 2: Map of existing institutions and arrangements within the UNFCCC (not exhaustive)

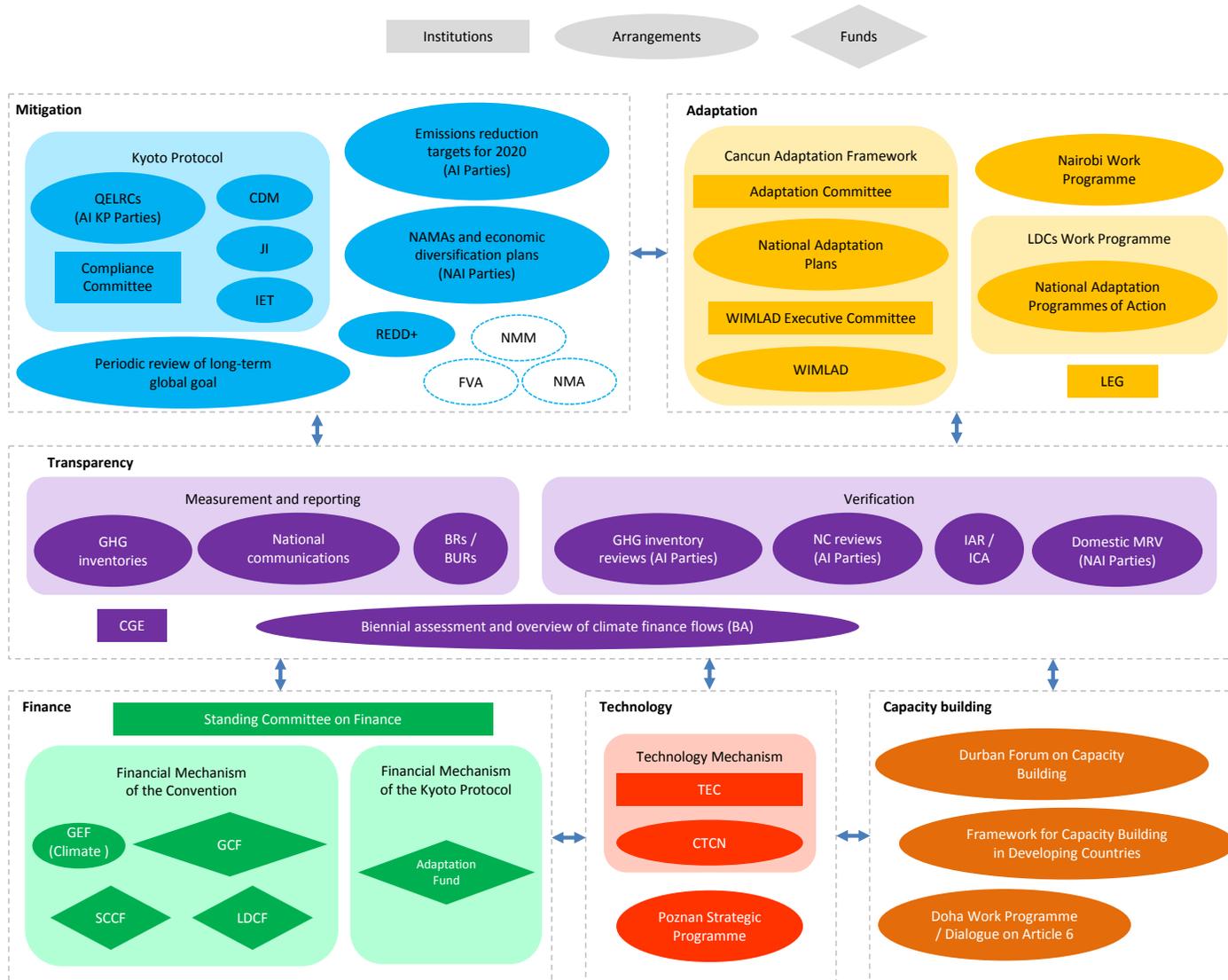


Figure 3: Web of relevant non-State actors and ICIs (not exhaustive)

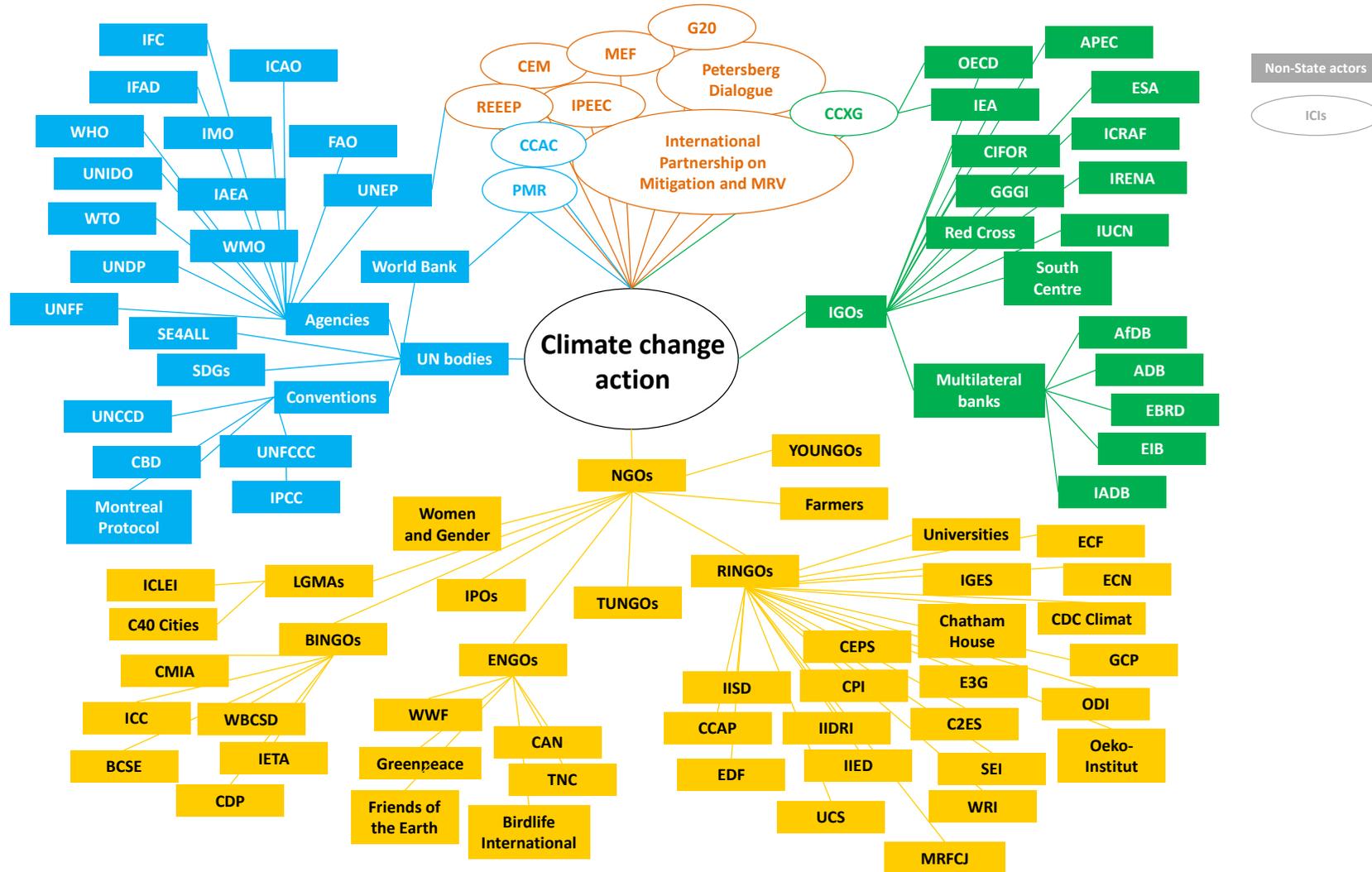


Table 1: Overview of topics under discussion in the COP, CMP, SBI, SBSTA and the ADP

Topic	COP	CMP	SBI	SBSTA	ADP
Mitigation	<ul style="list-style-type: none"> • 2013–2015 review • National communications 	<ul style="list-style-type: none"> • CDM and JI • National communications for AI KP Parties • Compilation and accounting reports for AI KP Parties • Compliance Committee 	<ul style="list-style-type: none"> • Further the understanding of the diversity of NAMAs • Matters relating to the CDM and JI 	<ul style="list-style-type: none"> • REDD+ • Aviation and shipping • Clarification of Annex I emission reduction targets • Scientific, technical and socioeconomic mitigation issues • CDM methodological issues • Market and non-market mechanisms 	<p>The ADP has two work streams. Work Stream 1 covers the elements of the 2015 agreement. Work Stream 2 discusses raising pre-2020 ambition.</p> <p><i>Work Stream 1</i></p> <ul style="list-style-type: none"> • Elements of the 2015 agreement: mitigation, adaptation, finance, technology, capacity building, transparency, contribution cycles <p><i>Work Stream 2</i></p> <ul style="list-style-type: none"> • Policy options and actions to enhance pre-2020 ambition • Technical Expert Meetings on relevant issues (e.g. renewable energy, energy efficiency, land use, the urban environment, carbon capture, use and storage, and non-CO₂ gases)
Adaptation	<ul style="list-style-type: none"> • Adaptation Committee • Buenos Aires programme of work on adaptation 	<ul style="list-style-type: none"> • Adaptation Fund 	<ul style="list-style-type: none"> • Adaptation Committee • National Adaptation Plans • Loss and damage 	<ul style="list-style-type: none"> • Nairobi Work Programme • Loss and damage • Agriculture 	
Finance	<ul style="list-style-type: none"> • Matters relating to finance and the financial mechanism of the UNFCCC (GEF, GCF, SCF) • Arrangements between COP and operating entities 	<ul style="list-style-type: none"> • CDM and JI 	<ul style="list-style-type: none"> • Review of Adaptation Fund 	N/A	
Technology	<ul style="list-style-type: none"> • Technology transfer and development • Technology Mechanism 	N/A	<ul style="list-style-type: none"> • Development and transfer of technologies and implementation of the Technology Mechanism 	<ul style="list-style-type: none"> • Development and transfer of technologies and implementation of the Technology Mechanism 	
Capacity building	<ul style="list-style-type: none"> • Capacity building under the UNFCCC 	<ul style="list-style-type: none"> • Capacity building under the Kyoto Protocol 	<ul style="list-style-type: none"> • Durban Forum on CB • CB under the KP (e.g. CDM) • Education, training and public awareness (Art.6) 	N/A	
Transparency	<ul style="list-style-type: none"> • National communications 	<ul style="list-style-type: none"> • KP expert review process 	<ul style="list-style-type: none"> • Annex I reporting and review • Non-Annex I reporting • 2013–2015 review • IAR, ICA 	<ul style="list-style-type: none"> • 2013–2015 review • Guidelines for review of Annex I biennials reports and nat. communications • CO₂ equivalence metrics 	

3. Existing institutions and arrangements

This section provides an overview of UNFCCC institutions and arrangements in the areas of mitigation, adaptation, finance, technology, capacity building and measurement, reporting and verification (MRV). The purpose and function of existing institutions and arrangements are identified, as well as linkages between them.

3.1 Mitigation

Mitigation remains central to the international response to tackle climate change. Deep cuts in GHG emissions in the short-term and zero net global emissions by the second half of the century are needed to keep the below 2 °C goal within reach (Gurría, 2013). The challenge facing the ADP is to design a process that is “applicable to all” Parties, yet contains enough flexibility to accommodate the widely varying national circumstances of all Parties (Briner and Prag, 2013). Further, one of the most important functions of the UNFCCC process is to provide a clear and unequivocal long-term signal to businesses that the future lies in low-emission and climate-resilient economies, and that actions taken to reduce emissions will be rewarded while polluting activities will be penalised. In other words, that a global low-carbon economy “is not only inevitable, it is coming rapidly” (Morgan, 2014).

Table 2 outlines existing institutions and arrangements relating to mitigation. The existing mitigation architecture consists of two parallel streams: (i) quantified emission reduction commitments for developed country Parties under the Kyoto Protocol; and (ii) emissions reduction targets for 2020 for developed country Parties and nationally appropriate mitigation actions for developing country Parties under the UNFCCC.

The outline of a new process for establishing cycles of mitigation contributions has begun to be elaborated under the ADP. Parties are currently undertaking domestic preparations and intended nationally-determined contributions are to be submitted by the first quarter of 2015 by Parties ready to do so. Since contributions are to be nationally determined, a diverse range of different types of contribution is expected. This diversity can help to encourage participation in the process, although up-front information will be needed to understand the actions proposed and to estimate their impacts on GHG emissions (Hood, Briner and Rocha, 2014).

Table 2: Existing institutions and arrangements for mitigation

Institution or arrangement (year established)	Function / purpose	Links with other institutions and arrangements
Emissions targets under the Kyoto Protocol (established 1997, came into force 2005)	To establish quantified emissions limitation and reduction commitments for developed country Parties with commitments under the Kyoto Protocol. The first commitment period ran from 2008-2012 and the second commitment period runs from 2013-2020. The Kyoto Protocol also sets out accounting rules for these commitments.	<ul style="list-style-type: none"> • KP emissions targets can be partly met with GHG units purchased via the flexible mechanisms (international emissions trading, CDM and JI)
Emissions reduction targets for 2020 and nationally appropriate mitigation actions (NAMAs) under the Convention (2009/2010)	To establish emissions reduction targets for developed country Parties and NAMAs for developing country Parties under the Convention. Mitigation pledges have been made to date by Parties collectively representing over 80% of global GHG emissions.	<ul style="list-style-type: none"> • Aggregate progress in implementation of mitigation targets and actions for 2020 considered as part of the 2013-15 review of the long-term global goal • NAMAs are recorded in the NAMA registry
International emissions trading under the KP (established 1997)	To lower the costs of compliance with mitigation targets for Annex I KP Parties and provide additional flexibility for meeting targets.	<ul style="list-style-type: none"> • Unit transactions are tracked via the International Transaction Log
Clean Development Mechanism (CDM) (established 1997, began in 2004)	To lower the costs of compliance with mitigation targets for Annex I KP Parties and to promote sustainable development in non-Annex I Parties. As of October 2014, over 7,500 CDM projects had been registered and nearly 1.5 billion CERs had been issued (UNFCCC, 2014bj).	<ul style="list-style-type: none"> • Share of proceeds from CER sales provides principal source of funding for the Adaptation Fund
CDM Executive Board (EB) (established 1997, first meeting 2001)	To supervise the operation of the CDM. The CDM EB includes a Methodologies Panel, an Accreditation Panel, an Afforestation and Reforestation Working Group, a Carbon Capture and Storage Working Group and a Small-scale Working Group.	<ul style="list-style-type: none"> • Works with the JISC on matters such as synergy of accreditation systems • Members of the CDM EB sit on the different panels and working groups to ensure substantive links
Joint Implementation (JI) (established 1997)	To provide additional flexibility and cost-effectiveness for Annex I Parties to meet their KP targets, while providing investment and technology transfer to other Annex I Parties (often economies in transition). As of September 2014, almost 600 JI projects had been identified and over 850 million ERUs had been issued (UNFCCC, 2014c).	<ul style="list-style-type: none"> • ERUs from JI projects can be used to meet KP emissions targets
Joint Implementation Supervisory Committee (JISC) (established 2001)	To supervise the operation of the JI. The JISC's activities include promoting JI, supervising verification of Track 2 projects and accrediting entities.	<ul style="list-style-type: none"> • Works with the CDM EB on matters such as synergy of accreditation systems
Compliance Committee (established 2001)	To address questions of implementation of mitigation commitments by Annex I Parties under the Kyoto Protocol. The Compliance Committee comprises two branches: an enforcement branch and a facilitative branch.	<ul style="list-style-type: none"> • Parties found to be in non-compliance can be suspended from participation in the KP flexible mechanisms
REDD+	To reduce emissions from deforestation and forest degradation in developing countries while promoting conservation of forest carbon stocks, sustainable management of forests and enhancement of forest carbon stocks.	<ul style="list-style-type: none"> • Many policy inter-linkages with biodiversity, food security and adaptation policies as well as rights of indigenous peoples
2013-15 review of the long-term global goal (2010)	To track global progress towards the below 2 °C global mitigation goal and assess whether this goal should be strengthened.	<ul style="list-style-type: none"> • Inputs to the review include IPCC assessment reports
NAMA registry (2010)	To provide recognition for NAMAs and to facilitate matching of finance and NAMAs. As of October 2014, the NAMA registry contained information on 48 NAMAs seeking support and 4 NAMAs for recognition only (UNFCCC, 2014d).	<ul style="list-style-type: none"> • International organisations (in addition to Parties) may provide information in the registry regarding support available for NAMA implementation.
International transaction log (2001)	Provides a tool to track flows of GHG units between registries via international emissions trading, the CDM and JI, and ensure that proposed transactions conform with accounting rules.	<ul style="list-style-type: none"> • Enforces the accounting rules for international emissions trading, the CDM and JI

3.2 Adaptation

Many governments are in the process of integrating adaptation into their national policies and development plans (e.g. for poverty reduction and food security), and experience with adaptation actions is constantly growing (IPCC, 2014a). The final Outcome Document of the Open Working Group on Sustainable Development Goals proposed a standalone goal on climate change (UN, 2014b). Among other things, this goal calls for strengthening resilience and adaptive capacity as well as for an improvement of education and awareness rising on climate change issues. Environment and climate-related issues have also been integrated into a wide range of goals, such as water, energy and cities, reflecting the cross-cutting nature of these issues.

The institutional arrangements for adaptation have expanded over time and various adaptation-related frameworks, work streams and institutions have been established under the UNFCCC. The Cancun Adaptation Framework is a comprehensive framework that focuses on implementation, support, institutions, principles and stakeholder engagement. In parallel to the Cancun Adaptation Framework, the Nairobi Work Programme (NWP) under the SBSTA addresses issues relating to impacts, vulnerability and adaptation. Further, a mechanism to address loss and damage was formally established at COP 19 under the Cancun Adaptation Framework.⁴ Table 3 provides a description of institutions and arrangements relevant to adaptation under the UNFCCC.⁵

Table 3 also illustrates that several of the arrangements and institutions for adaptation are relatively new. For example, the Adaptation Committee and the process for National Adaptation Plans were only established in 2010, so time is needed before the effectiveness of these institutions and arrangements can be fully assessed. The mandate of the Nairobi Work Programme has been expanded to increase engagement with partner organisations in order to focus on knowledge gaps and needs identified under the Cancun Adaptation Framework.

There are also a number of multilateral environmental conventions, institutions and arrangements outside the UNFCCC that work on adaptation-related issues. The Convention on Biological Diversity (CBD) and the Convention to Combat Desertification (CCD) were both established at the Rio Summit in 1992 and address the issue of adaptation from different angles. The 10-year Hyogo Framework for Action (2005-2015) was also adopted in 2005 to enhance resilience of communities. A range of UN agencies have been working on increasing capacity of developing country Parties for adaptation and resilience, such as UNDP, UNEP, UNISDR, FAO and WHO. There are several databases and knowledge-sharing platforms under different institutions and work streams. The Global Adaptation Network (GAN) facilitated by UNEP was set up as a knowledge platform in response to the observation that adaptation knowledge is often fragmented or inaccessible (GAN, 2012).

Efficiency and minimal duplication are needed to make the most of the resources available for adaptation. As emphasised in the Cancun Adaptation Framework itself, there is a “need to strengthen, enhance and better utilise existing institutional arrangements and expertise under the UNFCCC” (UNFCCC, 2011a). Several inter-linkages between arrangements within the UNFCCC are already in place. The Adaptation Committee and the Least Developed Countries Expert Group (LEG) have been mandated by the COP to enhance inter-linkages between adaptation institutions within the UNFCCC (2013a). An assessment and review of the effectiveness of those inter-linkages could help to identify possible overlaps and gaps between the adaptation institutions and work streams within the UNFCCC.

⁴ Note that there are divergent views among Parties on whether loss and damage should be considered a part of adaptation, or whether they are two separate issues.

⁵ See Adaptation Committee (2013) for a detailed overview of the institutions and arrangements for adaptation.

Table 3: Existing institutions and arrangements for adaptation

Institution or arrangement (year established)	Function / purpose	Links with other institutions and arrangements
Least Developed Countries Expert Group (2001)	Technical support and guidance for Least Developed Countries (LDCs), especially for NAPAs and NAPs	<ul style="list-style-type: none"> • Invites the GEF and its agencies, relevant organisations and experts to the LEG meetings and events • Collaborates with the TEC, SCF and the CGE • Collaborates with the AC, including on development of NAP Central, NAP Expo, training on NAPs, and the Adaptation Committee task force on NAP • Collaborates with a wide range of organisations through various modalities, such as technical meetings, and sharing of relevant information and materials on the NAP process (e.g. NAP Expo)
NAPAs (2001)	Process for the identification of urgent adaptation needs in LDCs	<ul style="list-style-type: none"> • Supported by the LEG • Proposals for implementation follow GEF guidelines • GEF reports on status of NAPAs to the COP
Nairobi Work Programme (2005)	<p>Knowledge sharing</p> <p>Addresses impacts, vulnerability and adaptation</p>	<ul style="list-style-type: none"> • Responds to needs arising from the Cancun Adaptation Framework and other work streams • Links with the NAP process, research and systematic observation, the AC, LEG and the TM • Provides information to NAPs • Collaborates with >290 partner organisations, global and regional centres and knowledge networks as well as the private sector
Adaptation Committee (2010, as part of the Cancun Adaptation Framework)	Provides technical support and guidance, shares relevant information, promotes synergies and strengthens engagement with organisations, centres and networks	<ul style="list-style-type: none"> • Requested by the COP to develop linkages to the LEG, CGE, TEC, the operating entities of the financial mechanism, Nairobi Work Programme, WIMLAD • Organises special events during SB meetings, contributes to Durban Forum on Capacity Building • Participates in meetings of relevant bodies • Requested by the COP to engage with institutions, organisations, frameworks, networks and centres outside of the UNFCCC • Dedicated meetings between IPCC WGII lead authors and members of the AC • Supports outreach activities with the private sector • Organises Adaptation Forums
National Adaptation Plans (2010, as part of the Cancun Adaptation Framework)	Identification of medium and long-term adaptation needs for all Parties	<ul style="list-style-type: none"> • Receives technical support from the LEG and AC • Receives financial support from the LCDF and SCCF • Receives support from organisations of the National Adaptation Programme Global Support Programme (NAP-GSP)
Warsaw International Mechanism for Loss and Damage (2013)	Promotion of the implementation of approaches to address loss and damage in vulnerable developing countries	<ul style="list-style-type: none"> • Mandated to improve co-ordination of the relevant work of existing bodies under the UNFCCC • Invites Parties to work through the United Nations and other relevant institutions to promote coherence • Invites Parties to strengthen and develop institutions and networks at the regional and national levels
WIMLAD Executive Committee (2013)	Guidance of the WIMLAD	<ul style="list-style-type: none"> • Provisionally the Executive Committee will consist of two representatives from the AC, CGE, LEG, SCF, TEC and CGE

3.3 Finance, technology and capacity building

Means of implementation (i.e. finance, technology and capacity building) are needed by developing country Parties to implement more mitigation and adaptation action. Developed country Parties have committed to mobilise USD 100 billion per year of climate finance for developing country Parties by 2020. This finance is to come from a variety of sources, including public and private sources. Finance needs to be mobilised for two parallel purposes: (i) to support implementation of projects and programmes for adaptation and mitigation; and (ii) to enhance readiness of developing country Parties to plan and implement adaptation and mitigation actions. Technology-related issues (e.g. technology transfer, development and expansion of technology markets, and research and development) and capacity building are essential elements of readiness. Together these elements can help to unlock and scale up investment in low-carbon and climate-resilient development.

As shown in Table 4, a number of arrangements and institutions relating to means of implementation have been established under the UNFCCC. These arrangements include operating entities such as the Green Climate Fund (GCF), the Global Environment Facility (GEF) and the Adaptation Fund, committees such as the Standing Committee on Finance (SCF) and the Technology Executive Committee (TEC), programmes such as the Poznan Strategic Program on Technology Transfer, and networks and forums such as the Climate Technology Centre and Network (CTCN) and the Durban Forum on Capacity Building. Each of the negotiation bodies under the COP (i.e. the ADP, the SBI and the SBSTA) has a role to play in supporting scaled-up finance, technology transfer and capacity building actions.

There is a wide range of international funds and initiatives outside the UNFCCC for climate finance as well as capacity building and technology transfer. Examples include the Climate Investment Funds, the UN-REDD programme and the Sustainable Energy for All initiative. There also exist a number of global and regional climate finance initiatives (e.g. the Partnership for Climate Finance and Development, the Global Energy Efficiency and Renewable Energy Fund, the Global Climate Change Alliance and the Asia Pacific Partnership on Clean Development and Climate), as well as forthcoming initiatives such as the BRICS New Development Bank announced in July 2014 (BBC, 2014). At the UN Climate Summit in September 2014, a new coalition of governments, business, finance, multilateral development banks and civil society leaders announced their intention to mobilise over USD 200 billion for financing low-carbon and climate-resilient development (UN, 2014c).

The private sector (including private foundations as well as private industries and corporations) will play an important role in financing the transition to low-carbon and climate-resilient economies. While the mobilisation of private sector finance will be crucial to achieving the scale of investment needed to achieve the ultimate objective of the Convention, it also brings challenges. These challenges include how to attract private finance for adaptation activities and how to ensure a regional balance of private sector investments (including in LDCs and SIDSs). Steps have already been taken by UNFCCC bodies to enhance engagement with the private sector. For example, a Private Sector Advisory Group (PSAG) for the GCF was established at the fifth meeting of the GCF Board in October 2013 (GCF, 2014).

Table 4: Existing institutions and arrangements for finance, technology and capacity building

Institution or arrangement (year established)	Function / purpose	Links with other institutions and arrangements
Global Environment Facility (1991)	Addresses a variety of environmental issues including climate change (the GEF became an operating entity of the Financial Mechanism for the UNFCCC in 1996)	<ul style="list-style-type: none"> • GEF receives strategic guidance from, and reports annually to, the COP • The SCF develops elements of draft COP guidance to the GEF • Provides support for 3,690 projects (as of July 2014) including climate change projects with help of other implementing agencies
Adaptation Fund (2001)	To help developing country Parties that are vulnerable to climate change	<ul style="list-style-type: none"> • Share of proceeds from CER sales provides principal source of funding for the Adaptation Fund • Continuous “dialogues” with the Adaptation Committee • Secretariat service provided by the GEF • World Bank works as a trustee • Funds can be allocated through recipient countries’ agencies approved by Adaptation Fund Board
Green Climate Fund (2010)	To channel a significant portion of the USD 100 billion per year as an operating entity of the Financial Mechanism	<ul style="list-style-type: none"> • COP and SCF provide strategic guidance to GCF • Links with AF, CDM EB, TEC and CTCN are also to be enhanced • Linkages with GEF, and other international climate funds such as Climate Investment Funds
Standing Committee on Finance (2010)	Assists the COP in matters relating to the Financial Mechanism, e.g. guidance to operating entities, review of the Financial Mechanism, MRV of support	<ul style="list-style-type: none"> • SCF is mandated to maintain inter-linkages with SBI and other thematic bodies of the UNFCCC • Non-UNFCCC institutions provide submissions to SCF (e.g. CIFs, OECD, other think tanks)
Poznan Strategic Program on TT (2008)	To help developing country Parties adopt environmentally sound technologies, e.g. through support for TNAs and pilot projects	<ul style="list-style-type: none"> • Programme developed by the GEF • Pilot projects have been done with the support from UNDP, UNIDO, IFAD, IDB, World Bank, AfDB
Technology Executive Committee (2010)	Provides strategic guidance on technology development and transfer (e.g. deployment, needs assessments, endogenous capacities)	<ul style="list-style-type: none"> • The TEC and the CTCN are inter-linked under the Technology Mechanism • Members of other bodies (e.g. SCF, AC) are invited to TEC meetings
Climate Technology Centre and Network (2010)	To provide technical assistance for developing country Parties; share information; foster collaboration and networking	<ul style="list-style-type: none"> • Requested to elaborate linkages with non-UNFCCC institutions (e.g. WIPO invited to TEC meeting) • Works with UNEP, GEF and other private and public institutions
Framework for CB in developing countries/EIT (2001)	To provide a set of principles for and approaches to capacity-building, and to define a list of priority areas for action	<ul style="list-style-type: none"> • SBI monitor and review the implementation of the framework every five years, and report to the COP and the CMP • Durban Forum on CB provides input to reviews • Provides guidance on support for the GEF, bilateral and multilateral agencies
Durban Forum on Capacity Building (2011)	To collect and share information on this issue, which tends to be fragmented and is not readily available	<ul style="list-style-type: none"> • Representatives of LEG, CGE and Nairobi Work Programme have participated in the forums and provided input • Other organisations such as UNEP, UNDP, UNITAR, FAO and GEF are involved in the forums to share their experiences
Doha Work Programme on Article 6 (2012)	Recommendations relating to education, training, public awareness, public participation access to information	<ul style="list-style-type: none"> • It is guided by the COP and subject to review by the SBI • Other organisations such as UNDP, UNEP, gender, indigenous peoples and youth-focused organisations, the private sector and media participate in the dialogues
Dialogue on Article 6 (2012)	To share experiences in terms of education, training and public awareness	<ul style="list-style-type: none"> • Guided by the COP and chaired by the Chair of the SBI

3.4 Measurement, reporting and verification

The arrangements for measurement, reporting and verification (MRV) of information on commitments, actions and support play an important role in building trust between the Parties and increasing confidence in national reports. An enhanced MRV system was established at COP 16 in Cancun, with provisions for more frequent and comprehensive reporting while retaining flexibility to take into account the different national circumstances of Parties (Ellis et al., 2011a; 2011b). The new provisions have only just come into effect. The first biennial reports from developed country Parties (covering commitments, actions and support) were due in January 2014. The first biennial update reports from developing country Parties (including information on GHG inventories, mitigation actions and support) are due in December 2014, consistent with capabilities and the level of support provided. The first rounds of international assessment and review (IAR) and international consultations and analysis (ICA) are due to take place in 2014 and 2015.

Table 5 summarises existing institutions and arrangements relating to MRV. The existing MRV system for developed country Parties includes annual GHG inventories and inventory reports, national communications every four years, biennial reports (BRs) every two years, technical reviews of GHG inventories and national communications, IAR, compilation and synthesis reports, and workshops for clarifying 2020 mitigation pledges. The MRV provisions for developing country Parties include national communications and biennial update reports including GHG inventories, ICA, domestic MRV of mitigation actions, workshops for understanding the diversity of NAMAs, and REDD+ reporting for developing country Parties undertaking REDD+. A biennial assessment and overview of climate finance flows by the SCF was also initiated at COP 17, and the first one is due to be published in 2014.

In the context of the commitment by Annex I Parties to jointly mobilise USD 100 billion by 2020, increasing flows of support for finance, technology and capacity building need an accurate, comprehensive, transparent, efficient and reliable framework to measure, report and verify the efforts and needs of all Parties (Ellis et al., 2011a; 2011b). MRV of support is now being discussed under the Standing Committee on Finance, SBI and SBSTA (see Table 1). Regarding the institutional arrangements, different institutions are governing the development process of MRV for different types of support. For instance, the SBI has been tasked to manage the shift in focus towards the MRV issues with the launch of IAR and ICA in 2014, while the SCF has been working on the biennial assessment of climate finance flows.

An MRV system under the new agreement could build on the existing system, while addressing current challenges it faces. In terms of MRV of climate finance, previous studies (e.g. Caruso and Jachnik, 2014; OECD, 2013; Terpstra, 2013) have identified a range of challenges to implementing MRV of climate finance. Such challenges include; a lack of common definitions of climate finance; difficulty in tracking private climate finance and adaptation finance; and inadequate capacities of developing country Parties in implementing MRV (see also Kato et al., 2014, for further discussion). A key part of the MRV system for building trust is the review system, including reviews of national reports by expert review teams.

There is also increasing interest amongst non-State actors in environmental accounting and disclosure provisions. For example, 403 out of the Global 500 companies reported their GHG emissions in 2013, while 207 cities disclosed mitigation, adaptation and water management data to the CDP in 2014 – an 88% increase on 2013 (CDP, 2013; 2014). Such data can complement national GHG inventories and help to improve understanding of global emissions trends and their drivers.

Table 5: Existing institutions and arrangements for measurement, reporting and verification

Institution or arrangement (year established)	Function / purpose	Links with other institutions and arrangements
National communications (1992; first reports submitted by Annex I Parties in 1994/5)	Provide information on emissions levels, actions being taken by Parties to implement the Convention, and support. Reports are submitted by all Parties every four years (with additional flexibility for non-Annex I Parties). Annex I Parties submitted their sixth NCs in January 2014. As of October 2014, 147 non-Annex I Parties had submitted their first NC, 103 had submitted their second, 6 had submitted their third, and Mexico had submitted its fourth and fifth.	<ul style="list-style-type: none"> • National communications from Annex I Parties undergo in-depth technical review by expert review teams
GHG inventories (1992)	Provide information on anthropogenic GHG sources and sinks in the energy, industry, waste, agriculture, forestry and other land use sectors. Submitted annually by Annex I Parties and as part of biennial update reports and national communications from non-Annex I Parties. GHG inventories from Annex I Parties comprise a National Inventory Report and Common Reporting Format tables, as well as supplementary information for Annex I KP Parties.	<ul style="list-style-type: none"> • GHG inventories from Annex I Parties undergo review by expert review teams
Biennial reports (2010)	For Annex I Parties to provide information on progress made by towards mitigation targets, emissions projections and support provided. The first biennial reports were due in January 2014.	<ul style="list-style-type: none"> • Biennial reports provide the basis for international assessment and review
Biennial update reports (2010)	For non-Annex I Parties to provide a GHG inventory and information on mitigation actions and support received. The first biennial update reports are due by December 2014.	<ul style="list-style-type: none"> • Biennial update reports provide the basis for international consultations and analysis
Consultative Group of Experts on National Communications from non-Annex I Parties (1999)	To improve the national communications and biennial update reports of non-Annex I Parties by providing technical support and advice.	<ul style="list-style-type: none"> • N/A
GHG inventory reviews (2003)	To ensure that the COP has adequate and reliable information on GHG emissions and removals, to examine consistency of inventories with reporting guidelines, and to assist Annex I Parties in improving the quality of their inventories.	<ul style="list-style-type: none"> • Based on GHG inventories from Annex I Parties.
In-depth reviews of national communications (1995)	To provide a comprehensive, technical assessment of the information provided in national communications. Each review typically includes a desk-based study and an in-country visit.	<ul style="list-style-type: none"> • Based on national communications from Annex I Parties.
International assessment and review (2010)	To review the information provided by Annex I Parties in biennial reports and to promote comparability and build confidence.	<ul style="list-style-type: none"> • Based on biennial reports from Annex I Parties.
International consultations and analysis (2010)	To increase the transparency of information provided by non-Annex I Parties on mitigation actions in biennial update reports.	<ul style="list-style-type: none"> • Based on biennial update reports from non-Annex I Parties.
Biennial assessment and overview of climate finance flows (2010)	Prepared by the SCF to assist the COP improve the coherence and co-ordination of climate change financing.	<ul style="list-style-type: none"> • Draws on information included in national communications, biennial reports, the NAMA registry, and reports prepared by the operating entities of the Financial Mechanism

4. Conclusions

The 2015 climate change agreement is an opportunity for Parties to re-focus on the core business of the UNFCCC and in doing so revisit the institutional arrangements for addressing climate change at the international level. There has been a proliferation of institutions and arrangements under the UNFCCC, often with overlapping mandates. This is partly because when progress in the negotiations is slow, the process tends to broaden and expand outwards rather than move forwards. An effective 2015 agreement would focus on strengthening and improving the institutions and arrangements that already exist, before creating new ones.

Many institutions and arrangements have only been set up in the last few years – particularly in the case of adaptation, means of implementation and MRV. For example, the Adaptation Committee, National Adaptation Plans, the Warsaw International Mechanism for Loss and Damage, the Standing Committee on Finance, the Green Climate Fund, the Technology Executive Committee, and the arrangements for biennial reports, biennial update reports, international assessment and review, and international consultations and analysis have all been established since 2000. The 2015 agreement could focus on maximising the potential of these new institutions and reviewing their effectiveness over time, rather than setting up new institutions with overlapping mandates. Doing so would enable the new agreement to build upon existing arrangements and benefit from the experience and lessons learned to date.

Inter-linkages between institutions and arrangements can help to facilitate co-ordination and minimise duplication and overlapping work streams. A distinction can be made between process inter-linkages (e.g. co-ordination of the activities of the Standing Committee on Finance, the Technology Executive Committee and the Adaptation Committee) and policy inter-linkages (e.g. synergies and trade-offs between adaptation and mitigation policies). In many areas inter-linkages already exist within the UNFCCC process, as well as between the UNFCCC and non-UNFCCC institutions and arrangements. Parties may wish to reflect upon the role that inter-linkages can play when drafting the elements of the 2015 agreement, by considering for example possible links between cycles of nationally determined contributions under the 2015 agreement and cycles of IPCC assessment reports, or the future possible roles of the Adaptation Committee and the Nairobi Work Programme.

While co-ordination and preventing duplication of activities can be beneficial, too many process inter-linkages could become unwieldy and might even hamper progress. A balance will need to be found that increases the efficiency and coherence of the process without slowing down its pace. Caution should be taken not to over-engineer the process and there are advantages in having a lean system that can be responsive to changing conditions.

Outside of the UNFCCC there is an extensive and vibrant web of other UN organisations and non-State actors working on climate change. While the UNFCCC is a forum for negotiations between national governments and it is they who will sign the 2015 agreement, there is growing recognition that national governments alone cannot solve the climate challenge. The private sector, sub-national governments (including cities and local governments) and civil society groups will all have important roles to play. How the growing momentum amongst these non-State actors and ICIs can be harnessed by the UNFCCC process remains unclear. In particular, whether the best way to catalyse enhanced action by non-State actors is to include their actions in the 2015 agreement or related COP decisions remains an open question. Further, a more structured process for channelling the views and feedback of the private sector and other pragmatic implementers into the UNFCCC process could help to facilitate widespread participation and industry buy-in to the agreement.

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Glossary

AC	Adaptation Committee
ADB	Asian Development Bank
ADP	Ad hoc Working Group on the Durban Platform for Enhanced Action
AF	Adaptation Fund
AfDB	African Development Bank
AI	Developed countries listed in Annex I of the UNFCCC
APEC	Asia-Pacific Economic Cooperation
BCSE	Business Council for Sustainable Energy
BINGO	Business-friendly international NGO
BR	Biennial Report
BRICS	Brazil, Russia, India, China, and South Africa
BUR	Biennial Update Report
CAF	Cancun Adaptation Framework
CAN	Climate Action Network
CBD	Convention on Biological Diversity
CCAC	Climate and Clean Air Coalition
CCAP	Centre for Clean Air Policy
CCD	Convention to Combat Desertification
CCXG	Climate Change Expert Group
CDM	Clean Development Mechanism
CDM EB	Clean Development Mechanism Executive Board
CDP	Carbon Disclosure Project
CEM	Clean Energy Ministerial
CEPS	Centre for European Policy Studies
CER	Certified Emission Reduction
CGE	Consultative Group of Experts on National Communications from non-Annex I Parties
CIFOR	Centre for International Forestry Research
CMIA	Climate Markets & Investment Association
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
COP	Conference of the Parties to the UNFCCC
CP	Commitment Period
CPI	Climate Policy Initiative
CSO	Civil Society Organisations
CTCN	Climate Technology Centre and Network
C2ES	Centre for Climate and Energy Solutions
C40	Cities Climate Leadership Group
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECF	European Climate Foundation
ECN	Environmental Change Network
EDF	Environmental Defense Fund
EIB	European Investment Bank
ESA	European Space Agency
ENGO	Environmental Non-Governmental Organisation
ETP	Energy Technology Perspectives
E3G	Third Generation Environmentalism
FAO	Food and Agriculture Organisation of United Nations
FM	Financial Mechanism
FVA	Framework for Various Approaches
GAN	Global Adaptation Network
GCF	Green Climate Fund
GCP	Global Carbon Project
GEF	Global Environmental Facility
GGGI	Global Green Growth Institute
GHG	Greenhouse Gas
G20	Group of Twenty
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
IAEA	International Atomic Energy Agency
IADB	Inter-American Development Bank
IAR	International Assessment and Review
ICA	International Consultation and Analysis
ICAO	International Civil Aviation Organisation
ICC	International Chamber of Commerce
ICI	International Co-operative Initiative
ICLEI	International Council for Local Environmental Initiatives
ICT	Information and Communications Technology
IEA	International Energy Agency
IETA	International Emissions Trading Association
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IGES	Institute for Global Environmental Strategies
IGO	Intergovernmental Organisation

IIED	International Institute for Environment and Development
IIDRI	Institute for Sustainable Development and International Relations
IISD	International Institute for Sustainable Development
INDC	Intended Nationally-determined Contributions
IPCC	Intergovernmental Panel on Climate Change
IPEEC	International Partnership for Energy Efficiency Cooperation
IRENA	International Renewable Energy Agency
ISO	International Organisation for Standardisation
IUCN	International Union for Conservation of Nature
KP	Kyoto Protocol
LDC	Least Developed Country
LDCF	Least Developed Countries Fund
LEG	Least Developed Countries Expert Group
LGMA	Local government and municipal authorities
MDB	Multilateral Development Bank
MEF	Major Economies Forum on Energy and Climate Change
MRFCJ	Mary Robinson Foundation – Climate Justice
MRV	Measurable, Reportable and Verifiable
NAI	Developing countries that are not listed in Annex I of the UNFCCC
NAMA	Nationally Appropriate Mitigation Actions
NAPA	National Adaptation Programme of Action
NAP	National Adaptation Plan
NAP-GSP	National Adaptation Plan Global Support Programme
NC	National Communications
NMA	Non-Market-Based Approaches
NMM	New Market-Based Mechanism
NWP	Nairobi Work Programme
ODI	Overseas Development Institute
OECD	Organisation for Economic Co-operation and Development
PMR	Partnership for Market Readiness
PSAG	Private Sector Advisory Group
PSF	Private Sector Facility
QELRO	Quantified Emission Limitation or Reduction Objective
REDD	Reducing Emissions from Deforestation and Forest Degradation
REEEP	Renewable Energy and Energy Efficiency Partnership
RINGO	Research and Independent Non-Governmental Organisation
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCCF	Special Climate Change Fund
SCF	Standing Committee on Finance
SDG	Sustainable Development Goal
SEI	Stockholm Environment Institute
SE4ALL	Sustainable Energy For All
SIDS	Small Island Development States
TEC	Technology Executive Committee
TM	Technological Mechanism
TNA	Technology Needs Assessment
TNC	The Nature Conservancy
TT	Technology Transfer
TUNGO	Trade Union Non-Governmental Organisation
UCS	Union of Concerned Scientists
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organisation
UNISDR	United Nations Office for Disaster Risk Reduction
UNITAR	United Nations Institute for Training and Research
V&A	Vulnerability and Adaptation
WBCSD	World Business Council for Sustainable Development
WHO	World Health Organisation
WMO	World Meteorological Organisation
WIPO	World Intellectual Property Organisation
WRI	World Resource Institute
WTO	World Trade Organisation
WWF	World Wide Fund for Nature
YOUNGO	Youth Non-Governmental Organisation

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