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Taking Stock of the UNFCCC Process and its Inter-linkages

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ABSTRACT

Taking Stock of the UNFCCC Process and its Inter-linkages

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 paper is to take stock of existing UNFCCC institutions and arrangements and the inter-linkages between them in the areas of mitigation, adaptation and loss and damage, means of implementation, and measurement, reporting and verification (MRV), with a view to informing discussions on the possible elements of a 2015 agreement. A pragmatic agreement 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.

JEL Classification: F53, O44, Q54, Q56

Keywords: mitigation, adaptation, climate finance, greenhouse gas, UNFCCC, climate change

RÉSUMÉ

Point sur le processus de la CCNUCC et ses liens d'interdépendance

Les gouvernements négocient actuellement les éléments d'un nouvel accord sur le changement climatique devant être adopté à la 21^e Conférence des Parties (CdP 21) qui se tiendra à Paris en 2015. Ce document a pour objet de dresser l'inventaire des institutions et mécanismes existants de la CCNUCC et d'examiner leurs liens dans les domaines de l'atténuation, de l'adaptation, des pertes et préjudices, des moyens de mise en œuvre et de la mesure, notification et vérification (MNV), en vue d'éclairer les débats consacrés aux éléments possibles d'un accord en 2015. Un accord pragmatique serait axé sur les moyens d'utiliser plus efficacement les institutions et mécanismes existants avant d'en créer de nouveaux. Certaines institutions et certains mécanismes n'ont été mis en place que récemment, et il faut du temps pour évaluer équitablement leur efficacité.

Classification JEL: F53, O44, Q54, Q56

Mots-clés: atténuation, adaptation, finance climat, gaz à effet de serre, CCNUCC, changement climatique

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.

Members of the CCXG are Annex I and OECD countries. The Annex I Parties or countries referred to in this document are those listed in Annex I of the UNFCCC (as amended by the Conference of the Parties in 1997 and 2010): Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, the European Community, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, the Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom of Great Britain and Northern Ireland, and the United States of America. As OECD member countries, Korea, Mexico, Chile, and Israel are also members of the CCXG. Where this document refers to "countries" or "governments", it is also intended to include "regional economic organisations", if appropriate.

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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 interlinkages 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 interlinkage 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). 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).

Ends Adaptation ← Mitigation

Transparency

Finance

Means Technology

Capacity building

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 interlinkages 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

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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).

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 interlinkages 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 Taijab, 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 intersessional 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. Interlinkages 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).

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

Institutions Arrangements Funds Mitigation Adaptation Emissions reduction targets for 2020 Kyoto Protocol Cancun Adaptation Framework Nairobi Work (Al Parties) Programme Adaptation Committee QELRCs CDM (AI KP Parties) NAMAs and economic LDCs Work Programme **National Adaptation** diversification plans Plans Compliance (NAI Parties) Committee National Adaptation **Programmes of Action** WIMLAD Executive Committee REDD+ NMM Periodic review of long-term WIMLAD NMA LEG global goal Transparency Measurement and reporting Verification National IAR/ Domestic MRV GHG BURs reviews (Al Parties) (Al Parties) communications (NAI Parties) inventories Biennial assessment and overview of climate finance flows (BA) Finance Technology **Capacity building** Technology Mechanism Financial Mechanism Financial Mechanism of the Convention of the Kyoto Protocol Adaptation Fund Doha Work Programme / Dialogue on Article 6

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

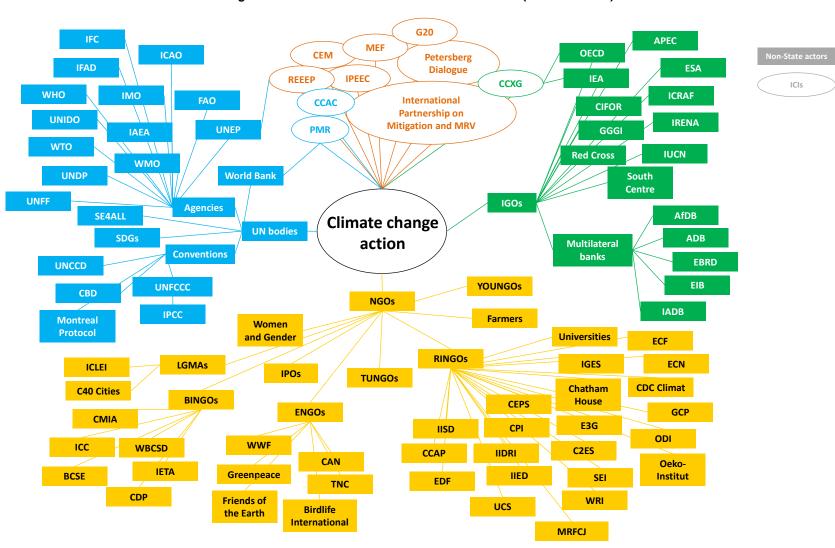


Figure 3: Web of relevant non-State actors and ICIs (not exhaustive)

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

Topic	COP	CMP	SBI	SBSTA	ADP
Mitigation	2013–2015 review National communications	CDM and JI National communications for AI KP Parties Compilation and accounting reports for AI KP Parties Compliance Committee	 Further the understanding of the diversity of NAMAs Matters relating to the CDM and JI 	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	The ADP has two work streams. Work Stream 1 covers the elements of the 2015 agreement. Work Stream 2 discusses raising pre-2020 ambition. Work Stream 1 • Elements of the 2015 agreement: mitigation, adaptation, finance,
Adaptation	 Adaptation Committee Buenos Aires programme of work on adaptation 	Adaptation Fund	Adaptation CommitteeNational Adaptation PlansLoss and damage	Nairobi Work Programme Loss and damage Agriculture	technology, capacity building, transparency, contribution cycles
Finance	 Matters relating to finance and the financial mechanism of the UNFCCC (GEF, GCF, SCF) Arrangements between COP and operating entities 	• CDM and JI	• Review of Adaptation Fund	N/A	 Work Stream 2 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,
Technology	Technology transfer and developmentTechnology Mechanism	N/A	Development and transfer of technologies and implementation of the Technology Mechanism	Development and transfer of technologies and implementation of the Technology Mechanism	carbon capture, use and storage, and non-CO ₂ gases)
Capacity building	Capacity building under the UNFCCC	Capacity building under the Kyoto Protocol	 Durban Forum on CB CB under the KP (e.g. CDM) Education, training and public awareness (Art.6) 	N/A	
Transparency	National communications	KP expert review process	 Annex I reporting and review Non-Annex I reporting 2013–2015 review IAR, ICA 	 2013–2015 review Guidelines for review of Annex I biennial 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.	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.	 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.	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).	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 Afforestry and Reforestation Working Group, a Carbon Capture and Storage Working Group and a Small-scale Working Group.	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).	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.	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.	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.	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.	• 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).	• 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.	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. 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.

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.

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	 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	 Supported by the LEG Proposals for implementation follow GEF guidelines GEF reports on status of NAPAs to the COP
Nairobi Work Programme (2005)	Knowledge sharing Addresses impacts, vulnerability and adaptation	 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	 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	 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 counties	 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	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	Function / purpose	Links with other institutions and arrangements
arrangement (year established)		
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)	 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	 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	 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	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	 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) Climate Technology Centre and Network (2010)	Provides strategic guidance on technology development and transfer (e.g. deployment, needs assessments, endogenous capacities) To provide technical assistance for developing country Parties; share information; foster collaboration and networking	 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 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	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	 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	 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	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.	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.	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.	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.	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.	• 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.	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.	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.	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.	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.	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 interlinkages 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

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

Developed countries listed in Annex I of the UNFCCC ΑI

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 Clean Energy Ministerial CEM CEPS Centre for European Policy Studies CER Certified Emission Reduction

Consultative Group of Experts on National Communications from non- Annex I Parties **CGE**

CIFOR Centre for International Forestry Research CMIA Climate Markets & Investment Association

Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol CMP 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

Food and Agriculture Organisation of United Nations FAO

Financial Mechanism FM

FVA Framework for Various Approaches GAN Global Adaptation Network Green Climate Fund **GCF** GCP Global Carbon Project GEF Global Environmental Facility

GGGI Global Green Growth Institute **GHG** Greenhouse Gas Group of Twenty G20 JI

Joint Implementation JISC Joint Implementation Supervisory Committee

IAEA Interntaional Atomic Energy Agency IADB Inter-American Development Bank IAR International Assessment and Review International Consultation and Analysis **ICA 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

ΙΕΑ 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 Intergovernmental Panel on Climate Change IPCC

IPEEC International Partnership for Energy Efficiency Cooperation

IRENA International Renewable Energy Agency International Organisation for Standardisation ISO IUCN International Union for Conservation of Nature

KP Kvoto Protocol

LDC Least Developed Country LDCF Least Developed Countries Fund Least Developed Countries Expert Group LEG LGMA Local government and municipal authorities

Multilateral Development Bank MDB

Major Economies Forum on Energy and Climate Change Mary Robinson Foundation – Climate Justice MEF

MRFCJ Measurable, Reportable and Verifiable MRV

Developing countries that are not listed in Annex I of the UNFCCC NAI

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 Subsidiary Body for Implementation SBI

SBSTA Subsidiary Body for Scientific and Technological Advice **SCCF** Special Climate Change Fund

SCF Standing Committee on Finance SDG Sustainable Development Goal Stockholm Environment Institute SEI SE4ALL Sustainable Energy For All Small Island Development States SIDS Technology Executive Committee TEC Technological Mechanism TM Technology Needs Assessment The Nature Conservancy TNA TNC 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 UNFCCC United Nations Environment Programme

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 WBCSD Vulnerability and Adaptation

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 World Wide Fund for Nature

YOUNGO Youth Non-Governmental Organisation

www.oecd.org/cc/ccxg.htm www.iea.org