



INITIATIVES POUR L'AVENIR  
DES GRANDS FLEUVES  
INITIATIVES FOR THE FUTURE  
OF GREAT RIVERS

## Executive Summary



3<sup>rd</sup> session

11-14 October 2016 – Avignon

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## Introduction

Following Lyon and Montreal, the third session of IFGR was held in Avignon, from 11 to 14 October 2016. Two weeks before the opening of the Marrakech Climate Conference, it was one of the rare events organised on French soil to have obtained the COP22 label.

## IFGR and the COPs

From the outset, Initiatives for the Future of Great Rivers has given itself the mission of defending the world's great rivers on two fronts: sounding the alert on their extreme vulnerability in the face of climate change, and promoting the solutions they can provide to respond to the impacts it causes.

At the end of the first IFGR meeting and on the occasion of the COP21 in December 2015, the members of IFGR representing rivers jointly signed a forum written by Erik Orsenna titled "We have forgotten the rivers!", published in *Le Figaro* on 14 December 2015. This plea announced the launching of the first seven initiatives coordinated by the IFGR team and its partners throughout 2016.

This action led to IFGR being invited to organise a side event at the COP22 on the theme of rivers: challenges, stakes and solutions in the face of climate change (see photo opposite).



## The theme of deltas

The theme of deltas – one of the forum's structural orientations – occupied IFGR's twenty panellists for the three days of the session which alternated visits in the field (the Camargue delta, the Arles Museum of Antiquity, a voyage on the Rhone on board CNR's hydrographic boat) and workshops.

The aim of this session was to formulate a collective plea that could be expressed in the framework of the COPs. Indeed, water has progressively found a place in international negotiations on the climate since the COP21, with the organisation of a day dedicated to this subject last November during the COP22. However, action must continue on the many challenges linked to water and which at present lack specific action plans.

This is the case of deltas, despite the fact that they are among the regions most vulnerable to climate change, and there is an urgent need to adapt our industrial, urban, agricultural and energy consumption practices.

What do these territories teach us from the standpoint of adapting our society to climatic risks? What do the deltas of the Camargue (100,000 inhabitants) and the Ganges-Brahmaputra in Bangladesh (150 million inhabitants) have in common? How can global solutions be identified given that the budget dedicated to managing the delta of the Camargue (€100 million) is equivalent to the total expenditure on health of certain countries? On another scale, in the United States, the Coastal Protection and Restoration Authority (CPRA) is implementing a \$17 billion programme devoted to protecting the Mississippi delta and the Louisiana coast. The 2<sup>nd</sup> phase of this project will be endowed with \$52 billion.



Through their cross-disciplinary and non-technical visions, the representatives of Initiatives for the Future of Great Rivers want to contribute an additional stone to the community of those that have long blown the whistle on the urgent need to act for these territories. By acting in this way, they have opted to take a decidedly optimistic approach to today's challenges. The theme of deltas is relevant since, despite the dangers affecting them, they are also buffer zones, interfaces between the sea and land where they can give rise to creative and precursory ideas.

### **The actions begun**

During the sessions, the panellists fuelled their discussions with concrete facts linked to previous and current experiences, and they worked to propose ideas and act as relays for existing solutions. Beyond whistle-blowing, the aim is to facilitate the transition between research and action, and make the knowledge gained available to the general public.

These ambitions gave rise to different actions that were launched during this session:

- The forum that you will find in the appendix is a collective effort stemming from the work done at this third session, and taken to Marrakech for the COP22;
- Support for research applied to several topics;
- The individual productions of members on the place of rivers in response to climate change.

Furthermore, IFGR joined the actions launched in the framework of the Paris Agreement: jointly, it signed the [Paris Pact on Water and Adaption to Climate Change in river basins, lakes and aquifers](#), driven by the International Network of Basin Organisations (INBO). It also joined the Climateiswater initiative launched by the World Water Council and supported by an international steering committee composed in particular by the Partenariat Français pour l'Eau, the Stockholm International Water Institute, UNESCO-IHP, INBO and other international actors (NGOs and national and international institutions).

# PART 1: THE CAMARGUE

## An introduction to deltas

Contrary to the previous session, mostly organised around the challenges facing the City and Port of Montreal, this third session did not have the goal of formulating specific recommendations addressed to the host region. The aim of discovering the Camargue was to provide a backdrop for reflection on the problems facing deltas, in order to build a collective message to be presented at the COP22 of Marrakech on 9 November 2016.

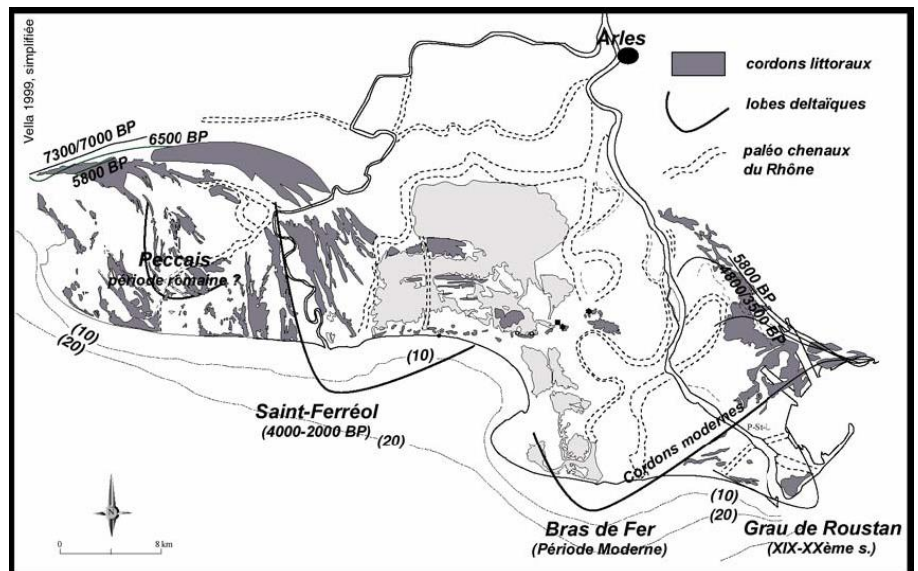
### I. The Camargue: an introduction to deltas

The Camargue is a region inside the Rhone delta and located on the Mediterranean coast. Its inland part covers 150,000 ha while its marine part covers 80,000 ha. It comprises 11 municipalities with most of the land remaining in natural state (53%), 27% is devoted to agriculture and 18% is covered by salt marshes. The region has been the subject of a large number of rulings aimed at protecting and managing the environment, in particular through the Regional Nature Reserve of the Camargue (PNR) founded in 1970.

#### Background elements

The Camargue delta is a region of interfaces that has undergone significant changes over time due to climatic fluctuations and human activities.

The evolution of the delta over the last 10,000 years – Source: Parc de Camargue, presentation by Régis Vianet.



Evolution of the Camargue over three centuries.

The most recent changes in the course of the river occurred just before the full confinement of the delta by dikes in 1856- Source: Parc de Camargue, presentation by Régis Vianet.

Like most deltas, it is a region essential for agricultural production, especially rice growing (250 rice farms, 120,000 t of rice harvested). This crop has been developed in part to combat the infiltration of salt and to preserve the delta's hydrological balance; 450 M m<sup>3</sup> of water from the Rhone is introduced every year for the needs of the rice farmers.

To a great extent the Camargue has been fashioned by man. For thousands of years, human communities have developed the river and its adjacent land, for example for cattle breeding and growing crops, and staking out a space dedicated to activities and natural resources. Following the severe floods of 1856, the delta was completely encircled by dikes to make the land non-submersible by the waters of the Rhone and the Mediterranean Sea (more than 200 km of dikes were built between Beaucaire/Tarascon and the Mediterranean). In recent times, hydraulic developments have served in particular to stimulate viticulture (1870-1942) and rice growing (since 1950).

The current functioning of the delta is organised around water and its management via two interdependent irrigation and drainage networks, and more than 400 Km of main channels. 48 irrigation and drainage associations cover 80% of the delta.

The Camargue also provides a space for preserving biodiversity and the region's cultural identity: it includes 11,300 ha of wetland pasture in the Isle de Camargue on which graze 15,000 Camargue bulls and 6,000 Camargue horses, both breeds specific to the delta.

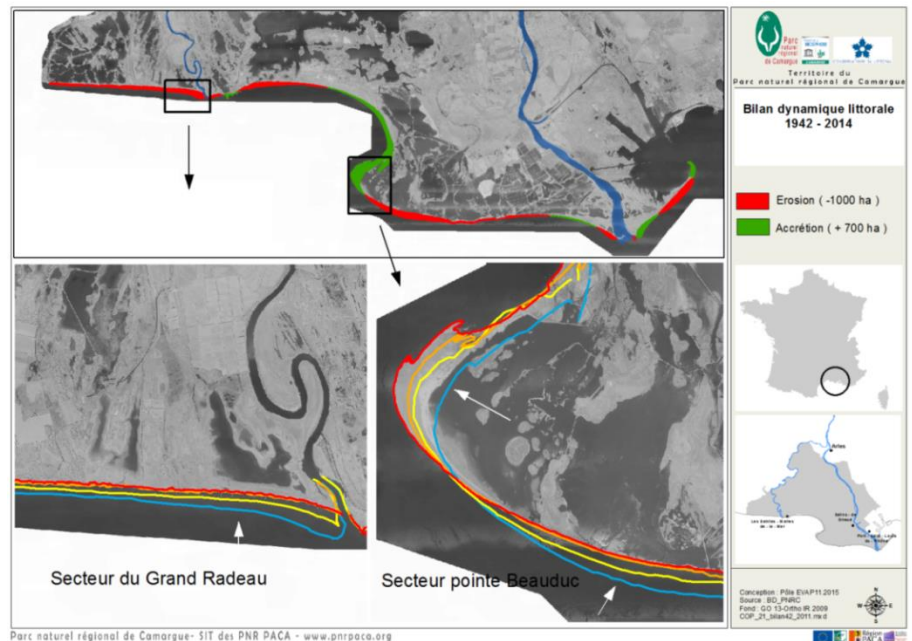
### *The challenges of climate change*

The actors of the region are already identifying responses to several climatic challenges. Indeed, the Rhone delta must adapt to:

- Changing hydraulic dynamics, manifested through exchanges between the sea and the lagoon, the raising of the saline corner<sup>1</sup>, and integrating the management of river overflows.

- The evolution of coastal dynamics, which involves the integration of sediment transfer, and taking into account the shift of the coastline. The delta is particularly prone to coastal dynamics, although the coastline is not eroding in the same way everywhere: certain areas continue to develop and advance seawards while others recede. The impact of the rise in the sea level on the delta will not be uniform due to the prevailing sea currents and wave action.

- The evolution of biodiversity, characterised by the modification of migratory dynamics, and the arrival and impact of invasive species.



<sup>1</sup> Triangle of seawater formed by the convergence between the seawater and the freshwater of the river which is lighter and rises to the surface downstream while the seawater progresses up the estuary at lower depth.

Several actions have been started in recent years, for example, to improve the drying of land following flooding and to restore the lagoons and salt marshes of the Camargue (management adapted to the rising sea level).<sup>2</sup>

According to the director of the Camargue Regional Nature Reserve, Régis Vianet, the local population has not yet become fully aware of the impacts expected from climate change. One of the challenges of the delta will be to make the change more socially acceptable and assist changes of perception on this subject. The history of the delta is proof that the changes underway are not disastrous and that natural phenomena – with their disturbances and surprises – add to the region's wealth and originality.

### *Lessons*

Contrary to many deltas, the Camargue has a very sparse population: only 10,000 inhabitants live in the delta, equivalent to a hamlet of a municipality in the Mekong delta in Vietnam, which accommodates 20 million inhabitants. Thus the challenges are difficult to compare in many ways. For example, regarding public health although the Camargue provides a terrain propitious for the emergence of infectious diseases, with breeding grounds for mosquitos, the risk of epidemics remains low, as the insects mainly develop outside the most populated areas.

The landscapes of the Rhone delta are sufficiently diverse to help us understand how the environment is able to adapt to changes, especially climatic ones. The examples observed during the visit spurred the members of the IFGR panel to think of paths for improving the capacity of deltas to evolve naturally, in order to preserve their ecosystems and strengthen their role as buffer zones between land and sea.

### *Recommendation from Régis Vianet, Director of the Camargue Regional Nature Reserve, concerning the coast*

"The coast of a delta is composed of loosely packed and mobile materials resulting from sediments carried from inland and that are reconfigured by marine currents.

It is illusory to spend too much energy in attempting to freeze the coastline since it moves constantly in a situation whose dynamics prevail over a fixed long term vision.

Therefore territorial development has to be understood from a dynamic standpoint that incorporates the notion of adaptation to change.

That's why, before carrying out any action, it is necessary to consider management and action-research on the coast from a multidisciplinary, adaptive and proactive standpoint and strengthen links with decision-makers. It is also important to get the elected representatives and the local population to share the challenges."

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<sup>2</sup> For more details, see the presentation in the appendix.

## PART 2: “FOR THRIVING DELTAS”

### A reminder of IFGR’s position: considering major challenges in multiple ways

It is not IFGR’s role to act in the place of bodies that have been directly involved in these subjects for a long time, often at interdisciplinary level. Nonetheless, IFGR asserts its difference by positioning itself as:

- a whistle blower, on deltas and other subjects;
- a meeting place of initiatives that lead to innovation, the invention of solutions and their transformation into concrete projects, thanks to the many political decision-makers and economic actors within its ranks (we are “network of networks”);
- our model of functioning is non-conventional, non-hierarchical and flexible, at the interface between research and action and between the short and long terms;

IFGR can be likened to an orchestration whose role is to grow stronger and transform quickly, by creating knock-on effects in the areas of research and action.

### The plea “For thriving deltas”

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#### Summary

- ➔ The delta is a **school of exchange** and permanent metamorphosis.
  - ➔ We are witnessing the **acceleration** and **multiplication** of transformations (climate, demography, etc.) that interact with each other. Care must be taken not to go beyond the **threshold of irreversibility**.
  - ➔ Taking these dynamics into account, deltas are places that manifest both the **symptoms** and the **rationale** of rebirth. They represent an opportunity for totally changing our relation with nature, by helping us to change our perception of managing adaption.
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#### **Introduction**

##### **Deltas: at the front line of climate change**

From the Mekong to the Parana, deltas play the role of pioneer territories in the face of current global upheavals. Trapped between rising sea levels and lower river discharges, with cities and towns with growing and often very poor populations, they are also regions highly vulnerable to natural disasters.

The impacts of climate change exacerbate the threats to these naturally vulnerable regions (reduction of sediment influx, submersions, floods, proliferation of diseases, etc.). Deltas are threatened in the long term by subsidence and rising saltwater. They are subsiding at a far faster pace than the rise in the sea level (on average from 2 to 3 mm a year whereas certain other deltas such as those of the Mississippi and Niger, are subsiding at the rate of several centimetres a year). In Bangladesh, 30,000 km<sup>2</sup> of land will disappear if the sea rises by one metre, i.e. 1/5<sup>th</sup> of its territory on which 15 million people live. Likewise, 39% of the surface area of the Mekong delta would be submerged, and 70% of the land devoted to rice growing would be made infertile owing to the proportion of salt in the soil, thereby directly affecting 35% of its population. In the short term, the deltas are exposed to extreme climatic phenomena. Every year, more than 10 million people are faced with floods caused by storms.



## Laboratories of methods for resisting and adapting

Why have societies always chosen deltas as areas in which to live and develop? Their inhabitants continue to settle in them despite the risks; in Bangladesh, the deaths caused by the cyclones of 1970 (126,000 deaths) and 1991 (134,000 deaths) have not prevented the populations from returning, sometimes drawn by the lack of alternatives, but also by the characteristics specific to deltas (fertile soil, access to the sea) and by their historic links to these living environments.

Deltas and their populations have in fact always adapted to changing climatic and meteorological conditions. Thus they are rich with lessons for our societies. According to the definition of the UN, adaptation consists in “adopting policies and practices for preparing populations for the effects of climate change, by accepting the fact that it is henceforth impossible to avoid them completely”. Up to recently, adaptation was the poor cousin of international negotiations on the climate since the main option chosen has always been mitigation, meaning the implementation of a series of measures aimed at reducing the effects of greenhouse gas emissions.

Delta regions are the proving grounds and receptacles of different types of knowhow that facilitate adaptation. These practices stem from both bygone times and recent experiences: flood warning systems, crops less vulnerable to salinization, more resilient building materials and constructions, etc. New methods are used to obtain this type of information, such as archaeological maps and geophysical prospection that make it possible to detect structures like palaeochannels and ancient canals. The latter are often usable, as in the case of the Middle East, where underground drainage channels have been refilled with water to irrigate gardens.

## Schools for the joint management of water to better control conflicts of use

Deltas are often regions that demand the formulation of global policy solutions. Taking control of deltas involves acting in favour of better distribution of water use and building genuine dialogue between countries crossed by the same river.

The IFGR members reached agreement on different priorities during the debates of the third session. The key messages are presented below, as are the main related points of discussion.

### 1- Defending deltas

**Message: The importance of deltas is both quantitative and qualitative and should be promoted in the framework of international action to combat climate change.**

#### Development:

- 500 million people live in delta regions, that is to say 8% of the world's population. Their average density of 500 inhabitants/km<sup>2</sup> (about the same as that of a city like London) masks major disparities: that of the Camargue (the Rhone delta) is only 10 inhabitants/km<sup>2</sup> whereas the demographic density of the Nile delta is 1,000 inhabitants/km<sup>2</sup>.

- Most of these deltas are regions essential for crops and livestock breeding; for example, the Mekong delta supplies Vietnam with 50% of its food crop production, 95% of its rice exports, 65% of its fish farm production and 70% of its fruit production.

- They are also reserves of biodiversity. In Bangladesh, the delta comprises the Sundarbans mangrove forest, the largest in the world (10,000 km<sup>2</sup>), a living environment for people and a breeding ground for various species including some threatened with extinction (Bengal tiger, Irrawaddy and Ganges dolphins, saltwater crocodile and Indian flapshell turtle).

- Lastly, account must be taken of the [social and cultural particularities](#) of these regions. The women of some of the world's delta regions are more vulnerable since it is they who are most active in their economic life.

## 2- [Accommodating and controlling \(exchanges\)](#)

**Message:** Deltas are privileged interfaces of exchanges that are intensifying as climate change progresses. Deltas are therefore laboratories for experimenting with the changes that are occurring in ecosystems and societies due to rapid climatic fluctuations. They point to a need to change our relations with nature, to graduate from controlling it to assisting it.

### Development:

- [Ecosystem changes](#): deltas are places in which transfers are permanent, whether geological (the river transports sediments into the delta); aquatic (between freshwater and saltwater), or geographic (the movement of communities from the estuary to the delta and vice-versa). The delta is also a place in which many species of animals, micro-organisms and plants interact.

=> These dynamics permit better understanding of environmental reactions to changes in the ecosystem. What, for example, would be the impact of the disappearance of a species (invasive plant, insect vectors of viruses)?

- [Human exchanges](#): deltas are places in which exchanges between populations, cultures and beliefs take place. They accommodate migrations: their vulnerability to natural disasters causes populations to leave though they often return. The populations of deltas have not evolved linearly from nomadism to sedentarism, though some have returned to nomadic lifestyles. Moreover, these regions have given rise to cultures, behaviours and beliefs, some of which are in the minority as in the case of Saintes Maries de la Mer in the Camargue (where Pentecostal communities congregate). The same observation can be made along rivers, where certain peoples (such as the indigenous communities of North America) have nurtured a specific relationship with the territories they inhabit<sup>3</sup>.

=> Deltas are unique regions located at the limit where land stops and where the realms of plants and animals and those of Man interpenetrate. As tools for learning how to adapt and of the ephemeral nature of the human condition, they call us to:

- embrace other visions of human existence and explore “the amphibious possibilities of human beings”;
- to “re-centre the marginal” to take into account minority cultures;
- bring to light new tools. Our societies have much to learn from delta civilisations regarding our agricultural practices, our conceptions of development and our modes of mobility.

## 3- [Knowing \(interactions and dynamics\)](#)

**Message:** IFGR calls for support to improve knowledge on deltas, along interdisciplinary and international lines, based on local knowhow and oriented towards action.

### Development:

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<sup>3</sup> In addition this specific link is recognised by the UN: Article 25 of the United Nations Declaration on the Rights of Indigenous Peoples “Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard.”

- **Local knowhow** must be placed to the fore. Peoples have developed diverse techniques to adapt to rising water levels, particularly during flood events. Can inspiration be drawn from this regarding the rise in sea levels? Scientists have studied previous climatic crises and the reaction of populations to these variations. The diversity of situations demands different responses adapted to the topographical, geomorphological and hydrological conditions specific to each delta.

- **The participatory sciences** must be incorporated in this methodology of knowledge acquisition. This entails, for example, making data accessible for all and making use of existing systems, notably through open data. These new forms of knowledge production encourage the collection of data and their utilisation by communities.

- The IFGR members wish to assist research in the complementary fields represented on the IFGR panel. Programmes must be launched in developing countries, especially in the social sciences. In order to stimulate partnerships with the representatives of all the stakeholders and forge exchanges that do not as yet exist, IFGR proposes to employ a specific methodology by:

- Communicating with the heads of communities that live close to rivers, and who hold authority in each of the deltas;
- Emphasise the need for translation and the choice of languages used by the local populations.

Research themes identified:

Engineering and development	The way in which buildings can be constructed to avoid the subsidence of deltas (limiting the number of floors, choice of materials).
Water supply	Tools for avoiding the extraction of groundwater.
Absorption of pollution / resilience	Measuring the delta's load capacity, tools for helping the environment to evolve naturally. What technical and agricultural solutions could improve the capacity of deltas to play the role of buffer zones?

Other themes:

- The biological combat against typhas
- Climate change and infectious diseases
- The effect of rising sea levels on coastline changes
- The adaptation of agriculture to stress (water and salt)
- Methods of legitimising decisions and cooperation agreements.

- These research programmes must result in **decision-making** regarding equipment, development, the operation and management of river basins. They must include not only the sciences and humanities but also development experts to strengthen the link between research and public decision-making. Lastly, they must lead to the emergence of enabling tools adapted to the local situations of each delta.

Through its capacity to gather people who are unused to working together, IFGR is one of the tools available for ensuring this transition from research to action.

#### 4- Produce (but with respect)

**Message: The production and exploitation of resources is intensifying to meet the needs of an increasingly large population. This is leading to the increasing exploitation of the environment with the**

**risk of exceeding the threshold of resource depletion. The load capacity of each delta<sup>4</sup> must be measured to avoid exceeding the threshold of irreversibility and jeopardising the functioning of the ecosystem.**

#### **Development:**

- The priority is to stop the exploitation the underground resources of deltas (groundwater, fossil resources, sand), which is leading to their subsidence.

- Other conflicts must be controlled: the augmentation of shrimp farming is leading to the disappearance of mangroves; intensive tourist development can conflict with necessary environmental protection. The expansion of maritime and river transport must not obscure the local needs of the deltas' inhabitants who suffer the consequences of barge traffic without necessarily benefitting from the trade generated: the response to local needs does not necessarily converge with national or international economic interests.

- Account must be taken of the challenges for health raised by our current lifestyles and production methods. We are witnessing a fast rise in the amount of secretions and discharges of antibiotics released into the environment by animals and humans. Massive livestock breeding is based on antibiotics that protect animals from disease and accelerate growth. This is a major emerging problem since, eventually, antibiotics will no longer be capable of killing bacteria. Researchers are developing ancient techniques based on biological resources, in particular the use of phages (viruses that kill bacteria).

Deltas act in a way as incubators, since they are remarkable hubs for infectious diseases and pathogenic organisms, notably those carried by water. It is important to set up monitoring systems in these regions to prevent epidemics from breaking out.

#### **5- Governance (with solidarity)**

**Message: The delta is a place for judging the pertinence of the decisions made, or the disorder that may occur due to poor choices between the different levels involved in river management. The managers and users of rivers have the duty of governing these territories well. Thus it is necessary set up a system of river governance based both on consultations between all the stakeholders and on the capacity to arbitrate and reach a final decision.**

#### **Development:**

Rivers are places for which several levels of governance are expressed, with tensions between stakeholders upstream and downstream, between the international, national and local. IFGR upholds several principles to ensure equitable river basin management:

- **Solidarity** can be expressed at several levels (international, inter-regional and local). The panellists emphasised the terms **joint responsibility** and **interdependence** several times.

- **The public authority** must be recognised as the legitimate and competent institution for final adjudication and for evaluating the good quality of river management. Defining the notion of legitimate public authority led to debate between the panellists.

- In most regions of the world, the **State** remains responsible for ensuring the public interest. It alone (intergovernmental organisations for rivers forming borders between and flowing through

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<sup>4</sup> The load capacity is the maximum quantity of activities (tourism, extractions, agriculture, developments, pollution, urbanisation) that can be borne by the environment without it being affected irreversibly.



- different countries) can arbitrate at the highest level to ensure balanced management between local needs, and set up and monitor the rigorous assessment of this management.
- In a context where the legitimacy of governmental authority is being called into question, IFGR encourages countries and the stakeholders of rivers to [set up bodies for dialogue on rivers](#), by underlining the importance of these resources as a common good.

In this respect, IFGR is a laboratory of river management systems. The panel includes examples of approaches integrated between different countries: the Senegal River (OMVS), the Saint Lawrence River (Port of Montreal – International Joint Commission), the Parana River (Itaipu). This solidarity is unsure in certain cases, such as the Mekong River, where the delta suffers from the limits of the Mekong Commission; and in others it is inefficient as in the case of Bangladesh where the lack of agreement between governments (India, China, Bangladesh) directly affects the delta.

## **PART 4: DIALOGUE WITH CECILE HELLE**

### **Avignon, a city close to the Rhone**

After Lyon in 2015, the choice of Avignon city centre for IFGR's works gave the river managers another view of the links that exist between a city and the Rhone. In addition, the panel was honoured by the presence of Cécile Helle, the Mayor of Avignon, who made the closing speech. This was followed by a dialogue with the panellists.

#### *The delta, the territorial reference at regional level*

For Cécile Helle, the environmental stakes in play make it necessary to widen our territorial visions. The Rhone delta is a territory for which all the region's inhabitants have a duty of exigency. Looking beyond the protected and conserved area of the regional natural park, the delta of the Rhone Valley covers a vaster area that includes both Arles and Avignon. The delta has become a territorial reference at regional scale, making it possible to integrate the Rhone in the territorial projects of the towns and cities bordering the river. The Mayor called for the renewal of this link that unites towns of "human size" located nearby along the Rhone like Valence, Avignon and Arles, in order to respond to the predominance of large regional cities, and also the need to exchange experiences and good practices relating to urban and territorial development.

**"With its position close to the river, Avignon can become a laboratory for experimenting with sustainable local solutions, in the same way as the deltas." Cécile Helle**

#### *"River civilisations", precursors in adapting to climate change*

The term river civilisation, mentioned many times during the session, was once again placed to the fore during its closing exchanges. It expresses the reality specific to the communities that live along rivers and in deltas. These societies have their own characteristics: a territorial network conceived around rivers, canals and medium sized towns; communities forged through interdependence with each other, etc.

According to the group, river civilisations can only express themselves by renewing the relation between their populations and the natural environments around them. The deltas, perfect examples of exchange and evolution, are places in which this renaissance of human communities linked to their rivers can be conceived. Cécile Helle said she was convinced that Avignon must also regain its historic heritage born from its proximity with water: "it is vital to work on this dimension of identity to make the population aware of the stakes in play linked to the fragility weighing on these exceptional natural territories".

The Mayor of Avignon demonstrated her empathy with the IFGR's reflexive and applied approach and underlined her admiration for the group's progression and its involvement during the COP22.

## **PART 5: PERSPECTIVES**

### **Provisional programme**

The plea “For thriving deltas” will be published at the beginning of 2017. Furthermore, individual contributions written by the IFGR members ahead of the 3<sup>rd</sup> session will appear in a publication on the place and role of rivers in climate change. Lastly, a programme to support research on the themes broached during the session will be set up progressively during the year.

### **A note on the progression of IFGR’s legal status**

While awaiting the constitution of a Foundation of Recognised Public Utility, for which the process is long and complicated, Initiatives for the Future of Great Rivers will become an association in the first quarter of 2017. It will be a non-profit association in the public interest; each panellist can join it as a member.

### **Preparation of the next session**

The fourth session of the IFGR panel will take place in Itaipu, where the dam of the same name is located, on the border between Paraguay and Brazil. Using this example, the IFGR panel will study issues relating to the development of large infrastructures, sharing the added value generated, and the future of centralised energy production and supply models. The group will also reflect on alternative and complementary solutions that can be developed to produce hydroelectricity in view to decentralising and miniaturising production.

This meeting carries on from the workshops started during the 2<sup>nd</sup> session held in Montreal in April 2016, in order to explore in greater depth the energy solutions available for river regions, especially in developing countries.