CONFRONTATIONS EUROPE

BETWEEN CLIMATE TRANSITION AND SUSTAINABLE WATER MANAGEMENT: CALLING FOR A EUROPEAN BLUE DEAL

Special Edition

CONFRONTATIONS EUROPE

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CONTENTS

EDITO

By Michel Derdevet,
President of Confrontations Europe

As the European deadlines approach and decision-makers consider the future of the European Green Deal, the question of the resource's role in our ecological transition is becoming ever more urgent.

At the beginning of March 2024, for example, the European Commission issued a communication highlighting the major risk posed by the growing scarcity of water resources to all human activities and the various aspects of our lives, while current projections predict a 35% increase in water stress over the next fifty years. In so doing, it highlighted the impossibility of purely national or regional water management, which does not take into account the challenges of water use in a holistic manner.

Faced with these challenges, last October, the European Economic and Social Committee launched its Call for an EU Blue Deal, supported by a number of MEPs and civil society players, in favor of greater inclusion of water resources in the discussions surrounding the future of the European Green Deal.
The aim of this initiative, which has been hailed by a number of players in the field, is to assess the impact of water scarcity on all economic activities, and to enable the emergence of a new form of water governance in Europe.

In parallel with these initiatives, many sectors are already facing up to the reality of climate change and its consequences for our water supplies.

First and foremost, European agriculture, which accounts for almost 40% of our annual water consumption, is already facing numerous conflicts of use, in France and more recently in Catalonia and Aragon. Ambitious national measures, such as France's Water Plan or Flanders' Blue Deal, have been put in place, but are struggling to find an equivalent echo in all Member States, and particularly among those most affected by drought in the south of the continent.

The hydroelectric power generation sector is also gearing up to face greater pressure on its production capacity, due to more regular periods of drought. Worldwide, nearly 61% of all hydroelectric dams are expected to be located in basins subject to severe water stress.
In Europe, this prospect is also very alarming, given that electricity production accounts for 28% of water use. Here too, with many of Europe's main water basins covering cross-border regions, European coordination and management will be the key to sustainable water management in the energy sector.

Furthermore, the question of investment in the transition to a more sustainable management of water resources arises immediately, and will need to be adequately financed through the creation of a Blue Transition Fund. At the same time, we need to invest in the training and preparation of workers, who will be responsible for implementing the transformations required under a future Blue Deal for Europe.

In the light of these factors, the need for a European governance framework is all the more obvious to ensure the resilience of our societies and implement a new water management paradigm. The stakes of such a transformation are high, but they should also open up new opportunities in terms of employment, research and the modernization of our current infrastructures. ■

CONFRONTATIONS EUROPE

SPECIAL EDITION ON WATER

STATE OF THE ART

WATER, AT THE HEART OF CLIMATE CHANGE

Interview with Stefan Uhlenbrook,
Director of the Hydrology, Water and Cryosphere Branch of the World Meteorological Organization (WMO), Director of the Secretariat of the Water and Climate Coalition.

WATER AT THE HEART OF CLIMATE CHANGE
FOR A SYSTEMIC APPROACH

*In an interview for Confrontations Europe, **Stefan Uhlenbrook**, Director of the Hydrology, Water and Cryosphere Branch of the World Meteorological Organization (WMO), Director of the Secretariat of the Water and Climate Coalition, sheds scientific light on the close relationship between water and climate change.*

Confrontations Europe: In the frame of this discussion on the relation between climate change and water management, it is important to note that the year 2023 has been the warmest year on record. Each year and each decade have been warmer than the previous ones. Could you delve into what are the current and forthcoming repercussions of climate change on water?

Stefan Uhlenbrook: In general, it is true that we tend to break every temperature record one after the other. Hence, last year was the warmest year on record for the global annual mean in temperature. Since the 1980s, each decade has been warmer than the previous one. The past nine years have been the warmest on record.

The global annual mean of temperatures depends on the Niño and the Niña signal. Usually, during la Niña, we should have a globally cooler situation. This situation does last until the middle of the year, before turning into El Niño conditions, which further strengthens the temperature increase. Therefore, with this shift from cooling La Niña to warming El Niño, this year could again break our record in temperature and be even warmer. Looking closer at the period between January and February 2025, we notice that it has been especially warm and dry in many parts of the world.

In Europe, the effects of this period of drought were particularly strong, especially in the northeastern part of Spain. At this time of the year, we should be seeing significant rainfall, which would help to fill in the rivers and store water for the next period. However, these reserves are recorded at dramatically low levels.

Focusing on the European continent, we may highlight **the Mediterranean zone,** where in the next ten years, the predictions are expecting very dry periods like in Spain, Italy, the South of France, Greece or the eastern part of the Mediterranean due to the repercussions of the North of Africa. This obviously represents a major challenge for people and cultures. Furthermore, in this area, we have also recorded hard rainfall events, as for example, in Greece and Libya, because of the formation of a cycle with similar characteristics to a tropical cyclon. These kinds of phenomena happen because of the especially warm Mediterranean Sea, where **we notice a meteorological phenomenon that we should not normally observe in that part of the world.** However, again, in the few years, these kinds of events might happen more frequently.

Then, another type of geographical area particularly affected by these changes is **the high mountain regions of Europe**, like the Alps, parts of Scandinavia and parts of the Pyrenees. At first glance, we can see that snow is becoming increasingly sparse. If you have less snow, you have less water stored in the mountains and then available in the coming summer because normally snow and ice are accumulating in the high mountain regions of Europe before their depletion in the spring period. And this is happening less and less because in the recent period, considering the abnormal warm temperature, we may have in wintertime rain even up to two thousand meters... It also means less storage of water, which is terrible for ecosystems but also for energy or long-term water irrigation.

In many European countries, particularly in the South of France, Spain or Italy, an important part of the agriculture production system is relying on irrigation systems, a sector which withdraws around 70% of all withdrawals of water resources. Hence, if one depends on an irrigation system, one also depends on the water taken from rivers and groundwater. Therefore, on one hand, one needs more water because it is increasingly dry in the summer and on the other hand, one has less and less water available for other uses and users. Furthermore, more water scarcity is predicted in many parts of the world. For instance, many regions around the world are facing water stress, with over 50% of global catchment areas and reservoirs displaying deviations from normal conditions in 2022.

Confrontations Europe: Based on the scientific studies and observations led and gathered by the WMO, to what extent has climate change already impacted both hydrological system and people in Europe?

Stefan Uhlenbrook: When looking at the direct consequences for people, we have experienced heat waves going above 40-45 degrees, where it is very difficult for human beings to function, especially for elderly people and people with cardiovascular problems. It is a situation where you need a sufficient water to mitigate the negative effects, however, heat waves are often accompanied by water scarcity. In a nutshell, climate changes are related to the changes in the hydrological system, and these elements combined are heavily impacting societies and economies.

We may also look at groundwater issues. In many parts of the world, the groundwater tables are declining because of overuse. We are seeing that in a dramatic way in India or in Pakistan but also in Europe, including in France, Spain or Northeastern Germany.
In the EU, groundwater supplies are critical for drinking water and water for agriculture and industries. However, when too much water is pumped out of the groundwater, the process is unsustainable. As you are taking more water out of the system than naturally flows back every year, the water balance is out of balance, and the storage goes unavoidably down. We are seeing this ratio being exceeded in many parts of the world. We may also consider its consequences on the subsidence of the ground and its impacts on stability of houses and infrastructures.

Confrontations Europe: As Director for Water at the WMO, you are also head of the Climate Coalition, a community of multi-sectoral actors founded in 2020 to ask for an integrated water and climate Agenda. In your opinion, to what extent were water-related issues taken into consideration during COP28?

Stefan Uhlenbrook: First, we can observe that the world is increasingly understanding the issue of water as highly interlinked with climate change. We have already observed this raising awareness during the COP 27 in Egypt in 2022 where the problem of water resources and management was a prominent theme both in climate adaptation and mitigation. We have seen this approach again in December 2023 during COP 28 where the question of water was even more visible. Water is really a transversal topic. For instance, for climate mitigation, we need to think about energy transition. However, you cannot do it without considering the need for water.

We clearly need to change our sources of energy. However, when thinking of alternatives to fossil fuels, we should consider the use of water in them and how to manage water in this crucial transition. Thus, we need to think about an integrated approach asking how we are producing energy considering the water resources we have.

Confrontations Europe: WWC supports the development of global water information services. In what way are the data of the hydrological services vital for better water management?

Stefan Uhlenbrook: We need to highlight two fundamentals. Every water management system needs information data in support, and water resources are peculiar for not respecting boundaries. As a global organization, one of our objectives is to create connections between regions, and a real exchange of information between them [1]. For some regions, the challenge is even to help mitigate conflicts. For instance, if two regions share the same groundwater or surface water bodies, the scarcity of resources can create or intensify tensions and rivalries. Having the same knowledge and data is one of the first steps to discussion and agreements.

Within the European Union, most countries have the means to collect and analyze data. Our role is therefore more to offer expertise, particularly in establishing common definitions and standards to facilitate comparisons (the ways of collecting the data, to store them, to make it accessible for decision making and ideally all stakeholders …). Once again, the idea is here to facilitate data analysis and encourage cooperation on a subject that knows no borders. In regard to that, European agencies and research programs are really a cornerstone in this path, with crucial cooperations such as Copernicus.

Confrontations Europe: The European Economic and Social Committee launched a call for a EU Blue Deal and the Commission will soon present its Water Resilience Act for the new term. What do you think about these initiatives?

Stefan Uhlenbrook: These initiatives are absolutely crucial, and it is excellent news that the European Union is grasping the importance of water resource management as a key part of the fight against climate change. As we have said before, irrigation, water ability and energetic transition are some examples where water management is a cornerstone to further development.

[1] Today, 60 % of WMO Member States report declining capabilities in hydrological monitoring and thus in the provision of decision support in the water, food, and energy nexus. More than 50 % of countries worldwide have no quality management system for their water-related data in place. Only about 40% of countries worldwide have good flood and drought early warning systems operational.

We have seen a certain focus on technology and innovation to achieve this, and of course this is necessary. However, another fundamental pillar that I would like to highlight is the constant need for greater social innovation. People have to be stakeholders in transitions and in the management of resources.

The European Union can really facilitate this process, particularly where the management of water resources requires substantial investment and in order to facilitate changes in practices, such as changes in crops, as we said earlier.

We may have this transition only if society is fully involved in it. This will be done in particular by means of alert systems that include people because they have the information and the awareness to act.

I will give you an example: two years and a half ago, we had major flood in Germany, where at least 200 people died. This seems astonishing in a country like Germany, which has one of the best data systems and prediction models... However, this disaster allows us to identify a vacuum; the technical part was indeed well-developed, but the social and governance pillar was not efficient enough. Information was not properly conveyed, and preventing action was therefore not efficient. In general, it is always cheaper to invest and act now than after the destruction. ■

CONFRONTATIONS EUROPE

SPECIAL EDITION ON WATER

TO THINK THE ADAPTATION

THE NEED FOR A GLOBAL APPROACH

By Christian de Perthuis,
Researcher at Université Paris Dauphine-PSL, author of Carbone fossile, carbone vivant [Fossil carbon, living carbon] (Gallimard)

AGRICULTURE, FORESTRY, WATER:
SECTORAL POLICIES IN THE FACE OF CLIMATE CHALLENGES

Farmers' protests spread like wildfire across Europe last winter. Their reasons included exasperation with environmental standards, restrictions on irrigation and restrictive goals with regard to greenhouse gas emissions. Alarm bells are ringing and must be taken seriously. They point to the limits of siloed approaches faced with the challenges of global climate change and the loss of biodiversity.

The success of the European "Green Deal" requires the reconfiguring of sectoral policies to address the various forms of resistance that are sure to emerge on the path to "net zero" by 2050. This concerns fossil carbon and the energy transition, the hard part of which still lies ahead of us, but also and to an even greater extent "living carbon", beginning with agriculture and forestry, without which carbon neutrality is impossible.

CAP and climate change: the limitations of superficial reforms

Let us start with agriculture. This is by far the sector of the economy most heavily affected by European regulations. Launched in the early 1960s, the Common Agricultural Policy, or "CAP", helped to transform European farming systems thanks to a system of guaranteed prices, which enabled the European Union to close its massive trade gap in food and agricultural products.

This original CAP was a victim of its own success. As soon as supply outstrips demand in a market, the cost of maintaining prices rockets. In order to curb rising costs, the CAP was subject to an in-depth reform consisting of the introduction of quotas for milk production (1984) then the conversion of price guarantees into aid per hectare (1992). Despite these reforms, the CAP continues to drain considerable sums: more than €50 billion in 2023, i.e. one third of the European budget.

Faced with climate change and its impact on biodiversity, the CAP has not been subject to the same level of reform as that of 1992 in response to market disruption. The response to the climate crisis has been a series of superficial measures, subjecting the payment of aids to increasing eco-conditionality and developing a "second pillar" covering aids unrelated to farming products. An additional layer has recently been added to the system with the so-called Farm to Fork scheme.

This has greatly complicated the old CAP, sometimes to the point of absurdity, without reforming it in depth. But behind the administrative complexity lies a more fundamental question. Like other European sectoral policies, the CAP needs to be redesigned for this new era of climate change.

Climate resilience, a driver of the agroecological transition

In order to bring about this in-depth change, we need to start with the problems facing farmers as a result of climate change. Successive reports of the IPCC have made this clear. Farming, forestry and fishing are the human activities most heavily impacted by global warming. These impacts are going to intensify over at least the next two to three decades in the most optimistic emissions reduction scenarios.

Contrary to popular misconception, the hyperspecialised and industrialised farming systems of northern countries are very vulnerable. In Canada, for example, the heatwave in 2021 caused a 40% drop in wheat production and a 60% drop in exports. This is almost the equivalent of the year's worth of Ukrainian wheat lost to the global market when Russia invaded Ukraine. In the European Union, cereal yields have been stagnating or declining for two decades now, despite farmers' high level of technical sophistication.

For agricultural producers, adaptation to climate change constitutes the first level of agroecological transformation. This transformation consists not in producing less but in producing differently, through techniques using biological diversity and the many areas of symbiosis it offers for more resilient and often more intensive production. Organic farming is only one of these methods. Soil protection, the maintenance of plant cover and the use of trees and animals as crop auxiliaries also constitute major developments in this shift towards regenerative and resilient farming systems.

In the vast majority of cases, the conversion of farming systems to agroecology makes it possible to significantly reduce net greenhouse gas emissions by limiting gross emissions and by storing more carbon in farmland. In other words, the methods used to adapt to climate change are the same needed to limit global warming.

Agroecology requires much more technical expertise of farmers than conventional systems. One condition for success is the redeployment of public research and, above all, farm advisory networks, previously focused on productivity objectives. From an economic point of view, this requires a redistribution of CAP support.

Environmental standards or remuneration of ecosystemic services?

The question of farmers' income was a major catalyst for the farmers' protests. In France, these protests again brought up the issue of guaranteed prices, a recurring demand by the Confédération Paysanne (the second-largest French farmers' union) and unexpectedly well supported, for Emmanuel Macron at least.

Guaranteed prices are socially unfair as they protect the largest producers by far the most. They encourage productivism and short-term profitability to the detriment of resilience and climate goals.

An alternative solution is to guarantee environmentally fair prices by redistributing farm subsidies, particularly from the CAP, in proportion to the services rendered by farmers thanks to agroecological practices. Experiments with payments for ecosystemic services and carbon offsetting can test the value of the positive externalities to be remunerated. Both have scope for improvement. If we could correctly price these values to guide the distribution of farming aid, billions of CAP funds would no longer appear as subsidies but rather as part of the remuneration payable to farmers for services rendered.

There is one area in which environmentally fair pricing would be particularly useful: phytosanitary products. The "Nodu" is a synthetic indicator used in France to measure the quantity of substances harmful for living organisms used on farms. This should be combined with pricing that remunerates practices that reduce the use of such substances. The Nodu would then no longer be a standard imposed by the authorities but a tool for rewarding virtuous agroecological practices. It could then be reintroduced, in simplified form, to replace the European HRI1 indicator, considered by the scientific community as being less relevant.

The protection of forest-based carbon sinks

When we emit 100 tonnes of CO2 into the atmosphere, 25 tonnes are absorbed by the oceans and just under 30 tonnes by plants, primarily thanks to forests. Protecting these carbon sinks is a major condition for the stabilisation of global warming in the medium and long term.

Worldwide, forest sinks are weakened by anthropic actions – deforestation – and by climate change feedbacks. Historically, Europe has been one of the largest areas of deforestation due to the extension of land given over to farming and livestock. The surface area of its forests is now growing again, mainly due to the decline of farming. On the other hand, the CO2 absorption capacity of its forests is affected by global warming. This has fallen by almost a third in the last decade.

A small part of this erosion is due to increased pressure on forests for the production of fuelwood. Mainly, though, it is due to climate change feedbacks: droughts and heatwaves stunting trees' growth, the rise in invasive species increasing their rate of mortality and more intense extreme weather events (storms and forest fires).

Protecting forest sinks is a long-term matter as it involves adapting the composition of forests to the climate conditions of the future. Improving forest resilience generally means making less use of monoculture forestry offering rapid yields, planting a diverse range of species resistant to climate stress and paying greater attention to water cycles.

Global warming and "water scarcity"

Global warming is disrupting how societies function through its impact on the water cycle. The European measures set up since the Water Framework Directive adopted in 2000, supplemented by more targeted texts such as those concerning nitrates and environmental quality standards, do not take the scale of these impacts into account. As for agriculture and forestry, the challenges of climate change and biodiversity will require an overhaul of these sectoral measures.

One difficulty is that the players involved often misunderstand these impacts, believing that global warming will increase the scarcity of water. Taking this into account therefore means reinforcing existing regulations to combat waste and promote water sobriety. The reality is more complex, however. Global warming in no way increases the scarcity of water. On the contrary, it intensifies the water cycle by increasing the total amount of precipitation while disrupting its distribution in space and time.

Within the European Union, the impacts of this will vary considerably. Southern Europe will experience greater hydric stress and increasingly frequent devastating episodes of intense precipitation, while in northern Europe, the total amount of precipitation will increase, as will its irregularity. The water policy is going to have to adapt to many changes in the risk mapping, not all of which can be predicted with certainty.

The new challenges facing the water policy clearly reveal the interdependence between sectoral approaches and the global climate and biodiversity challenges. The winning strategies will be those that make positive use of this interdependence. For example, storing water in farmland thanks to agroecology can help to combat the risk of a hydric deficit and store carbon in the soil. Used in river basins, agroecology limits the risk of flooding and helps purify fresh water while avoiding costly investment upstream. ■

Interview with Laurence Borie-Bancel,
Chair of the CNR Management Board

HYDROELECTRICITY
OPTIMIZING PRODUCTION, SHARING THE RESOURCE

*In an interview with Confrontations Europe, **Laurence Borie-Bancel**, Chair of the CNR Management Board, presents her vision of the role of hydropower in decarbonizing the French electricity mix.*

Confrontations Europe: Compagnie Nationale du Rhône had its concession for management of the Rhône renewed in February 2022. Under this concession, CNR fulfils three missions in the general interest: the production of hydroelectricity; river navigation and agricultural irrigation. Could your organisation be described as a comprehensive water company?

Laurence Borie-Bancel: Our mission on the Rhône is indeed holistic, with solidarity between these three aspects of our work and the fact that we are responsible for managing the Rhône from the Swiss border to the Mediterranean. We are therefore not simply a French hydroelectricity producer but a comprehensive water company. The production of electricity on the river enables us to fund navigation and irrigation. Throughout the history of our concession, the development of a major inland waterway has always been a key goal and the first infrastructure to be built was the Port of Lyon. Thanks to the infrastructure that CNR has built on the Rhône since 1933, it has been able to meet the various needs for water that have arisen, including during the unprecedented drought in 2022. That episode perfectly illustrates the scope of our responsibility within the river basin. Another key aspect of our model is the redistribution of the value created to local communities through which the river passes. It is therefore important for us to be seen as a developer of the river and not solely as an electricity producer.

Confrontations Europe: In the context of decarbonising the energy mix in France and Europe by 2030, you have stated that hydroelectricity should play a greater role in this major industrial shift. In what ways can the major European river basins support Europe's transformation to carbon neutrality?

Laurence Borie-Bancel: The Rhône basin supplies a quarter of all hydroelectricity in France. Our run-of-river plants only represent 3 GW of installed capacity, out of 25 GW at national level. Power is not the only thing that counts; the energy produced also needs to be taken into account. The Rhône is a powerful river and our plants, stretching over more than 500 km, use every drop of water before returning it to the river. In 2023, production stood at more than 13 TWh, contributing to both energy sovereignty and decarbonising the energy mix in France.
So yes, I strongly believe that hydroelectricity will be one of the energies of the future, renewable, flexible and controllable, within the European mix.

This is taking concrete form as part of the extension of our concession, with a targeted contractual investment of €500 million (2018 value). This sum is close to €800 million after inflation. The aim is to increase electricity production by around 0.5 TWh via the construction of six small hydroelectric plants on the southern part of the Rhône and the project for a 20th facility at the confluence with the Ain1. This project, called Rhônergia, should supply an additional 40 MWh from 2033, if the State decides to go ahead with the project and once all the necessary authorisations have been obtained. This will make it the last large-scale facility in France.

Alongside this new infrastructure to increase capacity, we are also continuing to invest in our existing plants, which are an average age of 52 years old. €400 million is allocated to maintaining them in good condition over the period 2021-2024.

Confrontations Europe: Last year, the Rhône Mediterranean Corsican Water Agency published a worrying report underlining the risk of a 20% reduction in the flow of the Rhône over the next 30 years. How is CNR preparing for the future of hydroelectricity production in the Rhône basin?

Laurence Borie-Bancel: This 20% reduction in the flow of the Rhône concerns the summer period. The same study indicates that we should benefit from a more than 25% increase in flow in winter compared to the current average. By 2055, the average annual flow of the Rhône is not set to vary significantly, but there will be large variations from one season to the next.

Periods of intense drought will become more frequent, in the order of every six years. Droughts are and will remain the primary threat to our hydroelectricity production.
We are currently able to adapt to a certain extent by scheduling the maintenance of our facilities in summer, to ensure maximum availability in winter when demand for electricity is high. Another way in which we adapt is by controlling the entire value chain: although our facilities are designed to be run-of-river, we control them on an infraday basis for greater flexibility (up to 1,000 MW of modulation in a day) and to help keep the electricity grid stable.

We cannot manage production on an inter-seasonal basis, however, as it depends on the volume of water in the river and therefore on meteorological conditions. We are aware of this vulnerability and have diversified our production, while keeping it 100% renewable. We already have 1,000 MW of power installed in wind farms and solar farms and we aim to increase this to 2,500 MW by 2030, throughout France. At the same time, we are also working on battery storage and on the production of renewable hydrogen. And while we do not yet have an advanced STEP project, I think this type of infrastructure is also worth studying.

Confrontations Europe: Is the presence of elected officials in the governance of CNR an advantage, in particular when it comes to making difficult choices as water resources become less available? Is the public/private model a good model for the future?

Laurence Borie-Bancel: I firmly believe that the CNR's model constitutes an undeniable advantage. The investment of 183 local authorities, holding 17% of the capital, creates a vital source of solidarity between areas and dialogue with stakeholders around the river. With the extension of CNR's concession, we have reiterated and strengthened our commitment to the regions: our general interest missions, included in the specifications since 2003, are now supported by a budget of €165 million every five years.

Our actions linked to non-mature renewable energies, agriculture, biodiversity navigation and local development reinforce our ties to local communities. The concession monitoring committees bringing together our stakeholders – local elected officials, MPs, the State and non-profit organisations – are another way of encouraging support for our actions and concerted development. The balance of capital unique to CNR, with a majority public stake – local authorities and Groupe Caisse des Dépôts – and the 49.97% stake held by ENGIE, is a great strength. It confers credibility and legitimacy by representing a diverse range of voices.

Confrontations Europe: The European Commission is counting on inland waterways for freight transport in the framework of the Trans-European Transport Network. At the same time, the declining flow of major European rivers poses a threat to this same traffic. What action is CNR and the other operators of European river basins taking to ensure the full potential of these 'river highways'?

Laurence Borie-Bancel: All European inland waterway operators need to be on board to achieve the goals of the Green Deal, reduce GHG emissions from transport and support the competitiveness of river transport. I support the proposed revision of the Combined Transport Directive, which will consolidate the shift from road freight to mass modes of transport like rail and river. This complementary approach is crucial in the Rhône valley in order to boost river transport, which has seen a significant fall in traffic. Again, this will also contribute to local economies. Today, the major inland waterway between Lyon and the Mediterranean has the capacity to handle four times as much traffic with no new investment, so let's use our rivers!

Within our scope, most of our industrial port sites have rail links and CNR encourages industry to use river freight, with discounts on the rent of plots, for example. A collective effort is also essential between the State, CNR, the Port of Marseille-Fos (GPMM), Voies Navigables de France (the French navigation authority - VNF) and the loading companies.

The Rhône-Saône river basin is less impacted by the effects of climate change than other river basins such as the Rhine or the Po, but the resilience of our port and hydroelectric facilities must be considered.

Confrontations Europe: Four nuclear power stations are installed on the banks of the Rhône. Nuclear energy is another major source of electricity in the Rhône basin and is also very dependent on water resources. What are relations like between CNR and the nuclear power stations on the Rhône?

Laurence Borie-Bancel: We have an excellent relationship with EDF, governed by agreements that regulate the supply of water, pumped from the Rhône to cool the nuclear power stations. As part of the Rhônergia project, at the confluence of the Ain and the Rhône, a new form of collaboration is emerging to ensure the compatibility of our hydroelectric project with the project for future EPRs at the Bugey site.

This dialogue between industries and with the authorities is essential. With climate change and the increasing scarcity of water, balancing the needs of nuclear power station cooling systems, hydroelectricity and uses such as irrigation and navigation will become more complicated. The temperature of the water is also a concern. With open-cycle cooling systems constituting 60% of the nuclear facilities on the Rhône, the study by the Water Agency points to their impact on the increasing temperature of the river habitat in the context of climate change.

Faced with these challenges, I would like to highlight the resilience of the CNR model. In summer 2022, we were able to meet the various needs for water despite our hydroelectricity production being down by 25%!

Confrontations Europe : We mentioned the question of conflicts of use, both now and in the future. This is particularly evident in the agricultural sector, which requires a lot of water, with projects for mega-basins, as we have seen. What role does CNR play in adapting farming practices to the increasing scarcity of water?

Laurence Borie-Bancel : Farmland irrigation is one of our three long-standing missions, reflected in the 400 water cranes along the length of the river. We have reviewed this and are innovating in the framework of our general interest missions, in order to provide farmers with greater support in transitioning to more sustainable farming. The farming sector represents half of the water withdrawn in the basin.

CNR has already committed €27 million for 2023-2027 in order to increase the efficiency of the irrigation networks, reinforce farming resilience to climate change and optimise interaction between agriculture and energy. In concrete terms, this is reflected in projects to support 138 farmers in the Rhône Valley, initiatives like the renovation of an irrigation network 70% in the Chomérac plain (Ardèche) and the development of agrivoltaics, with a "Parcelles du futur" (allotments of the future) demonstrator in Lyon. Like our other activities, we are carrying out this work in partnership, with the chambers of agriculture and with a university research and innovation department, in order to reconcile energy and food sovereignty.

Confrontations Europe: In addition to these efforts to use and adapt the Rhône in the framework of the energy transition, you have also committed to renaturing the river and its banks. How much of this project forms part of the process to apply the provisions of the Water Framework Directive?

Laurence Borie-Bancel: In terms of protecting biodiversity, our policy is based on more than 20 years of hydrological and ecological restoration projects and scientific work. We take part in a number of bodies, such as the River Basin Committee, along with other players, to maintain a vital balance between the environment and other uses of water. CNR has carried out the largest river rehabilitation programme in Europe, recreating wetlands along 120 km of the Rhône, dismantling 19th century structures for better connectivity between the Rhône and its secondary branches and building fish passages.

Even before the obligations imposed by the Water Framework Directive, we had increased the flows reserved for river annexes. And we remain committed to nature, whether in terms of aquatic habitats, along the river banks or in the forests contained in our estate. During the parliamentary discussions on the Rhône Development Bill in 2022, the question was raised whether to add a biodiversity mission to the specifications for the concession. Our response was that biodiversity is cross-functional and fully integrated into our existing missions.

Confrontations Europe: The European EESC, a body made up of MEPs and members of civil society, has called for a Blue Deal to develop the "blue economy" and support transformations under the Green Deal by provisions taking the rising pressure on water resources into account.

What perspectives would this open up for operators of major European inland waterways? What considerations regarding major river basins should be taken into account for the implementation of such legislation? Is the Blue Deal the next challenge for you and do we need to mobilise Europe very quickly, given the implications and expectations for citizens and for the planet?

Laurence Borie-Bancel: The call for a Blue deal seems a good idea to me in order to put in place a specific, global and coordinated strategy for water at the level of the European Union. The proposals it contains must be highlighted in the run-up to the June elections, then included in the roadmap for the next European Parliament.

River basins will play a major role: as reserves of accessible surface water, they provide various services but are vulnerable to an increasing demand for water. The Rhône river basin, for example, is home to 11.5 million people and water withdrawals are expected to rise from 15% of the flow volume in summer to 30-40% certain years after 2055.

A new European governance framework to address all the issues concerning the quality and quantity of water resources and coordinate cooperation between Member States on cross-border river basins would be a significant step forward. Companies also need to pull their weight, of course, in terms of reducing both their water consumption and their carbon footprint.

CNR can offer its experience as a multi-use river operator and also include its innovative initiatives in a new European strategy for water. ■

By Bénédicte Garbil,
Senior Vice-President of Institutional Affairs and Sustainable Development, CARBIOS

PLASTIC POLLUTION
ATTACKING THE SOURCE

Water, an essential common good, is a key concern in this era of environmental transition. Protecting water resources means implementing sustainable development based not only on a more rational use of water but also on preserving its quality. Alas, we all have images in our mind of plastic waste floating in the oceans and clogging up river banks. We know the harmful consequences of this for biodiversity and for the quality of water and are now beginning to discover the impact on health.

This is not only an environmental but also an economic issue: a 2021 report by the United Nations evaluated the impact of marine pollution linked to plastic waste at between $6 and $19 million.

Now that Europe is committing to a more sustainable approach to water management, we need to reconsider our practices, our policies and our technologies; given the urgency of the situation, we need to harness all the tools at our disposal.

Combating plastic pollution on land to resolve water pollution

Plastic is now estimated to represent 85% of marine waste, i.e. 75 to 199 million tonnes. Waterways, far from being spared, are affected first and are at the origin of 80% of marine pollution.

Although it may seem obvious, it is worth reiterating that 80% of marine waste comes from land-based activities.

Add to this the fact that recovering waste from aquatic environments remains technically complex and costly.

Clearly, therefore, solving the problem of water pollution means addressing the source of the problem: preventing the production of plastic waste and improving its end-of-life management.

The first action we need to take is to reduce the production of plastic waste by reducing the use of plastic. Europe has been committed to this goal for several years now with the Green Deal, which led in 2019 to the adoption of the Single Use Plastic Directive and is soon set to be reinforced by the Packaging and Packaging Waste Regulation (PPWR).

Unfortunately, however, this will not be enough: according to the OECD, around 460 million tonnes of plastics are produced each year, despite efforts made, and this figure is set to rise to 1,200 tonnes by 2060. Less than 10% of plastic waste is currently recycled. Half of the rest ends up in landfills and, what is worse, almost a quarter is not disposed of via a waste collection system at all. In 2060, despite efforts made, a billion tonnes of plastic waste will have to be managed.

After raising awareness, now is the time for solutions

In addition to reducing the use of plastic, recycling is a powerful lever that has not yet demonstrated its full potential. European technological innovations are opening the way for new solutions for increasing the possibilities for recycling. One such innovation is enzymatic biorecycling technology, developed by the French company CARBIOS. This technology recovers polyethylene terephthalate (PET) waste (one of the most widespread plastics in the world), either in the form of plastics or textiles (polyester) and reinjects it into the production cycle as a primary resource. This makes it possible to recycle packaging not currently recycled using existing technologies (coloured or opaque bottles and food containers) to a high quality, which can then be used to manufacture recycled PET products suitable for food contact and of the same quality as the original petroleum-based products.

This technology also opens the way for the fibre-to-fibre recycling of polyester textiles, for which no end-of-life solution currently exists apart from incineration or landfill. Today, less than 1% of textiles are recycled; the margins of progress offered by this polyester circularity are therefore huge.

Waste will enable us to reduce our dependence on oil

The biorecycling technology that we are developing therefore opens the way for new solutions to deal with the problem of plastic pollution in our oceans and waterways at the source. It also offers new possibilities for reducing our use of oil and European dependence. 99 % of plastics are currently produced from petrol. In the future, our waste will replace this petrol as the raw material. By breaking PET down into its basic components, biorecycling means no longer relying on petrol to manufacture packaging and textiles. In addition, recent life cycle analyses1 have shown a 57% reduction in CO2 emissions compared with the production of virgin plastic2 and 1.3 tonnes of petrol avoided for each tonne of recycled PET produced.

European regulations, an accelerating force for the environmental transition

Regulations play a key role in accelerating recycling and the use of recycled materials within the European Union. The SUP Directive established a regulatory framework aiming to reduce the impact of single-use plastics on the environment. A key aspect of this directive is the obligation for plastic bottles to contain 25% recycled plastic by 2025 and 30% by 2030, an ambitious target that reflects the European commitment to reduce plastic pollution and promote recycling. Thanks to its regulations encouraging the incorporation of recycled materials into packaging, Europe offers fertile ground for this type of technological innovation, particularly as its widespread adoption is essential if we are to achieve and possibly even surpass the goals set.

Biorecycling is not only an innovation but an industrial reality embodied in the construction in France, on the border with Belgium and Luxembourg, of a first plant capable of processing the equivalent of 2 billion bottles or 300 million t-shirts. This first CARBIOS plant is set to open in 2025. By scaling up on an industrial scale innovations developed within its borders, Europe now has the means of achieving the environmental transition goals it has set itself.

Efforts by CARBIOS and other players in the sector to change European legislation to take these innovative depolymerisation technologies into account in the calculation of recycled content demonstrate the importance of collaboration between technological innovation and the regulatory framework in order to achieve Europe's environmental goals. This synergy is crucial for ensuring that the transition to more sustainable practices is both viable and beneficial for the environment, the economy and European society as a whole. ■

CONFRONTATIONS EUROPE

SPECIAL EDITION ON WATER

MANAGING SCARCITY BETTER

THE NEW CHALLENGES OF EUROPEAN GOVERNANCE

By Jean Launay,
Chairman of the Comité National de l'Eau (CNE)

THE INTEGRATED MANAGEMENT OF WATER RESOURCES

FOR A FRESH APPROACH TO WATER

Before addressing how we can "act at every level, from cross-border cooperation to the integrated management of water in river basins", it is worth first taking a look at the legislative basis for water management in France and Europe.

In this respect, in our country, **the founding law of 16 December 1964 organised the management of water** based on a number of key principles: water services must be fully financed by users (*l'eau paye l'eau*), the polluter pays principle and, above all as regards our topic, upstream/downstream solidarity, reflected in:

The integrated management of water resources (*gestion intégrée des ressources en eau* – GIRE).

This concept goes beyond the technical management of water to take into account the socio-economic conditions of territories and States, as well as environmental issues and their political and strategic implications. As well as being implemented by States internally, they can also be applied to good effect in cross-border contexts. According to Richard Laganier in a contribution published in a special edition of *Le Monde* dedicated to the atlas of water and oceans (2017), GIRE "seeks to promote human well-being and help to reduce poverty, protect the environment and ensure balanced economic growth, thanks to development anchored in democracy and in stakeholders' participation in the decision-making processes.".

This approach attracted international interest at the first United Nations Water Conference held in Mar del Plata in 1977, thankfully and at long last followed by the New York conference held in 2023.

Management by catchment area

Metropolitan France is divided into six major river basins and five in the overseas territories, each of which has its own river basin committee (*comité de bassin*), a deliberative body composed of representatives of central government, all levels of local government and users of water, both economic (industry, farmers and electricity producers) and non-economic (consumers, the fishing community and environmental protection organisations).

This innovative law also created water agencies; executive bodies composed of a board of directors (programme subsidies, finance, assessment and planning, etc.) and specialised technical committees focused on various topics such as natural environments, flooding, users (agriculture and industry) and international issues.

The water agencies fund water policies through the proceeds they receive from various charges based primarily on water consumption and pollution, in line with two key principles: the polluter pays principle and the principle that water services must be paid for by users.

The very notion of a river basin defies administrative limitations, both between departments and regions in France and across borders with other States. In his two books, *L'avenir de l'eau* (Fayard/2008) and *La terre a soif* (Fayard/2022), Erik Orsenna, a member of the Académie Française, examines relationships between States through the prism of the major rivers they share.

The 1964 water law is still highly relevant today, 60 years on!

It constituted one of the first acts of decentralisation, at a time when decentralisation was not yet on the agenda. Catchment areas in effect concern different regions directly, in all their diversity, and require specific responses to situations encountered on the ground.

It also signalled a first step towards deconcentration, at a time when this concept was not yet in vogue. The six water agencies are public administrative bodies (*établissements publics de l'Etat à caractère administratif*) and play a central role in water and biodiversity policies.

Under the supervision of the Ministry for Ecological Transition and Territorial Cohesion, they implement the water development and management master plans (*schémas directeurs de gestion et d'aménagement des eaux* – SDAGE) by seeking to promote a balanced and sustainable management of water resources and aquatic environments, the supply of drinking water, flood control and the sustainable development of economic activities.

PI would also defend the idea that this decentralised and deconcentrated model generated green taxation and participatory democracy before these two concepts became commonly used terms in the political sphere.

These great achievements of the 1964 law must be constantly defended. In effect, by involving all those concerned by water in consultative and even decision-making structures, decisions are made in a more concerted manner, supported by a lengthy dialogue process beforehand.

Latent Jacobinism and the risk of the financial rebudgeting of water policy constantly threaten to undermine these achievements.

Taking climate change and global warming, now indisputable, into account requires a fresh approach to water.

We increasingly face the problem of water shortages: droughts are now common, arriving earlier in the year, from spring onwards, and lasting longer, into autumn. The heatwaves of 2022 and 2023 are not comparable but had a real impact, exhausting whole areas and affecting the soil, aquatic habitats, biodiversity and our own bodies. Forest fires are also becoming increasingly common, more intense and longer lasting.

Excess water is also a problem, though, and just as visible: the recent floods in the Pas de Calais department, which have struck three times now, are a dramatic illustration of this.

Add to this the melting glaciers, the shrinking ice cap and rising coastlines and we can clearly see that the combined effects of these phenomena on our country and on the world as whole present major natural risks for the planet and the populations inhabiting it and will, unfortunately, soon give rise to a new type of refugee: climate refugees.

National Adaptation Plans for Climate Change (NAPCC) and the climate change adaptation plans of river basins and regions call for the development of regional policies and the definition of new forms of solidarity.

These documents will have to take into account projected changes in the water resources available and how they are used. In the Adour-Garonne river basin, for example, the river basin committee discussed the principle of water savings at its meeting on 25 April 2023, based on work carried out with local public river basin bodies to determine a saving trajectory for each sub-basin, to be defined by spring 2024 in the framework of local commissions.

By calling for political leadership at every level of responsibility, the clarification of goals, the need for governance involving all stakeholders, the definition of priorities and the furthering of our knowledge about the risks, the latest report of the IPCC gives us all the keys we need to lay out dynamic trajectories for adaptation.

This applies not only to us in France but everywhere on Earth; **cross-border cooperation offers a gateway to river geopolitics.**
Civilisation sprang from the banks of rivers and the development of hierarchical urban societies is closely linked to our mastery of water. As Richard Laganier says: "Water is central to power relationships: between users on the left banks and right banks of rivers to access the water, between users upstream who take water to the detriment of those downstream, and for control of the water and how it is shared between users.".

Water flows, but it is not free-flowing for everyone! A lack of infrastructure and poor quality water poses the problem of access to water, because water also means sanitation. The UN's Sustainable Development Goal 6 is dedicated to water and states the aim of eliminating inequalities in accessing water services and safe sanitation. Sanitation and public health therefore constitute issues to be addressed, as is the circular economy: reducing our water consumption and our increasing our capacity to reuse the waste we produce means better reuse of treated used water and the recovery of sludge.

Using but not abusing our use of water! While irrigated agriculture has enabled us to meet the demand of a growing global populations, its development has harmed the environment, both by putting pressure on water resources and by modifying aquatic habitats. We need to move towards eco-efficient irrigation, with sobriety as the goal.

Large-scale hydroelectric plants have shaped and continue to shape global diplomatic relations. Often seen as symbols of modernity, dams provide a form of renewable energy. They also, however, create a whole series of negative impacts, first and foremost of which is the displacement of local populations (see the Three Gorges Dam in China). They can also constitute geopolitical time bombs, as their capture and storage of water can poison relations between countries faced with dwindling water resources and growing needs.

A concrete example of cross-border cooperation; Oyapock - Maroni: "a catalogue of borders" (Erik Orsenna) between France, Brazil and Suriname.

The Bio Plateaux initiative constituting action 62 of the biodiversity plan of Nicolas Hulot, the former Minister for the Ecological and Solidarity Transition, was launched in 2019 with a conference in Cayenne in the presence of Annick Girardin, then Minister for Overseas Territories. France (French Guiana), Brazil and Suriname all face similar issues and some significant challenges with regard to these river basins: hydrology (uncrossable rivers and the vulnerability of populations), quality of habitats (gold panning) and essential services (access to water and waste). Today, the goal is to move beyond the diversity plan to the creation of a cross-border river basin body, including the French Guiana territorial authority. Patrick Lecante, chairman of the River Basin Committee of French Guiana, is a driving force in the territory and is behind the project, particularly as it was included as a voluntary commitment under the 2030 Agenda at the UN conference in New York in March 2023.

Conclusion

Water, a common resource, needs to become a force for peace rather than grounds for war.

Almost 250 river basins worldwide are shared between two or more States, constituting de facto hotbeds of tension in the context of global warming, which is accelerating the depletion of this resource. According to Frédéric Lasserre, a professor of geography at Université Laval in Quebec, "water in itself is not a source of conflict but the rivalry that sharing it provokes combines with other sources of tension to create fractures." Around the globe, it will be the sharing of water that forms the basis of lasting peace. The cross-border management of rivers between States, under the aegis of the United Nations or the World Bank, will demonstrate that through collaborative management, water, so often a source of conflict, can also be a force for peace and cooperation. ■

CONFRONTATIONS EUROPE

SPECIAL EDITION ON WATER

TOWARDS A NEW EUROPEAN WATER POLICY

CALLING FOR A EUROPEAN BLUE DEAL

By Pernille Weiss,
Danish MEP for the EPP Group, Member of the Committee on the Environment, Public Health and Food Safety

TIME IS RIPE FOR BUILDING AN INNOVATION WATER ECOSYSTEM IN EUROPE

« As water challenges are becoming more complex and intertwined, one solution appears as particularly suitable: building a strong European innovation ecosystem on water. »

Water is a fundamental resource for life, for our ecosystems, economic activities and society as a whole. However, in the face of growing consumption and climate change, the magnitude of water challenges, notably water stress and pollution, is exacerbated. Due to the interconnectedness of water, issues are also becoming increasingly complex and intertwined.

While the situation requires coordinated action between all players, the reality tells a different story: our policy framework does not adequately address the problems at stake and there is a clear fragmentation of efforts across the board.

This is particularly true in the field of innovation. Strong collaboration between the academia, research and business activities is crucial to create an environment that fully exploits and commercialises the knowledge being created. However, there is a current disconnect between the so-called "knowledge triangle" which prevent us from effectively bringing the findings of innovators towards end-users.

One of the solution to address this problem is to build a strong European innovation ecosystem on water. This approach echoes the actions taken by the European Institute of Technology (EIT), whose mission is to strengthen our ability to innovate in the EU. It does so by creating and running several innovation ecosystems, the so-called Knowledge and Innovation Communities ("KICs").

This article will elaborate on the concrete steps I have taken, as Chair of the MEP Water Group in the European Parliament, together with my colleagues Maria da Graça Carvalho (EPP, Portugal) and Christian Ehler (EPP, Germany) to push for the establishment of such an initiative on water. Additionally, this paper will give you an overview on the current state of play and what we can expect going forward.

The importance of an innovation ecosystem

To begin with, let's clearly define what we mean by an "innovation ecosystem". This concept refers to a network of entities that collaborate with one another to create, develop and commercialise innovative solutions (e.g. new products and services). These entities include a wide range of actors: from large and small companies, universities and research institutes to vocational training providers, investors, and NGOs, among others.

In the case of the KIC, two additional dimensions come into play: stakeholders are geographically diverse (27 Member States can participate, as well as EFTA partners such as Norway or Switzerland) and they represent various sectors (for instance, they can be involved in 'freshwater' or 'saltwater' related activities).

Such ecosystems are particularly effective because they capitalise on stakeholders' complementary expertise to help bridge the gap between ideas and their implementation on the market.

This is necessary because tackling complex real-life challenges, such as the water crisis, cannot be solved alone. Instead, it requires a network of knowledgeable and collaborative entities which, by creating synergies, can break down barriers across sectors and borders.

In the case of the water sector, innovative solutions could for instance improve the resilience of our ecosystems, strengthen water quality, reduce waste, as well as mitigate the impacts of climate change.

The "KICs": Knowledge and Innovation Communities

Inspired by the Massachusetts Institute of Technology which fosters university-industry partnerships, a main aspect of EIT's work is to run KICs. Since 2010, nine of them have been established, each tackling a specific societal challenge: food, health, digital, culture, raw materials, etc.

But how do you create a KIC in the first place? And how do they work? In practice, the European Commission first launches an open call for application to all relevant stakeholders. From then on, interested parties form themselves into groups (usually two or three groups with each 30-50 stakeholders) that compete against each other to become the "winning KIC". However, this process tends to be highly time-consuming and arduous. Participants not only need to express their potential contributions and expectations, but also to accurately understand others' respective strengths in order to coordinate and strategically form alliances to succeed.

Once the winning team is announced, the structure of the KIC is organised between a headquarter, which leads the work, and five to six regional "co-location centres", which acts as operational units dedicated to specific objectives.

Financially speaking, the KIC receives European funding for a period of seven years, with a possibility to renew it once for the same length of time. Therefore, after a maximum of fourteen years on EU lifeline, the goal is to become financially sustainable via the products and services it has created, developed, and sold.

Water KIC

Where is the Water KIC in all of this? The latter is expected to become the 10th and latest edition of the series. The Commission announced that a call for application should be launched next year in 2025 in view of establishing the Water KIC a year later, in 2026. This decision was received with great enthusiasm by stakeholders across Europe, which are highly motivated by the potential impact and value from such initiative. Yet, it also means that they need to start working now on the strenuous application process.

In this context, I have together with my colleague Ms Carvalho and Mr Ehler decided to concretely support these participants by setting in motion two actions: on the one hand, kick-starting the coordination process between stakeholders, and on the other hand, requesting a tailored-made study that would provide actionable recommendations going forward.

Fostering cooperation among stakeholders

To activate the coordination process, we have organised a unique one-day interactive workshop in the EU Parliament in Brussels in January. Over 90 stakeholders from 18 countries participated, ranging from Denmark and Cyprus to Ireland and Slovakia. We also had the honour and pleasure of welcoming two high-level speakers, Commissioner for Innovation Iliana Ivanova and EIT Head of Operations Adam Rottenbacher, who both highlighted the value in establishing an upcoming KIC on water.

The objective was to foster collective and in-person interaction, collaboration, networking, and brainstorming, so that participants could better identify and understand their respective tools and needs for working towards a successful KIC.

To achieve that, we have divided all participants into small groups and gave them a dozen of specific and relevant questions to reflect upon and answer (e.g. 'which focus areas do you see as having to the highest potential for value creation?' or 'list, prioritise and explain what impact(s) do we want to achieve in this KIC?'). After multiple rounds of exchanges and debates, participants eventually presented their findings to the audience. At the end, my team and I collected all written inputs, and analysed and compared this data to draft a concise report.

The findings

The results were quite striking. Synergies were created: a majority of the topics identified as having the most potential for value creation were also seen as having the most potential for sustainable innovation and for improving the quality of life of European citizens.

In this context, four key priorities emerged: the use of data digitalisation (to better measure and manage water resources); the improvement of drinking water quality (which is increasingly polluted); the betterment of water infrastructures (which are ageing and leaking); and finally the emphasis on circularity (especially for agriculture management and wastewater treatment).

In terms of challenges, participants revealed that they will have to strike a balance between the interests of the freshwater, marine, and maritime sectors, as well as to act with a unified voice.

STOA study on water

In parallel to this workshop, our second initiative was to request a study to the European Parliament's Science and Technology Options Assessment (STOA) Panel to provide actionable recommendations for the establishment of a KIC. A pan-European team of experts is currently working on the project, which is expected to be published in May.

In particular, the study will advise participants on how to prioritise, design, and organise their work in the future. For instance, it should identify the thematic areas with the highest potential, draw the landscape of current and emerging technologies, and point to the need for more research and possible re-design of regulations when necessary.

Conclusion

To summarise, water is an essential yet threatened resource that needs our most urgent attention. As water challenges are becoming more complex and intertwined, one solution appears as particularly suitable: building a strong European innovation ecosystem on water. By bringing together a wide range of stakeholders, across sectors and countries, we are able to strengthen our ability to break down barriers to innovation and implement concrete solutions. This approach is in line with the EIT's mission, which is expected to launch a KIC on water in 2026.

However, the process to kick-start coordination between all players is typically arduous and time-consuming. This is why, together with two colleagues in the European Parliament, I have taken concrete steps to support them. Firstly, by organising an in-person interactive workshop in Brussels to foster exchanges of ideas and mutual understanding among participants. Secondly, by requesting the STOA Panel in the European Parliament to prepare a study that would advise and guide them in their immediate next steps.

I thus look forward to see how the expected Water KIC will materialise and, more generally, how the European Commission will address water challenges in its upcoming mandate (2024-2029). I am convinced that a holistic approach, where water goes beyond environmental policy to be instead mainstreamed in all EU policies, is the only way forward. This is also why I have repetitively voiced my support - along with the European Economic and Social Committee - for the adoption of a much-needed "Blue Deal", which should be adopted as a standalone strategic priority for the European Union. ■

By Pietro Francesco De Lotto,
President of the Consultative Commission on Industrial Change of the European Economic and Social Committee

CALLING FOR A EUROPEAN BLUE DEAL
TO SECURE EUROPE'S WATER-RESILIENT FUTURE

Europe is increasingly feeling the impacts of water scarcity and the global water crisis. Countries and regions are dealing with droughts, poor water quality, or lack of access to safe drinking water. There is a lack of water efficiency in many areas of our society, including water supply infrastructures, production processes and consumption. Overall, we are not on track to achieve the Sustainable Development Goals related to water.

The European Economic and Social Committee (EESC), an advisory body of the EU representing organised civil society, strongly believes that there is **a need for a change of scale in European water policies**: the current approach is fragmented and not adequately addressing the challenges in our society. An EU regulatory framework exists, but many of its objectives have not been reached, largely due to lack of funding, slow implementation and insufficient integration of water in sectoral policies, and the water dimension is not sufficiently embedded in public and private decision making. Water is not being addressed as a cross-cutting issue, but considering its role in supporting all human activities, it is the most vital resource to be preserved.

Without action, water challenges will impact ever larger parts of our society, with implications for economic, social, and political stability, also here in Europe, if water scarcity threatens people's livelihoods, such as farming, and if people are forced to migrate to have access to water. We need measures at EU level to safeguard clean water for people and our ecosystems, and to ensure a true transition to sustainable water use.

The EESC presented its call for an EU Blue Deal, a comprehensive water strategy for Europe, in October 2023. It addresses the social, economic, environmental and geopolitical aspects of water, water challenges in agriculture, industries and infrastructures as well as sustainable consumption. The EU Blue Deal Declaration puts forward 15 principles and 21 concrete actions to be adopted as a matter of urgency. **We call on the European Commission to make water a strategic standalone priority for the EU.**

Since the start, we have proposed the Blue Deal as an independent but complementary policy to the Green Deal. Why this positioning?

So far, water has been embedded in the Green Deal, whose main objective is a carbon-neutral Europe by 2050. While no EU policy can result in a net increase of our continent's carbon footprint, subsidies continue to be paid for water-intensive projects in areas with extreme water stress, and citizens have little awareness of the impact of their consumption on the amount of water available in their region and globally. If nothing changes, food production could be threatened by water scarcity, which is not acceptable.

This demonstrates that water cannot remain within the Green Deal but must be addressed as an independent policy: **Water resilience and decarbonisation have to be addressed with the same determination, and the EU therefore needs two complementary policies on a par with each other.**

It is important to underline the difference in nature between the two policies. Decarbonisation aims to combat climate change. The Blue Deal will also contribute to this aim, as water is a one dimension of climate policy, but **water cannot be limited to a purely environmental issue.** The Blue Deal and Green Deal overlap, but retain different fields of action.

For instance, as recognised by the United Nations, access to water is a human right. However, in Europe, around 10 million people do not have access to safe drinking water, and globally the amount of available drinking water is not sufficient to meet the needs. We need to invest in our water infrastructures, knowing that in some EU countries, up to 50% of water is lost due to leakages. This also justifies dedicated social policies to ensure that the most vulnerable populations are not deprived of access to clean water and sanitation.

There is an urgent need to address these issues, in addition to purely environmental considerations. The EESC therefore believes that the paradigm must change: **as the Blue Deal becomes one of the priorities of the next mandate of the Commission, all EU policies will need to be reviewed to include the water dimension.**

Finally, it should be stressed that the Blue Deal **is based on a different philosophy and methods of action than the Green Deal.** To take the example of industries, we do not recommend that companies reduce their water consumption by X % so as to achieve a "zero water impact" by 2050. Some industries could do this much faster, if the necessary technologies exist, while other sectors – such as the textile or nuclear industries to take two examples – will need much more time.

If we do not want to force these sectors to relocate by adopting standards that are too high, it is important to adopt a tailor-made, sectoral approach to defining transition pathways for each industry. The most water-consuming companies need help to succeed in their transition. Thus, while under the EU Green Deal "brown" industrial sectors have sometimes struggled to obtain financial aid to decarbonise, in the context of the EU Blue Deal **we see it as a necessity to help the most water-consuming industries to gradually adopt technologies to become more water-efficient and more competitive.** As we propose in the EU Blue Deal Declaration, this could be done through the revision of the industrial transition pathways within two years, taking into account the water, energy and critical raw materials nexus, and while providing financial support and boosting research for technologies to ensure the success of these industrial changes. This approach will preserve jobs and create new career opportunities for workers, especially in clean technologies. **Like any industrial change, the Blue Deal will succeed only if it has the resources to implement it, both in terms of financing and human resources.**

If we join forces now and adopt water as an EU priority for the years to come, it is not too late to act. The cost of inaction is higher than the cost of acting now.

The EU elections will take place in a few months. Europeans will vote and support democracy only if they feel that the European institutions provide solutions to issues that they care about. And water is a topic that we can all relate to; it is something very concrete. How will European decision makers address the issue of water and the challenges that lie ahead? Now is indeed the time to ask these questions.

We have involved stakeholders from the water sector, industries and civil society, as well as international organisations in the preparation of the EU Blue Deal. And we have seen an unprecedented amount of interest in this initiative. Stakeholders come to us proposing joint actions on this topic; they see the Blue Deal as a meaningful concept that can support their engagement on water. **There seems to be this emerging hope that the EU Blue Deal will be a turning point in achieving long term water-resilience for Europe.**

Since the start, we have worked closely also with the European Parliament, where many MEPs share our vision on the need to address water with a more strategic approach in order to ensure a water-secure future. We hope that the new Parliament will keep this commitment. This depends on our future choice, as EU citizens.

Although our call was widely welcomed, the recent postponement of the Water Resilience Initiative by the European Commission sends a worrying signal and shows that we need to continue to push for this change of scale to happen. Together with the Parliament and the European Committee of the Regions, we have called on the Commission to publish the initiative without delay, and we look forward to contributing to the public debate on the EU's water-resilient future.

We are determined and optimistic: many Member States are starting to wake up to the importance of the water crisis, although the issues affecting them might vary. Many have recently adopted national water strategies, which is an encouraging sign. We will continue to work closely with them to foster a coordinated approach at EU level; no country can tackle these challenges alone.

We will also continue to engage with organised civil society, calling for a more ambitious and comprehensive strategy on water for Europe. Europe needs and deserves an ambitious EU Blue Deal. ■

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