

The energy transition
into actions

P. 1

FOCUS

Cooling cities, a necessity

P. 2

EXPERTISE

Climate change: anticipating
global changes

P. 4

WORLDWIDE

Climate change : civil society
rising up



EDITORIAL

Three years after the Paris Agreement on Climate Change, the countries participating in COP 24 held in Katowice, Poland (2 - 14 December 2018) still face significant challenges.

They are keen to obtain a consensus on the Rulebook needed to implement the Agreement. This is to ensure that each country will implement its own Nationally Determined Contribution (NDC), and to be able to measure the gap between these objectives and reality. The issue is all the more pressing given the last report from the GIEC, which highlighted that in order to limit the rise in temperatures to 1,5°C, we will have to reduce greenhouse gas (GHG) emissions by 45% by 2030, and reach carbon neutrality by 2050. Europe, with its "Strategy for long-term EU greenhouse gas emissions reductions" and France, with its ambitious "National Low-carbon Strategy", which is intended to reduce GHG emissions by 75% by 2050 compared to 1990, have positioned themselves as leading stakeholders in the fight against climate change. They now need to find solutions to convince all the Parties of the UN Framework Convention on Climate Change (UNFCCC) to follow this path - it will in any case be essential that all countries set themselves more ambitious climate goals.

FOCUS

COOLING CITIES, A NECESSITY

In cities, the increase of artificial surfaces has led to urban overheating, a rise in temperatures compared to the surrounding countryside. Cities are thus particularly vulnerable when it comes to climate change. Thankfully, solutions for adaptation do exist.

By 2050, the climate of the French city of Lyon could be the same as that of Madrid today. By 2100, it might be close to that of a North African city. These changes will severely disrupt the global economy, and urban overheating, affecting nearly 80% of the world's population, aside from the obvious discomfort it brings with it, presents a major risk for the more vulnerable sections of society, especially during heatwaves. "As the general trend today is one of urban densification, the phenomenon of overheating could intensify," explains Sophie Debergue, an urban engineer with the Urban Organisations department at ADEME. "It is therefore urgent that we find relevant solutions in terms of urban and architectural morphology in

FOCUS



order to control it. Some ideas have emerged but there is still no standard solution. However, we are now more able to diagnose urban overheating phenomena that occur both day and night.”

PROJECTS FOR CITIES

One of the ideas that has emerged to limit overheating in indoor and outdoor spaces, during both day and night, is to focus on nature and shade in cities (green spaces, trees...). “As we know, a park cools the air by 1,5°C and shade removes 10°C from the temperature felt”, explains Sophie Debergue. “We need to (re)plant more trees, but also to ensure there is good water management, especially when it comes to rainwater harvesting.” As part of the European Bio Tope project, ADEME is currently carrying out physiological analyses of trees and is studying the link between evaporation and local climate. “We’re also testing the thermal behaviour of materials for building roads,” adds Sophie Debergue. “In the private sphere, the idea is to play on building envelopes and roof greening. Green roofs help divide temperatures by three compared with dark roofs.” Beyond these punctual solutions, “strengthening the resilience of cities in the face of climate change requires us on the one hand to look at our practices in terms of urban morphology by reducing soil waterproofing and allowing nature to reinvesting urban spaces, and on the other, to include city-dwellers in these discussions,” insists Sophie Debergue. “Because they play a major role: by choosing to open their windows, by adapting their activities, by choosing their methods of transport, they contribute directly to the reduction of urban heat islands.”



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To find out more:
> <http://www.ademe.fr/surchauffe-urbaine-recueil-methodes-diagnostic-dexperiences-territoriales>

Focus on...

CALL FOR RESEARCH PROPOSALS
MODEVAL-URBA

In order to design more resilient cities, ADEME has overseen since 2015 a call for research project proposals on the theme of “Modelling and assessments to benefit key local players and the cities of tomorrow” MODEVAL-URBA. This year, the call for proposals was developed along three thematic lines: urban planification and practices, mitigation of urban overheating through solutions based on nature, and “de-artificialisation” and greening of urban interstices. The closing date for applications to this 4th edition is the 18 January 2019.



To find out more, go to:
> <https://appelsaprojets.ademe.fr/aap/MODEVALURBA2018-78#resultats>

EXPERTISE

CLIMATE CHANGE

ANTICIPATING
GLOBAL CHANGES

In both mainland France and the Overseas Territories, the effects of climate change are already being felt, impacting human activity, the territories and their inhabitants. To meet the challenges of this reality, which will only increase, ADEME is drawing on its expertise to help all actors adapt to climate change.

All over the world, people will have to get used to an increase in extreme weather events, from more frequent heat waves to droughts and floods. For ADEME, preparing for climate change from today can also present us with opportunities. “The idea is to understand how and according to what sort of timeframes are people going to be affected, and then to adjust our activities whilst evaluating the next steps to be taken,” explains Céline Phillips, Technical Coordinator of the “Adapting to Climate Change” initiative, within the Climate department at ADEME. “Impacts will also evolve with time. Beyond a certain level of impact, the adjustments will no longer be enough and we will have to transform systems and activities.”

SUPPORT AND TOOLS

ADEME thus supports all actors in concretely integrating these issues as part of their policies and activities, through raising awareness of course, but also through support for certain areas of research, such as future climate control, via the Investments for the Future Programme and the development of decision-making tools. ADEME has put in place two specific tools in order to help local authorities assess the challenges they face and develop relevant adaptation strategies. The first one of these, Impact’Climat, offers them a global vision of the actual impacts of climate change on their territories and their long-term evolution. This diagnostic tool gives them an analytical framework to help them ask the right questions. Once the diagnosis has been given, they can envisage a range of directions to take, that will then be broken down first into objectives and then into action plans. The dynamic planning tool Objectif’Climat thus offers a methodology that helps prioritise and divide up these actions according to a specific timeframe and finally evaluate them in order



→ *Going further*

Agriculture and climate: a common European approach

With support from the LIFE fund (the EU's Financial Instrument for the Environment), the LIFE AgriAdapt project brings together partners from four countries facing complementary climate change challenges: France (with Solagro), Estonia, Germany and Spain. Its aim is to build a network of 120 pilot farms and support farmers in their assessment of their climate vulnerability, via very localised climatic data processing. Late 2019, the approaches developed as part of AgriAdapt will be published on a web platform.

to remain flexible in the face of socio-economic and climatic evolutions in the territories.

THE OVERSEAS TERRITORIES: A PARTICULAR CONTEXT

Rising sea levels, cliff erosion, coral bleaching... Ultramarine territories are at the forefront of the more significant impacts of climate change. In Guadeloupe for example, authorities have been working with ADEME for a number of years to develop adaptation solutions.

The first step was to improve the understanding of local phenomena in the archipelago. Created in 2014 with support from the Agency, the Regional Observatory for Energy and Climate (OREC) is entrusted with gathering information on the climate. Published every two years, this data has allowed to create a vulnerability profile. The analysis doesn't cancel out the action: since 2014, a dozen or so local authorities, winners of an ADEME call for project proposals, in collaboration with the Guadeloupe region, the French Development Agency (AFD) and the Caisse des dépôts et consignations (CDC), have already started developing vulnerability diagnoses. ADEME also animates the Climate Change Adaptation Network in Guadeloupe, bringing together all concerned actors from the economic, institutional and associative spheres. The aim is to foster a territorial dynamic, based on the sharing of experiences and solutions implemented. Within this framework, meet-ups and

training sessions are offered to facilitate skill development, and some of these will be shared with Guyana and Martinique.



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And more...

ADAPTATION, A CRUCIAL CHALLENGE FOR THE MEDITERRANEAN

Described as a climate change "hot spot", the bioclimatic Mediterranean area is already deeply affected and will be even more so in the future: the rise in sea water levels and temperatures, the droughts and floods all threaten the remarkable biodiversity of the area, which represents 10% of the world's flora. These consequences also have systemic impacts on lifestyles, migration and even consumption and methods of production. Sharing promising initiatives and supporting urban, rural, desert and coastal areas that are adapting, transforming their practices, raising awareness and investing to create more resilient territories is therefore more urgent than ever. Initiated by the agency in 2016, a second edition of the Mediterranean Climate Change Adaptation Awards was launched, in partnership with the Union for the Mediterranean, the Plan Bleu and the Agency for sustainable Mediterranean cities and territories (AviTeM) to enhance these territories. Moreover, an assessment of the practices is currently being carried out in the region to identify the specific conditions for the success of such projects and to supply the right tools to help decision-makers.

WORLDWIDE

CLIMATE CHANGE

CIVIL SOCIETY RISING UP

From 12 to 14 September, the first Global Climate Action Summit brought together in San Francisco non-governmental actors of the fight against climate change. Local authorities, businesses and NGOs from around a hundred countries expressed their determination to counter the current slow response from the various governments.

Following the retreat of the United States from the Paris Agreement and in view of COP 24 that will be held in Poland in December, the Global Climate Action Summit (GCAS) has allowed more than 4,000 elected representatives, mayors, investors, business leaders and NGO officials to establish themselves as major players in the fight against climate change. "This international gathering of local authorities and the civil society was designed to send a message to the various governments and to show them that private and local actors are both deeply committed and have highly relevant role in the implementation on the ground of the Paris Agreement," explains Olivier Chazal, Manager of the Club ADEME International.

OF TOOLS AND MEN

On the eve of the opening of the Summit, ADEME sought to underline the importance of mobilising all businesses via a side-event dedicated to the ACT initiative (Assessing low-Carbon Transition). Spearheaded by ADEME and the NGO Carbon Disclosure Project (CDP) since 2015, the project offers businesses a tried and tested methodology to help them align their actions with

an objective of transitioning to a low carbon economy. "This side-event, which has brought together fifty or so participants, was an opportunity for us to renew our cooperation agreement with the CDP but also to forge links with foreign partners in order to make this methodology an internationally tool," tells us Olivier Chazal. Alongside 10 members of the Club ADEME International, the Agency has also highlighted French know-how during another event in partnership with the Solar Impulse Foundation, dedicated this time to the potential of eco-innovation in response to climate change. "Here as well, we were able to exchange with international actors of innovation, such as the California Energy Commission and the Los Angeles Cleantech Incubator," explains Olivier Chazal. "But that's not all: all the businesses from the Club ADEME International that had travelled there were able to present their innovations to the Californian ecosystem present at the GCAS." A first step towards the development of joint projects.

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To find out more:
> <https://www.globalclimateactionsummit.org>

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News

EVENTS

20-24 NOV. 2018

8th Africities Summit
MARRAKESH, MOROCCO

Organised by UCLG Africa, the 8th Africities Summit was focused on "The Transition to Sustainable Cities and Territories, The Role of Local and Sub-National Governments of Africa". ADEME took part in various sessions dedicated to the solidary and ecological transition. The Agency also signed a memorandum of understanding with the African Local Governments Academy (ALGA) to build the capacity of African local authorities.

> www.africities.org

The new edition of the Mediterranean Climate Change Adaptation Awards was also launched at the Africities event (see p.3). Initiated by ADEME and implemented with its Mediterranean partners, these awards are aimed at local authorities, universities, public agencies and NGOs in association with local actors that have set projects to foster climate change adaptation in the Mediterranean area.

> www.medadapt-awards.com

2-14 DEC. 2018

COP 24
KATOWICE, POLAND

During COP 24, ADEME will closely take part in the negotiations related to technology transfer and to the CTCN (Climate Technology Center and Network). The Agency will also host two events in the French and European pavilions: one on Energy access in the framework of Mission Innovation, and the other on low carbon strategies for Businesses developed within the ACT project. On the Francophonie pavilion, ADEME will organize a discussion on the challenges of public lighting in developing countries. Alongside its partners, the Agency will also highlight international initiatives on climate change in which it takes part (the Global Alliance for Buildings and Construction, MobiliseYourCity, the Covenant of Mayors in Sub-Saharan Africa, the International Solar Alliance, etc.) and will share its expertise on topics such as adaptation or low carbon neutrality.