

WATER & CLIMATE:

The French Water Partnership members' recommendations for COP26

WATER, A CRUCIAL AND INCREASINGLY FRAGILE RESOURCE

The primary conclusions of the IPCC's 6th report, published in August 2021, confirm that we are experiencing persistent delays on the virtuous path towards a target of a +1.5 or 2°C rise in temperatures. **What the IPCC describes as the greatest risks posed by climate change first and foremost affect water.** This crucial resource is already under significant anthropogenic pressure and this is putting populations, ecosystems and human activities in peril. Many disorders that were forecast as early as 1992 and in the 2008 special report on water are observed now: Arctic ice is melting, sea levels are rising, heavy, violent rainfalls are becoming more frequent and causing floods, and in some regions droughts are becoming more intense.

WATER, A TOOL TO MEET THE TARGETS SET IN THE PARIS AGREEMENT AND THE 2030 AGENDA

Water must be treated as a priority in the commitments of the Paris Climate Agreement, consistent with the 2030 Agenda and 17 Sustainable Development Goals and the Convention on Biological Diversity. No life is possible without (drinking) water; it is crucial for younger generations' quality of life, for health, food and agriculture, biodiversity, energy, education, gender equality. Water security is also a factor of peace. Water is central to the 21 targets of the 2030 Agenda. Protecting the quality and quantity of water resources is a crucial way to mitigate climate change by supporting ecosystems that produce oxygen and absorb carbon dioxide.

RECOMMENDATIONS FROM THE FWP's MEMBERS

The 200 members of the FWP stress how urgent it is **to drastically reduce global greenhouse gas (GHG) emissions in order to stay below an average warming of 2°C** and to pursue efforts to limit temperature rises to 1.5°C compared to pre-industrial levels by the end of the century. They also draw the international community's attention to the need **to take adaptation measures that will address climate change in its current and future forms:**

A. THE EMERGENCY: IMPROVE MITIGATION STRATEGIES

Each extra degree in temperature brings a substantial increase in transfers of energy and steam from oceans and land towards the atmosphere, which explains explains the disorders projected by the IPCC. GHG emissions must be strongly reduced.

The cumulated NDCs submitted as part of the Paris Climate Agreement will lead to a 3 to 3.4°C rise in global temperature¹ by the end of the century – or even more according to some scientists² – if current emissions trends remain the same. If we want to meet at least the target of +2°C, we must evaluate the progress made since COP21 and step up our climate ambition. To have a real impact, the countries' commitments, including those related to water, also have to be translated into national and local policies and strategies. This requires water to be integrated into other sectorial policies such as energy, food security, health, education, etc. Finally, it is necessary to continue negotiating on loss and damage as laid out in the Paris Agreement.

¹ <https://climateactiontracker.org/global/temperatures/>

² http://www.cnrs.fr/sites/default/files/press_info/2019-09/CP%20r%C3%A9sultats%20CMIP6_OK.pdf

The carbon footprint of water and sanitation services

Water and sanitation services account for 3 to 8% of global urban GHG emissions according to the IWA (International Water Association). To help mitigate these emissions they can **reduce their consumption of water and energy** (by raising awareness among users, sizing their structures appropriately, optimizing pump operation and reservoir drawdown, fixing leaks in networks, etc.) and **implement sustainable solutions to produce and recover energy** (recover sewage sludge to produce biogas and eliminate or reuse the carbon dioxide produced, use pico-turbines in water networks, reuse the heat from networks, etc.). Another way to store carbon dioxide is to re-green the land around facilities. **A circular-economy approach must be promoted in the sector in close association with the development of other essential public services such as the management of solid waste.** The FWP has carried out a study on the subject: “Reducing the greenhouse gas emissions of water and sanitation services”.

a. Increase the efficiency of carbon sinks

Reinforcing natural carbon sinks can significantly reduce the impact of GHGs. France is promoting new models inspired by agroecology which has the potential to significantly reduce the impact of agricultural activities in terms of GHG emissions. The potential of agricultural land for storing GHG is considerable, which is why it is worth introducing policies to actively protect and enhance agricultural land. According to the IPCC's latest report: “These measures can deliver co-benefits in terms of adaptation, combating the desertification and degradation of land, and food security (high confidence) if they are deployed in a limited area and with sustainable landscape management (high confidence). On a large scale, and if poorly managed, they can entail negative effects on water resources, biodiversity, land degradation, desertification, and food security (high confidence)”.

In its most recent report, **the IPCC considers new sources of energy.** The idea is to create artificial carbon sinks from agricultural products destined for energy or from forest management products, produce energy then store GHGs emissions deep in the ground. The FWP has analyzed these technologies, called BECCS (Bioenergy with Carbon Capture and Storage), and believes that **BECCS should be assessed with caution, in particular because of the possible spillover effects on other sensitive factors, among which are water resources.** Read the study carried out by the FWP and EDF: [Bioénergie, stockage géologique du carbone et ressources en eau. Enjeux, impacts et bonnes pratiques](#)

b. Strengthen adaptation strategies

The increase in threats due to climate change requires **adaptation strategies to be reinforced** in different ways depending on geographical contexts. This is a strong and legitimate request from many developing countries, who usually produce low amounts of GHGs but are under great threat from climate disorders. The Convention on Climate Change recognizes this demand, but the framework for action and the support for adaptation strategies have not been defined very clearly, making them insufficient to define a follow-up and monitoring setup equivalent to that planned for mitigation (MRV setup). These provisions must be viewed against the commitments made as part of the SDGs or the Convention on Biodiversity. The FWP has suggested a series of indicators for the water sector inspired by the French experience. These shortcomings need to be addressed.

Many institutional, technical, economic and social solutions have proved their success in fulfilling peoples' basic needs while taking into account population growth, ecosystem protection and the fight against climate change. These solutions have been initiated by all types of stakeholders (states and their bodies, local authorities, policy-makers and managers, companies, farmers, NGOs, researchers, etc.) and are based on a regionalized, preventive, collective approach. They deserve to be better promoted and shared, particularly in least developed countries. However caution must be exercised to avoid any “bad adaptation” that would result in increased vulnerability of populations and ecosystems. **The FWP therefore calls for the process started by the Marrakesh Partnership for Global Climate Action to be put back on track.**

B. MAKE WATER CENTRAL TO ADAPTATION

Because of the inescapability of climate change, adaptation measures must be taken into account on the same scale as actions to mitigate emissions in negotiations around the United Nations Framework Convention on Climate Change (UNFCCC). **Water is both a particularly vulnerable sector** (resources are increasingly scarce) **and a vehicle for solutions** (for example, the regulating role of aquatic ecosystems can be leveraged). Yet several studies show that 83% of the 162 Nationally Determined Contributions (NDCs) include an adaptation component and 93% of them cite water as a major issue in the context of climate change³. The impact of climate change on the water sector will be felt in many domains: **access to drinking water, agriculture and food, sanitation and hygiene, rural areas and the development of cities, industry, biodiversity, and more. Water must be a priority sector in local and national action plans while also being identified as a vehicle for adaptation solutions, and factored in as a priority in the goals set by the Paris Climate Agreement. Adaptation solutions are known and must be implemented.**

Ecosystem services and nature-based solutions

One interesting possibility to tackle the effects of climate change is to use nature-based solutions (NbS). They are defined by the IUCN (International Union for the Conservation of Nature) as “actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits”. NbSs can be implemented in all types of environments: rural, urban and natural.

C. IMPROVE KNOWLEDGE TO BETTER MANAGE WATER RESOURCES

Knowledge about climate and the larger water cycle at the regional and local levels must be expanded. This is particularly true regarding freshwater, for which a large proportion of observations are classified by the IPCC as limited due to lack of references, regional expertise, and field data.

We must also strengthen **information and modeling tools** (such as hydrology and weather stations) as well as water information systems (databases for example) which improve decision making. **New data-acquisition tools** such as satellite measurement must also be developed, to complement improvements in in-situ data-acquisition systems. **The value of local knowledge and traditional expertise must also be recognized** when developing and implementing policies at all levels. Designing projects together with civil society, including women, young people and indigenous populations, guarantees sustainability and efficiency in implementing the Paris Climate Agreement and achieving the Sustainable Development Goals.

A specific “Water and climate” report by the IPCC

In this context, the FWP calls for countries to mandate the IPCC to update its 2008 report focusing specifically on the links between water resources and climate by integrating the impact of the development of negative emission measures and raising the question of how to shape future water management in different parts of the world. Having said this, special attention will have to be paid to the IPCC's report no. 2 due for release in February 2022 which will cover the impacts, adaptation and vulnerability of society and ecosystems to climate change; to its report no. 3, to be published in March 2022, which will cover the possible mitigation actions regarding the decrease of GHG emissions, and to the synthesis of these reports and of the one published in August 2021 to be published in late September 2022.

³ <https://www.partenariat-francais-eau.fr/wp-content/uploads/2018/03/Analyse-%C2%AB-Eau-%C2%BB-dans-les-INDC-juin-2016.pdf>

D. STRENGTHEN WATER GOVERNANCE

At a time when the demand for water is rising steadily, it is necessary to adopt a global approach to water resource management, integrating surface water and groundwater as well as the source-to-sea continuum, while also striking a balance in sharing water resources between various uses. This will determine at the appropriate territorial level which drivers for action are most adequate to meet the challenges (see above). This is the role of **Integrated Water Resources Management (IWRM), which must be implemented at the level of national or transboundary river basins** for successful adaptation to climate change.

Adaptation plans at hydrological-basin level and regional projects to fight climate risks related to water

The French government, through its water agencies in mainland France and its water offices in its overseas territories, is taking action for the sustainable management of water resources and aquatic environments. Every catchment area, and a large number of sub-catchments, has a planning document closely involving stakeholders and which aims to ensure the balanced, responsible management of water resources. France therefore has vast experience in terms of water planning as well as funding arrangements for the actions to carry out.

The effects of climate change are worsening the multiplication of conflicts of use and intensifying pressure on water resources. In response, a directive was issued on 7 May 2019 by the French ministries in charge of the environment and agriculture to encourage the implementation of “regional water management projects” (PTGE). These projects are designed together with all water stakeholders following a needs/resources approach at catchment-area level and in a forward-looking perspective. They are meant to ease tensions, help the regions adapt, or even mitigate, their activities (farming in particular). A variety of levers of action will be used to manage the demand for water, protect water in soils and subsoils, mobilize new resources when it is relevant and sustainable, and reduce pollution.

Another challenge is to set up true global governance for water. The United Nations conference scheduled for March 2023 will be an opportunity to do so with a multisectorial approach in line with the 2030 Agenda that integrates climate change.

E. MOBILIZE FUNDING THROUGH APPROPRIATE GOVERNANCE

Funding is central to ambitious climate action. The Climate Summit held in September 2019 noted progress in countries' contributions towards meeting financial commitments. It is absolutely crucial to reach the annual goal of 100 billion dollars per year for developing countries until 2025. The report published by the OECD shows progress in the mobilization of financial flows. This progress must be sustained to achieve the ambition set for 2025 and beyond. The UK Presidency of the G7 and COP26 has stressed the need to obtain new and expanded financial commitments for climate, including for adaptation (France plans to earmark 6 billion euros for climate funding over the next few years 33% of which will be allocated to adaptation). **The adaptation budget must give priority to water and target the least developed and most threatened countries.** In particular, these countries must develop effective governance of their water resources, including national, local, or basin-level funding mechanisms, in order to improve their ability to secure public and private international funding. Part of this funding must be allocated to **capacity-building** (for example knowledge, governance, training, education, performance monitoring and coordinating water and household waste management in particular), which is a decisive aspect in project effectiveness.

Adaptation Fund

The members of the FWP welcome the increased ambition of the Adaptation Fund which was announced during the Contributor Dialogue in December 2020. As Germany's Secretary of State in charge of environment pointed out, this fund is just as important formally as the Global Environment Facility and the Green Climate Fund.

European Union adaptation strategy

The European Commission is revising its adaptation strategy for Europe. The FWP's proposals to EU authorities are: to align with the goals detailed in Article 7 of the Paris Climate Agreement and the Global Goal on Adaptation, to improve the engagement and responsibility of the private sector and to better integrate these objectives into EU policies.

France's policy of international cooperation towards the implementation of the Paris Climate Agreement

Regarding funding, in September 2019 in New York the French government announced it would double its contribution to the Green Climate Fund. The French Development Agency (AFD) increased the amount of its climate funding and set itself a target of 5 billion euros per year to be spent internationally by 2020, with a particular effort placed on support for adaptation (target: 1.5 billion euros/year) and on funding for Africa. The bulk of the AFD's investments in adaptation goes to the water sector (47% in 2017, 51% in 2019) and the proportion is increasing.

F. PROMOTE AND ENCOURAGE INTERNATIONAL SOLIDARITY

Stronger international cooperation is needed at all levels (North-South, local, regional, national and transnational) and between all stakeholders to meet the climate challenge. International solidarity must be promoted, knowing that the effects of climate change are felt first and foremost by the most vulnerable populations. This is particularly true when it comes to guaranteeing the effective implementation of the right to drinking water and sanitation. The consequences of climate change disproportionately increase the vulnerability of populations of developing countries with low rates of access to water and sanitation, particularly in sub-Saharan Africa. The economic, social, and public-health repercussions are significant: reduced access to services in the event of a fault or damage to infrastructures (for example during a flood or a storm), increased cases of waterborne diseases, increased difficulty in fetching water, migrations, etc. In these conditions, **international cooperation can contribute to better adaptation by providing finance, sharing experience, and building capacity for local actors.**

FWP PUBLICATIONS

You can find all our publications [site](#) or scan here:



Bioenergy, geological carbon storage and water resources, Challenges, impacts and good practices

This study aims to assess the technical, economic, social and environmental conditions for BECCS viability and to identify potential impacts on water resources.

Publication in French [here](#)

Water and Nature-based solutions A toolkit for elected officials and local authorities

This guide aims to help regional actors adopt nature-based solutions for water management and provides an overview of the various tools available to implement them at local level. With this guidebook, elected officials will have the best support tools. Publication available in French only [here](#)



The French policy approach for the management of water resources and aquatic biodiversity, A source of inspiration for the implementation of the 2030 Agenda

This guide presents France's approach for the management of water resources and aquatic biodiversity: inclusive action at all levels integrating both the large cycle and the small cycle of water. This management fully **contributes to the implementation of the 2030 Agenda**. This guide to French policy is meant to inspire various stakeholders for their own projects and policies. It gives all the key background and facts to understand France's dynamic approach, which evolves depending on challenges, awareness and innovative projects. Publication in English [here](#)

Water and climate, time for action: Initiatives and projects by French stakeholders

Climate change requires unprecedented efforts from all the countries in the world, both for adaptation and mitigation. Water is simultaneously a particularly vulnerable sector and a vehicle for solutions. This solution booklet showcases a sample of concrete actions undertaken in France and abroad to manage water and aquatic environments. It's an opportunity for stakeholders in the water sector to recall that water can be leveraged to fight climate change and meet the targets set out in the Agenda 2030. Publication in English [here](#)



Better knowledge for better management: complementarity between field data and satellite data

Towards a better understanding of field hydrology

Proper knowledge of water resources is crucial for effective action. Acquiring hydrological data is therefore indispensable for decision-making. This booklet focuses on the acquisition of space data and showcases the results of French players from the water sector; it puts forward the complementarity of satellite data to improve our knowledge of field information in the water sector. Publication in English [here](#).