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HISTORY AND POLITICS OF CLIMATE CHANGE ADAPTATION AT THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Harjeet Singh and Indrajit Bose

RESEARCH PAPERS

89

HISTORY AND POLITICS OF CLIMATE CHANGE ADAPTATION AT THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Harjeet Singh and Indrajit Bose[*]

SOUTH CENTRE

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ABSTRACT

This research paper provides a perspective on how climate change adaptation has progressed in the multilateral space, under the United Nations Framework Convention on Climate Change (UNFCCC). It describes adaptation and financial institutions under the climate regime and the current scope of their activities. The paper highlights the challenges that lie ahead, particularly around financing, for developing countries to adapt to a rapidly warming world and presents recommendations for the governments to accord higher priority to adaptation.

Le présent rapport de recherche examine les progrès réalisés en matière d'adaptation aux changements climatiques dans les négociations multilatérales sous l'égide de la Convention-cadre des Nations Unies sur les changements climatiques (UNFCCC). Il décrit les institutions financières et les institutions chargées de l'adaptation relevant du régime applicable aux changements climatiques, ainsi que leurs champs de compétence actuels. Le document met en évidence les défis, notamment en matière de financement, qui se présentent aux pays en développement pour s'adapter au rapide réchauffement planétaire et fait des recommandations aux États pour qu'ils donnent plus d'importance à l'adaptation.

Este Informe de investigación aporta una perspectiva sobre el progreso de la adaptación al cambio climático en el ámbito multilateral en el contexto de la Convención Marco de las Naciones Unidas sobre el Cambio Climático (CMNUCC). Se describen las instituciones para la adaptación y las instituciones financieras en el marco del régimen climático y el ámbito actual de sus actividades. El Informe destaca asimismo los desafíos que se plantean, en particular, con relación a la financiación, para que los países en desarrollo puedan adaptarse a un planeta que se está calentando rápidamente y se formulan recomendaciones para que los Gobiernos concedan mayor prioridad a la adaptación.

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ACRONYMS

AC	Adaptation Committee
ADP	Ad Hoc Working Group on the Durban Platform for Enhanced Action
AF	Adaptation Fund
AOSIS	Alliance of Small Island States
APA	Ad Hoc Working Group on the Paris Agreement
AR5	Fifth Assessment Report
AWG-LCA	Ad Hoc Working Group on Long-term Cooperative Action
BAP	Bali Action Plan
CAF	Cancun Adaptation Framework
CERs	Certified Emission Reductions
CGE	Consultative Group of Experts
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
CO_2	Carbon Dioxide
COP	Conference of the Parties
CTCN	Climate Technology Centre and Network
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GI	Governing Instrument
GST	Global Stocktake
INC	Intergovernmental Negotiating Committee
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
LDCF	Least Developed Countries Fund
LDCs	Least Developed Countries
LEG	Least Developed Countries Expert Group
LMDCs	Like Minded Developing Countries
LTF	Long-term Climate Finance
MDB	Multilateral Development Bank
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NATCOMs	National Communications
NDCs	Nationally Determined Contributions
NWP	Nairobi Work Programme on impacts, vulnerability and adaptation to climate change
ODA	Official Development Assistance
PA	Paris Agreement
PAWP	Paris Agreement Work Programme
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCCF	Special Climate Change Fund
SCF	Standing Committee on Finance
SDGs	Sustainable Development Goals
SIDS	Small Island Developing States
TEC	Technology Executive Committee

UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WMO	World Meteorological Organization

EXECUTIVE SUMMARY

This paper is an attempt to provide a perspective on how discussions on climate change adaptation have progressed in the multilateral space, under the United Nations Framework Convention on Climate Change (UNFCCC); describe adaptation institutions under the climate regime and their current activities; and highlight the challenges that lie ahead for developing countries to adapt to a rapidly warming world.

Climate change adaptation is no longer a choice for developing countries. Focus on climate change mitigation has not yielded results—global temperature has increased and extreme weather and slow onset events are playing havoc with people's lives. Developing counties have little option left but to focus on adapting to climate change, build resilience and take proactive measures to deal with resulting losses and damages from climate impacts.

Challenges are multiple. In addition to coping with climate change, developing countries have to deal with poverty eradication. Science has established limits to climate change adaptation. Emerging global challenges, such as displacement and migration, need policy attention. What options does a country have to ensure the safety of its peoples who are suffering the consequences of something that they have not historically contributed to?

Climate change adaptation is also about equity and ethics. Multilateral frameworks have been established, several decisions on adaptation have been adopted, but where do we stand today?

Literature suggests that financing for adaptation has remained the most contentious issue in relation to negotiations on climate change adaptation under the UNFCCC. It is an irony, especially since the Convention explicitly states that financing adaptation is a legal obligation of developed countries.

The politics around adaptation also meant that it took long for climate change adaptation to be given the same status as climate change mitigation. First it was clubbed with other issues such as technology transfer and capacity building. It was not until 2007 and much prodding by science, that adaptation was treated as an independent pillar that merits individual attention. Further negotiations—which were often difficult—ensured that adaptation is treated on a par with mitigation.

In spite of decisions establishing parity between mitigation and adaptation, developing countries are having a tough time negotiating the implementing arrangements of the Paris Agreement, that will bring about the parity in practice. Meanwhile, adaptation finance remains woefully inadequate, which is a common theme that runs across the financial institutions and bodies constituted to work on adaptation.

There is also politics around who is vulnerable and who is eligible to receive financing; what is climate finance; and the kind of 'adaptation' projects that should be financed.

It is sufficiently clear that developing countries cannot execute adaptation projects if developed countries are going to contribute finances whenever they feel generous. Systems to ensure that institutions are financed adequately must be instituted and developed

countries must get out of the 'donor' mindset. This is the climate debt they owe to the poor of the developing world.

The paper presents the following recommendations:

1. It is fundamental to protect the basic rights of people and improve their lives, especially the poor in developing countries. In a world that is moving towards a 3°C average increase in global temperature, **adaptation must be a priority.** Unless we focus on adaptation, we cannot keep people safe.

2. It is crucial to get the international architecture on adaptation right. Whether an institution is able to help the affected and safeguard their future should be the overarching metric to decide whether it is working effectively. Coherence among institutions is vital. Strong coordination mechanisms must enable integration of adaptation across all relevant institutions.

3. It is essential to make **real** and **adequate money** available, in a **sustained** and **predictable** manner to help developing countries adapt to climate change. Developed countries should accept a transparent, principle-based allocation of responsibility for adaptation funding, resulting in adequate, new and additional public money to support adaptation programmes in developing countries. Moreover, it must be recognized that adaptation has its limits, and additional efforts should be directed to address loss and damage.

4. Accountability should be ensured for all players so that money reaches the people. Developed countries must report on the new and additional support they provide to developing countries and developing countries must ensure that the money is utilized effectively and for the right target groups.

5. Mainstreaming adaptation can address both long-term and urgent adaptation measures. However, challenges to such mainstreaming must be recognized and barriers removed. These challenges include lack of awareness and knowledge of adaptation, particularly in relevant ministries, leading to the issue being considered in the periphery of other development issues; involving and coordinating stakeholders across various levels of governance and sectors; and linking local impacts with national-level responses.

6. A high priority, near-term activity is to strengthen the knowledge base with more observations, more and better data and modeling at local levels to refine understanding of current impacts and projections of future impacts, and with early insights from the field on the most effective response. Until then, the only way to support adaptation locally is through inclusive and participatory sustainable development practices that pay attention to large-scale climate change effects in the region.

7. Adaptation is a local challenge created by global actions. The entire global community must come together and find solutions. Developed countries also stand to be affected, but the difference is they have more resources to tackle the impacts of climate change and therefore higher adaptive capacity. When it comes to solutions, these should be developed jointly. Knowledge sharing and the spirit of collaboration will provide effective solutions for all.

INTRODUCTION

To put it simply, the goal of the UNFCCC and its Paris Agreement (PA) is to keep the planet and people safe from catastrophic climate change. This requires helping people who are suffering the impacts of climate change, adapting to climate change and urgently reducing greenhouse gas emissions.

Since the Convention came into existence in 1992, the focus of developed countries in the climate change negotiations has largely been on mitigation and to get developing countries to undertake ambitious mitigation targets, without providing them adequate finance, technology and capacity-building support. One of the consistent struggles for developing countries has been to get meaningful support for adaptation.

The results of mitigation inaction of developed countries are there for the world to see. According to the World Meteorological Organization (WMO), the global mean temperature in 2017 was about 1.1°C above pre-industrial temperatures[1], and the atmospheric concentrations of carbon dioxide (CO_2) have reached 410 parts per million[2]. Extreme weather events such as storms and floods appear to have become the norm, and slow onset events like sea level rise and glacial retreat threaten ecosystems—together, these have ravaged people's lives and livelihood, putting their present and future at a greater risk. Hurricanes over the North Atlantic, monsoon floods in the Indian subcontinent and continued severe drought in east Africa made 2017 "the most expensive year on record for severe weather and climate events", according to the WMO[3]. The hurricanes eroded decades of development gains in small islands in the Caribbean such as Dominica[4]. Last year was also one of the three warmest years on record, even though it was not influenced by an El Niño event (see Figure 1: The State of Climate in 2017). The beginning of 2018 has been no different, with the Arctic experiencing high temperatures, bitter cold in the northern hemisphere, heat waves in Australia and Argentina, continued drought in Kenya and Somalia, and acute water shortages in Cape Town[5].

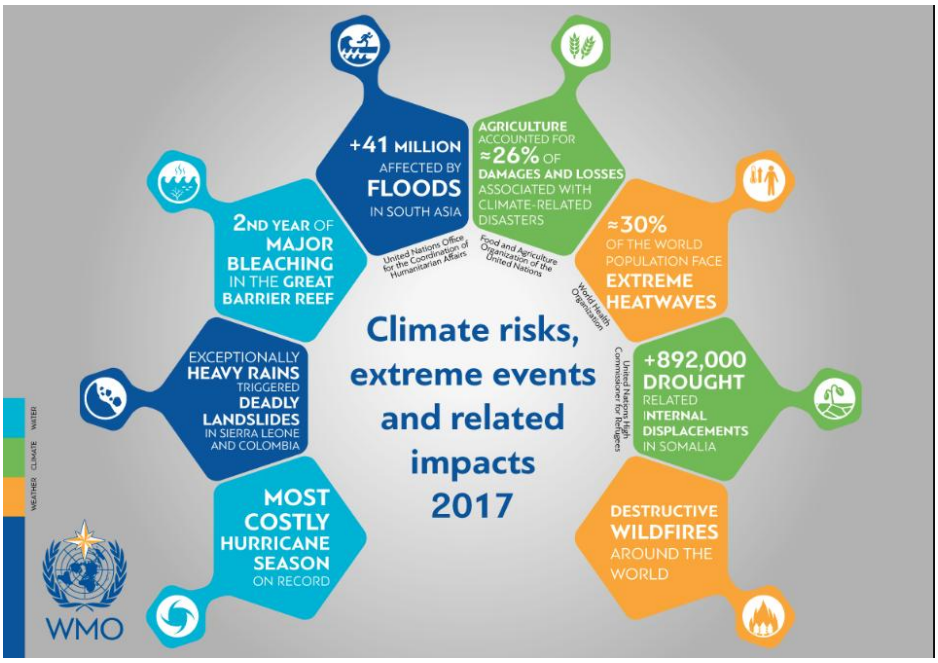

Figure 1: The State of Climate in 2017
(Source: https://bit.ly/2yB9exn)

Climate impacts have not spared the developed world either. But countries with means are naturally more resilient and capable of helping their people than the countries that have to deal with large-scale poverty and deprivation, besides climate change impacts. Under such circumstances, the first step for poorer countries is to meet the immediate needs of climate victims and then ensure the safety of its people from future impacts by focusing on climate change adaptation. But climate impacts and consequently the need to focus on adaptation, is only going to increase.

Climate change also impacts food production adversely, among other sectors. The vulnerability of developing countries dependent on agriculture increases when climate change-induced events destroy food crops. Developing countries are already struggling to address the huge challenges of poverty, hunger, nutrition and health. In a world of extreme weather and slow onset climatic events, these challenges become even greater. It is no rocket science to infer that areas with poor people are also the most vulnerable to the effects of climate change.

Under the first round of climate actions proposed by countries under the Paris Agreement, called nationally determined contributions (NDCs), the actions will lead to at least 3°C of warming[6]. This begs the question that when the impacts of a 1.1°C increase are playing havoc with people's lives, how will they cope if temperature rises by 3°C (see Figure 2: Change in average surface temperature)?

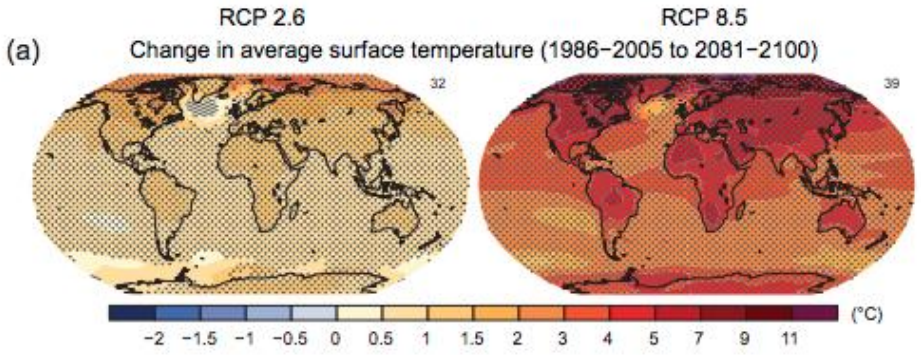

Figure 2: Multi-Model Projection of Change in average surface temperature in 2081-2100, relative to 1986-2005 levels
(Source: IPCC AR5, Working Group 1 SPM: https://bit.ly/1zekdFi)

According to the Fifth Assessment Report (AR5) by the Intergovernmental Panel on Climate Change (IPCC), "responding to climate-related risks involves decision making in a changing world, with continuing uncertainty about the severity and timing of climate-change impacts and with limits to the effectiveness of adaptation". The AR5 also notes that major future impacts are expected on water availability and supply, food security and agriculture; poverty reduction will become even more difficult; and new poverty traps will be created. The impacts are expected to increase poverty in most developing countries[7]. Sea-level rise, glacial melt, salt-water intrusion in farmlands, desertification, higher intensity cyclones, floods, decrease in the number of rainy days, and ocean acidification are only a few of the impacts that the world has to grapple with, and these impacts will intensify in the future.

Even in a scenario where the world stopped emitting all greenhouse gases today,

"global warming and climate change will continue to affect future generations"[8]. While the world must strive to meet the Paris Agreement target of holding the "increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels[9]", it is fundamental to urgently invest more resources in adaptation. Developing countries do not have a choice here. Adaptation requires means—finance, technology and capacity building—and it is going to be expensive. "The cost of adapting to climate change in developing countries could rise to between $280 and $500 billion per year by 2050, a figure that is four to five times greater than previous estimates," according to the 2016 Adaptation Finance Gap Report by the United Nations Environment Programme (UNEP)[10].

And even in the improbable scenario that there is adequate financing, there are limits to climate change adaptation. For some, such as those in the islands, addressing the impacts of climate change will require them to permanently leave their homes and property for safer avenues. The world must come to grips with displacement and forced migration—new global challenges, which pose more questions than provide solutions at this stage. It is a great injustice that the people who have done generally very little to cause the problem are disproportionately getting affected by climate impacts[11].

Climate impacts are exacerbating inequalities that already exist between and within countries. Thus, climate change adaptation is also about equity. Developed countries have attained their current level of development through carbon-intensive growth. One of the objectives of the UNFCCC was to transition this high-carbon growth to low-carbon, sustainable growth. At the same time, it recognized both the right of developing countries to grow sustainably as well as their lack of means to do so. The gap in the means necessary to achieve sustainable, low-carbon development was supposed to have been filled by developed countries, but this has not happened. Now, in the multilateral space, when developing countries demand to grow, it is often misinterpreted as the right to pollute. This view must change.

For developing countries undertaking climate change adaptation, equity demands that their adaptation actions are recognized as their efforts in tackling climate change and that they receive support for those efforts. However, as the 2016 Adaptation Finance Gap Report points out, developing countries face an adaptation finance deficit and it is likely to grow substantially unless significant new and additional finance is secured for adaptation.

The mitigation efforts of developed countries fall far short of the necessary action in the pre-2020 period. If this period serves as an example, there is little hope that the developed countries will increase their targets substantially in the post-2020 world when the Paris Agreement becomes operational. The announcement made in June 2017 by the historically biggest polluter, the United States, of its intention to withdraw from the Paris Agreement serves as a warning. With such a bleak picture in relation to emissions reduction, adaptation must receive adequate attention and resources, and be treated on a par with mitigation. To ensure this, it would be instructive to cast a glance at how the adaptation debate has shaped so far, which this paper attempts.

The structure of this paper is as follows:

Section I is an introduction to the journey of adaptation, which traces the history of adaptation politics under the UNFCCC negotiations, since its first Conference of the Parties (COP). The decisions taken in four COPs—Marrakech, Bali, Cancun and Paris—

considered landmark for adaptation, have also been elaborated. (Listed in an annex is also a timeline of the adaptation-related decisions from COP 1 to COP 22, with highlights of the adaptation provisions in the decisions.)

Section II provides a snapshot of the institutional set up on adaptation along with the constituted bodies. Under the financing institutions, the status of the Adaptation Fund, Least Developed Countries Fund, Special Climate Change Fund and Green Climate Fund have been presented. Next, the functioning and status of constituted bodies, the Least Developed Countries Expert Group and the Adaptation Committee, have been presented. There is also a brief mention of the Nairobi Work Programme on impacts, vulnerability and adaptation to climate change.

Section III delves deeper into some of the more political areas such as vulnerability, climate finance, adaptation-development debate and proposes suggestions on how some of these should be tackled.

Conclusions and recommendations are then presented.

I. THE ADAPTATION JOURNEY SO FAR

Historically, adaptation has largely been a political fight, primarily due to its financing.

When multilateral negotiations on climate change began, the need to adapt and developed countries' obligation to provide developing countries the financial and technological means for this were recognized early on. At every COP this was reiterated. Report after report of the IPCC brought out the urgency of adaptation. Yet, most multilateral effort has gone in debating the need to adapt and ways to adapt, and very little in actually adapting because developed countries are unwilling to provide the money to execute adaptation plans. Because of this unwillingness, they are reluctant to engage in the adaptation debate.

This is evident in the slow progress of the debate over the decades.

Adaptation is nearly a half-a-century-old idea. It began in the 1970s and early 1980s, when the Club of Rome, an organisation of individuals who share concerns over the future of humanity[12], raised questions about the ecological limits to human development and growth, options to respond to climate change and whether systems would be able to adapt automatically[13]. In the late 1980s, through the United Nations Environment Programme Advisory Group on Greenhouse Gases and the IPCC, questions around climate change impacts and adaptation started being asked[14].

In the next decade, an intergovernmental negotiating committee (INC) and the UNFCCC began by asking questions on whether mitigation was more important than adaptation and the optimal balance between the two to respond to climate change[15]. The conversation turned around policy support for adaptation, vulnerability and the extent of adaptation needed. Links between adaptation and development also began to be explored[16].

Funding becomes obligatory for developed countries

When the Convention was signed in 1992, adaptation was an essential parameter in its ultimate objective, as defined in its Article 2. The objective of the Convention is to stabilize greenhouse gases in the atmosphere within a timeframe sufficient to "allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner"[17].

The Convention also provided for adaptation in its key articles. The most important provision was mandating developed countries to assist developing countries in meeting the "costs of adaptation"[18]. It is clear that financing adaptation is a legal obligation of developed countries under Article 4.4 of the Convention. The Article states: "The developed country Parties…shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects." This implies "grant-based and full cost funding"[19]. In fact, everything that mentions adaptation in the Convention is related to financing[20].

The Convention also states that policies and measures to tackle climate change should take into account adaptation, among other things[21]. Provisions in relation to countries formulating, implementing and updating plans and programmes on adaptation were also put in place[22].

During the first Conference of the Parties (COP 1) in 1995, countries identified three stages of adaptation action. The first stage was to focus on short-term activities, such as conducting impact and vulnerability studies and identifying policy options. Second and third stages were for medium- and long-term activities. Stage two was to focus on preparation for adaptation, including capacity-building initiatives, and Stage three was to provide efforts on implementation of concrete adaptation projects[23].

Yet between 1995 and COP 7 in 2001, instead of treating adaptation as an independent area of study, the conversation remained mostly about provision of environmentally sound technologies for adaptation. The need for financing for adaptation, though, was underscored through various language formulations in the decisions the COPs adopted (**see Annex I for Timeline of Adaptation decisions**). According to a senior negotiator, the language of decisions has always been "addressing climate change" mainly through mitigation, and "its adverse effects" through adaptation[24].

Science catalyzes action: first concrete steps on adaptation

In the decade starting in 2000, nearly 10 years after the Convention, talks on creating institutions dedicated to adaptation began. This shift in focus was because of the Third Assessment Report of the IPCC released in 2001. The report brought out clear evidence on "changing weather patterns and the need for adaptation actions along with mitigation" and provided the impetus for substantive work on adaptation under the Convention[25]. The discussions veered from the need to adapt, to how to adapt[26].

COP 7 held in Marrakech, Morocco, in 2001 is considered to be the first landmark in adaptation. It adopted the Marrakech Accords, which comprised important decisions on adaptation. At this COP, countries established a work programme for the Least Developed Countries (LDCs) to address their specific and immediate needs[27]. This entailed developing National Adaptation Programmes of Action (NAPAs) for the LDCs and forming an LDC Expert Group (LEG). Specific funds—the Special Climate Change Fund (SCCF) and the LDC Fund (LDCF)—were established. The LDCF was to fund the preparation and implementation of NAPAs.

COP 7 also established an Adaptation Fund, under the Kyoto Protocol, to finance adaptation projects in developing countries. In addition to these, several decisions focused on vulnerability and adaptation assessments, capacity building for implementation of adaptation measures, and framework for meaningful and effective actions on transfer of environmentally sound technologies and knowhow to developing countries were adopted. Once again, the need for financing for adaptation was stressed (**see Annex 1 for details**).

Between COP 7 in 2001 and COP 13 in 2007 in Bali, the focus of the decisions expanded to financing for adaptation, transparency provisions, operational aspects of adaptation, technology transfer for adaptation, capacity building of developing countries for adaptation, strengthening institutions, detailing their work on adaptation and exchange of information and lessons learned.

At COP 10 in 2004, countries agreed on the Buenos Aires programme of work on adaptation and response measures[28]. The programme was to develop methodologies to deal with adverse effects of climate change, reporting vulnerability assessment and adaptation measures in countries' National Communication and collecting and disseminating information among Parties[29].

In 2005 at COP 11, a work program on impacts, vulnerability and adaptation was created, which got renamed as the Nairobi Work Programme on Impacts, Vulnerability and Adaptation (NWP) in 2006[30]. The NWP was created to help developing countries better understand and measure vulnerability and adaptation[31], and has since grown to become a knowledge hub for adaptation[32].

To get anything concrete on adaptation took long because discussing funding for adaptation touched "too much on the highly politicized early debate surrounding accountability", where, for developed countries, discussing adaptation meant accepting responsibility for causing climate change[33]. Also, after the entry into force of the UNFCCC in 1994, the next few years were consumed by negotiations on the Kyoto Protocol, focused squarely on mitigation[34].

Until COP 13, therefore, only three institutions on adaptation were created and the NWP was launched. The focus on adaptation remained oblique; discussions were almost always linked to some other issue, such as capacity-building or technology transfer or exchanging lessons learned.

Loss and Damage

The insufficient investment in mitigation and inadequate as well as delayed resources for adaptation have led to a situation where poor people and vulnerable ecosystems are already facing the brunt of increasing climate impacts. These impacts are even overwhelming the capacity of countries such as the Philippines and Pacific Island nations who had acquired skills and knowledge to deal with disasters. Poorer countries, which have least resources are worse off.

The Alliance of Small Island States (AOSIS) has been raising the issue of adverse effects of climate change since 1991. However, the term "loss and damage" was recognized only at COP 13 under the Bali Action Plan. It refers to the limits of adaptation and impacts that could not be adapted to.

It was at COP 16 in Cancun that a work programme was agreed upon which, after a fierce fight in 2012 and 2013, led to the establishment of the Warsaw International Mechanism on Loss and Damage at COP 19 but under the Cancun Adaptation Framework.

After a bitter fight in 2015, the Paris Agreement recognized it as an issue separate from adaptation as Article 8.

The Mechanism, operationalized by an Executive Committee, has now been in existence for five years. While the coordination and knowledge generation functions of the Mechanism saw some progress, it is the "action and support" function, which includes provision of finance, technology and capacity building that has hardly made any headway due to the lack of support from developed countries.

Turning point: adaptation gets independent recognition

COP 13 in Bali in 2007 was a turning point. Demands grew to recognize adaptation as a separate pillar that needed specific attention. One of the reasons for this was the publication of the Fourth Assessment Report by the IPCC, which highlighted that "more extensive adaptation than earlier was required to reduce the future vulnerability as a result of the greenhouse gas concentration in the atmosphere due to past emissions"[35].

At COP 13, thus, enhanced action on adaptation was established as a separate and independent pillar under the Bali Action Plan. International cooperation on adaptation was stressed. Technology development and transfer, and enhanced financial support for adaptation continued to be emphasized. Adaptation discussions also drew linkages with risk management and risk reduction strategies. COP 13 was also responsible for expanding governance activities in relation to adaptation[36].

In the next three years, between COP 13 and COP 16, the focus was largely on financing adaptation and the operational aspects of the institutions that were created. COP 16 in 2010 in Cancun, Mexico considered another landmark for adaptation, the Cancun Adaptation Framework (CAF), which accorded adaptation the same priority as mitigation. The framework mandated countries, in accordance with their common but differentiated responsibilities and respective capabilities, to undertake: planning and prioritizing of adaptation actions; impact and vulnerability assessments; strengthening institutional capacities and enabling environments for adaptation; building resilience of socio-economic and ecological systems; enhancing climate change related disaster risk reduction strategies; measures to understand climate-induced displacement and migration; research around transfer of technologies; strengthening data, information and knowledge systems.

After NAPAs that dealt with immediate challenges, the need for the LDCs to undertake medium- and long-term adaptation planning was recognized. Countries, thus, agreed on having National Adaptation Plans (NAPs) for the LDCs in COP 16[37]. A year later, in COP 17 in Durban, South Africa, the COP invited other developing countries to also prepare NAPs.

Under the CAF, countries also adopted a Technology Mechanism comprising a Technology Executive Committee (TEC) and a Climate Technology Centre and Network (CTCN) with the objective of accelerating and enhancing climate technology development and transfer. The TEC is the policy arm of the Mechanism, and it "analyses issues and provides policy recommendations", while the CTCN is meant to be the implementation body of the Technology Mechanism[38].

Additionally, an Adaptation Committee was established to promote implementation of enhanced action on adaptation in a coherent manner. New and additional financing for adaptation was stressed on and it was decided that a significant share of the multilateral funding for adaptation would flow through the Green Climate Fund (GCF), a new institution, which COP 16 decided to establish.

Then, in the period between COP 16 in 2010 and COP 21 in 2015, the focus was largely on the institutions and their mandates, with calls for coherence between institutions, allocation of resources to adaptation, preparations for a new global compact (which resulted in the Paris Agreement in 2015), and how adaptation would be reflected in this compact.

Around the time, in 2014, the new kid on the block was intended nationally determined contributions—vehicles for countries to communicate their climate action plans to the world under the new global compact. Developed countries' efforts were directed at putting aside adaptation and focusing only on mitigation along the lines of the mitigation-centric Kyoto Protocol. This was among the biggest political fights leading up to COP 21, as providing parity to adaptation proved Herculean for developing countries.

Attempt to downsize adaptation thwarted at Paris

The atmosphere in the run up to and at COP 21 in Paris, France was as if adapting to climate change was a voluntary activity that did not need the same attention as mitigation. However, developing countries stood their ground and the Paris Agreement, through Decision 1/CP.21, further cemented the parity between mitigation and adaptation, through several articles, especially Article 3, besides having Article 7 dedicated to adaptation (**see Annex I for details**).

Negotiations over Article 3 of the Paris Agreement, which essentially provided the Agreement its comprehensiveness, were especially contentious and symbolized the "battle over the nature of the agreement to ensure that the NDCs are not viewed only as being mitigation-centric"[39].

Article 3, as adopted, states, "As nationally determined contributions to the global response to climate change, all Parties are to undertake and communicate ambitious efforts as defined in Articles 4, 7, 9, 10, 11 and 13 with the view to achieving the purpose of this Agreement as set out in Article 2. The efforts of all Parties will represent a progression over time, while recognizing the need to support developing country Parties for the effective implementation of this Agreement."

(Article 4 refers to the element of 'mitigation', Article 7 to 'adaptation', Article 9 to 'finance', Article 10 to 'technology development and transfer', Article 11 to 'capacity-building' and Article 13 to a 'transparency framework for action and support'.)

The Like Minded Developing Countries (LMDC), a sub-group under the Group of 77 and China, was the major proponent of such an approach, and their proposal was to make sure that contributions of Parties are viewed in a comprehensive manner, reflecting the respective obligations they have under the provisions of the Convention, and not to confine the contributions to mitigation as desired by the developed countries[40].

In relation to adaptation, in sub-paragraph 1 of Article 7 of the Paris Agreement, Parties agreed to "establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2".

Developing countries had been pushing for a long-term goal or vision on adaptation to ensure parity with mitigation and to avoid having only a mitigation centric-goal linked to the temperature goal. This goal, initially formulated by the African Group, also links the adaptation response to the temperature goal.

In relation to the global goal on adaptation, developing countries during the

negotiations had proposed "an assessment of the adequacy of support" received from developed countries to developing countries as well as the "recognition of increased adaptation needs and associated costs in the light of mitigation efforts…"[41] However, what found its way in the adaptation section (in sub-paragraph 14 of Article 7) is the reference to the global stocktake (in Article 14), which states that the stocktake "shall" "review the adequacy and effectiveness of adaptation and support provided for adaptation" as well as "review the overall progress made in achieving the global goal on adaptation…"

Developing countries also wanted to ensure that the adaptation efforts they were undertaking, with or without international support, should be recognized as their contribution to climate action[42]. This found expression in sub-paragraph 3 of Article 7, which stated that "the adaptation efforts of developing country Parties shall be recognised…", with the modalities to be developed for such recognition.

Current challenges: retaining parity and getting finance

After COP 21, however, progress on adaptation in the negotiations has remained a challenge, primarily at two levels: retaining the parity accorded to adaptation with mitigation in the Paris Agreement, and mobilizing financial support for adaptation.

The Ad Hoc Working Group on the Paris Agreement (APA), a body created to work on the implementation arrangements of the Paris Agreement Work Programme (PAWP), is currently engaged in designing modalities, procedures and guidelines on NDCs as well as in relation to the adaptation communications.

Under the agenda on NDC guidelines, developed countries are of the view that countries should discuss only mitigation guidelines and not guidelines related to adaptation, finance, technology or capacity building. Developing countries, especially the LMDCs, refer to Article 3 of the Paris Agreement to reiterate the comprehensiveness of the Agreement, but there is a concerted attempt to restrict the scope of discussions on NDCs to mitigation.

Developed countries usually say that adaptation guidance is being discussed under the agenda item on adaptation, but this argument needs to be tested for accuracy. Adaptation communication has three potential vehicles, in other words, adaptation actions of countries could be communicated through national communications, national adaptation plans and/or adaptation as a component of NDCs, as envisaged in Article 7.11 of the Paris Agreement. In the discussions under the adaptation guidance, developed countries do not appear keen to discuss adaptation as a component of NDCs, nor do they want to discuss guidance for finance, technology development and transfer, and capacity building. The issues being discussed under technology and capacity building streams are general institutional issues that do not touch upon the individual undertakings of developed countries, primarily the financial support provided by them.

Currently, the multilateral climate change negotiations are focused on the implementation arrangements of the Paris Agreement. These arrangements are to be concluded by December 2018. It does not help that developed countries are interpreting the understanding reached in Paris to suit their convenience.

As discussed in the beginning of this section, the Convention places the obligation of financial support for adaptation on developed countries. In the Paris Agreement, which is meant to enhance "the implementation of the Convention"[43], this obligation continues.

According to Article 9.1 of the Paris Agreement, "Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention."

Financial issues under the negotiations are heavily contested. Developed countries are resisting providing *ex-ante* information on public financial resources, mandated under Article 9.5 of the Paris Agreement. Such information is important for the sake of predictability so that developing countries can decide their policies accordingly. Information on, and provision of, means of implementation will enable developing countries to put in place ambitious mitigation goals. But without such information, the adaptation gap as well as the support gap is only likely to widen.

Then, developed countries are also not interested in discussing the new collective quantified goal on finance mandated under the Paris Agreement and are suggesting that developing countries will also have to contribute to the goal. This is expressly against Article 9.1 of the Paris Agreement.

Worse, developed countries have tried to move away from the developed-developing country classification under the Paris Agreement, and introduce income-based categorizations for access to funds, which goes against the spirit of the Convention and its Paris Agreement.

Such attempts to block finance and unwillingness to engage in talks on climate change adaptation will only make the completion of the implementation arrangements by the end of 2018 more difficult, even impossible. So far only governance issues related to adaptation have assumed importance, but the road to getting financing for adaptation remains an uphill task for developing countries.

This constrains the institutions created so far to facilitate adaptation in many ways. The next section explains, in a nutshell, the institutions involved in adaptation under the UNFCCC and the challenges they face.

II. INSTITUTIONAL SETTING FOR ADAPTATION UNDER THE UNFCCC

This section maps the institutional setting dedicated to climate change adaptation that was established under the UNFCCC, and is sub-divided into financial and constituted bodies. Under financial institutions, the Adaptation Fund (AF), Least Developed Countries Fund (LDCF), Special Climate Change Fund (SCCF) and Green Climate Fund (GCF) are covered. Under the constituted bodies, the Least Developed Countries Expert Group (LEG) and the Adaptation Committee (AC) are covered.

It should be noted that an in-depth review of the institutional setting is outside the scope of this paper, but the following information should be relevant to provide an overview of the areas the institutions and the constituted bodies are working on.

A consistent theme that runs across the working of these institutions and constituted bodies is the lack of adequate, predictable and sustained financial support for adaptation. As a result, the functioning and the scaling up of their work are likely to be hugely impacted. Leaving funding to when the contributors decide to be generous enough to put in resources will make the financial institutions unstable. At the end of the day, these institutions are meant to facilitate adaptation action on the ground.

A. Financial Institutions

A.1 Adaptation Fund (AF)

The AF resulted out of the Kyoto Protocol (KP) and was agreed to in 2001 as part of the Marrakech Accords. The AF operates under the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to the KP (CMP).

The AF was innovative on two counts: one, it financed the full cost of adaptation projects, and two, it gave developing countries the option of "direct access" to the funds, a departure from traditional structures of climate financing which follow the model of multilateral development banks (MDBs) and United Nations (UN) agencies managing projects[44]. This is one of the primary reasons developing countries feel extremely close to the AF and want its continuation under the Paris Agreement.

The AF was essentially funded through a share of proceeds—2 per cent of revenue from the certified emission reductions (CERs) generated through the Kyoto Protocol's Clean Development Mechanism. These certified emission reductions, bought and sold in the emissions trading markets, were generated by mitigation activities undertaken in developing countries. In other words, developing countries themselves funded their projects through the AF.

This self-funding aspect of the Fund is important to bear in mind. It is because of this aspect that developing countries were able to negotiate a "direct access modality" and financing for concrete adaptation projects in an AF Board that was composed of more developing countries than developed countries. In this sense, the AF is a solidarity fund among developing countries. But since the crash of the market for CERs, the AF has been dependent, primarily on voluntary financing.

The amount of resources with the Fund, as of 23 July 2018, was USD 407.03 million[45]. The future of the AF is at stake in the absence of sustainability, adequacy and predictability of funding[46].

The future of the AF under the Paris Agreement regime is being negotiated under the Ad Hoc Working Group on the Paris Agreement (APA) at present. Discussions are fraught with political and legal battles over operating modalities, when should the AF begin to serve the Paris Agreement and what should be the sources of funding, even though at COP 23 in 2017, through decision 1/CP.23, countries decided that the AF "shall" serve the Paris Agreement[47]. The APA is expected to conclude work on addressing governance and institutional arrangements, safeguards and operating modalities for the AF to serve the PA in 2018.

A.2 Least Developed Countries Fund (LDCF)

The LDCF was created as part of the Marrakech Accords at COP 7 in 2001, with voluntary contributions from developed countries, which were channelled through the Global Environment Facility (GEF), an operating entity of the Financial Mechanism of the Convention. The LDCF became operational in 2002 and is the only fund tasked with financing the preparation and implementation of National Adaptation Programmes of Action (NAPAs)[48]. As of July 2018, the LDCF had USD 625.51 million[49].

Some of the challenges facing the LDCF are insufficient and uncertain funding; a convoluted management structure, which results in unnecessary delays in funding, hindering the implementation of NAPAs; inadequate capacity of implementing stakeholders; and just the fact that the presence of a plan (a NAPA) is no guarantee that the measures planned would be implemented, a study found[50].

A.3 Special Climate Change Fund (SCCF)

Like the LDCF, the SCCF was established by COP 7 in Marrakech in 2001. While the SCCF complements the LDCF, the SCCF is open to all "vulnerable developing countries" according to the GEF website[51]. Also, while adaptation is its priority, the SCCF funds other areas such as technology transfer through separate financing windows. As of July 2018, the SCCF had USD 114.75 million[52].

A.4 Green Climate Fund (GCF)

COP 16 in Cancun decided to establish the GCF, besides taking other crucial decisions on finance. At the COP, a global goal on finance was set, where it was agreed that "developed country Parties commit…to a goal of mobilizing jointly USD 100 billion per year by 2020 to address the needs of developing countries".[53] In this context, the GCF was "intended to be the main fund for global climate change finance".[54]

It was decided that "a significant share of new multilateral funding for adaptation should flow through the GCF".[55] Parties also agreed to the establishment of the GCF "as an operating entity of the Financial Mechanism of the Convention…" which functions under the guidance of the UNFCCC COP.[56]

The GCF was launched in 2011 at COP17 in Durban,[57] with the adoption of the Governing Instrument (GI) of the Fund. According to the GI, the purpose of the Fund is to

"make a significant and ambitious contribution" to the global efforts in combating climate change[58].

The GI also lays down that the Fund will seek a balance between funding for adaptation and mitigation, "while promoting environmental, social, economic and development co-benefits and taking a gender-sensitive approach."

In relation to support for adaptation, the GCF provides funding to increase resilience in the areas of heath, food and water security; livelihoods of people and communities; ecosystems and ecosystem services; and infrastructure and the built environment.

In allocating adaptation resources, the GCF Board decided that there would be a floor of 50 per cent of the adaptation allocation for particularly vulnerable countries, including LDCs, Small Island Developing States (SIDS) and African States[59].

The GCF also has a Readiness Support Programme, which provides up to USD 3 million per country for the formulation of National Adaptation Plans (NAPs) and/or other adaptation planning processes[60]. The decision to support NAPs under readiness came after much push by developing country Board members in the GCF. The developed country Board members were of the view that the allocation under the readiness programme of the GCF was sufficient and that nothing more was needed to be done specifically for NAPs[61].

How much money does the GCF have?

In the initial resource mobilization phase of the GCF (2015-2018), USD 10.3 billion was pledged to the Fund, mainly by developed countries[62]. Of this, USD 10.2 billion was signed in the form of 'contribution agreements' between the governments and the GCF. However, this does not mean that the GCF has USD 10.2 billion in its account at present, or that this much money will be realised. One may ask why is this the case.

Take the example of the United States' contribution to the GCF, which states merely an intention to pay USD 3 billion. So far, the US has paid USD 1 billion to the GCF and it is not likely to contribute more, given the announcement by US President Donald Trump that his country is pulling out of the Paris Agreement and will not put any more resources into the GCF. This puts in jeopardy the realization of the USD 10.2 billion of the signed contributions.

Exchange rate fluctuations can further shrink the fund—to the tune of nearly USD 1 billion. According to the GCF Secretariat, as reported in the 20th meeting of the GCF Board in July 2018, the initial resource mobilization period would yield only USD 7.2 billion by the end of the year as opposed to USD 10.2 billion in signed contributions by countries[63].

The Board has also been discussing the process for the first formal replenishment of resources for the GCF. But the process is mired in controversy as the US does not want it to be based on the needs of developing countries[64].

Politics of funding projects

So far, the GCF has approved USD 3.7 billion in funding for 76 projects[65]. On a thematic basis, the portfolio is split 46 per cent for mitigation, 32 per cent for adaptation,

and 22 per cent for crosscutting projects (involving both mitigation and adaptation)[66]. However, four projects, all related to adaptation, faced objections from the developed country board members. Of the four projects, the Board did not approve three proposals and one project was withdrawn after it was presented for the Board's consideration.

The projects that were not approved included an Ethiopian project titled 'Responding to the increasing risk of drought: building gender-responsive resilience of the most vulnerable communities'; a Paraguayan project on 'Poverty, Reforestation, Energy and Climate Change'; and an Argentinian project on 'Climate Action for Rural Development: community-based adaptation and mitigation'. A project from Bangladesh, titled 'Enhancing Women and Girls' Adaptive Capacity to Climate Change', was withdrawn.

Developed country Board members objected that the projects from Ethiopia and Bangladesh were development projects and not adaptation projects. This divide over whether a project is an adaptation or a development project has led to a series of discussions in the GCF Board, but without any outcome so far.

On the projects from Paraguay and Argentina, they raised questions on the level of concessionality sought from these "middle-income countries". This is a departure from agreed principles and decisions that state that all developing countries are eligible to receive financing from the GCF and that there is no scope to differentiate developing countries based on their income status.

B. Constituted Bodies

B.1 Least Developed Countries Expert Group (LEG)

The LEG was established as part of the Marrakech Accords in 2001 to "support LDCs in addressing the adverse impacts of climate change"[67]. Since then, the LEG has provided technical guidance and advice to LDCs on the preparation and implementation of their NAPAs.

Status update on NAPs and NAPAs

At its 31st meeting, held in Bonn, Germany, from 7-10 March 2017, the LEG provided a status update on NAPs and NAPAs. On progress made in relation to support provided for NAPs**,** the GEF reported that as of 9 March 2017, five project proposals, amounting to USD 16.5 million and related to the process of formulating and implementing NAPs, had been approved for funding from the LDCF[68]. Three more project proposals had been technically cleared and were awaiting new funding contributions to the LDCF[69]. According to the GCF Secretariat, as of 30 April 2018, the Secretariat had approved 12 NAP proposals (from Antigua and Barbuda, Argentina, Bangladesh, Bosnia and Herzegovina, Colombia, Democratic Republic of Congo, Kenya, Liberia, Nepal, Niger, Pakistan, and Uruguay), and had received NAP proposals from 37 additional countries, namely: Albania, Armenia, Benin, Bhutan, Cameroon, Costa Rica, Cote d'Ivoire, Commonwealth of Dominica, Dominican Republic, Ecuador, Egypt, Ghana, Guatemala, Haiti, Honduras, Iraq, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mongolia, Montenegro, Myanmar, Nigeria, Papua New Guinea, Serbia, Seychelles, South Sudan, Sudan, Swaziland, United Republic of Tanzania, Uganda, Uruguay, Uzbekistan and Zimbabwe[70].

For NAPAs, the GEF reported that as of 9 March 2017, a total of 248 NAPA implementation projects had been approved by the GEF Council for funding from the LDCF since its establishment in 2001. In addition, 20 NAPA implementation project proposals submitted by the LDCs, accounting for a total of USD 126.3 million, had been technically cleared by the GEF secretariat and were awaiting the availability of resources from the LDCF[71]. Except for Equatorial Guinea and South Sudan, all the LDCs that had completed the preparation of their NAPAs, had at least one NAPA implementation project approved for funding under the LDCF since the inception of NAPAs in 2001. The funding ceiling for each LDC is currently at USD 40 million, in accordance with the principle of equitable access.

B.2 Adaptation Committee (AC)

The AC was established as part of the Cancun Adaptation Framework to promote "the implementation of enhanced action on adaptation in a coherent manner under the Convention"[72].

The body also received specific mandates from COP21 in Paris to help implement the Paris Agreement. The mandate includes developing modalities, jointly with the LEG, to recognize adaptation efforts of developing countries; reviewing the work of adaptation-related institutional arrangements and considering methodologies for assessing adaptation needs; and jointly with the LEG and the Standing Committee on Finance (SCF), to develop methodologies to facilitate the mobilization of support for adaptation and review adequacy and effectiveness of adaptation and support for the Global Stocktake[73].

In its report to COP 23, the AC admitted that the development of modalities and methodologies was challenging due to the difficulty of distinguishing between the two and "a lack of clarity around the scale at which modalities and methodologies would be applied.[74]"

On the modalities to recognize the adaptation efforts, it recommended, among other things, that the UNFCCC Secretariat, under the guidance of the AC and the LEG, prepare a synthesis report on the adaptation efforts of developing countries presented in the adaptation communications, NAPs, national communications, NDCs, reports prepared under the Transparency Framework of the PA, as well as high-level events on adaptation[75].

On facilitating the mobilization of support for adaptation, the AC recommended that developing countries enhance their enabling environments and policy frameworks; they assess and prioritize their adaptation needs; use GCF and GEF resources to strengthen institutional capacities; and requested Parties to report on support provided and received[76].

On the methodologies for reviewing the adequacy and effectiveness of adaptation and support, the recommendations called for noting the constraints in developing such methodologies because of "differences in national circumstances of adaptation, the difficulties in setting adaptation baselines and targets, and the lack of common metrics for measuring progress on adaptation"[77]. The AC and the LEG also recommended that the current state of knowledge is insufficient to address the mandate and that further technical work needs to be undertaken to develop such methodologies[78].

The UNEP Adaptation Gap Report 2017,[79] in contrast to previous Adaptation Gap Reports, focused on issues relating to frameworks, comprising concepts, methodologies and data, rather than assessing a particular dimension of the adaptation gap. It explored key opportunities and challenges associated with assessing progress on adaptation in line with the agreed global goal on adaptation. It reports that while the existing communication vehicles, including NDCs, the NAP processes and National Communications, offer valuable information on past and planned adaptation actions and support needs, additional information is needed for a comprehensive and comparable assessment.

The report asserts that a comprehensive assessment of adaptation progress globally requires development and use of metrics that encompass enormous diversity. It argues that, at the same time, metrics that can be aggregated and compared at higher levels do not lend themselves well to context specificity and meaningful progress on adaptation, particularly at national and sub-national levels. The report synthesizes information relevant for the ongoing work under the UNFCCC to prepare for the implementation of the Paris Agreement and suggests ways to integrate and build coherence with SDGs (Sustainable Development Goals) and Sendai Framework indicators related to adaptation.

The AC and the LEG must draw from the findings of the UNEP Adaptation Gap Report 2017 to guide further work on the methodologies to assess adequacy and effectiveness of adaptation and support.

On the review of the work of adaptation-related institutional arrangements, the AC recommended that any future adaptation-related work should be assigned to existing institutions; requested the institutions related to technology, finance and capacity building to "strive for a balance" when providing support to Parties for mitigation and adaptation; requested the NWP to provide relevant scientific and technical information and knowledge to other institutions working on adaptation; requested the LEG and the Consultative Group of Experts (CGE) to work on training in assessing vulnerability; and only encouraged "Parties to make available sufficient resources for the successful and timely implementation of the work of adaptation-related institutions under the Convention", among others[80]. However, funding of the CGE is another contentious issue and a big question mark hangs over its continuance in the post-2020 world[81].

Nairobi Work Programme on impacts, vulnerability and adaptation to climate change (NWP)

COP 11 in Nairobi in 2005 established the NWP as a mechanism to facilitate and catalyse the development and dissemination of information and knowledge that would inform and support adaptation policies and practices.[82]

The objective of the NWP is to "assist all Parties, in particular developing countries, to improve their understanding and assessment of impacts, vulnerability and adaptation, and to make informed decisions on practical adaptation actions and measures to respond to climate change on a sound, scientific, technical and socio-economic basis, taking into account current and future climate change and variability.[83]"

Currently, the NWP provides technical support to the work of constituted bodies, including the AC and the LEG[84]. The NWP engages different stakeholders in closing knowledge gaps, synthesizes knowledge and identifies gaps in areas identified by Parties. These range

from human settlements, health, ecosystems and water resources, economic diversification, to indicators of climate adaptation and resilience.

At the Bonn climate talks in May 2018, following a review of the NWP, countries decided that the NWP should continue enhancing its role as a "knowledge-for-action hub for adaptation and resilience"[85] and that future NWP thematic areas should focus on extreme weather events; oceans, coastal areas and ecosystems; drought; agriculture and food security; slow onset events; forests and grasslands; wetlands; rural systems and communities; cities/urban systems; and livelihood and socioeconomic dimensions in relevant sectors such as tourism[86].

C. Institutional Framework and Coherence on Adaptation

A paper released by the UNFCCC Secretariat groups adaptation-related functions of the various institutions in four clusters: knowledge and information sharing on adaptation; policy advice and recommendations to Parties and the COP; technical guidance and support on adaptation; mobilization and provision of means of implementation to Parties for adaptation, including finance, capacity building and technology development and transfer[87].

In relation to the institutional arrangements, the AC, at its 10th meeting, had asked Parties to respond to questions on these issues: which institutional arrangements should respond to what major needs of Parties; if there were gaps or overlaps in the work of existing institutions and how to overcome the gaps; which institutional arrangements could be strengthened or given greater priority; and what modalities for cooperation and collaboration exist among the institutions[88].

Parties differed in their responses in a number of areas. On the kind of needs institutional arrangements should respond to, some Parties thought that the global goal on adaptation should serve as a guide for determining the adaptation needs of Parties, while others proposed that the needs of Parties should be associated with the NAP process[89]. Most Parties, though, agreed that the needs of Parties relate to finance, capacity building, technology and access to information[90].

The submissions identified overlaps in the areas of support provided to the NAP process, which figures in the agendas of the Subsidiary Body for Implementation (SBI) under the NAP agenda itself, matters relating to LDCs and the report of the Adaptation Committee[91]. Overlaps were also identified in the vulnerability and adaptation assessments in the works of the CGE, AC and the LEG[92]. Some Parties reflected that the mandates on mobilization of support and review of adequacy and effectiveness given to the AC and the LEG overlap with the SCF's mandate[93]. Yet others pointed out that the mandate on adequacy and effectiveness also overlaps with the mandate on modalities for accounting, an agenda item of the Subsidiary Body for Scientific and Technological Advice (SBSTA)[94]. Some Parties said the SCF's biennial assessment was duplicative of the AC's efforts to determine how Parties' adaptation needs were being met[95].

While the paper by the UNFCCC Secretariat says that "there is no significant gap" in the functions of adaptation-related institutional arrangements under the Convention, some Parties believe that the roles of these institutions (AC, LEG, NWP) should be clearly defined, wherein the AC would provide the strategic political overview; the LEG would

focus on technical issues such as preparing guidelines for NAPs; and the NWP would produce knowledge by focusing on scientific and technical aspects[96].

Institutions were sometimes created to respond to issues as they emerged. Now we are in a stage where the Paris Agreement gives adaptation its due status, so it is a good time to streamline the architecture of the institutions and identify and address the overlaps. Each of the institutions should work towards its full potential and, if necessary, be realigned to reflect current and, if possible, future realities.

III. THE JOURNEY HEREON…

The journey of climate change adaptation has so far been full of roadblocks. From being treated as part of the agenda of other areas, such as technology development and transfer and capacity building, to being recognized as an independent pillar, to being treated on par with mitigation, adaptation has come a long way.

The international effort has delivered some information, resources and capacity building, but has yet to facilitate significant on-the-ground implementation, technology development or access, or the establishment of robust national institutions to carry the adaptation agenda forward.

Over the years, challenges have increased for the developing world, both in negotiations as well as in the real world. In negotiations, it is proving increasingly difficult for developing countries to access resources for adaptation and in the real world, temperatures are increasing steadily and, as a result, climate change impacts are being felt with greater frequency.

Through this difficult journey, developing countries have repeatedly called for adequate financial support for adaptation. But the gap between the resources available and the resources needed to tackle increasingly catastrophic climate change has kept getting more glaring. According to the Biennial Assessment and Overview of Climate Finance Flows, released by the Standing Committee on Finance (SCF) at COP 22 in Marrakech, mitigation-focused finance represented more than 70 per cent of public finance in developing countries and adaptation finance accounted for about 25 per cent of the total financing[97].

Developed countries have been dragging their feet in providing money and if not for developing countries, the adaptation agenda would have long been wiped out of the discussions under the UNFCCC and its Paris Agreement.

The GCF has only about USD 6 billion with it[98], and the future of the Fund is fraught with uncertainties over its first replenishment, needs of developing countries and the eligibility criteria for receiving funding. A new quantified goal on climate finance under the Paris Agreement has to be established by 2025, which developing countries are insisting should be discussed as soon as possible, but developed countries are pushing the discussions to 2024. There is an urgent need to step up sustainable, predictable and adequate financing for adaptation.

Accounting tricks

As agreed to under the Cancun Agreements, developed countries have an obligation to mobilize USD 100 billion per year by 2020, but achieving this is lost in accounting battles.

There is no agreement on the definition of climate finance, although in the Convention it is clear that finance should be new and additional, over and above any official development assistance (ODA) provided to developing countries. It is ironic that while in the GCF developed countries refuse to fund certain adaptation projects, referring to them as development programmes, when it comes to accounting of financial resources,

they do not allow any space for distinction between adaptation finance and development finance by refusing to recognize the Convention's definition of climate finance. As a result, there is very little real and new money for adaptation.

It is crucial to get the accounting right since the Global Stocktake, envisaged under the Paris Agreement and to be held in 2023, must assess the adaptation support received by developing countries. Developed countries must also report clearly the support they extend for adaptation to developing countries under the UNFCCC arrangements.

The ODA should not be seen as an opportunity to "plug the gap" in UNFCCC processes that fail to support adaptation adequately. Financing for adaptation is a commitment made by developed countries that are historically responsible for the crisis to those bearing the brunt of it. This principle is recognized by the UNFCCC through Article 4.4, which specifies that developed countries have committed to helping 'particularly vulnerable' countries meet the costs of adaptation, and that this assistance must be 'new and additional' to existing aid commitments. The ODA should, therefore, not become a substitute for UNFCCC funds.

How will NDCs get implemented?

Most developing countries, nearly 85 per cent, have submitted their NDCs with an adaptation component[99]. The information provided demonstrates that Parties are moving to full-scale planning and implementation of adaptation, and strengthening and scaling up of existing efforts. The adaptation component of the NDCs reveals criteria that Parties use in prioritizing actions, for example, timing or urgency; efficacy; co-benefits, in particular poverty reduction, sustainable development and mitigation; social inclusiveness; technological feasibility; and cost, including economic costs and benefits[100]. But their NDCs are conditional on receiving support from developed countries. How are they expected to fulfill their plans envisaged in the NDCs without meaningful and predictable financial support? Answering this question is very important in identifying an effective roadmap for adaptation action.

In a survey conducted in developing countries by the United Nations Development Programme (UNDP) with regard to NDCs in April 2016, respondents expressed uncertainty about translating the NDCs into concrete policies, programmes and projects. Respondents also highlighted the need for support in developing NDC implementation plans, including guidance from technical experts and the sharing of experiences between countries. The need to develop the capacities of national and subnational stakeholders was also expressed.

Developed countries prefer that the private sector mobilize finance and that developing countries create an enabling environment for the private sector to operate. However, for adaptation, the bulk of the money has to be public finance. Adaptation has not attracted private-sector financing and it is unlikely to do so in the near future due to the lack of profit-making opportunities. Therefore, it is imperative to get the architecture right for adaptation financing, get real public money flowing and have accountability mechanisms in place for both the flow and the use of money.

Adaptation vs development

To deliberate on the development-adaptation divide that emerged starkly after two

adaptation proposals were rejected by the GCF, a Technical Expert Workshop on Climate Adaptation Finance was held on 5-6 March 2018 in Songdo, Republic of Korea. This workshop collected views on climate adaptation practices and approaches to adaptation finance from a range of experts from different regions and institutions, including government, research, funding institutions and civil society organizations.

The report from the Technical Expert Workshop on Climate Adaptation Finance organized in March 2018 at Songdo noted that the GCF intends to promote low-carbon and climate-resilient development. Its goal is not to differentiate adaptation from development, but to engage in development to enable it to become low-carbon and resilient. The workshop also noted that differentiating between development and adaptation while relevant to some extent at the international, national and subnational levels, becomes irrelevant at the local level. The need, therefore, is to promote an integrated approach.

Politics of vulnerability

Politics around adaptation is closely linked to the politics of vulnerability. Developed countries have made a concerted attempt to classify emerging economies, such as India, Malaysia, Egypt, Kenya and Pakistan, as less vulnerable and, therefore, not that needful of any concessions or even access to financing. Consider India, for instance. The Global Climate Risk Index 2018 has put India among the six most vulnerable countries in the world[101]. It is almost as if the developed world believes that if developing countries advance or grow, their challenges cease to exist. Besides, the Convention and its Paris Agreement do not mention income categorizations. It simply states that all developing countries are eligible for financing.

While assessing vulnerability in developing countries, the World Bank estimated that 40 per cent of the development financed by overseas assistance and concessional loans is sensitive to climate risk[102]. Without adaptation, the costs of climate change impacts in exposed developing countries could range from several per cent to tens of per cent of gross domestic product (GDP), or up to $100 billion, a year[103].

It is imperative that the world understands that all developing countries, irrespective of their changing economic status, will remain vulnerable because they have large development deficits, inequality and poverty to deal with. In a lot of these countries, millions of people live below USD 2 per day.

Show me the money

Since the Convention came into existence a lot of precious time has been lost by focusing largely on mitigation and failing to address adaptation in a meaningful manner as explained in the section on ‘The Adaptation Journey So Far.’ The steady rise in mean temperatures is a proof of the inaction in reducing greenhouse gas emissions.

Although several institutions dedicated to adaptation were created, these have not ensured that the people in developing countries are safe. It is important to increase the efficiency of institutions, and these should be objectively reviewed by Parties in terms of their relevance and need.

The world now has an adaptation goal and the pathway to the goal has to be dynamic. The efforts of the global community should be measured against the goal of

keeping people safe from the adverse effects of climate change. The focus must be on adaptation and financing it. Further, if the world slips on mitigation, the financial allocation for adaptation will have to be increased, keeping in mind that adaptation has its own limits. Funding technology and capacity-building initiatives also needs to be centre stage in reaching the adaptation goal.

CONCLUSIONS AND RECOMMENDATIONS

Thus, we recommend that the following conclusions be taken on board by countries:

1. It is fundamental to protect the basic rights of people and improve their lives, especially the poor in developing countries. In a world that is moving towards a 3°C average increase in global temperature, **adaptation must be a priority.** Unless we focus on adaptation, we cannot keep people safe.

2. It is crucial to get the international architecture on adaptation right. Whether an institution is able to help the affected and safeguard their future should be the overarching metric to decide whether it is working effectively. Coherence among institutions is vital. Strong coordination mechanisms must enable integration of adaptation across all relevant institutions.

3. It is essential to make **real** and **adequate money** available, in a **sustained** and **predictable** manner to help developing countries adapt to climate change. Developed countries should accept a transparent, principle-based allocation of responsibility for adaptation funding, resulting in adequate, new and additional public money to support adaptation programmes in developing countries. Moreover, it must be recognized that adaptation has its limits, and additional efforts should be directed to address loss and damage.

4. Accountability should be ensured for all players so that money reaches the people. Developed countries must report on the new and additional support they provide to developing countries and developing countries must ensure that the money is utilized effectively and for the right target group.

5. Mainstreaming adaptation can address both long-term and urgent adaptation measures. However, challenges to such mainstreaming must be recognized and barriers removed. These challenges include lack of awareness and knowledge of adaptation, particularly in relevant ministries, leading to the issue being considered in the periphery of other development issues; involving and coordinating stakeholders across various levels of governance and sectors; and linking local impacts with national-level responses.

6. A high priority, near-term activity is to strengthen the knowledge base with more observations, more and better data and modeling at local levels to refine understanding of current impacts and projections of future impacts, and with early insights from the field on the most effective response. Until then, the only way to support adaptation locally is through inclusive and participatory sustainable development practices that pay attention to large-scale climate change effects in the region.

7. Adaptation is a local challenge created by global actions. The entire global community must come together and find solutions. Developed countries also stand to be affected, but the difference is they have more resources to tackle the impacts of climate change and therefore higher adaptive capacity. When it comes to solutions, these should be developed jointly. Knowledge sharing and the spirit of collaboration will provide effective solutions for all.

ANNEX I: TIMELINE OF ADAPTATION-RELATED DECISIONS

COP 1 Berlin, 1995	Highlights of adaptation-related element in the decision(s)
	• Transparency related, where Decision 4/CP.1 mandates Annex I Parties and non-Annex I Parties to use the technical guidelines for assessing climate change impacts and adaptation or the simplified default methodologies adopted by the Intergovernmental Panel on Climate Change (IPCC) in their national communications (NATCOMs) and in the fulfillment of their commitments under the Convention • Mandated SBSTA: — To carry out impact/sensitivity analyses and assess adaptation responses; — To ensure the collection and dissemination of information on climate change adaptation; — To lay the groundwork relating to technology transfer and research and development in relation to adaptation. • Decision 11/CP.1 laid down policies, programme priorities and eligibility criteria for the operating entity/entities, where it is clearly mentioned that funding for implementation of adaptation measures and activities is to be provided by developed countries to developing countries • Decision 13/CP.1 tasks the Secretariat to prepare a report on measures by Annex II Parties to transfer "environmentally sound technologies" and "know-how" to developing countries to facilitate adaptation to climate change

COP 2 Geneva, 1996	Highlights of adaptation-related element in the decision(s)
	• Decision 7/CP.2 expresses concern on slow progress and requests Secretariat to "expedite the preparation of reports on adaptation technology and the terms of transfer of technology and know-how conducive to mitigating and adapting to climate change" • Revised guidelines on vulnerability assessments and adaptation measures, and financial resources and transfer of technology and know-how, in relation to NATCOMs (The latter includes information from Annex II Parties on how they have determined resources to meet the agreed full costs incurred by developing countries in complying with their obligations under Article 12.1 as new and additional; information on the provision of financial resources to meet the agreed full incremental costs incurred by developing countries in their implementation of measures covered under Article 4.1 of the Convention; provides detailed information on the assistance provided for the purpose of assisting developing countries that are particularly vulnerable to the adverse effects of climate change in meeting the costs of adaptation to those adverse effects; and provides detailed information on measures taken to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties.)

COP 3 Kyoto, 1997	Highlights of adaptation-related element in the decision(s)
	• Article 10 of the Kyoto Protocol (KP) mandates Parties to formulate, implement, publish and regularly update programs containing measures to facilitate adequate adaptation • Article 12.8 of the KP mandates the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) to ensure that a share of proceeds from certified project activities is used to assist developing countries that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation • Decision 9/CP.3 mandates continuation of work on synthesizing and dissemination of information on environmentally sound technologies for adaptation • Decision 13/CP.3 addresses transparency measures in relation to assessing comprehensiveness of adaptation measures

COP 4 Buenos Aires, 1998	Highlights of adaptation-related element in the decision(s)
	• Decision 2/CP.4 mandates the Global Environment Facility (GEF) to provide funding to developing countries to implement adaptation response measures under Article 4.1 of the Convention, among other things • Decision 4/CP.4 requests Annex I and Annex II Parties to assist developing countries in building capacity to adapt to the adverse effects of climate change • Decision 4/CP.4 also urges Annex II Parties to provide a list of environmentally sound technologies and know-how related to adaptation

COP 5 in Bonn (1999) and COP 6 in The Hague (2000) were focused largely on the Kyoto Protocol.

COP 7 Marrakech, 2001	Highlights of adaptation-related elements in the decision(s)
	Marrakech arrived at several decisions on matters related to adaptation: capacity building; technology development and transfer; and implementation of Article 4, paragraphs 8 and 9, of the Convention, which are essentially on meeting specific needs of developing countries. COP7 also decided that three funding institutions would be established: the Least Developed Countries Fund (LDCF), the Special Climate Change Fund (SCCF), and the Adaptation Fund (AF). (More on these institutions in Section II of the paper.) (Article 4.8 of the Convention reads: *In the implementation of the commitments in this Article, the Parties shall give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of*

	technology, to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures, especially on: (a) Small island countries; (b) Countries with low-lying coastal areas; (c) Countries with arid and semi-arid areas, forested areas and areas liable to forest decay; (d) Countries with areas prone to natural disasters; (e) Countries with areas liable to drought and desertification; (f) Countries with areas of high urban atmospheric pollution; (g) Countries with areas with fragile ecosystems, including mountainous ecosystems; (h) Countries whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy-intensive products; and (i) Land-locked and transit countries. Further, the Conference of the Parties may take actions, as appropriate, with respect to this paragraph.) (Article 4.9 of the Convention reads: *The Parties shall take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding and transfer of technology.*) The key highlights of the decisions taken at Marrakech follow: **A) Decision 2/CP.7**: Through decision 2/CP.7, the scope of a capacity-building framework included vulnerability and adaptation assessment, as well as capacity building for implementation of adaptation measures. It was mentioned in the decision that the Least Developed Countries (LDCs) and the Small Island Developing States (SIDS) were among the most vulnerable to extreme weather events and the adverse effects of climate change and had the least capacity to cope with and adapt to the adverse effects of climate change. A number of needs and priority areas for capacity building in the LDCs and SIDS were identified. These included developing and enhancing technical capacities and skills to carry out and effectively integrate vulnerability and adaptation assessments into sustainable development programmes and develop national adaptation programmes of action (NAPAs), and strengthen the capacity of meteorological and hydrological services to collect, analyze, interpret and disseminate weather and climate information to support implementation of NAPAs. **B) Decision 4/CP.7**: Through Decision 4/CP.7, the COP decided to adopt the framework for meaningful and effective actions to enhance the implementation of Article 4, paragraph 5 of the Convention, which is on transferring technologies to developing countries. (Article 4.5 reads: *The developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and knowhow to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention. In this process, the developed country Parties shall support the development and enhancement of endogenous capacities and technologies of developing country Parties. Other Parties and organizations in a position to do so may also assist in facilitating the transfer of such technologies.*) The framework defined technology needs and needs assessments as "a set of country-driven activities that identify and determine the mitigation and adaptation technology priorities of Parties other than developed country Parties, and other developed Parties not included in Annex II, particularly developing country Parties..." The framework also urged developed countries and Annex II Parties to "facilitate and support the needs assessment process", while recognizing the special circumstances of the LDCs.

C) Decision 5/CP.7: Through Decision 5/CP.7, COP 7 insisted that adaptation action must follow an "assessment and evaluation process" and decided that the Global Environment Facility (GEF) and other multilateral and bilateral sources would support the implementation of activities such as training in specialized fields relevant to adaptation.

Decision 5/CP.7 also has a section on vulnerability and adaptation, wherein the COP decided to:

- Support enabling activities for vulnerability and adaptation assessment;
- Enhance technical training for integrated climate change impact and vulnerability and adaptation assessments;
- Enhance capacity to integrate adaptation into sustainable development programmes;
- Promote the transfer of adaptation technologies;
- Establish pilot or demonstration projects to show how adaptation planning and assessment can be practically translated into projects;
- Support capacity-building, including institutional capacity, for preventive measures, planning, preparedness of disasters relating to climate change;
- Strengthen existing and, where needed, establish early warning systems for extreme weather events.

The decision also tasked the Special Climate Change Fund (SCCF) and/or the Adaptation Fund (AF), with supporting the implementation of the following activities:

- Start to implement adaptation activities promptly where sufficient information is available to warrant such activities, inter alia, in the areas of water resources management, land management, agriculture, health, infrastructure development, fragile ecosystems, including mountainous ecosystems, and integrated coastal zone management;
- Improve the monitoring of diseases and vectors affected by climate change, and related forecasting and early-warning systems, and in this context improving disease control and prevention;
- Support capacity building, including institutional capacity, for preventive measures, planning, preparedness and management of disasters relating to climate change, including contingency planning, in particular, for droughts and floods in areas prone to extreme weather events;
- Strengthen existing and, where needed, establish national and regional centres and information networks for rapid response to extreme weather events, utilizing information technology as much as possible.

The decision also established a work programme for the implementation of Article 4.9 of the Convention, and invited Annex II Parties to contribute financially to the programme. It was decided that a LDC Fund (LDCF) would be established and Annex II Parties were invited to support LDCs for the activities ranging from promotion of public awareness programmes to development and transfer of adaptation technologies to strengthening the capacity of meteorological and hydrological services, etc.

(Article 4.9 of the Convention reads: *The Parties shall take full account of the specific needs and special situations of the least developed countries in their actions with*

	regard to funding and transfer of technology.) **D) Decision 6/CP.7**: Through Decision 6/CP.7, the COP decided that the GEF should provide financial resources to developing countries for certain activities, including those identified in Decision 5/CP.7. It was also decided the SCCF shall be established to finance activities, programmes and measures that are complementary to the resources allocated to the GEF for the funding of the adaptation activities mentioned in Decision 5/CP.7. **E) Decision 10/CP.7:** Through the decision on Funding under the Kyoto Protocol, the COP decided that an Adaptation Fund (AF) shall be established to finance concrete adaptation projects and programmes in developing countries. The AF shall be financed from "the share of proceeds on the clean development mechanism project activities and other sources of funding", the decision reads.

COP 8 New Delhi, 2002	Highlights of adaptation-related elements in the decision(s)
	• Decision 8/CP.8 invited Parties, LEG and the GEF to submit views on strategies for implementing national adaptation programmes of action (NAPAs) and ways and means to address elements of the LDC Work Programme to meet urgent and immediate adaptation needs

COP 9 Milan, 2003	Highlights of adaptation-related elements in the decision(s)
	• Decision 1/CP.9 stresses the need for Annex II Parties to provide detailed information on their assistance to developing countries in meeting costs of adaptation • Decision 2/CP.9 concluded that enhancement of capacity and support is necessary for vulnerability and adaptation, among other areas • Decision 4/CP.9 requests the GEF to operationalize the piloting of an operational approach to adaptation as soon as possible • Decision 5/CP.9 decided that adaptation shall have top priority for funding under the SCCF; implementation of adaptation activities shall be supported through the Special Climate Change Fund based on information submitted by applicant Parties (information spans areas such as water resources management, land management, agriculture, health, infrastructure development, fragile ecosystems, including mountain ecosystems, and integrated coastal zone management; monitoring of diseases and vectors affected by climate change, and related forecasting and early warning systems, and in this context improving disease control and prevention; supporting capacity-building, including institutional capacity, for preventive measures, planning, preparedness and management of disasters relating to climate change, including contingency planning, in particular, for droughts and floods in areas prone to extreme weather events; Strengthening existing and, where needed, establishing national and regional centres and information

	networks for rapid response to extreme weather events) • Decision 6/CP.9 provided further guidance for the operation of the LDCF • Decision 10/CP.9 requested the SBSTA to initiate its work on scientific, technical and socio-economic aspects of impacts of, and vulnerability and adaptation to, climate change

COP 10 Buenos Aires, 2004	Highlights of adaptation-related elements in the decision(s)
	• COP 10 decided on the Buenos Aires Programme of Work on Adaptation and Response Measures through Decision 1/CP.10 • Decision 1/CP.10: — Invited developing countries to make use of the strategic priorities on adaptation and capacity-building funded by GEF; — Urged Annex II Parties to contribute to the SCCF and other multilateral and bilateral sources to support, "as a top priority", adaptation; — Insisted that adaptation action follow an assessment and evaluation process based on NATCOM and/or relevant information; — Carry out pilot and demonstration projects to take forward adaptation projects identified in NATCOMs; — Promote technology transfer for adaptation in priority sectors, including agriculture and water resources; — Requested the GEF to report to the COP on how the above-mentioned activities were supported and what are the barriers, obstacles and opportunities; — Requested the GEF to expand support for the elaboration of adaptation strategies as part of the NATCOM process in non-Annex I countries; — Requested the SBSTA to develop a 5-year programme of work on the scientific, technical and socio-economic aspects of impacts, vulnerability and adaptation to climate change. • Decision 2/CP.10 mandated ensuring of capacity-building for developing countries so that NATCOMs and NAPAs provide a good measure of successful capacity-building • Decision 4/CP.10 requested the LEG to prepare possible elements to be considered on the role of the Group in support of the implementation of NAPAs

COP 11 Montreal, 2005	Highlights of adaptation-related elements in the decision(s)
	• Decision 1/CP.11 resolved to engage in dialogue to address action on adaptation (dialogues among other things to explore ways to promote access by developing countries to cleaner and technologies for adaptation) • Decision 2/CP.11 adopted a 5-year work programme of the SBSTA on impacts, vulnerability and adaptation to climate change (which came to be known as the Nairobi Work Programme) • Decision 3/CP.11 provided further guidance for the operation of

	the LDCF, where implementation of activities in NAPAs and their funding were given priority, and invited Annex II Parties to continue contributing to the LDCF

COP 12 Nairobi, 2006	Highlights of adaptation-related elements in the decision(s)
	• Decision 2/CP.12 requested the GEF to accord due priority to adaptation activities • Decision 3/CP.13 notes concerns of developing countries over implications of the requirements for co-financing for adaptation project activities

COP 13 Bali, 2007	Highlights of adaptation-related elements in the decision(s)
	Decision 1/CP.13: The Bali COP, which established the Bali Action Plan (BAP) through Decision 1/CP.13, decided to launch "a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action". The comprehensive process addressed enhanced action on adaptation, financing for adaptation, and technology transfer for adaptation. The relationship of mitigation and adaptation from being hand in glove transitioned to that of equals and that is why Bali is considered to be a benchmark COP in relation to adaptation. The comprehensive process included addressing "Enhanced action on adaptation" as one of the key pillars of climate change action. This, said the BAP, would entail the consideration of: • *International cooperation to support urgent implementation of adaptation actions, including through vulnerability assessments, prioritization of actions, financial needs assessments, capacity-building and response strategies, integration of adaptation actions into sectoral and national planning, specific projects and programmes, means to incentivize the implementation of adaptation actions, and other ways to enable climate-resilient development and reduce vulnerability of all Parties, taking into account the urgent and immediate needs of developing countries that are particularly vulnerable to the adverse effects of climate change, especially the least developed countries and small island developing States, and further taking into account the needs of countries in Africa affected by drought, desertification and floods;* • *Risk management and risk reduction strategies, including risk sharing and transfer mechanisms such as insurance;* • *Disaster reduction strategies and means to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change;* • *Economic diversification to build resilience;* • *Ways to strengthen the catalytic role of the Convention in encouraging multilateral bodies, the public and private sectors and civil society, building on synergies among activities and processes, as a means to support adaptation in a coherent and integrated manner.* The BAP also provided for enhanced action on technology development and transfer to support action on mitigation and adaptation and for the following to be considered: • *Effective mechanisms and enhanced means for the removal of obstacles to, and*

	provision of financial and other incentives for, scaling up of the development and transfer of technology to developing country Parties in order to promote access to affordable environmentally sound technologies; • *Ways to accelerate deployment, diffusion and transfer of affordable environmentally sound technologies;* • *Cooperation on research and development of current, new and innovative technology, including win-win solutions;* • *The effectiveness of mechanisms and tools for technology cooperation in specific sectors.* The BAP also called for enhanced action on the provision of financial resources and investment to support actions on mitigation, adaptation and technology cooperation. Under this, the BAP laid down the consideration of the following: • *Improved access to adequate, predictable and sustainable financial resources and financial and technical support, and the provision of new and additional resources, including official and concessional funding for developing country Parties;* • *Positive incentives for developing country Parties for the enhanced implementation of national mitigation strategies and adaptation action;* • *Innovative means of funding to assist developing country Parties that are particularly vulnerable to the adverse impacts of climate change in meeting the cost of adaptation;* • *Means to incentivize the implementation of adaptation actions on the basis of sustainable development policies;* • *Mobilization of public- and private-sector funding and investment, including facilitation of climate-friendly investment choices;* • *Financial and technical support for capacity-building in the assessment of the costs of adaptation in developing countries, in particular the most vulnerable ones, to aid in determining their financial needs.*

COP 14 Poznan, 2008	Highlights of adaptation-related elements in the decision(s)
	• Decision 4/CP.14 asks the GEF to continue to enhance action on adaptation • Decision 5/CP.14 provides further guidance to the LDCF, where the GEF is tasked to speed up the process for LDCs to access funding and other support for NAPAs

COP 15 Copenhagen, 2009	Highlights of adaptation-related elements in the decision(s)
	• Decision 2/CP.15 only notes the Copenhagen Accord

COP 16 Cancun, 2010	Highlights of adaptation-related elements in the decision(s)
	COP 16 established the Cancun Adaptation Framework (CAF), which envisaged a dedicated framework for adaptation work under the Convention and further established adaptation on par with mitigation.

Through its Decision 1/CP.16, COP 16 affirmed that Parties share a vision for long-term cooperative action to achieve the objective of the Convention and that the vision would address mitigation, adaptation, finance, technology development and transfer, and capacity building in a "balanced, integrated and comprehensive manner to enhance and achieve the full, effective and sustained implementation of the Convention, now, up to and beyond 2012".

The decision further affirmed that adaptation must be addressed with the same priority as mitigation and requires appropriate institutional arrangements to enhance adaptation action and support.

While the decision laid down that all Parties should cooperate through effective and enhanced means, consistent with the principles of the Convention, and enhance technology development and the transfer of technologies to developing countries to enable mitigation and adaptation action, it also highlighted that "scaled-up, new, additional, adequate and predictable financial resources" were necessary to address the adaptation and mitigation needs of developing countries.

Decision 1/CP.16 has a dedicated section on 'Enhanced action on Adaptation', which comprises the following:

The decision:

- Agrees that adaptation is a challenge and enhanced action and international cooperation on adaptation is urgently required to enable and support the implementation of adaptation actions aimed at reducing vulnerability and building resilience in developing countries;
- Affirms that enhanced action on adaptation should be undertaken in accordance with the Convention, should follow a country-driven, gender-sensitive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the best available science and, as appropriate, traditional and indigenous knowledge, with a view to integrating adaptation into relevant social, economic and environmental policies and actions, where appropriate;
- Decides to establish the Cancun Adaptation Framework (see below) with the objective of enhancing action on adaptation, including through international cooperation and coherent consideration of matters relating to adaptation under the Convention;
- Decides to establish a process to enable LDCs to formulate and implement NAPAs;
- Requests developed countries to provide developing countries with long-term, scaled-up, predictable, new and additional finance, technology and capacity-building;
- Decides to establish an Adaptation Committee to promote the implementation of enhanced action on adaptation in a coherent manner;
- Decides that all Parties should use existing channels to provide information on support provided and received for adaptation actions in developing countries.

	On finance, technology and capacity building, through Decision 1/CP.16, the COP decided that: • A significant share of new multilateral funding for adaptation should flow through the Green Climate Fund (GCF); • The objective of enhanced action on technology development and transfer (which includes different stages of the technology cycle: research and development, demonstration, deployment, diffusion and transfer of technology) is to support action on mitigation and adaptation in order to achieve the full implementation of the Convention; • Priority areas on technology development and transfer may include: deployment of soft and hard technologies for the implementation of adaptation and mitigation actions; and development and implementation of national technology plans for mitigation and adaptation; • Capacity-building support to developing countries should be enhanced with a view to strengthening endogenous capacities at the subnational, national or regional levels, as appropriate, taking into account gender aspects, to contribute to the achievement of the full, effective and sustained implementation of the Convention. **Cancun Adaptation Framework:** COP 16 established the CAF and invited all Parties, taking into account their common but differentiated responsibilities and respective capabilities, and specific national and regional development priorities, objectives and circumstances, to undertake: — Planning, prioritizing and implementing adaptation actions identified in national and subnational adaptation plans and strategies, NAPAs of the LDCs, National Communications (NATCOMs), technology needs assessments and other relevant national planning documents; — Impact, vulnerability and adaptation assessments; — Strengthening institutional capacities and enabling environments for adaptation, including for climate-resilient development and vulnerability reduction; — Building resilience of socio-economic and ecological systems, including through economic diversification and sustainable management of natural resources; —Enhancing climate change related disaster risk reduction strategies, taking into consideration the Hyogo Framework for Action, where appropriate, early warning systems, risk assessment and management, and sharing and transfer mechanisms such as insurance, at the local, national, subregional and regional levels, as appropriate; —Measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at the national, regional and international levels; —Research, development, demonstration, diffusion, deployment and transfer of technologies, practices and processes, and capacity-building for adaptation, with a view to promoting access to technologies, in particular in developing countries; —Strengthening data, information and knowledge systems, education and public awareness; —Improving climate-related research and systematic observation for climate data collection, archiving, analysis and modelling in order to provide decision makers at the national and regional levels with improved climate-related data and information.

COP 17 Durban, 2011	Highlights of adaptation-related elements in the decision(s)
	• Decision 1/CP.17 established the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP), which decided to work on adaptation, among other areas • Decision 2/CP.17 on the outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA) has a section on adaptation, with several provisions in relation to the: — Adaptation Committee — Climate Technology Centre and Network (CTCN) — Capacity building • Standing Committee on Finance (SCF) was established • Decision 5/CP.17 is on National Adaptation Plans (NAPs), with the following sections: — Framing; — A process to enable least developed country Parties to formulate and implement national adaptation plans; — An invitation to developing country Parties that are not least developed country Parties to employ the modalities for national adaptation plans; — Reporting, monitoring and evaluation.

COP 18 Doha, 2012	Highlights of adaptation-related elements in the decision(s)
	• Decision 1/CP.18: — Decided that finance, technology transfer and capacity building is to be provided to developing countries to support their adaptation (and mitigation) actions; — Decided on a share of proceeds to cover administrative expenses and assist developing countries that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation; — Decided that the COP and its subsidiary bodies will continue their work to enhance action on adaptation, as provided for in the CAF, and in progressing such work, give consideration to issues relating to coherence of the actions of and support provided to developing countries; — Requested the Adaptation Committee to consider an annual adaptation forum; — Decided on enhanced action on technology development and transfer to support action on mitigation and adaptation; enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation. • In Decision 6/CP.18, the COP requested the GCF to report to the COP on implementation of balanced allocation of GCF resources between adaptation and mitigation activities; and to initiate a process to collaborate with the Adaptation Committee, the Technology Executive Committee and other thematic bodies • Decision 8/CP.18 requested the GEF, through the SCCF, to

	consider how to enable activities for the preparation of the NAP process for interested developing countries that are not LDCs • Decision 9/CP.18 urged developed countries to mobilize financial support for the NAP process for interested developing countries that are not LDCs

COP 19 Warsaw, 2013	Highlights of adaptation-related elements in the decision(s)
	• Decision 1/CP.19 emphasized that enhanced action and international cooperation on adaptation is urgently required to enable and support the implementation of adaptation actions aimed at reducing vulnerability and building resilience in developing countries • Requested the ADP to elaborate elements for a draft negotiating text, taking into consideration its work on adaptation, among other areas • Decision 2/CP.19 established the Warsaw international mechanism for loss and damage associated with climate change impacts, under the CAF • Decision 3/CP.19 on long-term climate finance: — Called on developed countries to channel a substantial share of public climate funds to adaptation activities; — Requested developed countries to provide information (in their biennial submissions) on how they were ensuring the balance in financing between adaptation and mitigation; — Requested the SCF to assess how adaptation needs can most effectively be met by climate finance. • Decision 4/CP.19 requested the GCF to take into account the urgent and immediate needs of developing countries that are particularly vulnerable to the adverse effects of climate change while allocating resources for adaptation

COP 20 Lima, 2014	Highlights of adaptation-related elements in the decision(s)
	• Decision 1/CP.20, Lima Call for Climate Action: — Decided that the new legal instrument (to be decided in 2015) shall address in a balanced manner, inter alia, mitigation, adaptation, finance, technology development and transfer, and capacity-building, and transparency of action and support; — Urged developed countries to provide and mobilize enhanced financial support to developing countries for adaptation actions; — Invited all Parties to consider communicating their undertakings in adaptation planning or consider including an adaptation component in their intended nationally determined contributions; — Decided to continue the technical examination of opportunities with high mitigation potential, including those with adaptation, health and sustainable development co-benefits, in the period 2015–2020.

COP 21 Paris, 2015	Highlights of adaptation-related elements in the decision(s)
	A. Decision 1/CP.21 The decision: • Noted that adaptation needs were expressed by many developing countries in their intended nationally determined contributions (INDCs); • Requested the Adaptation Committee (AC) and the LDC Expert Group (LEG) to jointly develop modalities to recognize adaptation efforts of developing countries; • Requested the AC to review the work of adaptation-related institutional arrangements under the Convention; and to consider methodologies for assessing adaptation needs to assist developing countries; • Requested Parties to strengthen regional cooperation on adaptation; • Requested the AC and the LEG, in collaboration with the SCF to develop methodologies and make recommendations on: taking the necessary steps to facilitate the mobilization of support for adaptation in developing countries to limit global average temperature increase to 2°C and 1.5°C; and review the adequacy and effectiveness of adaptation and support; • Requested the GCF to expedite support for the LDCs and other developing countries for the formulation of NAPs; • Decided that financial resources to developing countries should enhance the implementation of their policies, strategies, regulations and action plans and their climate change actions in relation to both mitigation and adaptation; • Recognized that the AF may serve the Agreement; • Requested the Ad Hoc Working Group on the Paris Agreement (APA), in developing the modalities, procedures and guidelines, consider that: parties report information on adaptation action and planning; and support provided; • Requested the APA to identify the sources of input for the Global Stocktake (GST) and provide information on: the overall effect of the Nationally Determined Contributions (NDCs) of Parties, the state of adaptation efforts, support, experiences and priorities from the adaptation communications; the mobilization and provision of support, among others; • Resolved to enhance the provision of "urgent and adequate finance, technology and capacity-building support" by developed countries to enhance the level of ambition of pre-2020 action by Parties, and in this regard "*strongly urges"* developed countries "to scale up their level of financial support, with a concrete road map to achieve the goal of jointly providing USD 100 billion annually by 2020 for mitigation and adaptation while significantly increasing adaptation finance from current levels and to further provide appropriate technology and capacity-building support"; • Decided to launch, in the period 2016-2020, a technical examination process on adaptation. **B. Paris Agreement:** All relevant articles of the PA speak to adaptation as an integral element in the fight against climate change, besides dedicating a

	separate article to adaptation (Article 7 of the PA, see below). • Article 2.1b states that the agreement, "in enhancing the implementation of the Convention" aims to strengthen the global response to the threat of climate change by "increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production". • Article 3 states that NDCs are the global response to climate change and "all Parties are to undertake and communicate ambitious efforts as defined in Articles 4,7,9,10,11 and 13 (Article 7 is dedicated to adaptation)…The efforts of all Parties will represent a progression over time, while recognizing the need to support developing country Parties for the effective implementation of this Agreement." • Article 4.7 of the PA states that the mitigation co-benefits resulting from Parties' adaptation actions can contribute to mitigation outcomes. • Article 5.2 encourages Parties to take action to implement and support alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches. • Article 6.6 recognizes that the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) shall ensure a share of the proceeds from the activities (from a mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable development, as provided for in Article 6.4) is used to assist developing countries that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation. • Article 6.8 states that Parties recognize the importance of non-market approaches in assisting in the implementation of their NDCs and that these approaches shall aim to promote mitigation and adaptation ambition, among others. • Article 9.1 states that developed countries "**shall provide financial resources**" to assist developing countries for both mitigation and adaptation "**in continuation of their existing obligations under the Convention**" (emphasis added). • Article 9.4 states that the provision of scaled-up financial resources should aim to achieve a balance between adaptation and mitigation, taking into account country-driven strategies, and the priorities and needs of developing countries… • Article 10.6 states that support, including financial support, "shall" be provided to developing countries…including for strengthening cooperative action on technology development and transfer at different stages of the technology cycle, with a view to achieving a balance between support for mitigation and adaptation. It also states that the GST shall take into account available information on efforts related to support technology development and transfer for developing countries. • Article 11.1 states that capacity-building should enhance the capacity and ability of developing countries…to implement adaptation and mitigation actions, among others. • Article 13.5 states that the purpose of the Transparency Framework for action is to provide a clear understanding of climate change action…including clarity and tracking of progress towards Parties' individual NDCs under Article 4 and adaptation actions under Article 7, "including good practices, priorities, needs and gaps, to inform the global stocktake under Article 14."

	• Article 13.6 states that the purpose of the Transparency Framework for support is to provide clarity on support provided and received by Parties in the context of climate change actions under Articles 4,7,9,10,11…and provide an overview of aggregate financial support provided to inform the GST. • Article 13.8 states that each Party should provide information related to climate change impacts and adaptation under Article 7. • Article 14 states that the CMA shall periodically take stock of the Agreement's implementation to assess the "collective progress towards achieving the purpose of this Agreement and its long-term goals" by considering mitigation, adaptation and the means of implementation and support, and in the light of equity and the best available science. **C. Decision 3/CP.21:** Through decision 3/CP.21, on the report of the Adaptation Committee, the COP: • Invited the Intergovernmental Panel on Climate Change (IPCC) to enhance outreach activities that would facilitate policymakers' understanding of the impact of different levels of warming on adaptation planning and actions; • Requested the TEC, in collaboration with the CTCN, the AC and the LEG to consider how it can help Parties align their technology needs assessments with the process to formulate and implement NAPs; • Requested the AC to further strengthen cooperation with the SCF to enhance coherence and collaboration regarding adaptation finance. **D. Decision 4/CP.21**: Through decision 4/CP.21, on National Adaptation Plans (NAPs), the COP: • Noted with concern the lack of funding in LDCF and SCCF to formulate and implement NAPs; • Noted that gaps and needs remained in the process to formulate and implement NAPs, including in access to financial support, data and reporting; • Invited the GCF to consider how to improve access to financial support for the process to formulate and implement NAPs; • Invited developed countries to contribute to the LDCF and SCCF. **E. Decision 5/CP.21:** Through Decision 5/CP.21, on long-term climate finance, the COP: • Urged developed countries to continue efforts to channel a substantial share of public climate funds to adaptation and to achieve a greater balance between finance for mitigation and adaptation, while recognizing the importance of adaptation finance. **F. 7/CP.21:** Through Decision 7/CP.21, on the report of the GCF to the COP and guidance to the GCF, the COP: • Invited the GCF Board to take into account in its programmatic priorities the Cancun Adaptation Framework; • Invited the GCF Board to consider ways to provide support for facilitating access to environmentally sound technologies in developing countries and for undertaking collaborative research and development for enabling developing countries to enhance their mitigation and adaptation actions. **G. Decision 8/CP.21:** Through the decision on the report of the GEF to the COP and guidance to the GEF, the COP:

	• Encouraged additional voluntary financial contributions to provide support for the NAP process through contributions to the LDCF and SCCF. **H. Article 7 of the Paris Agreement** • Article 7.1 established the global goal on adaptation to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change and contribute to sustainable development and ensure an adequate adaptation response in the context of the temperature goal of the PA. • Article 7.2: Parties recognize that adaptation is a global challenge • Article 7.3: Adaptation efforts of developing countries shall be recognized in accordance with the modalities to be adopted by the CMA • Article 7.4: Recognition that current need for adaptation is significant and greater mitigation could reduce the need for "additional adaptation efforts" and that greater adaptation needs could involve greater adaptation costs • Article 7.5: Acknowledgement that adaptation action should be country-driven, gender responsive, participatory and fully transparent • Article 7.6: Recognition of the importance of support and international cooperation on adaptation efforts • Article 7.7: Parties to strengthen cooperation on enhancing adaptation action and take into account the CAF • Article 7.9: Each Party to engage in adaptation planning processes, which may include: implementation of adaptation actions; process to formulate and implement NAPs; climate change impacts and vulnerability assessments; monitoring, evaluating and learning from adaptation actions; building the resilience of socioeconomic and ecological systems, including through economic diversification and sustainable management of natural resources • Article 7.10: Each Party to submit and periodically update an adaptation communication, without any additional burden on developing countries • Article 7.11: Adaptation communication shall be submitted and updated "as a component of or in conjunction with" other communications or documents, including a NAP, an NDC or a NATCOM • Article 7.12: Adaptation communications to be recorded in a public registry • Article 7.13: "Continuous and enhanced international support shall be provided" to developing countries for the implementation of Article 7.7, 7.9, 7.10 and 7.11. • Global stocktake shall: recognize adaptation efforts of developing countries; enhance implementation of adaptation action; review the adequacy and effectiveness of adaptation and support provided for adaptation; and review the overall progress in achieving the global goal on adaptation

COP 22 Marrakech, 2016	Highlights of adaptation-related elements in the decision(s)
	• Decision 1/CP.22 requested the Ad Hoc Working Group on the Paris Agreement (APA) in its consideration of the necessary preparatory work on the Adaptation Fund to address the governance and institutional arrangements, safeguards and operating modalities for the Adaptation Fund to serve the Paris Agreement • Decision 5/CP.22 on the review and report of the Adaptation Committee: — Requested the AC to accelerate preparations for the 2017 technical examination process on adaptation; — Requested the AC to ensure that the technical examination process on adaptation meets its objective of identifying concrete opportunities for strengthening resilience, reducing vulnerabilities and increasing the understanding and implementation of adaptation action, including through technical papers; — Noted with concern the shortfall in resources available to the AC, the need for supplementary financial resources. • Decision 6/CP.22 on NAPs: — Noted with concern that 12 funding proposals seeking to support elements of countries' work in the process to formulate and implement NAPs were technically cleared by the GEF but were awaiting funding under the LDCF; — Encouraged developed countries to contribute to the LDCF and SCCF. • Decision 7/CP.22 on long-term finance: — Urged developed countries to continue efforts to channel a substantial share of public climate funds to adaptation activities and to strive to achieve a greater balance between finance for mitigation and for adaptation; — Noted the need to continue efforts to significantly scale up adaptation finance and invited Parties to consider the key messages from the long-term climate finance (LTF) in-session workshop; — Quoted figures from the Second Biennial Assessment and Overview of Climate Finance Flows to say that mitigation-focused finance represented more than 70 per cent of the public finance in developing countries reported in 2013 and 2014; adaptation finance provided to developing countries accounted for about 25 per cent of the total finance; more than 80 per cent of MDB investments focused on mitigation, and less than 20 per cent on adaptation.

ENDNOTES

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