Editorial – COP 21: a new approach and the launch of a process to address climate change adaptation

Climate change adaptation and mitigation have been outlined by the UNFCCC in 1992, as the two main pillars of international climate policy. However, while mitigation policy has a universal metric – the CO2 equivalent – and demands international coordination to ensure its effectiveness, adaptation is a significantly more complex issue. Climate change adaptation actions are highly dependent upon local contexts; there is no real metric to determine the need for adaptation, it is underpinned by uncertainty and does not lend itself to any particular solution. Adaptation is not the mirror image of mitigation and reaching a universal agreement on how best to manage the impacts of climate change will be a challenge. For the most part, adaptation has not always been highly visible in previous international climate agreements and has mainly been addressed in technical discussions.

Since the Bali Road Map in 2007, adaptation has gained significant political clout in view of growing support in developing countries that have made a strong connection between adaptation and development. Progress has also been encouraged by reports from the United Nations and the IPCC, who have stressed that the consequences of climate change will be global and costly (issues of food security, climate refugees, etc.). Today it is clear that mitigation and adaptation should not be treated as separate or opposing issues but dealt with together.

Recognition of the link between adaptation and development has been further strengthened by international initiatives such as the outcomes of the Third International Conference on Financing for Development in Addis Ababa in July, and the adoption of 17 Sustainable Development Goals (SDGs) in September 2015. One of the SDG’s specifically mentions adaptation, recommending that it must be dealt with at the international level at UNFCCC; moreover, many of the other goals make implicit references to it.

As a result of these developments, adaptation has become a key focal point in climate negotiations, which now centre around three essential elements: 1) the establishment of an adaptation objective that is quantitative or at the very least, qualitative, 2) the importance of cooperation – in capacity building and transferring technologies – and 3) the issue of financing.

In contrast to the Kyoto Protocol, the Paris Agreement of 2015 will consist of several restrictive and non-restrictive policy commitments. This new format promises to open roads for progress on adaptation, for example, by facilitating the creation of voluntary coalitions of countries or non-State initiatives in the “Action Agenda”. This framework will help increase the visibility, flexibility and efficiency of the process while leaving more room for innovation and experimentation of important issues such as:

- The development of shared indicators and metrics to characterise, monitor and assess policies in addition to measures that contribute to adaptation and funding;
- A context-specific definition of development trajectories targeting low-carbon economies which are resilient to climate change, combined with a dynamic process of reviewing policies in relation to these trajectories;
- Bilateral and multilateral cooperation between State and non-State actors (technology transfer, capacity building, support for the development of scientific knowledge, etc.);
- Highlighting and exchanging best practices and promoting the conditions for replication.

Thus, the COP 21 marks the start of a process where this important work can finally receive political support at the international level, enabling further flexibility, cooperation and transparency. This process should promote better coordination between the stakeholders involved in adaptation at all levels: international, national and sub-national.

Alexia Lesueur and Vivian Dépoues
alexia.lesueur@4ce.org

Progress on adaptation in international climate negotiations

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<td>1992</td>
<td>Creation of three adaptation funds</td>
<td>Bali Road Map featuring four priorities including adaptation</td>
<td>Creation of the Green Climate Fund (50% earmarked for adaptation)</td>
<td>Publication of INDC guidelines which may include adaptation objectives</td>
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<td>2001</td>
<td>Cancun Adaptation Framework with support for developing national adaptation plans</td>
<td>Commitment to mobilise $100 billion per year by 2020</td>
<td>Launch of a work program on loss and damage</td>
<td>Paris agreement that must cover in a balanced manner, both mitigation and adaptation, the means to implement the related policies, and the transparency of the process</td>
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Source: 4CE, 2015
The Challenge – Adapting to climate change: taking ownership of the issues and removing barriers to implementation

Adaptation: a stakeholder-based approach to current and future climate events

The IPCC has observed that, regardless of the scenario, economic sector or region of the world, and despite uncertainties, climate change will reveal or amplify numerous risks to our societies (related to health, safety, food, economy, etc.) over the coming decades. In the IPCC’s 2014 report, adaptation in human systems is defined as, “the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities”. Adaptation is often confused with other concepts such as sustainable development and mitigation. However, in reality, it is an issue rooted in local circumstances which must be addressed by several public and private stakeholders at the local, national and international level.

The process, the need for contextualisation and the tools available

It is often necessary to plan adaptation responses to ensure they are coordinated and have maximum effectiveness. For a government, local authority or economic actor, the first step in addressing adaptation is to evaluate the vulnerability of the system in question, ‘taking into account past and current climate events’1. The level of vulnerability is then analysed according to different future climate scenarios. Each region, and the economic activities and population within them, are and will be affected differently depending on the context. For example, coastal activities may be particularly sensitive to the risk of rising sea levels, a dense urban area to the Urban Heat Island effect, an agricultural system to prolonged periods of drought, etc. Therefore, a careful analysis of the local context, that combines estimates of the direct and indirect climate impacts, the identification of physical and social vulnerabilities and planned avenues for action, is often very useful.

Such diagnoses are necessary to developing local or national adaptation plans, whether private or public, and can help incorporate iterative risk management strategies and build resilience on various levels2. These plans also often promote the integration of adaptation criteria in the design and development of other public policies and private strategies. These plans could combine different types of adaptation measures: soft (information, prevention, organisational changes), hard (resilient infrastructures, resizing networks, etc.), ecosystem-based, incremental (based on actions which retain the original integrity of the system), transformational (which transform the system), reactive (established after the impact) or anticipatory (enacted before the change occurs).

Once the potential adaptation pathways have been identified, prioritising them is a difficult next step during which several structuring principles may be applied: endorsing ‘no regrets’ options (beneficial regardless of climate change); prioritising the most immediate, significant and probable impacts; retaining the most flexible options for response (which can change over time) and robust (applicable to a wide range of possible futures) responses; encouraging solutions which provide social and environmental co-benefits (e.g. promoting mitigation).

Specific economic analysis tools (multi-criteria analysis, robust decision-making methods, etc.) as well as other tools can help promote discussion of the various options in an uncertain context. However, some methodologies could prove cumbersome and difficult to use, and so the type of tool selected must correspond to the needs and resources of each project.

Removing barriers

Establishing adaptation strategies and responses is often seen as a delicate process facing multiple barriers of a financial, legal, organisational and cognitive nature. The process of raising stakeholder awareness, education, establishing a collective understanding of challenges, and developing pragmatic approaches are essential and contribute towards the effectiveness of the measures implemented.

Vivian Dépoues and Alexia Leseur

vivian.depoues@i4ce.org

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1 Capacity to return to near-normal operation.

2 Lack of adaptation to current conditions is already frequently seen during extreme weather events such as floods, cyclones and heat waves, especially – but not exclusively – in developing countries.

Source: Curran from UNCEP. Willows, R.I. and Connell, R.K. 2003
Recent developments

The climate negotiations before the COP21

The latest development in the international climate negotiations was the release of the first concrete draft text on October 5th, prepared by the co-chairs of the ADP (Ad-hoc Working Group on the Durban Platform) negotiations process. This draft agreement includes elements that received wider agreement by Parties during the latest round of Bonn negotiations (August 31st-September 3rd). The key elements in this draft text are: the inclusion of a global, long-term emissions reduction target; a five-year review of countries’ commitments and the inclusion of a ‘loss and damage’ section which for the first time, was treated distinctly from the section on adaptation. This streamlined draft text allows the coming negotiations, prior to COP21, to focus on the substantive decisions rather than the structure of the text.

A new Sustainable Development Agenda for 2015-2030

- At the UN Sustainable Development Summit, on September 25th at New York, the Post-2015 Sustainable Development Agenda was officially adopted. The agreement, titled “Transforming Our World: the 2030 Agenda for Sustainable Development” set the 17 global Sustainable Development Goals (SDGs) and 169 targets meant to guide future policies in industrial and developing countries. Objective 13 directly targets the urgency to take action to combat climate change and its impacts while acknowledging the UNFCC’s authority on this issue.
- During the Financing for Development meeting held in Addis Ababa, between July 13th-16th, a finance deal, that will serve as the foundation for implementing the Sustainable Development Agenda, was agreed upon. Titled the “Addis Ababa Action Agenda”, this broad framework will guide policies to mobilise financial resources in both developed and developing countries.

New York Climate Week

- The New York Climate Week was held on September 21st-27th and brought together private and public stakeholders to discuss climate solutions. During this week, the UNFCCC launched its “Climate Neutral Now” online platform to drive voluntary emissions offset contributions by businesses and individuals.
- In parallel to the Climate Week, important political announcements pledging additional financial support towards developing countries were made by France and the UK. China, for its part, pledged €2.7 billion of climate finance towards other developing countries.

Ministerial meetings and the annual meetings of the World Bank and IMF

- The first two informal ministerial consultation meetings were organised the COP 20 and 21 presidencies between July 20th-21st and September 6th-7th. The discussions were held around various subjects but the prime focus was on the issue of climate finance.
- From October 7th-11th, the Ministries of Finance and annual meetings of the World Bank and IMF were held. During these meetings, many multilateral development banks announced additional climate-related, financial commitments by 2020. Of the goal of raising $100 billion (€87.8 billion)/year in climate finance towards developing countries by 2020, the OECD, with the support of the Climate Policy Initiative, has estimated that in 2014, climate finance flows to developing countries have reached $62 billion (€54 billion).

Manasvini Vaidyula and Mariana Deheza

Manasvini.vaidyula@i4ce.org

Sources of global adaptation funding

- Development Finance Institutions
- Governments
- International funds

89% 9% 2%

The gap between current financial flows and needs

Financial flows (2012-2013)

Business as usual (BAU) scenario (4 °C)

More than US$55,000 billion in investments are expected to be made by 2030 (McKinsey, 2015) for the construction or renovation of infrastructure around the world. Ensuring that these infrastructures are adapted to climate change from the start represents only a fraction of the total cost (estimated to be between 5% and 15% by the World Bank) and can avoid lasting vulnerabilities which could prove more expensive in the long term.
Accessing local climate data: the DriasFutures of climate Service

Accessing relevant climate information, on an appropriate scale, is often the first need expressed by stakeholders when developing adaptation measures. In France, the DriasFutures of climate service, developed by Météo-France in partnership with the IPSL and Cerfacs and supported by the Ministry of Environment, provides free access to regional climate forecasts in mainland France and its overseas territories. Drias is an online information portal, organised into three sections, offering (i) free and direct access to interactive maps and various climatic indicators for easy visualisation and preliminary analysis; (ii) free downloads of regional projections which can be used for impact assessments and (iii) support via explanatory texts, FAQs and a hotline. Simulations of various climate scenarios in France, over the coming century, can be accessed. These projections are based on a range of emission scenarios and models, on various scales and time horizons with 35 parameters and standard climatic indicators.

The European platform on adaptation strategies: Climate-ADAPT

The European Climate Adaptation Platform (Climate-ADAPT) is a platform for stakeholders – States, regional authorities and economic actors – to provide support for the implementation of adaptation actions. This initiative, led by the European Commission, combines existing resources and tools to give its users access to: (i) a database of climate forecasts for Europe and current and future vulnerabilities of various regions and sectors related to adaptation (agriculture, biodiversity, forestry, coastal areas, infrastructures, health, etc.); (ii) case studies of adaptation strategies and actions; (iii) examples of measures and support material to aid in implementation. Climate-ADAPT facilitates the sharing of experiences and good practices at all levels and in all sectors. Projects on the platform include early warning systems to anticipate the effects of heat waves in Hungary, the construction of resilient infrastructures against flooding in Norfolk in the United Kingdom, and agroforestry work on diversification of cultivated species in Montpellier, France.

Adaptation objectives and commitments of the least developed countries: the National Adaptation Programmes of Action

The National Adaptation Programmes of Action (NAPAs) on implementing adaptation actions was created in 2002 as part of the UNFCCC. NAPAs allow Least Developed Countries (LDCs) to identify priority activities to respond to their most urgent and immediate adaptation needs. Their criteria are defined by the UNFCCC1 and can make an LDC eligible for international funding.

For example, the NAPA for Bangladesh, is drafted as follows:

1. Overview of the national context (socioeconomic, physical and geographic circumstances) and climate vulnerabilities (rising sea levels, widespread soil erosion, land-use changes, shortages in food and water);
2. Identification of adaptation priorities that is compatible with development objectives (protecting living things, ecosystems, agricultural and fishing areas, etc.);
3. Design and inventory of short- and medium-term priority projects to be implemented and a wide range of adaptation actions: protecting coastlines, renovating infrastructures, developing resilient agricultural systems, capacity-building of public authorities, etc. The cost of the fifteen priority actions is estimated at $77 million2.

The current negotiation process also encourages countries develop medium- and long-term adaptation strategies, called National Adaptation Plans (NAPs).

Financing adaptation: financial initiatives for adaptation

The Adaptation Fund is a financial instrument under the UNFCCC and is one of the main international funds dedicated to adaptation and climate change. It was created with a view to finance practical adaptation projects or programmes in developing countries that are party to the Kyoto Protocol and to reduce the vulnerability of natural and human systems to the effects of climate change. The Fund is financed via the Clean Development Mechanism which transfers 2% of its revenue ($188 million raised) and through voluntary financial contributions from developed countries ($137 million raised). It has been operational since 2009 and has financed 29 national adaptation projects ($190 million received) so far. Other major funds, such as the Green Climate Fund (GCF) and the Global Environment Facility (GEF), also devote a significant amount of their work and funding to adaptation. For more information on sources of financing for adaptation, I4CE – Institute for Climate Economics (formerly CDC Climate Research) produced a map in June 2015 to identify all the financing initiatives for adaptation in urban areas.