THE HANDBOOK FOR THE PARTICIPATION OF STAKEHOLDERS AND THE CIVIL SOCIETY IN THE BASINS OF RIVERS, LAKES AND AQUIFERS

March 2018
The drafting of this handbook has been coordinated by Daniel Valensuela of the Technical Secretariat of the International Network of Basin Organizations.

The examples were collected through the network of INBO and from examples provided by several contributors or from the web site of INBO partners.

The list of contributors is at the end of the handbook.

The handbook can be downloaded from the following web sites:

www.inbo-news.org
www.iowater.org
# TABLE OF CONTENTS

**FOREWORD** ...................................................................................................................................................................................... 4  
**BOXES** .................................................................................................................................................................................................................................... 7  
**ACRONYMS** ............................................................................................................................................................................................................................. 9  

1 **Introduction** ................................................................................................................................................................................................................. 11  
2 **The stakeholders in water resources management in basins** ................................................................................................................................................. 13  
3 **Formal mechanisms of participation in basin bodies** ........................................................................................................................................................................ 19  
   3.1 National institutional framework promoting the participation of stakeholders and the civil society .......................................................... 19  
   3.2 Basin Commission or Committee where stakeholder and the civil society participation is effective .......................................................... 22  
   3.3 Participation of stakeholders and the civil society through basin’s sub-committees and working groups .................................................. 27  
   3.4 Local or Regional Participation ....................................................................................................................................................................... 32  
   3.5 Consultation Mechanisms ........................................................................................................................................................................... 40  
4 **Informal mechanisms of participation in basin bodies** ........................................................................................................................................................................... 45  
   4.1 Promoting the information of the stakeholders and the public .................................................................................................................. 45  
   4.2 Promoting public consultation mechanisms .......................................................................................................................................................... 47  
   4.3 Developing tools that facilitate the participation of stakeholders .................................................................................................... 50  
   4.4 Developing events that foster public participation .................................................................................................................................................. 55  
   4.5 Developing the skills and capacities of the stakeholders ....................................................................................................................... 58  
   4.6 Pooling local knowledge and know-how ............................................................................................................................................................ 62  
   4.7 Developing mechanisms for facilitating youth participation .................................................................................................................. 67  

**Contributors** .............................................................................................................................................................................................................................. 71  
**Websites** ................................................................................................................................................................................................................................. 71
Nowhere in the world is there a single manager who is solely responsible for the governance of freshwater resources, their related structures and services!

If the national administrations and their specialized agencies enable to define the institutional framework, to implement and manage the main structuring infrastructure and then to mobilize part of the funding, the regional and local authorities, like the States of a federation, the Provinces or municipalities, but also farmers, companies, fishermen and other economic stakeholders play a key role with the associations for mobilizing the citizens and carrying out many local projects that contribute to the success of the River Basin Management Plans.

The implementation of many decisions is only possible when there is a strong commitment and if all public and private, collective or individual stakeholders concerned are mobilized.

Water resources management should be organized everywhere with a participation in decision-making, at the side of the concerned government administrations, of local authorities, representatives of different categories of users and environmental protection associations or groups of collective interest.

In each country, a clear legal framework should specify the rights, obligations and responsibilities of the various stakeholders involved, the possible levels of decentralization, as well as the procedures and means necessary for good freshwater governance.

The participation of all stakeholders and the civil society should be organized to enable the genuine mobilization of all partners.

INBO recommends that this participation be organized in the form of Basin Committees or Councils.

More and more examples, and some of them for several decades, have shown that there is much interest in associating with the representatives of the Governments, those of the States of the Federal Countries, the Regions or Provinces, the Municipalities, the different categories of water users, as well as the representatives of associations of collective interest, especially within Basin or Sub-basin Committees, Councils or Commissions, when they exist, as well as with the work of working groups or subcommittees in International Transboundary Basin Commissions or Authorities.

These Basin Councils must be fully involved in decision-making on water policy in their respective basins, with procedures that clearly define their role.

They should especially be involved in:

- defining the long-term objectives for having a common vision of their basin future!
- the development of Master Plans or Management Plans for the Basin.
- the choice of priorities for the management and optimal use of the available resource.
- the implementation of the Programs of Measures and the multiannual priority investments.
- the setting of the financing methods and in the calculation of the taxes and tariffs which concern them.

There is a need for strong inter-sector relationships that facilitate the exchange of information and experience, as well as the coordination of actions in each river basin.

Lastly, important resources must be mobilized to raise awareness, inform and involve the general public, children and women in particular, and to train their representatives in the decision-making process.

It is essential that the national legislative framework gives the Basin Committees real opportunities to participate in decision-making, otherwise their members will have little interest in attending the meetings. Committees do not work when their role is reduced to that of a mere chamber recording decisions made elsewhere...
Significant means should be available to:

- Raise awareness and educate stakeholders on the principles and means for sustainable water resources management.
- Foster the establishment of truly representative bodies of public and private users.
- Develop decision-making capacity in this water sector.
- Establish integrated and transparent Water Information Systems.

Water resources management should be organized, based on integrated information systems, which allow knowing the resources and their uses, the pressures of pollutants, the ecosystems and their functioning, to follow up evolutions and to assess risks.

Access to information is essential to build trust between the partners involved and serve as an objective basis for their consultation, negotiation, decision-making, evaluation of actions and coordination of funding between the various donors.

However, this information is often dispersed, heterogeneous, incomplete, difficult to access...

And the data are not always comparable, nor adapted to the needs of the different stakeholders.

The various public, parapublic organizations and service providers often have the information, but there is no sufficient means for the exchange, sharing, harmonization, synthesis and capitalization of this information among them, and for their broad dissemination to their partners.

These are true information “systems” that must be designed and developed.

To be useful, the information must not remain in the form of raw data, but must be presented in a form that is understandable and usable by the different categories of users.

In addition to water professionals (engineers, technicians, civil servants, etc.), new participants are appearing whose direct or indirect role will be more and more important.

Those are:

- Individual decision-makers: such as entrepreneurs, industrialists, farmers and fishermen, etc.
- Collective decision-makers: mayors of town councils, local managers, community leaders, leaders of syndicates or cooperatives, representatives of associations, etc.
- And also information relays, especially journalists, teachers, association facilitators, popularizers, health workers, etc.

They have several things in common: water is not their profession and they have not been prepared to play a role in this sector.

It is very important to implement specific means to make them aware and to give them the information they need in the most appropriate form for each category.

With the quick development of the Web, new “smart” online services are developing and will allow for answers in real-time to the most frequently asked questions of different categories of managers and the general public.

Practical examples of implementation of such participatory processes are in the “Handbook on the participation of economic stakeholders and the civil society in the basins of rivers, lakes and aquifers”, published on the occasion of the 2018 Brasilia World Water Forum and translated into French and English, which can be downloaded from the websites www.riob.org or www.inbo-news.org
An unprecedented mobilization is essential to win the water battle and prepare the future of humanity!

The organization of river basin management on such a scale is an effective solution that deserves to be developed and supported by involving all citizens.

It pays to invest in water management: In all our countries, we must be at the forefront of the fight for protecting water resources!

Mr. JEAN - FRANÇOIS DONZIER
GENERAL SECRETARY
INTERNATIONAL NETWORK OF BASIN ORGANIZATIONS
## BOXES

<table>
<thead>
<tr>
<th>Box</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kinds of participation and participants’ level of commitment</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Identification of the stakeholders: example of the NBA Shared Vision</td>
<td>14-15</td>
</tr>
<tr>
<td>3</td>
<td>Representation in France</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>Composition of the Local Water Commission in the “SAGES” in France</td>
<td>17</td>
</tr>
<tr>
<td>5</td>
<td>Spain’s National Institutional Framework for Participation in River Basins</td>
<td>20-21</td>
</tr>
<tr>
<td>6</td>
<td>Basin Committee of the Seine Normandy Water Agency, France</td>
<td>22-23</td>
</tr>
<tr>
<td>7</td>
<td>Basin Councils and Broader Participation: The Ecuador Experience</td>
<td>24</td>
</tr>
<tr>
<td>8</td>
<td>System enabling the participation of the stakeholders and the civil society within the OMVS (Organization for the development of the Senegal River)</td>
<td>25</td>
</tr>
<tr>
<td>9</td>
<td>Participation of stakeholders within the International Commission for the Protection of the Rhine (ICPR)</td>
<td>26-27</td>
</tr>
<tr>
<td>10</td>
<td>Participation in specialized bodies: case of the Seine Normandy Water Agency, France</td>
<td>28</td>
</tr>
<tr>
<td>11</td>
<td>Stakeholders’ participation in the development of the OMVS Basin Management Plan</td>
<td>29</td>
</tr>
<tr>
<td>12a</td>
<td>User Participation in the Operation Committees of the Guadalquivir River Basin Confederation, Spain</td>
<td>30-31</td>
</tr>
<tr>
<td>12b</td>
<td>Participatory management of dams: Dam Water Release Commission in the Guadalquivir River Basin, Spain</td>
<td>31-32</td>
</tr>
<tr>
<td>13</td>
<td>Stakeholders and users’ participation at local level: the case of the LWC in France</td>
<td>33</td>
</tr>
<tr>
<td>14</td>
<td>Formal participation mechanisms in Spain, case of the Guadalquivir Basin, national legislative framework enabling participation</td>
<td>34-35</td>
</tr>
<tr>
<td>15</td>
<td>NBA regional coordination: getting closer to the local level</td>
<td>36-37</td>
</tr>
<tr>
<td>16</td>
<td>Involvement of the grassroot populations of the Senegal River Basin: the national cells and decentralization policy</td>
<td>37-38-39</td>
</tr>
<tr>
<td>17</td>
<td>The territorial commissions of the Water Agencies in France</td>
<td>39</td>
</tr>
<tr>
<td>18</td>
<td>The Dordogne Valley Summit and the Dordogne River Basin General Assembly, France</td>
<td>40-41-42</td>
</tr>
<tr>
<td>19</td>
<td>The Lake Titicaca Authority is initiating a participatory movement to resolve conflicts on Lake Titicaca</td>
<td>42-43</td>
</tr>
<tr>
<td>20</td>
<td>An enriched digital book to give information in an interactive form using modern means of communication (smartphone for example)</td>
<td>45-46</td>
</tr>
<tr>
<td>21</td>
<td>Green - Participation of the stakeholders of the agricultural world on their good practices</td>
<td>46</td>
</tr>
<tr>
<td>22</td>
<td>Networking water stakeholders in Madagascar: Ran’Eau project</td>
<td>46-47</td>
</tr>
<tr>
<td>23</td>
<td>Public Consultation on the Management Plan (SDAGE), Rhone Mediterranean Corsica Water Agency, France</td>
<td>47-48</td>
</tr>
<tr>
<td>24</td>
<td>The Voice of the Danube, consultation organized by the International Commission for the Protection of the Danube River</td>
<td>49-50</td>
</tr>
<tr>
<td>25</td>
<td>Guides and knowledge transfer to better understand the exchange of flows between groundwater and surface water, France</td>
<td>50-51-52</td>
</tr>
<tr>
<td>26</td>
<td>Developing Tools for Participation: COVABAR Experience, Quebec</td>
<td>52-53</td>
</tr>
<tr>
<td>27</td>
<td>River Dialogues in Austria: Communication and successful implementation</td>
<td>54-55</td>
</tr>
<tr>
<td>28</td>
<td>Great Lakes - St. Lawrence Gulf Symphony</td>
<td>55-56</td>
</tr>
<tr>
<td>29</td>
<td>Promoting exchanges between water stakeholders through a Regional Stakeholder Forum on Water Governance in the Niger Basin - NBA</td>
<td>56-57</td>
</tr>
<tr>
<td>30</td>
<td>Lakes and rivers celebration, an event for disseminating knowledge on river basins in Quebec</td>
<td>57-58</td>
</tr>
<tr>
<td>31</td>
<td>“Education on Climate Change” initiative in a basin</td>
<td>59</td>
</tr>
<tr>
<td>Box 32</td>
<td>IOWater webinars, to interact with local authorities and to share knowledge ..........60</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Box 33</td>
<td>A pedagogy for citizen education on the themes and stakes of the “Water” resource and of the living world on a basin scale – “Fleuve Grandeur Nature (FGN)” ...........60-61-62</td>
<td></td>
</tr>
<tr>
<td>Box 34</td>
<td>“GEST’EAU”, website of the “SAGE” integrated management tools ........................................62-63</td>
<td></td>
</tr>
<tr>
<td>Box 35</td>
<td>Delta of the Colorado River: participation in the restoration of a wetland of international importance ....................................................64-65</td>
<td></td>
</tr>
<tr>
<td>Box 36</td>
<td>The OMVS Picture Boxes ........................................................................................................66</td>
<td></td>
</tr>
<tr>
<td>Box 37</td>
<td>Preparing for the future, example of youth participation in the International Scheldt District .................................................................67-68-69</td>
<td></td>
</tr>
<tr>
<td>Box 38</td>
<td>Blue Generation in Austria: the “Water Platform” for young people .........................................69-70</td>
<td></td>
</tr>
<tr>
<td>Box 39</td>
<td>Young people’s awareness of the problems in the Niger River Basin .........................................70</td>
<td></td>
</tr>
<tr>
<td>ACRONYM</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>AFB</td>
<td>French Agency for Biodiversity</td>
<td></td>
</tr>
<tr>
<td>AE RMC</td>
<td>Rhone Mediterranean Corsica Basin Agency</td>
<td></td>
</tr>
<tr>
<td>ALT</td>
<td>Titicaca Lake Authority</td>
<td></td>
</tr>
<tr>
<td>APF</td>
<td>Action Plan for Floods</td>
<td></td>
</tr>
<tr>
<td>BC</td>
<td>Basin Committee</td>
<td></td>
</tr>
<tr>
<td>BRGM</td>
<td>French Geological Survey Office</td>
<td></td>
</tr>
<tr>
<td>CEFIC</td>
<td>European Chemical Industry Council (Rhine)</td>
<td></td>
</tr>
<tr>
<td>CHG</td>
<td>River Basin Confederation (Spain)</td>
<td></td>
</tr>
<tr>
<td>CILA / IBWC</td>
<td>International Boundary &amp; Water Commission (USA &amp; Mexico)</td>
<td></td>
</tr>
<tr>
<td>CNU</td>
<td>National Coordination Unit</td>
<td></td>
</tr>
<tr>
<td>CONAGUA</td>
<td>National Water Commission (Mexico)</td>
<td></td>
</tr>
<tr>
<td>CONANP</td>
<td>National Commission of Protection Natural Areas</td>
<td></td>
</tr>
<tr>
<td>COVABAR</td>
<td>Richelieu River Basin Consultation and development Committee (Quebec)</td>
<td></td>
</tr>
<tr>
<td>CRU</td>
<td>Regional Coordination Unit</td>
<td></td>
</tr>
<tr>
<td>EPIDOR</td>
<td>Public Agency for Dordogne River Basin (France)</td>
<td></td>
</tr>
<tr>
<td>EPTB</td>
<td>Public River Basin Territorial Agency (France)</td>
<td></td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
<td></td>
</tr>
<tr>
<td>FD</td>
<td>Flood Directive</td>
<td></td>
</tr>
<tr>
<td>FGN</td>
<td>Fleuves Grandeur Nature (Europe) I</td>
<td></td>
</tr>
<tr>
<td>IAWR</td>
<td>International Association of Water Works in the Rhine</td>
<td></td>
</tr>
<tr>
<td>ICPDR</td>
<td>International Commission for the Protection of the Danube River</td>
<td></td>
</tr>
<tr>
<td>ICPR</td>
<td>International Commission for Protection of the Rhine</td>
<td></td>
</tr>
<tr>
<td>IGO</td>
<td>Intergovernmental Organization</td>
<td></td>
</tr>
<tr>
<td>INBO</td>
<td>International Network of Basin Organizations</td>
<td></td>
</tr>
<tr>
<td>INPANDES</td>
<td>Integration Program (Titicaca)</td>
<td></td>
</tr>
<tr>
<td>IOWater</td>
<td>International Office for Water</td>
<td></td>
</tr>
<tr>
<td>IRSTEA</td>
<td>National Research Institute of Science &amp; Technology for Environment &amp; Agriculture</td>
<td></td>
</tr>
<tr>
<td>ISC</td>
<td>International Scheldt Commission</td>
<td></td>
</tr>
<tr>
<td>ISW</td>
<td>International Secretariat for Water</td>
<td></td>
</tr>
<tr>
<td>IUCN</td>
<td>International Union for the Conservation of Nature</td>
<td></td>
</tr>
<tr>
<td>IWRM</td>
<td>Integrated Water Resources Management</td>
<td></td>
</tr>
<tr>
<td>LCC</td>
<td>Local Coordination Committee</td>
<td></td>
</tr>
<tr>
<td>LWC</td>
<td>Local Water Commission (France)</td>
<td></td>
</tr>
<tr>
<td>NBA</td>
<td>Niger Basin Authority</td>
<td></td>
</tr>
<tr>
<td>NCC</td>
<td>National Coordination Committee</td>
<td></td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
<td></td>
</tr>
<tr>
<td>OMVS</td>
<td>Senegal River Basin Development Organization</td>
<td></td>
</tr>
<tr>
<td>PGIRE</td>
<td>Integrated Water Resource Management Program</td>
<td></td>
</tr>
<tr>
<td>ROBVQ</td>
<td>Quebec Basin Organizations association</td>
<td></td>
</tr>
<tr>
<td>SAGE</td>
<td>Water Development and Management Plan (France)</td>
<td></td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>SDAGE</td>
<td>Water Development and Management Master Plan (France)</td>
<td></td>
</tr>
<tr>
<td>SENAGUA</td>
<td>National Secretariat for Water (Equator)</td>
<td></td>
</tr>
<tr>
<td>RBO</td>
<td>River Basin Organization</td>
<td></td>
</tr>
<tr>
<td>TDPS</td>
<td>Titicaca, río Desaguadero Poopo lake, Salar Coipasa (Peru, Bolivia)</td>
<td></td>
</tr>
<tr>
<td>UMR</td>
<td>Research Unit</td>
<td></td>
</tr>
<tr>
<td>WFD</td>
<td>Water Framework Directive (EU)</td>
<td></td>
</tr>
<tr>
<td>GETH</td>
<td>Grupo Especializado de Trabajo en Humedales</td>
<td></td>
</tr>
</tbody>
</table>
1 Introduction

For years, the participation of stakeholders and the civil society in water management has been rightly considered as a key condition for success in achieving the goals of water policy. Indeed, participation allows both better understanding of water strategy and policy, the appropriation by the whole population of the analyses of situations, approaches and decisions made for action. It also allows a more efficient application of regulations. All this is valid regardless of the level of action. The participation of stakeholders and the civil society is thus a determining factor in water management in national or transboundary river basins.

However, participation has become over time a “portmanteau word” which, according to the authors, taking different meanings. We are talking about stakeholders’ participation, the participation of the civil society, users, citizens and the population. We also target associations, non-governmental organizations and, of course, governmental, public or administrative bodies.

In the same way, several kinds of participation appear according to the situation in which we are:

- A formal participation defined by a legal framework, by regulations that make this participation obligatory according to the defined modes
- An informal and ad hoc participation, thus without a well-defined framework, subject to the goodwill of the potential participants and of the organizers of this participation.

Finally, specialists describe several rates of participation, ranging from mere information to a certain sharing of responsibility. The figure below shows the levels of the participants’ commitment and motivation, depending on the kind of participation. When it is a mere informative process, the participants’ commitment will be low because the room for maneuver on the subject is almost nil. On the other hand, in a consultative process, the stakeholders will want to get more involved because they know that their voice, their ideas, their observations can be taken into account in final decision-making.

Box 1: Kinds of participation and participants’ level of commitment

<table>
<thead>
<tr>
<th>Rate of commitment</th>
<th>Committee</th>
<th>Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inform</td>
<td>Consult</td>
<td>Involve</td>
</tr>
<tr>
<td>Dialogue Build jointly</td>
<td>Delegate decide</td>
<td>Collaborate decide</td>
</tr>
</tbody>
</table>
The vagueness found in participation issues deserves to be clarified when we consider basin management. Indeed, at the level of river, lake and aquifer basins, either national or transboundary, experience has clearly demonstrated the need to design mechanisms that facilitate the participation of stakeholders and the public in river basin management and that methods and means should be used to make sure that the public concerned is consulted.

Depending on the case, these mechanisms are implemented by countries and/or basin organizations. Regardless of the type of basin organization, it is advisable that mechanisms to promote public and stakeholders’ participation be planned and established.

This paper seeks to shed light on the topic of basin-wide participation based on real, practical, concrete examples that prove its feasibility.

Chapter II provides information on the types of stakeholders or users that should be involved in water resources management in the basin.

Chapters III and IV analyze the various mechanisms that ensure the participation of economic stakeholders and the civil society in the basins, either through formalized or informal processes.
2 The stakeholders in water resources management in basins

Water resources management in a basin concerns the entire population of the area. In fact, each individual plays a role in water use, either directly through his/her own consumption, the pollutant discharge he/she causes, or through his/her choices of lifestyle, food, comfort.

Ideally, participation should therefore concern all water users, i.e. all the inhabitants of the basin, beyond the stakeholders who have a role in actions directly or indirectly related to the water resources. In fact, the user is defined as the user of water, whatever the motivation: population, industrialist, electricity producer, farmer, fisherman, waterways transport service provider, but also the “nature” which is an obvious user of the resource. These users may be members of collective organizations representing the interests of a group.

It is obviously illusory to have a direct participation of the entire population of a basin in its water resources management, especially if it is a very large or even a transboundary basin.

On the contrary, it is essential that mechanisms be established that facilitate the representation of public and private stakeholders, on the one hand, and the participation of representatives in water resources management, on the other. This means that these stakeholders will have to be “selected”.

Moreover, thanks to new exchange techniques (the Web, networks), it is now possible to invite the entire population of a basin to participate in consultations on a specific and well-defined issue or in events or actions which have an indirect impact on the basin’s water resources management.

The first step is to know who are the people involved, the stakeholders; if they are not already known otherwise, it is useful to start a process of identifying the basin’s stakeholders to make sure that they efficiently and inclusively participate.

The stakeholders in basin management can be divided into several categories:
- Representatives of national or local elected officials; they are people who have an elective mandate, obtained by democratic vote on the scale concerned, which can be the country, the basin or a sub-basin;
- Representatives of national and governmental administrations; they are people from ministries or national public institutions;
- Representatives of local administrations and authorities; it concerns people working in local or regional administrations, whether as a local representation of a particular ministry - we then speak of decentralized administration - or of administration established by local governments;
- NGO representatives, including user associations, environmental associations, non-professional associations and non-specialized NGOs representing the civil society;
- Representatives of the economic sector, various branches of enterprises, associations of professionals.

It is crucial to clearly identify the types of stakeholders involved and the level at which they are expected to be involved (national, basin, sub-basin, local level?).
Depending on the country situation (or group of countries for transboundary basins), knowledge of water stakeholders and their representation is often weak or poorly organized, the identification and characterization of the people involved and stakeholders in the basin (mapping) is needed, especially to set up a basin organization or to strengthen the existing organization in its action.

The identification of the stakeholders is particularly needed in transboundary basin. In this case, the stakeholders belong to different countries, even if they share the same resource, an identical territory, even the same heritage and a common culture. This sharing is expressed through similar activities such as agriculture, fishing or even the same sensitivity to risks and phenomena, whether natural or not: drought and water scarcity, flooding, dam management, pollution, invasive species, etc.

In large basins, the major problem is to obtain a true (reliable and sure) representation of the stakeholders without reaching an extravagant dimension.

The identification process consists of a study to identify the stakeholders, their existing or potential organization, the degree of reliability of their representation. In addition, some stakeholders are organized at the local level, but not at the basin level and rarely at the transboundary level. It is then necessary to identify these sectors and the stakeholders in each country who could play a representation role.

It is also necessary to identify the stakeholders or users who are not organized and for whom there is no representative structure. In developing countries, these users form the largest number and are often the ultimate beneficiaries of water management. For the latter, it will be necessary to see how to help them to structure themselves or how we can build a representation of the group, through a democratic and transparent mechanism.

This process means identifying representatives by themes such as agriculture, animal husbandry, forestry, fisheries, drinking water supply and sanitation, energy, industry, trade, tourism, environment, consumption, while making sure that each country is represented.

**Box 2: Identification of the stakeholders: example of the NBA Shared Vision**

The starting point of thoughts about participation of the civil society and stakeholders in basin management was a workshop held in January 2005 that gathered organizations and regional associations of the nine riparian countries. The identification of relevant stakeholders was a prerequisite for developing a true shared vision.

This is why a study for the identification and characterization of water users in the Niger River Basin (9 countries are members of the Niger Basin Authority) was carried out under the coordination of the “Eau Vive” NGO and the International Secretariat for Water. This study accompanied the “Shared Vision of the Niger Basin” process, launched in 2002.

Its results were presented during the first Regional Forum of Users of the Basin Resources, in 2006 in Fada-Ngourma, Burkina Faso. For the first time, this step allowed gathering civil society organizations at the basin level to discuss issues of common interest with the States and partners.

One of the main difficulties with regard to the scale of a large transboundary basin like the Niger lies in obtaining a real representation of non-State stakeholders.

The solution proposed in the Niger Basin was to identify representatives per topic: agriculture, fisheries, drinking water, sanitation, dams, environment, etc., while making sure that each country is represented. The representatives’ legitimacy was acquired through a transparent process, as a democratic process had been initiated for the stakeholder groups to choose their representatives. The cultural aspects could offer enabling conditions for participation.

Amongst the non-State stakeholders, distinction was made between established groups, for example farmers or irrigators’ associations already in place and unorganized water users, who
The selection of stakeholders’ representatives who will have to participate in the bodies managing water resources in the basin is a necessary step.

For the stakeholders representing the public authority - national or local administrations, elected officials - the choice is made in the administrations or in the assemblies of elected officials. Administrative procedures must exist in the administrations and in the bodies of elected officials so that the representatives, who will participate in the basin’s bodies, will be chosen in a transparent manner and thus be legitimate in their role. These procedures must be official (regulatory act) and transparent (public information). If they do not exist, the first task is to put them in place within the legislative framework of water governance.

With regard to professionals from various sectors (farmers, industrialists, fishermen, foresters...) and users in general (civil society), the choice must be made according to a system that gives legitimacy to the representatives, obtained through a democratic process in the stakeholder groups that have to choose their representatives. Legitimacy is not only acquired but must be accepted by the group. A process of validation by the public authority can only reinforce this legitimacy.

Of course, the size or scale of the basin directly influences the size of the stakeholders’ representation. In addition, the nature of the basin, for instance its eminently ecological character or, on the contrary, its highly anthropic situation, and the activities that are developed there, will also help to characterize the representation of the stakeholders and the civil society. For example, the strong presence of nautical tourist activity in the basin, or of companies extracting materials (gravels, sands), will militate for these activities to participate in the various basin bodies.

# Use of existing representative bodies to select representatives of professionals and users
In most cases, the mechanisms will involve the participation of “people” who represent organizations or interest groups. Therefore, the quality of this representation will be paramount in the functioning of the participation and we must scrupulously watch the representativeness of these “people”, water stakeholders, the civil society and users, whether they are part of organized structures or not.

Where there are organizations (association, Chamber of Commerce, syndicate) that gather people of common interest, or of the same profession at basin level, it is recommended that they be used to obtain the representative(s) of this interest group.
In addition, it may be useful to start from the stakeholders’ organization at the national level, when it exists and from its links with the local level, to allow effective participation on the transboundary and regional scales.

In all these processes of identification and selection of economic stakeholders and civil society, sufficient resources, mostly in technical assistance and financial support, should be allocated to organizations to enable them to fully play their part: bearing meeting expenses, travel for example, financial resources to carry out a sufficiently comprehensive and accurate identification study. In addition, basin organization must support representatives of stakeholders and civil society in their capacity building through appropriate training.

**Box 3: Representation in France**

In France, the participation of stakeholders in water management in basins is made by official representatives of these stakeholders.

For example, in a given basin, the farmers’ representatives are those chosen by the regional or departmental Chamber of Agriculture: president or member of the Chamber of Agriculture, which is the official organization representing the farmers for the State government. Fishermen may be represented by members of the Departmental Fisheries Federations (federation of associations for fishing and the protection of aquatic environments - APPMA), and the professional fishermen by representatives of approved associations of professional fishermen, while sea fishing is represented by the Regional Committee for Marine Fisheries and Marine Fish farming. For shellfish farming, the Regional Shellfish-farming Committee (a kind of chamber representing shellfish farmers) will be used. Tourism will be represented by a Departmental Tourism Committee or by an association of stakeholders in tourism in the basin, as well as by representatives of nautical tourist activities such as a canoe or rowing association. Industry will find its representation in the Chamber of Commerce and Industry, in representatives of major industries in the area, in mineral resource companies, agro-food industries. Energy may be represented by the national electricity producer or the hydropower dam managers. Water and sanitation companies will have their place in the system. Consumers’ protection associations, consumer unions, regional federations of rural families, family associations are also associated to represent consumer users. The environment is represented by approved nature protection associations and specialized associations depending on the status of the environment (natural areas conservancy, specialized office). A representative of organic farming may also be present.

The State authority designates the list of organizations that may be members of the basin committee after a thorough examination of the professional elections or of the representativeness of the associations. In all cases, it is the organization concerned which, on the request of the prefectural basin authority, provides the name of the representative(s).

Website: [http://www.eaufrance.fr/](http://www.eaufrance.fr/)

In a small basin or sub-basin, located in a small part of the territory of a single country, the participation of national-level representatives may be limited in number, if the problems to be solved find essentially local solutions. In any case, the vast majority of representatives of economic stakeholders and the civil society must come from the area concerned. Participation at the national level must be limited and not a majority in decision-making.
The Water Development and Management Plan (SAGE) is a planning tool, instituted by the Water Act of 1992, which aims at balanced and sustainable water resources management on the scale of a sub-basin or a small stream. This is a local variation of the River Basin Management Plan (SDAGE: Master Plan for Water Development and Management) which sets the basic orientations of water policy for a large river basin.

The “SAGE” defines, coordinates and prioritizes general objectives for the use and protection of water resources taking into account the specificities of the area. It sets out priorities for action, identifies the resources needed for implementation, and enacts rules for sharing uses.

Although it is based on a voluntary approach, it has become a preferred tool for responding locally to the objectives of the Water Framework Directive (WFD). It can be accompanied by an environmental contract (generally a river contract, but also a lake, bay or groundwater one) which is a voluntary plan for action, with financial commitment from relevant partners for a comprehensive, joint and sustainable management of a coherent hydrographic unit.

The “SAGE” and the environmental contract are instruments for the practical implementation of the River Basin Management Plan at local level.

To ensure the drafting of the “SAGE” and its implementation, a Local Water Commission (LWC) is established. It is a parliament where all the stakeholders can have a free speech and express their points of view, allowing a real dialogue, the practical building of works in the areas and the application of common rules.

LWC is made up of three colleges: one for the State, one for the users (farmers, industrialists, landowners, associations, etc.) and one for communities, allowing a good representation of the area. However, the place of the representatives of the area concerned is preponderant since the (local) users represent more than 25% and the local elected officials more than 50%.

In addition, the supporting structure is a local organization (group of communities, interdepartmental institution, mixed syndicate, etc.). It is providing the secretariat and facilitation of the LWC. It is the contracting authority of any study and work to be done. State services can support the “SAGE” drafting and implementation whereas the Water Agencies provide financial and technical support.

The “SAGEs” and therefore the LWCs are a success in France since they cover nearly 50% of the territory with over a hundred LWCs. On the average, the “local water parliament” includes 51 people, its size obviously depending on the size of the sub-basin and the complexity of the problems to be solved locally.
Efficient basin management requires a multiannual management plan. This should be devised and implemented on the basis of a diagnosis of the basin’s water resources and territory taking into account any probable changes.

3.1 National institutional framework promoting the participation of stakeholders and the civil society

For the participation of stakeholders and the civil society to take place, especially at basin level, it is essential that the national framework institutionalize this participation, through the most precise rules possible. This participation must be mentioned in the water law and the processes must be described in the texts of application of the law, both the organization of the participation procedure, information of the public, and the dedicated roles to this participation. Without such an institutional framework that promotes participation, there is little chance for it to actually develop in the country. However, this enabling institutional framework is a necessary, but not sufficient condition.

At the national level, reference may be made to more general texts on consultation and public participation in all matters relating to public actions.

For example, it may be the Aarhus Convention, adopted on 25 June 1998 in Aarhus, Denmark, at the Fourth Ministerial “Environment for Europe” Conference. Entered into force on 30 October 2001, the Convention has been ratified by 44 parties, including the European Union.

The Aarhus Convention sets out the key elements of public participation and its provisions are widely recognized as a reference for what is sometimes described as environmental democracy. It focuses on access to environmental information, prior and ongoing public participation in the decision-making process, transparent processes, the obligation of the authorities to take into account public comments, a support structure and effective means of enforcement and appeal.

The convention's protocol introduces a new dimension as it involves reporting obligations for the private sector. The global nature of the provisions of the Convention makes them...
relevant for the implementation of access to information, public participation in the decision-making process in the field of water resources management.

For the member countries of the European Union, the Water Framework Directive that applies to each Member State introduces the obligation to consult the public at different stages of water resources management in the basins and districts. The national water policy framework of these countries must therefore take into account this requirement for the participation of stakeholders and the civil society.

Box 5: Spain’s National Institutional Framework for Participation in River Basins

The 1985 Water Act guarantees the active representation of water users in the collegial structures of basin organizations, which enables decision-making to be shared with policy-makers and technicians designated by the public administrations on different territorial scales. The major national organizations of irrigators, users and consumers, the environmental organizations, syndicates, business organizations from different sectors participate in the most important advisory body in the country: the National Water Council, which takes cognizance of normative projects, in particular, the national hydrological plan and regional hydrological plans before their approval by the government.

Public participation is also reflected in Royal Decree 927/1988 on Water Administration and Decree 907/2007, which determines the organization and procedure for making public participation effective in hydrological planning, in accordance with the requirements of the Water Framework Directive and in coordination with the strategic environmental assessment process of the hydrological plan.

The 1985 Water Act guarantees the active representation of water users in the collegial structures of basin organizations, which enables decision-making to be shared with policy-makers and technicians designated by the public administrations on different territorial scales. The major national organizations of irrigators, users and consumers, the environmental organizations, syndicates, business organizations from different sectors participate in the most important advisory body in the country: the National Water Council, which takes cognizance of normative projects, in particular, the national hydrological plan and regional hydrological plans before their approval by the government.

Public participation is also reflected in Royal Decree 927/1988 on Water Administration and Decree 907/2007, which determines the organization and procedure for making public participation effective in hydrological planning, in accordance with the requirements of the Water Framework Directive and in coordination with the strategic environmental assessment process of the hydrological plan.

The model of participation in the planning process is defined according to three complementary levels of social and administrative participation: public information, public consultation and active participation.
Box 5: cont’d

Figure 2. Levels of social and administrative involvement in the hydrological planning process

Public information involves the efficient provision of information to interested parties. Public consultation is a more developed level of participation that leads to obtaining a response from the interested parties. Active participation gives the officers involved an active role in decision-making and document preparation. The following figure describes public participation in the planning process.

Confederation made available to the public, for a period of 6 months, the documents generated at each step of the process: the initial documents, the provisional outline of the important questions and the draft revision of the hydrological plan. At the end of the deadline, and for each phase, all proposals, comments and suggestions were collected and analyzed in specific reports written for this purpose.

More specifically, during the public consultation phase of the Hydrological Plan (2015-2021 cycle), about 900 questions were collected, 69% of them were included in the Plan.

Figure 3. General outline of public participation in the hydrological planning process in the districts

Example of the Jucar River Basin

During the last planning cycles, the Jucar River Basin

Website: http://www.chj.es/es-es/Organismo/Paginas/Organismo.aspx
3.2 Basin Commission or Committee where stakeholder and the civil society participation is effective

A basin organization must be set up to manage the basin water resources, regardless of its type of structure. A basin committee or commission or basin council must be established to head this body. The main role of the basin committee is to make decisions on water resources management in the basin, with, depending on the case, different functions.

The basin commission or committee is the privileged place to develop an effective and formal participation of stakeholders and users’ representatives in water resources management in the basin. This body can become a real “water parliament” at the basin level, involving representatives of all stakeholders (see Chapter II). All these stakeholders through their representative(s) therefore participate in the basin committee, where they must have a decision-making voice in the same way as representatives of public authorities or of elected officials.

This provision is valid regardless of the nature of the basin considered: national basin and transboundary basin.

Box 6: Basin Committee of the Seine Normandy Water Agency, France

The French water agencies were established by the law of 16 December 1964 that provides for the creation of a Basin Committee in each one, a real forum for consultation of users, local authorities and the State, on water policy at the river basin level.

In the case of the Seine Normandy Water Agency, the Basin Committee has 185 members divided into three colleges:

1. The college of local authorities: 74 members (i.e. 40% of the members) including:
   - 7 representatives of the regions entirely or partly located in the basin, each of whom is designated by the Regional Council,
   - 25 representatives of Departments entirely or partly located in the basin, each being designated by the General Council,
   - 4 representatives of interdepartmental cooperation, designated by the Assembly of French Departments,
   - 38 representatives of the municipalities or their group, designated by the Association of Mayors of France.

2. Users’ college: 74 members (i.e. 40% of the members) including:
   Non-professional users with:
   - 6 representatives of consumer associations,
   - 9 representatives of nature protection associations,
   - 1 representative of nautical activities,
   - 5 representatives of the fishermen associations.
Box 6: cont’d

Professional users “agriculture, fishing, fish farming, shipping and tourism” involving:
- 7 representatives of agriculture,
- 1 representative of professional fishing,
- 1 representative of sea fishing,
- 2 representatives of shellfish farming,
- 1 representative of fish farming,
- 1 representative of the shipping industry,
- 1 representative of tourism.

Professional users “industrial enterprises and crafts” involving:
- 24 representatives of industry,
- 2 representatives of electricity producers,
- 2 representatives of water suppliers,
- 11 members as qualified persons or representatives of Regional Economic and Social, environmental Councils.

The State college: 37 members (i.e. 20% of the members) including:
- The prefects of the regions and departments concerned,
- The regional directors of the decentralized administrations of the Ministries of the Environment, Equipment and Housing, Agriculture and Forestry, Finance, Enterprises and Competition, Youth and Sports,
- The interregional director of the sea.

The President of the Basin Committee is elected among the representatives of local authorities and among the qualified persons. The 3 Vice-Presidents come from user sub-colleges. The President and Vice-Presidents are elected for a period of three years by representatives of local authorities and users.

In this arrangement, a large place is given to users (40%), necessarily coming from local professional bodies (22%) or local non-professional user associations (11%). In total, the local level through these representatives of users and local elected officials is very much in majority (70%).

Each member of the Basin Committee has a deliberative voice, regardless of his college of origin.

Thus, the participation of stakeholders takes place on all issues that fall within the competence of the Basin Committee: the “program” which is then implemented by the Water Agency (work to be carried out and level of support from the Agency), the level of fees and their mode, a six-year basin management plan, or “Master Plan for Water Development and Management” (SDAGE), which defines the multiyear guidelines for water policy in the river basin.

In addition, the members are asked to formulate opinions on most of the actions of significant importance for the basin, and especially on the organization of water policy at local level (Local public basin body, “SAGE”, river or bay contracts, delimitation of regulatory zoning, etc.).

The organization of the Basin Committee’s work looks like that of a political assembly. On the one hand, plenary sessions review and vote on decisions. On the other, the work of specialized committees is to prepare these decisions.

There is a specialized commission for each territory and for each work topic.
The secretariat of the Basin Committee is provided by the Water Agency.

Website: http://www.eau-seine-normandie.fr
In other situations, and knowing the difficulty of establishing a democratic representative system, the basin committee can initially involve the representatives of the stakeholders and civil society as observers or in a consultative capacity. This can be a first step in a progressive process of developing participation.

The Basin Committee may also plan to expand as necessary to economic stakeholders and members of the local civil society to ensure the best possible representation of the population.

Box 7: Basin Councils and Broader Participation: The Ecuador Experience

Responding to the provisions of the organic law on water resources of 6 August 2014, the National Water Secretariat (SENAGUA) created in three years basin councils throughout the Ecuadorian territory.

With the aim of playing a key role in the development of integrated water resources, management, these new consultative bodies for participation have different features.

First, they are defined on three distinct scales. The 37 local water planning units (UPHLs) represent the first level of water resources management, on a relatively small local scale, with their own council. These UPHL councils are divided according to a water and administrative logic within the country’s 9 River Basins (RB). The UPHL councilors thus elect RB council members at this higher level. Finally, the RB councilors elect the members of the intercultural and multinational water council. The latter is intended to be consulted on the public policy conducted at the country level.

Then, in their composition, the basin councils gather the decentralized authorities (parish, county and province), the groups of users of drinking water and agricultural water, the productive sectors as well as the universities. At the River Basin level, the Ministry of the Environment and the Ministry of Planning (SENPLADES) are also represented. In addition to such legal provisions concerning elected officials and based on water use authorizations, the meetings of councils in fact gather more stakeholders in a participative and integrative logic, including governmental and local authorities, as well as users interested in the management of their basin and communities, peoples and nationalities, strengthening cultural and territorial identity.

Finally, in their missions, in addition to consultations on water and the follow-up of the policies implemented in the basin, the councils must play, according to the law, an important role in basin planning, by providing SENAGUA with "guidelines" for developing integrated management plans, with differentiated content on each development scale. SENAGUA, with the support of IOWater as part of its project funded by the Adour-Garonne Water Agency (France), has developed a guide with principles of participatory planning following a step by step logic, from the analysis of the situation and an assessment for the UPHL action plan up to the geographical and thematic identification of the key issues for the Integrated River Basin Management Plan, then the definition of objectives in the long and medium term, as well as the program of measures. In this sense, participation aims to plan integrated management, through the articulation of all the basin stakeholders according to their uses and dialogue with them on their interests related to water resources.

Website: http://www.agua.gob.ec/

# The case of transboundary basins

Transboundary basin organizations must play a key role in the processes of exchange with the civil society on different scales. This may require changes in their organizational structure, opting for decentralized structures (national or local). It is not always easy to set up a Basin Commission gathering all the representatives of the stakeholders and the civil society, especially when the basin involves a large number of countries. An intermediate way is to establish an advisory body with users whose role is to provide advice to the Basin Commission or the transboundary decision-making body.

Another case may be to involve the representatives of the stakeholders and the civil society in
the Basin Commission as observers, a seat being offered to them in the meetings of the basin authority to enable them to speak, but without deliberative voice. The interest of this way is that the representatives, being participating in these meetings, are informed of the debates preceding the decisions and can thus relay the information to their constituents.

Box 8: System enabling the participation of the stakeholders and the civil society within the OMVS (Organization for the development of the Senegal River)

OMVS has a complex organizational system that has evolved over time. The current system gives room for stakeholders’ consultation. The two political decision-making bodies that are the Conference of Heads of State and Government and the Council of Ministers, and the OMVS High Commissioner’s Executive Agency are supported by three advisory bodies:

- The Consultative Committee of Development Partners (CCPD) in charge of assisting the High Commissioner in the search for ways and means for the implementation of the program, promoting the exchange of information between Member States and improving the conditions and procedures for mobilizing resources.
- The Basin Committee (BC) in which users and the civil society (two colleges) sit alongside the colleges of public authorities and the scientific community. The Basin Committee issues advisory opinions to the Council of Ministers on the management, development, impacts and planning of water resources and the environment.
- The Permanent Water Commission (PWC), a permanent body which is responsible for issuing advices and recommendations to the Council of Ministers on the principles and methods of fair distribution of the waters of the Senegal River between the sectors of water use (industry, agriculture, energy, transport, urban water supply), before and after the regulation of the river; on the examination of requests for water use and of development projects likely to modify the characteristics of the Senegal River; on the regulation of equitable use of the resource and of the quantitative and qualitative conservation of the river water. The PWC missions were specified by the Water Charter (2002). Made up of representatives of the Organization’s Member States, it admits, with an observer’s status, entities (stakeholders) directly interested in the Basin’s water resources management, especially representatives of the national OMVS units. In addition, a broad and collegial consultation framework is open at the level of the PWC. This framework enables users, local authorities and decentralized management committees, NGOs to benefit from the observer role and to participate in debates. These members are thus informed prior to any river development project initiative.

These consultative bodies provide advice and recommendations on the overall water resources management in the basin, proposals for action planning and for the monitoring and assessment of the environment and of impacts of developments.

Thus, the Organization, relying on the Water Charter, is gradually implementing the participation of the basin’s economic stakeholders and civil society in water resources management, particularly with the functioning of the Permanent Water Commission, also called ‘African Palavers’. The development of participation particularly relies on national and local coordination structures.

Box 9: Participation of stakeholders within the International Commission for the Protection of the Rhine (ICPR)

For the benefit of the Rhine and its basin, the members of the International Commission for the Protection of the Rhine (ICPR), gathering Switzerland, France, Germany, Luxembourg, the Netherlands and the European Commission, successfully co-operate with Austria, Liechtenstein and the Belgian region of Wallonia as well as Italy.

The River Rhine shows various functions to be harmonised with ecosystem protection: drinking water, water for agriculture and industries, navigation, hydropower plants, recreational fishing, recreational activities and tourism.

Since 1998 the ICPR has granted an observer status to non-governmental organizations (NGO) and other stakeholders, thus giving them the possibility to participate in the plenary assemblies and in working and expert groups. The observer status offers public participation to a certain extent and enables information dissemination to a larger public.

After the chemical accident of Sandoz in 1986 and the flood events of 1993 and 1995 pressure coming from the citizens of the Rhine countries have triggered the ICPR Rhine Action Program and the Action Plan on Floods (APF). Already after the 1995 flood, representatives of cities affected were involved in the production of the APF but there was no official participation at that time.

Since the Ministerial Conference of 1998 - and as set out in the new Convention on the Protection of the Rhine of 1999 - observers can officially participate in ICPR work. The procedure of participation consists of an official request for the observer status from the stakeholder to the ICPR. The contracting parties of the ICPR then agree on the participation of the stakeholder as far as its area of interests or tasks are related to the Rhine Commission work.

# The ICPR recognizes three types of observers:

- Other States located in the Rhine River Basin which are not officially signatories to the ICPR Convention (Belgium-Wallonia, Liechtenstein and Austria), but are yet and due to the EU Water Framework Directive (WFD) and Floods Directive (FD) actively involved in ICPR work;
- Intergovernmental organizations (IGO) such as other river basin commissions or the International Commission for Navigation on the Rhine;
- Non-governmental organizations (NGO). The ICPR considers the NGOs as representatives of the civil society as well as of the various environmental, economic, cultural or recreational functions of the Rhine River Basin for public participation.

Currently, there are 20 NGOs (international or national ones) with observer status covering the following uses and subjects:

- Nature protection/conservation (e.g. World Wide Fund - WWF),
- Drinking water supply (e.g. International Association of Water Works in the Rhine Basin - IAWR),
- Flood prevention (e.g. flood emergency community including 60 municipalities),
- Hydropower (e.g. VGB PowerTech),
- Chemical industries (e.g. CEFIC - European Chemical Industry Council),
- Recreational fishing (e.g. Sportvisserij NL).

Observers (IGOs, NGOs) can participate in several ways, for example by attending regularly meetings of working groups and expert groups as well as the plenary assembly and ministerial conferences.

However, it is not possible for them to join the ICPR’s strategy group, as this group focuses on financial and strategic aspects which may be confidential. Even though, for those strategy meetings, stakeholders can give their opinion, questions and information beforehand via a paper. Furthermore, an official exchange meeting between the observers (IGOs, NGOs) and the ICPR president is taking place yearly, which outcomes are discussed during the strategy group meetings as well.
In the meetings, official decisions are up to the countries, but observers (IGOs, NGOs) can express their opinion, raise critics and actively take part from the beginning in the development of different ‘products’ (brochures, reports, plans and programs). Further, the Water Framework Directive and Floods Directive strongly require public consultation and participation in the process of drafting river basin management and flood risk management plans of the Rhine Basin. Consequently, those plans are available to the public and observers (IGOs, NGOs) for a period of six months prior to their publication. Received requests for adaptation of the draft and questions from the public and observers (IGOs, NGOs) are then discussed in detail within the ICPR bodies in charge, if necessary integrated into the plans and finally published together with the reaction on the requests on the ICPR website.

Generally speaking, ICPR profits in two ways from this stakeholder’s involvement process: On the one hand, stakeholders are reporting and providing feedback on important findings and information from the field to the ICPR, thus enabling the Rhine Commission to stay up to date on the latest socio-economic and environmental issues. On the other hand, ICPR uses the observers (IGOs, NGOs) for the dissemination of information about ICPR activities to a broader public. Surveys and feedbacks show that observers (IGOs, NGOs) are generally satisfied with the ICPR cooperation.

NGOs participation and awareness at the 2013 Conference of Rhine Ministers in Basel

Website: www.iksr.org

3.3 Participation of stakeholders and the civil society through basin’s sub-committees and working groups

Beyond the Basin Committee, water resources management in a basin requires an organization adapted to the challenges and problems of this basin. Thus, thematic committees (e.g. quality and pollution, finance, investments, etc.) can be set up permanently. Similarly, temporary thematic working groups are to be set up in order to lead discussions and consultations on particular issues: e.g. consultation on the issue of climate change in the basin, thinking on the risks related to the water resource, or even development of a water saving program.

These groups can also be set up at decentralized levels, for example to address a problem specific to a tributary or particular area. The small territory scale - a fraction of the basin’s territory - is also an interesting dimension for developing thoughts, consultations and decision-making adapted to the field.
In all these structures, it is crucial to have representatives of stakeholders and the civil society present and participating.

**Box 10: Participation in specialized bodies: case of the Seine Normandy Water Agency, France**

The Basin Committee of the Seine Normandy Water Agency has set up several specialized bodies to deal with particular issues.

- **A Permanent Commission on Programs and Prospects**, composed of about 60 members, from the colleges of stakeholders-users, local authorities and the State. Its role is to review documents, issue advice and prepare the decisions of the Basin Committee. This especially concerns the drafts of Water Development and Management Plans (SAGE), or the establishment of local public basin bodies (EPTB). It is based on the work of thematic groups made up of volunteer members of the basin committee, e.g. the group "Water and Economic Activities", for industrial and craft issues, the group "Water and Agriculture", for agricultural issues, the group "Consumption, Solidarity Management and Sustainable Development", for consumption, employment and decentralized cooperation, the group "Communication and Environmental Education" for topics relating to public consultation, communication and to education. To date, the commission is chaired by a representative of local authorities.

- **A Commission on Natural Aquatic Environments**, with about forty members representing local authorities, departmental federations of approved associations for fishing and protection of the aquatic environment, associations of professional fishermen, associations for nature protection, users and consumers and people qualified in the field of aquatic environments and representatives of the State. It is again a consultative body of the Basin Committee, which provides advice and proposes orientations for the protection and management of aquatic environments. This body is consulted on the SDAGE (Master Plan for Basin Management), the SAGE (plans for sub-basins), the classification of watercourses, the measures concerning the policy on freshwater fishing and the protection of aquatic environments. To date, the commission is chaired by a user representative.

- **A Commission on the Littoral and the Sea**, at least ¾ composed of members from the basin committee, supplemented by stakeholders outside the basin committee but whose implication in the littoral and marine environment is significant. Its role is to study issues related to the coast and the sea. The opening of its composition to members outside the Basin Committee allows a better representativeness in relation with the specific issues of this environment, by including users of the sea, such as recreational beach fishermen or tourist activities. This body for consultation, debate, information and proposals, at the service of the basin committee, is invested in many topics related to the coast and the sea, with the aim of highlighting the point of view of sea stakeholders to land stakeholders given the continuum that exists in the water cycle. To date, the commission is chaired by a representative of oyster farmers (users’ college - shellfish farming).

- **A Commission on Local Policies, Spatial Planning and Floods**, made up of about 30 members, open to members outside the basin committee with consultative voice. It is responsible for reviewing issues related to local policy (including water/urban planning relations), communities and floods. This commission was set up with a view to dealing with all issues related to the communities and territories, taking care to approach the "spatial planning" aspects, and dealing with flood issues in an enlarged configuration. To date, this Commission is chaired by a representative of elected officials. Other bodies have been established such as local commissions or a scientific council.

When working groups are set up by the basin authorities to start thinking about topics of significance to the basin, it is essential that these groups include, among the participants, representatives of economic stakeholders and the civil society. This may be the case when preparing the management plan or the program of measures or when discussing about adaptation to climate change at basin level, or about the plan for flood control or pollution reduction.

This is also the case when having a specialized body is needed, e.g. to manage in a participative way the water level in the dam reservoirs.

In this perspective, the basin organization must facilitate this participation both by improving the participants’ capacity and by facilitating the organization of the users so that their representation in the working group is effective.

Box 11: Stakeholders’ participation in the development of the OMVS Basin Management Plan

The OMVS Management Plan (SDAGE) - SDAGE horizon 2025 - was developed through a participatory, iterative and inclusive process over the 2009-2011 period.

The basin current situation was submitted for validation in 2009 by a regional workshop after validation by the LCC (Local Coordination Committee) and NCC (National Coordination Committee) of the four member countries, leaving a large space for exchanges with the representatives of national and local stakeholders who came to supplement with their field knowledge the existing bibliography on the basin area.

The participatory approach implemented by OMVS facilitated the involvement of the population (often not literate) in the preparation of the SDAGE.

An informative guide in the form of an “image box” was drafted to facilitate the development and appropriation of the plan.

Radio programs were used as well as support provided by local radio presenters trained by the project team.

OMVS allocated financial resources to facilitate a sufficient participation of the civil society. The work then led to a SDAGE project that was debated and validated in 2011 by national workshops and then by a regional workshop in which representatives of users and the population participated.

The SDAGE was approved in 2011.

Throughout the process, OMVS has provided assistance and facilitation, especially for unorganized users, so that the stakeholders are themselves familiar with the issues through specific workshops or media. Continuity in supporting stakeholder participation is also required.

Website: [http://www.portail-omvs.org/](http://www.portail-omvs.org/)
Article 39 of the Water Management Regulation (Royal Decree 927/1988) defines the operation committees as follows: “their purpose is to coordinate, while respecting the rights given by the corresponding concessions and authorizations, the operation of the hydraulic structures and water resources of the system formed by the rivers, the sections of river or hydrogeological unit, whose uses are especially related”.

In practice, the operation committees of the Guadalquivir River Basin Confederation (CHG) are useful for providing every year the users with proposals of regulations and prices for water use. In accordance with the legislation, which states that users must participate in the process, the River Basin Organization transmits the proposals to the users prior to the operation committee meeting during which they will be discussed.

The operation committees also serve to establish operating rules for hydraulic structures affecting several users. The beneficiaries of the regulating structures must pay a “regulatory fee”, while the beneficiaries of the hydraulic structures (canals, pipelines, pumping stations, sanitation, etc.) must pay a “price for water use”.

In the Guadalquivir River Basin Confederation, 27 regulatory fees are approved (including the 53 dams owned by the Confederation) and 28 prices for water use are set. Their definition is based on the cost recovery principle (see Article 9 of the WFD). The transmitted costs are the costs related to the exploitation and conservation of the water resource, the expenses of the basin organization and the amortization cost of investments.

The project presented by the basin organization is exposed to the users who participate in the operation commission to take their opinion into account. Once the proposals are finalized, the Technical Department is in charge of their implementation.

In the Guadalquivir Basin Organization, there are 7 operation committees organized per geographical region:

- Jaén
- Granada
- Córdoba
- Sevilla
- Ceuta
- Alto Guadalquivir
- Alto Genil
- Guadiana menor
- Guadalquivir Medio
- Bajo Guadalquivir
- Melilla

The meetings of the operation committees are usually held in June or July, so that the completed procedure allows for an approval before the end of the year. A later date is generally chosen for the dam water release commission. Thus it is possible to be informed of the evolution of the irrigation campaign and of the achievement of quotas approved by the commission. The date of the commission meeting is also conditioned by the collection of accounting data for the previous year and by the time required for preparation.

An extraordinary meeting is also possible if approved by its chairman (technical director), either on his own initiative or on the request of at least one third of its representative members.

Composition of the operation committees
User representatives are the most important part of the operation committee.

The designation of its representatives is made in proportion to the number of inhabitants in the case of water users, to the irrigable area (Ha) for irrigators’ associations or to the contracted hydroelectric energy for hydroelectric uses. For the committee to have a broad and complete representation, limits are imposed with a maximum of four or six representatives per group. The representatives of the user groups are presented by each municipality, group of municipalities, public or private consortium or enterprise, holders of water supply concessions (inhabitants), by each irrigators’ association (Ha) and by each water company producing hydroelectric power.

The appointment of the representative members is made for a period of six years, starting from the first meeting, in which they participate, with a renewable mandate.

To ensure the effectiveness of the committee, the members are renewed by half every three years, renewal being drawn by lot.

Website: http://www.chguadalquivir.es/inicio

Box 12b: Participatory management of dams: Dam Water Release Commission in the Guadalquivir River Basin, Spain

According to article 45 of the public water management regulation, "it is up to the Dam Water Release Commission to deliberate and propose to the President of the Basin Organization the appropriate regime for filling and emptying dams and aquifers in the basin, taking into account the concession rights of the different users'.

The Guadalquivir basin, with a surface area of 57,200 km2, a population of more than 4 million inhabitants and a high water demand for irrigation for more than 800,000 ha, has a deficit in water resources. The Dam Water Release Commission has thus a decisive role.

It meets twice a year, first in October to prepare the dam reservoir filling plan, then in spring, before the irrigation campaign, to review irrigation programs according to available resources. An extraordinary meeting is always possible, on the request of at least a third of its members.

The main function of this commission is to set, according to the status of the water reserves stored in the dams, allocations for the irrigation campaign, and thus the dam water release plan.

The basin organization prepares, with the participation of the irrigators’ representatives, a proposal for a dam water release plan, based on the hydrological situation, the irrigators' forecasts and requests, which is then presented to the commission for approval. The advices of the Water Commissioner, the Technical Director and the Chief Operating Officer are forwarded to the chairman of the commission. In the case where the agreement is unanimous and the reports favorable, the proposal becomes executable.

Water releases are calculated taking into account the need to keep a reserve to meet supply needs.
3.4 Local or Regional Participation

In the participation process, one difficulty the authorities have to face is the need to move up and down from the local to the national or international level. This is particularly acute in basins which are very large geographically and/or transboundary.

The mere appointment of several representatives of the civil society to the Basin Committee is not sufficient for the information going up from the basis to the basin organization, nor is it sufficient to facilitate the dissemination of the choices and decisions made by the basin authority.

In addition, some local processes must be encouraged, to possibly be reproduced more widely later.

Basin organizations, especially transboundary organizations, are likely to play an important role in the participation process.
role in the mechanisms of exchange inside the civil society at different levels, which may require that some people will have to change their organizational structure, or even their working habits. In addition, collaboration between national basin organizations and local structures is also a key to ensuring dialogue. Ultimately, this is the way to increase the quality of the stakeholders and civil society’s representativeness in decision-making bodies and finally to obtain active participation (association with decision-making) and not just information or consultation.

Several initiatives have been developed to promote the listening of local and field people, to better align the decisions made by the basin organization with the population’s needs and to increase the participation of local stakeholders and the civil society in water resources management.

Examples are provided in France with Local Water Commissions and in Spain with Local Irrigation Committees as well as in the Niger Basin Authority. OMVS has also experimented similar decentralization as an interesting mechanism to use.

Box 13: Stakeholders and users’ participation at local level: the case of the LWC in France

The Water Development and Management Plan (SAGE) is a planning tool, established by the 1992 Water Act, which aims at balanced and sustainable management of water resources. This is a local variation of the Master Plan for Water Development and Management (SDAGE: Basin Management Plan) which sets out the basic orientations of water policy at the level of the major French river basins.

The SAGE, which applies to a fraction of the basin (sub-basin), sets, coordinates and prioritizes general objectives for the use and protection of water resources, taking into account the specificities of the area. It sets out priorities for action, identifies the means to use, and enacts rules for sharing uses. Although it is based on a voluntary approach, it has become a preferred tool for achieving locally the objectives of the Water Framework Directive (WFD), particularly the objective of good status of water bodies.

An environmental contract (usually a river contract, but also a lake, bay or groundwater contract) is a voluntary action plan, with financial commitment from relevant partners for comprehensive, joint and sustainable management at the level of a consistent basin unit.

With the SAGE, the environmental contract is a relevant tool for implementing the actions planned in the SDAGE, taking into account the objectives and provisions of the WFD while adapting to the conditions and constraints of a small area. It can be an operational variation of a SAGE.

# Who are the stakeholders involved?
The SAGE mobilizes water and area stakeholders, grouped together in a Local Water Commission (LWC).

The LWC is a parliament where all the stakeholders have free speech and can express their points of view, thus allowing a true dialogue, and beyond, the implementation of actions and work in the area and the application of common rules.

The LWC is made up of three colleges: the State, users and local authorities. This composition allows a good representation of the area, all the more so since the local representatives (users and elected officials) have a wide majority in the commission.

The supporting structure (group of local authorities, interdepartmental institution, mixed syndicate, etc.) provides the secretariat and facilitates LWC work. It is the owner of the studies and works to carry out. Finally, the State services accompany and supervise the development and implementation of the SAGE, while the Water Agencies finance and provide technical and methodological support to SAGE facilitators.

Website: http://www.gesteau.fr/presentation/sage
Many legislative documents regulate the participation of stakeholders in Spanish river basins. These documents range from the 1978 constitution to the laws of 2006 and 2015, which find their application through five major decrees.

# Participation in Basin Committees and Commissions
Two main areas are to be distinguished: on the one hand, the River Basin Confederation (CHG), an autonomous basin organization of the General State Administration, attached to the Ministry of the Environment (institutional administration) and, on the other, the communities of irrigators in the form of a public corporations under Spanish law, attached to the basin organization and constituted by water users.

Within the Basin Organization, there are two types of participation to be considered: participation in the CHG Board of Directors (governing body) and participation in the Users’ Assembly, the Operating Councils, the Dam Water Release Commission (management or participation bodies). The decisions adopted in these bodies concern the entire Guadalquivir basin.

For the irrigators’ communities, participation in their internal management is ensured by three structures: the board of directors, the general assembly and the risk court. Decisions adopted by these bodies only concern users of the community.

### Box 14: Formal participation mechanisms in Spain, case of the Guadalquivir Basin, national legislative framework enabling participation

<table>
<thead>
<tr>
<th>A) Basin Organization or Hydrographic Confederation</th>
<th>B) Irrigator Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bodies of governance:</td>
<td>1. Board</td>
</tr>
<tr>
<td>Board of directors</td>
<td></td>
</tr>
<tr>
<td>2. Bodies for managing or participation:</td>
<td>2. General Assembly</td>
</tr>
<tr>
<td>Assembly of users</td>
<td></td>
</tr>
<tr>
<td>Operating council</td>
<td></td>
</tr>
<tr>
<td>Dam Water Release Commission</td>
<td>3. Risk court</td>
</tr>
<tr>
<td>2.4. Water council</td>
<td></td>
</tr>
<tr>
<td>Planning Commission</td>
<td></td>
</tr>
<tr>
<td>Participation Commission</td>
<td></td>
</tr>
</tbody>
</table>

### # Local committees close to the population and economic stakeholders
The Irrigators’ Communities
They are public companies, attached to the basin organization and composed by owners who use water and other public hydraulic structures related to the same pumping sites, established on their own initiative or by the basin organization.

The Guadalquivir River Basin Confederation manages a basin of 57,184 km², in which it has promoted many actions in the construction of structures for supplying water in quantity and quality, for irrigation, drinking water and industrial needs. Thus, from the Guadalmellato dam built in 1928 to the most recent Melonares, Breña II, Arenoso and Siles dams, the basin organization...
Box 14: cont’d

operates 52 reservoirs with a total capacity of nearly 8,000 cubic hectometers, allowing the irrigation of over 700,000 hectares. In the basin, about 3,500 irrigation communities use an average area of 100 hectares.

Its internal structure includes a Board of Directors as a governing body, an Assembly that is a participatory decision-making body and a risk court for the resolution of internal conflicts and the application of sanctions for committed offenses.

<table>
<thead>
<tr>
<th>Board of directors</th>
<th>General Assembly</th>
<th>Risk Court</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Elected by general assembly, in charge of application of orders and agreements adopted by the Assembly or the Council</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Members: - President - Vice-president - Members - Secretary - Treasurer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Participatory structure for decision making</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Members: - President - Vice-president - All users of the community - Secretary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● To know the problems between users related to the ordonnances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● To impose legal penalties to offenders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● To fix the compensation to be paid to the injured parties and the obligations arising from the offense</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Members: - President: one member of the board elected by the board Members and alternates - Secretary</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Box 15: NBA regional coordination: getting closer to the local level

The purpose of the Niger Basin Authority (NBA) is to promote cooperation between the member countries and to ensure integrated development of the Niger Basin through the development of its resources, especially as regards hydraulics, energy, agriculture, livestock, fisheries, fish farming, forestry and logging, mining, industry, transport and communications.

To face the challenges ahead, during their 7th Summit held in February 2002 in Abuja, Nigeria, the NBA Heads of State and Government decided to draft a ‘clear and shared vision’ with a Sustainable Development Action Plan for 2025 and an Investment Program. This strong political commitment of the NBA Member States (Shared Vision) aims to promote understanding, increase cooperation between the States and make the most of the basin resources in a peaceful way.

The Shared Vision process broadly developed with a participatory framework. After six years of dialogue (September 2002 to April 2008), consultation and negotiation between the Member States, the technical and financial partners and the stakeholders of the civil society, the process led, among other things, to the establishment of a strategic reference framework.

A Water Charter, legal and regulatory reference instrument for joint and sustainable water resources management, was drafted for the Niger Basin. It plans for water use in the basin to take into account a number of principles, including participation and the fair and reasonable use of water resources in the basin, the non-detrimental use of water resources, precaution and prevention and the “Polluter-Pays” and “User pays” principles.
In its Chapter VII (Public Participation), Articles 25 and 26, the Charter gives the public the right to access information and to intervene at all levels of the decision-making process.

The initiative to involve the civil society stakeholders in the Shared Vision process was genuinely started at the regional workshop for the validation of the regional synthesis of multisectoral studies, held by the NBA in Bamako in January 2005. Based on the study that identified and characterized the stakeholders-users of the basin resources (see Box 2), several steps have been taken:

- The organization of the 1st Regional Forum of the Stakeholders-users of the Basin Resources (FOREAU) in February 2006 in Fada-Ngourma (Burkina Faso); this forum recommended, among other things, the involvement of user organizations in the implementation of major projects and programs under way at the level of the NBA, the effective participation of the stakeholders of the civil society in NBA bodies, in the implementation of the Shared Vision process and in the development and implementation of a communication plan for the basin’s populations and organized stakeholders for effective participation in the Niger River Basin’s sustainable development process.

- The 25th Ordinary Session of the NBA Council of Ministers, held in September 2006 in Niamey, recognized the Civil Society as a stakeholder in the sustainable development of the basin and requested the identification and implementation of the mechanisms necessary for its participation. As a result, the stakeholders-users of the basin’s resources were associated in all the technical meetings (studies and validation workshops) and the meetings of the NBA decision-making bodies (Technical Committee of Experts, Council of Ministers and Summits of the Heads of State), with the right to speak.

- At the Extraordinary Session of the NBA Council of Ministers held in Niamey in July 2007, the Member States once again confirmed their willingness to involve stakeholders/users of the basin by establishing mechanisms for their participation at the national and regional levels and the organization, every four years, of the Regional Forum of Stakeholders-Users of the basin resources (FOREAU).

Thus, nine National Coordination bodies and a Regional Coordination of Users (CNU - CRU) of the basin’s natural resources were established. These coordination bodies serve as an interface between the stakeholders/users and the other stakeholders in the development and preservation of the basin. Initially, most of the coordination bodies had difficulties to be operational, for lack of material and financial means to carry out field activities (no premises or equipment, no finance to operate).

In 2009, an extensive capacity building program for better participation of the civil society in the basin’s sustainable development process was launched. This program started in 2010 with support to the CNU and CRU in terms of equipment, furniture, training and study tours.

In Burkina Faso, the water agencies established in each Niger sub-basin in the country apply the principles of integrated water resources management and people’s participation. The Nakanbe Water Agency, for example, has created local water committees. The 3rd annual forum was held in December 2012 with the participation of the Loire-Brittany Water Agency (France) as a partner of the Nakanbe Basin, under decentralized cooperation.

- A second regional forum of stakeholders-users of the Niger Basin resources was organized in February 2012, in Sélingué (Mali). This 2nd “FOREAU” mobilized nearly 200 participants (users, local elected officials, state structures and technical and financial partners).

- The NBA Council of Ministers adopted in November 2013 the Memorandum of Understanding on the operationalization of the CNUs/CRUs. This Memorandum of Understanding governs the relations between the NBA (States and the NBA Executive Secretariat-ES) and the CNUs/CRUs. These relations are based on a lasting partnership for the effective implementation of the
Box 15: cont’d

Sustainable Development Action Plan (SDAP), the Investment Program and the Water Charter and its annexes. The Memorandum of Understanding has specific objectives: to create the conditions for enabling partnership between the CNUs/CRUs and their partners (States, NBA ES, International Organizations and NGOs), to build the CNUs/CRUs capacities to enable them to carry out their missions, to ensure the funding of the priority needs for the essential operation of the CNUs/CRUs.

In short, better water resources management in the Niger Basin is based on joint management with the participation of all stakeholders concerned. The participatory process of the Shared Vision with the effective involvement of the civil society stakeholders has become a keystone for the development of the basin. Representatives of the regional user coordination bodies regularly participate in various NBA meetings. Their representation has been formalized in various structures such as the Permanent Technical Committee, which is a consultative body to the NBA Council of Ministers.

Website: http://www.abn.ne/

Box 16: Involvement of the grassroot populations of the Senegal River Basin: the national cells and decentralization policy

Since the end of the 1990s, OMVS has been widely open to the basin stakeholders and populations, in order to favor listening to and permanent dialogue with the people in the field. Thus, “national and local consultation frameworks” have been set up, in the form of national (in the 4 riparian countries) and local structures, effectively decentralizing the transboundary basin organization.

This decentralization took place at two levels.

# First at the national level:

A National Coordination Committee (NCC) was created in each State; it gathers the administrative structures, but also the stakeholders of the civil society. The NCCs were set up under the Environmental Impact Mitigation and Monitoring Project (PASIE), from the end of the 1990s. These structures are attached to the Supervising Ministry of each State. Its missions consist of monitoring and facilitating the Organization activities in the country, providing advice and opinions to the Supervising Ministry, coordinating activities between OMVS bodies, and participating in the implementation of programs. It also aims to facilitate the participation of the civil society through various NGOs, members of local committees.

The NCC includes a representative from each ministry involved in water policy, and representatives of the national or local civil society. For example, in the case of Senegal, there are: the representative of the country’s NGO Coordination body, two representatives of women’s organizations, one representative of rural coordination, one representative of the Association of Presidents of Rural Councils and one representative of each Local Coordination Committee (LCC). National Coordination Committees are permanent members of the OMVS High Commission’s Advisory Committees; they are composed of coordinators assisted by experts.
In each State, Local Coordination Committees (LCCs), similar to the NCCs, were established in the 2000s. There are 28 LCCs at the OMVS level: 4 in Guinea, 10 in Mali, 7 in Mauritania and 7 in Senegal. They allow the involvement of the various stakeholders and populations of the regions bordering the river in OMVS activities at local level.

Generally, these LCCs involve village associations in the implementation of programs, such as the Integrated Water Resources Management Project (PGIRE). OMVS works in an inclusive way with these local structures for its own programs. Collaboration allows for the prior involvement of local populations in the drafting of planning policies and afterwards their implication in the maintenance of works.

**# Two types of user associations are involved:**

- The associations involved in the maintenance of hydraulic systems, erosion control in the upper basin and the fight against invasive aquatic plants in the Delta; these structures take into account the representativeness of the populations (age, sex, activity, place of residence);
- The associations involved in the building of drinking water supply systems and their management.

For the first type, programs of activities have been set up and resulted in regular cleaning of the access points for livestock watering, the dredging of channels, Typha removal, drainage of runoff water, etc.

The second type allowed implementing a program for controlling bilharziasis. Five in number (5), they are located along the river, in Selinkégny and Mahinanding (Mali), Birette (Mauritania), Doune Baba Dièye and Thiago (Senegal). A technical assistant supervises and organizes brainstorming sessions to help people thinking, create and perpetuate a sense of convergence of interests between entities.

All these associations, that are today about fifty, are regrouped in unions or association committees.
OMVS has understood the importance of decentralization and empowerment of field stakeholders. The link between centralized administrative structures and less formalized associative structures has been a management method preferred by the Organization. The progressive involvement of these stakeholders in internal work has been constant in the ‘OMVS system’. This implies greater attention to be given to the civil society, i.e. all the community associations and NGOs. For example, all the field stakeholders - 150 NGOs and BMOs (Basin Management Organizations), 7,000 volunteers involved in health issues were called upon for health campaigns and the preservation of the environment. This has raised the awareness of nearly 2 million people (out of 12 million) on these crucial issues.

Website: http://www.portail-omvs.org/

Box 17: The territorial commissions of the Water Agencies in France

In France, the Law on Water and Aquatic Environments has planned the setting up of local basin commissions to be closer to the realities of the field and to the specificities of small areas and sub-basins, to strengthen the proposal capacity of stakeholders and the monitoring of actions in areas.

Their mission is multiple: to promote and analyze projects on local water management plans (SAGE), to multiply debates and consultations at local level, to analyze the local programs of the agency, to organize local forums, to set priorities for action at the level of the area.

The territorial commissions are composed exclusively of members of the Elected Officials, Users and State colleges of the Basin Committee representing the sub-basin. Thus, the representatives of economic stakeholders and the civil society in the area concerned fully participate. They are a direct emanation of the Basin Committee, which asks them to give advice on major management and planning approaches. The Basin Committee elects the President and Vice-presidents. The secretariat is provided by the local management department of the water agency located in the area.

Case of the Rhone Mediterranean Corsica Basin

The Basin Committee has created four territorial basin commissions in the Rhone - Mediterranean Basin: Saône-Doubs, Rhone-Isère, Coast-Provence-Alps-Riviera-Durance, Gard-West coastal rivers.

The goal is to create a community of basin committee members at the level of the territorial basin commission and to allow them having a place for exchanges to be the relays of the SDAGE implementation in their area. It is a way to make a real link between local water management and economic sectors within the territory.

Website: http://www.portail-omvs.org/
3.5 Consultation Mechanisms

Public consultation can be made mandatory by law (see the European Water Framework Directive or the case of public surveys in France). It can also be an optional instrument for basin organizations wishing to go beyond users’ information and prepare for active participation in some areas of water management.

It means then that the opinion of the population on a specific subject has to be collected, most often through a questionnaire or through interviews. It can also be done through forum-type assemblies or by modern means of communication: the Web, social networks.

In all cases it allows not only to know the opinion of people but also to make explanations or have discussions with all or part of the population.

It is important for the basin organization to report to the public on the results of the consultation on the one hand, and to show how it has been taken into account in the decision-making process, on the other.

Box 18: The Dordogne Valley Summit and the Dordogne River Basin General Assembly, France

In 1992, the Public organization EPIDOR organized the Dordogne Valley Summit, in Bergerac, France, to finalize a vast consultation process with users and stakeholders-managers to imagine the future of the Dordogne River. This exercise allowed structuring a management policy for the Dordogne River Basin, formalized in a document entitled “The Dordogne Valley Charter”, co-signed by all the participants in the summit, and, in particular, the civil society and economic stakeholders of the river basin.

For 25 years, the Dordogne Valley Charter has been the reference and political framework for EPIDOR’s action. Much of its content is still relevant and the evaluation of its implementation is the subject of regular meetings organized by EPIDOR.

The Dordogne Valley Summit Historical context

In 1991, when the Dordogne Valley Summit was prepared, the French legislative and regulatory framework for water management was much more elementary than it is today. The notion of hydrographic continuity and river basin was still not very present. Water management remained highly compartmentalized and the principles of integrated management were poorly developed.

The era was also marked by lively debates concerning the conservation of the Dordogne River, in connection with past conflicts over the extraction of materials in low flow channels or with the restoration of migratory fish. These debates were mainly put forward by associative networks relatively active in the public debate.

At the level of the local and administrative organization, the territory of the Dordogne river is extremely broken up. The Dordogne Valley crosses six departments and four administrative regions and no less than 53 administrative stakeholders of different levels are concerned with the management of the river. Before the creation of EPIDOR, no real organization did exist to coordinate the management of the river even if interdepartmental initiatives had nevertheless been carried out by the State ten years earlier as part of the “Dordogne - Clean River” operation.

In 1991, the organization of the Dordogne Valley Summit and the preparation of the Dordogne Valley Charter were the first tasks of the newly created EPIDOR organization.

# The objective

For EPIDOR, responsible for “initiating harmonious development that respects the environment in the Dordogne Valley”, the objective of the Dordogne Valley Charter and Summit was to “establish a coherent framework” for integrated management on the scale of the Dordogne Valley and therefore of its river basin. The idea was also to bring this management framework closer to the real problems faced by the basin stakeholders by involving the elected officials, the users and all the socio-economic partners in the drafting of a charter, by means of a “consultation”.

THE HANDBOOK FOR THE PARTICIPATION OF STAKEHOLDERS AND THE CIVIL SOCIETY IN THE BASINS OF RIVERS, LAKES AND AQUIFERS

www.inbo-news.org | www.iowater.org
The Dordogne Valley Charter results from a process articulated in three main steps. The first step focused on problem identification. Working documents listing these problems were compiled from experts’ studies collected and summarized by EPIDOR. The basin stakeholders, representing about 3,000 people, were interviewed and asked to react. The documents were amended and supplemented with various contributions provided by the stakeholders. This preliminary phase, the longest, helped to structure and shape a framework for the debates.

The second step was to encourage the dialogue stakeholders to get prepared for the debate. The partners were first asked about the solutions they were planning to use for solving the different problems. Each proposal had to be organized and argued according to a structured framework. Starting from the 212 problems identified in the first consultation phase, 1,250 proposals for solutions were formulated. On this basis, proposals for consensus, still to be discussed, were formatted by EPIDOR. A consensus booklet was organized around 15 topics and disseminated to stakeholders, giving them the opportunity to prepare the final negotiation. 17 stakeholder groups were identified, each responsible for designating three representatives for the entire valley (six departments).

This preparatory phase that required the holding of 90 meetings, took 7 months to be completed.

The last step was the final negotiation at the Bergerac Summit in February 1992. A total of 150 negotiators were gathered to discuss the consensus and find a maximum of common formulations. The debates were facilitated by a moderator, with a very strict organizational framework (means of expression, regulation of speaking time...). 402 proposals were considered during 15 hours of debate. In the end, 370 consensuses were adopted to constitute the Dordogne Valley Charter.

This negotiation process on water issues, organized on the scale of a river basin was considered to be a reference process.

The factors behind the success of the Summit
The success of the approach is based on several elements and probably first of all on the unprecedented, innovative and ambitious nature of the exercise: a local consultation on water in a river basin with a surface area of 25,000 km², comprising 3,000 stakeholders.

The second important factor is the extent of the mobilization. All the stakeholders concerned by the river, belonging to the socio-professional, associative, administrative world were involved without any restriction. The exercise also took place with a strong political implication, with the support and presence of elected officials and with the support of the State. All these elements themselves generated interest from the press with coverage and a high media resonance at the time of the Bergerac Summit.

Another decisive element lies in the important preparation that preceded the negotiations and in the meticulous work that has been done to structure the debates. The objectives and method were carefully explained to all stakeholders and all of them were regularly informed. All the stakeholders benefited from the same level of information and for some of them, having little means of their own, a technical support guaranteed a sufficient preparation.

Success is also due to the good support of the negotiators who were willing to do that exercise in confidence. This was probably the result of the spirit of openness that prevailed. No subject was discarded a priori and the speakers benefited from a total freedom of speech. Finally, the unanimity rule for adopting consensus allowed all stakeholders to fully appropriate the Charter in which only solutions common to them all appeared.

The Dordogne Valley Charter is still relevant and the consultation exercise is continuing
The traces of the Dordogne Valley Summit experiment are still noticeable today, if only for the existence of the EPIDOR organization. 25 years later, many of the Dordogne Valley Charter’s consensuses are still relevant. It is still the political framework for EPIDOR’s action.
Box 18: cont’d

Dialogue exercises continue to be conducted regularly, especially through the General Assemblies of the Dordogne River Basin organized ten years (EPIDOR, 2002), and then twenty years (EPIDOR, 2012) after the adoption of the Charter. These new meetings were not intended to negotiate new consensuses but to assess how the consensuses of the charter had been implemented, assess their relevance as well as identify emerging issues.

The method used for these General Assemblies was thus lighter than the long negotiation process of the Dordogne Valley Summit. But several fundamental principles were retained: the involvement of all groups of stakeholders (elected officials, users, civil society and socio-economic stakeholders), the preparation of debates through an assessment work available to debaters, a very structured formal organization of debates according to the themes of the Charter, important means for the information of the stakeholders and the facilitation of the debates.

Website: http://www.eptb-dordogne.fr/

Box 19: The Lake Titicaca Authority is initiating a participatory movement to resolve conflicts on Lake Titicaca

Lake Titicaca, the central element of the TDPS (Titicaca, rio Desaguadero, Poopo lake, Salar coipasa) water system is located in the mountainous area shared by Peru and Bolivia. Situated 3,810 m above sea level, it is the highest navigable lake in the world and with a surface area of 8,400 km², it is the second largest in South America.

The predominant activities in the region are agriculture, commerce and tourism. Most of the very poor riparian populations are highly vulnerable to the effects of climate change and contamination caused by wastewater discharges from large cities.

Considering that water is a fundamental element for life in this very disadvantaged region and respecting the TDPS dynamics, the Lake Titicaca Authority (ALT) supports and promotes the preservation, protection and conservation of natural ecosystems. Taking into account the Andean Community and European Union’s support to cooperation projects for the benefit of the populations of the Andean sub-regions, the ALT has signed an agreement for the implementation of the INPANDES Program, which is an integrated development project for the use of the water of Lake Titicaca Basin for drinking water supply in a context of climate change. Due to its experience in managing similar activities of collaboration between local and regional stakeholders in a
transboundary context, the Andean Community and the European Union entrusted the ALT with the implementation of the project.

The lake problem can be summarized as follows. The systems for the supply of drinking water to the urban areas of Huarina, Huatajada and Chua Cocani do not cover the population’s demand. Although these cities have springs, their distribution networks do not guarantee good service and good drinking water quality, because of the obsolescence and wear of the facilities. They have no wastewater collection and treatment system and most people discharge waste into fields, wells and septic tanks, polluting the surface and ground waters of the basin.

The project aims to address the need to improve the local and transboundary water resource governance system, facilitating dialogue and cooperation with the authorities and the organized participation of the civil society and local governments. It is proposed to cope with the impacts of climate change through an Action Plan and adaptation to climate change resulting from a compromise between the two countries, strengthening the resilience capacity of Lake Titicaca ecosystems.

# Expected results:
- A lake water resource management system for human consumption, established and implemented with the participation of the civil society and local authorities;
- Capacity building of local stakeholders to facilitate the definition of public policies and the restructuring of transboundary dialogue platforms;
- Drinking water in quantity and quality in accordance with national and international standards and accessible to the 9,349 inhabitants of the towns of Huarina, Huatajada, and Chua Cocani in Bolivia;
- Tools and studies for the future extension of sewerage systems (water, sewers, treatment).

The ALT will supervise and monitor the activities with a Steering Committee and a Management Committee that guarantee the availability of places for thoughts and decision-making and the sustainability of a participative operation.

Ultimately, the project should enable the integrated and sustainable development of both countries, focusing on economic, social, political, cultural and environmental aspects, promoting balanced and harmonious development to increase the standard of living of the people, gradually harmonize the economic and social policies of both countries and jointly reduce poverty and social exclusion, focusing on the populations of the border regions.

Website: www.alt-perubolivia.org
4. Informal mechanisms of participation in basin bodies

**KEY POINTS:**
- Establishing mechanisms that facilitate the information of the stakeholders and the public
- Promoting public consultation mechanisms
- Developing instruments and tools that facilitate participation
- Organizing events that foster the participation of the civil society
- Developing the skills and capacities of stakeholders and the public
- Improving local knowledge and know-how
- Developing mechanisms for youth participation

4.1 Promoting the information of the stakeholders and the public

There is no effective and efficient participation without extensive information provided to the people who will participate. A water information system must exist and be open to all to ensure that water and water resource-related data are widely disseminated and used by each participant.

Beyond the WIS and on the basin scale, the basin organization must implement actions that promote the information of stakeholders and the public.

Networking stakeholders and representatives of the civil society is a way of facilitating the flow of information between people and increasing the motivation to participate in water management.

**Box 20: An enriched digital book to give information in an interactive form using modern means of communication (smartphone for example)**

Regarding water, the population is entitled to ask many questions. For example: what is a Water Development and Management Plan (SAGE)? How is it developed and then implemented? By whom? …

Finding immediately the answer is not always easy for an uninitiated person. This is what motivated the International Office for Water to write an enriched digital book: digital because it consists of an interactive support available online on the Web or available offline on smartphones and tablets through a free application; enriched because the answers are detailed while being very educational.

This tool is intended for local authorities involved in water management but which are not specialists in the field. It is particularly aimed at elected officials, e.g. to show them the interest of having a SAGE on their territory. It explains what the SAGE is, what it is used for, how it is implemented, the various stakeholders involved in its development and their role. An overview of similar approaches in other European countries is also proposed, as well as a review of the current situation of the SAGEs in France.
Box 20: cont’d

The content is based on official documents such as syntheses, studies, experience feedback, know-how as well as interviews with field stakeholders who have worked on the subject.

The tool is both educational and interactive.

This enriched digital book allows you to go beyond a mere linear reading, with the possibility to have access to all topics from each page. These pages are organized so that the important information is directly accessible, while giving the user the possibility to have a greater level of detail if he wishes. Finally, this interactive tool uses a panel of media: dynamic opening of blocks of text, videos, audio recordings, data-visualization, slideshows, etc.

Website: http://www.oieau.fr/eaudoc/ebooks/sage/#/spreads/1

Box 21: Green - Participation of the stakeholders of the agricultural world on their good practices

Managing a territory requires knowing the regulations that apply to it. In many cases, many regulations coexist: knowing what applies can be complex. This is the case for legislation relating to water resources protection versus agricultural activities, which are based on a certain number of criteria.

To facilitate the work of managers (elected officials, local authorities, etc.), IOWater offers a smartphone application that allows you to know, from a geolocation or a city name, the “agriculture and water protection” regulations that apply to a territory. This application deals with legislation relating to SAGE, SDAGE as well as zones vulnerable to nitrates. To learn more about these regulations, users are referred to specific contacts or informative sites. Eventually, the application is intended to evolve and grow with the addition of new zoning.

Box 22: Networking water stakeholders in Madagascar: Ran’Eau project

Thanks to the financial support of the Artois Picardy Water Agency, the Water Solidarity Program Association set up a network of water stakeholders, entitled Ran’Eau, in Madagascar a few years ago. This network allows better coordination between the various water managers and local authorities at country level.

It also gives the opportunity to the various stakeholders involved in water management in this country to express themselves, to learn and especially to acquire practices already tested in other areas of Madagascar. The sharing of experiences through exchange meetings and field visits allows project promoters to share their experiences. It also allows representatives of local authorities, government departments and other stakeholders to learn about the approaches used and results obtained in these projects.
4 INFORMAL MECHANISMS OF PARTICIPATION IN BASIN BODIES

Box 22: cont’d

The implementation of the project relies on tools, such as the stakeholders’ database, the water documentation and information center and the promotion of the achieved actions through the organization of stakeholder seminars.

The network enables the various Malagasy stakeholders involved in water management to benefit from a water database, whether on projects for access to water or sanitation, or on the techniques used that have yielded very positive results.

Website: https://www.raneau.org/

4.2 Promoting public consultation mechanisms

National regulations may include public consultation requirements that are applicable in specific situations. This is the case, for example, in Europe with the regulation resulting from the Water Framework Directive which provides for public consultation...

Apart from a compulsory and regulatory situation, it is useful for the basin organization to consult the basin population when the issue has no obvious solution. In addition to the result obtained during the consultation, the operation is likely to encourage the participation of people in present and future thinking about water resources management; it also allows the appropriation of the projects of the basin organization and it is likely that the citizens develop a feeling that the organization has listened to them. These consultations are all the easier to implement since Web tools exist.

Box 23: Public Consultation on the Management Plan (SDAGE), Rhone Mediterranean Corsica Water Agency, France

In 2008, a consultation campaign called “Water is life. Give us your opinion!” was jointly organized in the major French river basins by the Ministry of Sustainable Development, the basin committees and the basin coordinator prefects.

This official consultation took place as an application of the European Water Framework Directive, which aims to achieve good water status in the European Union.

Under this banner, citizens were invited to give their opinion on the orientations and actions proposed by the basin committees in order to recover water quality in rivers, bodies of water, groundwater and coastal waters before 2015.

The public was especially invited to comment via a questionnaire distributed to all households. It could also answer online on the Web and participate in public debates.
More than 67,000 people answered the questionnaire distributed in the basin by the Water Agency and 405,000 people replied throughout France. Several thousand more participated in the various events organized by local authorities and associations. 40 public debates involving more than 2,000 people were organized by water management structures and associations.

The answers expressed a strong sensitivity to the challenges concerning the protection of water and aquatic environments. Thus, the actions proposed by the SDAGE (Basin Management Plan) to control pollution, better manage water scarcity and restore biodiversity were widely approved. Moreover, the ambition of the SDAGE (achieving good water status in 2015) was considered acceptable by a majority of citizens (48%), another important part (45%) believing that we should do better.

Through this consultation, the public expressed strong expectations to the public authorities: better apply the regulation and the polluter pays principle; focus on preventive actions rather than curative actions; make the public policies consistent (agriculture, urban planning and economic development); evaluate policies and inform about results.

The control of pollution by pesticides, fertilizers and toxic discharges from industries were top in the population’s concerns (respectively 60% and 56% of the answers). Concerns about water saving were less mentioned, however, the preservation of water resources and the limitation of their wastage were the subject of many remarks in free advices.

Beyond the answers to the questionnaire, everyone could give an opinion in the form of free comments, possibly online on the Web, by mail, email or notices filed in the prefecture, and participate in public debates. More than 4,000 people expressed themselves (2,200 written opinions and 2,000 participants in the debates).

The free opinions confirmed the public’s commitment to water issues and its concern over the future of water. There were three essential points to remember: the need or the urgency to act and to mobilize the means to improve water status, with greater political ambition; the application or strengthening of the legislative and regulatory framework; a strong demand for information and awareness-raising activities, particularly in schools.

The Rhone-Mediterranean Basin Committee, after discussing the results of the consultation and the alignment of the objectives with those of the national legislative framework, considered that the SDAGE project was broadly consistent with the expectations of the public.

The final adoption of the management plan (in 2009) took into account the opinions issued during the consultations. Thus, the SDAGE and its program of measures could be implemented by all water stakeholders from 2010 onwards to produce their effects by 2015.
At the beginning of July, more than 80 stakeholders from the International Commission for the Protection of the Danube River (ICPDR) attended a workshop where they were able to express their opinion on the draft Danube River Basin Management Plan and Danube Flood Risk Management Plan. The event was the culmination of an intense public consultation campaign aimed at involving the basin’s population in the development of ICPDR policies.

With an intense program, the "Voice of the Danube" workshop lasted a day and a half and provided ICPDR policymakers with an opportunity to learn about the needs of the basin populations that are affected by these policies.

The two draft management plans, the Danube Basin Management Plan and the Flood Risk Management Plan were discussed in detail to provide inputs before finalization in autumn 2017. Both plans would be the most important work programs of the ICPDR until 2021.

The workshop organizers, ICPDR in cooperation with the Global Water Partnership, limited the presentations to allow sufficient time for discussion. This resulted in active contributions from more than 80 participants.

To extract knowledge from the participants, the "Danube-Café" format was chosen. The participants, divided into five groups guided by a facilitator and observed by a rapporteur, spent 30 minutes in discussion, before rotating to change the subject. This approach ensured that everyone participated on all topics in small groups, regardless of their specialization: hydropower specialists discussed the reconnection of wetlands, biodiversity experts talked about climate change, others reflected on the need to increase floodplains. The delegates’ potpourri and original format ensured maximum creativity in the discussion.

The five topics at the core of the discussion reflected the main themes of the two management plans: hazardous substances and pollution, hydromorphological alterations and integration issues, public participation and communication, flood risk management and funding of the measures proposed by the plans.

In addition, observer organizations and other stakeholders were given the opportunity to make presentations, participate in plenary discussions or ask questions in writing. The ICPDR President reiterated the importance of both management plans for the coming years and their huge impact on people’s lives, especially in the light of the devastating floods experienced in the Sava sub-basin last year.

The “Art Nouveau” building of the Croatian National Archives provided an appropriate frame for the workshop.

Modern media allowed direct interaction with the audience, with all presentations being broadcast live and through social media such as Twitter and Facebook. 39 tweets on the event generated nearly 7,000 printings and many interactions.

Now that the Voice of the Danube has spoken, it is up to ICPDR to take the messages into account. The gathered comments were structured and fed into a report provided to the ICPDR expert groups reviewing the two management plans.

A final report on all public consultation work must be published. Each comment will be recorded in this report with a note explaining how it was considered or why it was rejected. In both cases, the opinions expressed by the stakeholders will be treated with the utmost respect.
4.3 Developing tools that facilitate the participation of stakeholders

Guidance documents, knowledge dissemination tools adapted to economic stakeholders and to the general public are useful to facilitate the understanding of water management and of the characteristics of different water resources and to better understand the complexity of their functioning. All this is likely to promote the participation of stakeholders in management and increase their motivation to act in the direction of the policies defined in the basin.

Box 24: cont’d

The Voice of the Danube workshop is part of a series of public consultations on the draft Danube Basin Management Plan and the first Flood Risk Management Plan. Other measures include a campaign on social media, online questionnaires and the collection of the comments submitted in writing. The four consultation channels will contribute to the final report.

Public consultation is required by the Water Framework Directive. However, ICPDR goes well beyond these legal requirements in its commitment to involve stakeholders. Indeed, the commission is convinced that active public participation facilitates wider support for policies and leads to greater efficiency in the implementation of measures. Public participation is an ongoing process that involves the participation of 23 observer organizations in ICPDR expert groups, public information activities, awareness raising and consultation activities.

Website: https://www.icpdr.org/main/

Box 25: Guides and knowledge transfer to better understand the exchange of flows between groundwater and surface water, France

The groundwater/surface water interface is an important challenging sector in the Rhone River Basin. The issues related to this interface and the interactions that occur are significant: instrumentation and monitoring, understanding and description of the functioning (e.g. biogeochemical, ecological, hydrological functions), calculation of flows and balance sheets (e.g. hydrological balance), implementation of indicators (e.g. low-flow support, self-purification), and quantification of ecosystem services.

In the WFD context (European Water Framework Directive), for example, expectations are high to facilitate the assessment of the good status of water bodies, the sizing and monitoring of restoration operations or dependence of wetlands with regard to groundwater (e.g. identification/typology, risk/degradation, monitoring, multidisciplinary indicators). There is usually a strong need for methodological development and transfer of knowledge from the research world to that of water stakeholders.

With this in mind, the Mining School of St Etienne is carrying out interdisciplinary projects at the manager/researcher interface. The operational valuation of these projects led to the publication of a methodological guide "Nappes-Rhône – Rhone aquifers" (Paran et al., 2015a) following a
Box 25: cont’d

Zabr/AE-RMC project (2006-2015) and a technical guide “Naprom” (Paran and Augeard, 2017) as part of a project with the French Agency for Biodiversity (AFB, formerly ONEMA, 2010-2016). These guides have been developed in partnership (proofreading, co-construction, testing) with many water stakeholders.

These two documents propose an approach and interdisciplinary tools to understand and measure the flows exchanged between the rivers and their accompanying aquifers mainly in an alluvial environment.

They aim to develop the skills and capacities of all stakeholders to answer two questions: what are the most appropriate tools to characterize groundwater-river exchanges in alluvial environments and how to proceed and what is the procedure for characterizing groundwater-river exchanges?

In addition, training sessions are proposed to familiarize the stakeholders with these tools and methods. For example, two seminars for managers have already been organized on this topic (“Aquifers-Rhone” seminar, 2014, “Naprom” seminar, 2015).

In the future, these two guides will be enriched by feedback from users and new elements concerning methods, tools or other hydrogeological configurations.

Two ongoing Zabr-AE-RMC research projects will contribute to supplement the knowledge already available in these two guides by proposing additional elements on:
- karst/river interactions (Karst-Cèze project 2013-2019, Ré-Bahuaud et al., 2015, Chapuis, 2017) with the publication of a third guide due in 2020;
- groundwater/wetland/river interactions for the characterization of the potential low water replenishment from basin headwater wetlands (ZHTB 2016-2020 Project, Paran et al., 2017b) with the publication of a fourth guide due in 2021.

In addition, two new Zabr/AE-RMC projects, scheduled to start in 2018, will further extend the scope of the previous guides on intermittent aquifer/river interactions (eFLOW-INT project) and that of the self-purifying power of the aquifer/river interface (aquifer/river quality project).

Besides the methodological transfer and knowledge transfer to managers (e.g. technical services, water management syndicates, etc.), the results of this research work could be enhanced with a view to reaching a wider audience, particularly the public at large.

This work may in the future include a participatory dimension and mechanisms to involve citizens. The implementation of participatory hydrological mechanisms based on observation and communication, for example, seems to be an interesting way for data acquisition and tool development.

Many scientific partners participate in the projects: BRGM (New Aquitaine, Orléans), Cerege (Aix-Marseille University), Geosciences (Mines ParisTech), IRSTEA (Lyon, Antony), LGEI (Alès Mines), LHA (University of Avignon Pays de Vaucluse), UMR 5023 Lehna (University Claude Bernard Lyon 1 and ENTP), UMR 5600 EVS (ENS Lyon and Jean Monnet University of Saint-Etienne), UMR 6249 Chronoenvironnement (University of Franche Comté), UMR 6524 LMV (Jean Monnet University of Saint-Etienne), UMR 6553 Ecobio (University of Rennes), UMR 7300 Espace (University of Avignon Pays de Vaucluse), UMR 8212 Mosaic (CEA UVSQ), US-CARRTEL UMR INRA 042 (University of Savoy).

Moreover, the participation of stakeholders and the civil society is revealed through the involvement of many structures such as members of French water agencies, administrations (Regional Directorates), local authorities and institutions (AFB, Departmental Councils, CETE, Greater Lyon, the SAGE of the Beauce), associations (Zabr, Graie, Arra, Astee, Creseb, FNE, Marais Poitevin, Aquibrie, Aprona, Gasoil), consulting firms (Antea Group, Idées Eaux, Hydrofis, Lades), Drinking Water (SPL Grenoble Water, SEV), Industries (CNR, EDF, Areva), Nature Reserves (RN des Ramières, RN de la Platière Island, Lake Luitel RN, RN des tourbières de Frasne and Bouverans), Syndicates (SMRD, SM3A, SBVA, Smirclad, SHR, SMBVL, ABCèze)
Box 25: cont’d

In Quebec, the acceptance of River Basin Organizations (RBOs) as necessary stakeholders legally established by the Quebec Government has been progressive. The RBO system was established by the Water Quality Act of 2002. Currently numbering 40 and regrouped in the regional network of the “Regrouping of the River Basin Organizations of Quebec” (Regroupement des Organismes de Bassins Versants du Québec - ROBVQ), the RBOs are promoting a dialogue between the stakeholders present on their territory and develop integrated water management in their basin. The Richelieu River Basin Consultation and Development Committee (COVABAR) covers an area including 66 towns and municipalities, where agriculture accounts for 70% of land use. A time of adaptation was necessary for these stakeholders already present on the territory and having an impact on water.

In order to overcome the existing apprehension about the creation of a RBO, COVABAR first favored communication with all stakeholders in the basin. One of the mechanisms that facilitated the building of the municipalities and farming community’s trust in the RBO was to provide them with technical and characterization services. The field work proposed by COVABAR especially consists in the stabilization and revitalization of the river banks and in raising the awareness of the entities using their services.

---

Box 26: Developing Tools for Participation: COVABAR Experience, Quebec

In Quebec, the acceptance of River Basin Organizations (RBOs) as necessary stakeholders legally established by the Quebec Government has been progressive. The RBO system was established by the Water Quality Act of 2002. Currently numbering 40 and regrouped in the regional network of the “Regrouping of the River Basin Organizations of Quebec” (Regroupement des Organismes de Bassins Versants du Québec - ROBVQ), the RBOs are promoting a dialogue between the stakeholders present on their territory and develop integrated water management in their basin. The Richelieu River Basin Consultation and Development Committee (COVABAR) covers an area including 66 towns and municipalities, where agriculture accounts for 70% of land use. A time of adaptation was necessary for these stakeholders already present on the territory and having an impact on water.

In order to overcome the existing apprehension about the creation of a RBO, COVABAR first favored communication with all stakeholders in the basin. One of the mechanisms that facilitated the building of the municipalities and farming community’s trust in the RBO was to provide them with technical and characterization services. The field work proposed by COVABAR especially consists in the stabilization and revitalization of the river banks and in raising the awareness of the entities using their services.
It also consists in research carried out in collaboration with Ministries and non-profit organizations, especially on the Copper Redhorse, a species of fish endemic to Quebec and classified as endangered species by the Canadian Ministry of Fisheries and Oceans.

Collaboration is continuing to grow and the RBO is now seen as a full and indispensable partner by the municipalities and the farming community. COVABAR is currently considering offering technical training to other RBOs interested in adopting this operating mode and in diversifying their actions in their respective basins.

Since 2008, 13 “River Dialogues” have taken place in 10 river basins in the four Austrian states: Upper Austria, Carinthia, Styria and Salzburg. In July 2012, the first international river dialogue “Untere Salzach” started between Austria and Bavaria. This Dialogue was successfully implemented. On this basis, other activities were developed in Germany (Bavaria and Baden-Württemberg).

Public information and consultation is one of the cornerstones of the EU Water Framework Directive and Flood Directive. Austria has complied with the relevant provisions of the Directive and with those of Article 14, which aims to promote the stakeholders’ participation in the implementation of the Directive. It started a “river dialogue” process, in addition to the more formal measures planned in the Directive.

# A special challenge for Austria
The high water quality and the abundance of the resource in Austria characterize the country as a “water nation”. In recent years, significant investments have been made to achieve high standards in drinking water supply and sanitation.

The result is that water pollution has more or less disappeared. Waters are now clean and transparent. All the lakes have a good bathing quality. Currently, the focus is on river ecology and the natural conditions of rivers. For centuries, Austrian rivers have been subjected to alteration of the banks and river bed correction for hydropower, protection against floods or for converting wetlands into arable land for food self-sufficiency.

To comply with the new orientation towards river ecology, other investments, often very expensive, will be needed to achieve a ‘good ecological status’ or a ‘good ecological potential’. The prerequisite for obtaining a certain willingness to pay is to raise public awareness. Austria is at the forefront of the successful implementation of awareness raising strategies in the water sector. This was a prerequisite for the “River Dialogue” model. The methodology was further refined according to the requirements of the European Water Framework Directive and its regionalization.

# Approach
“Only one person who speaks to another is able to implement successful projects”. The River Dialogue echoes this testimony. It is a highly qualified method with a highly regional and individual approach. So far, the dialogues have informed stakeholders and the general public of a specific river basin and raised awareness, and even more, allowed a better understanding of the hydrological measures taken, planned for the future.

The river dialogue was launched in 2008 by the Austrian Ministry of Agriculture, Forestry, Environment and Water Management, in collaboration with the Upper Austria Lander. Through this dialogue, all citizens were invited to express their personal vision of the future of the river. It is no coincidence that the River Dialogue was very much appreciated. On the one hand, the personal relationship to the river is usually important. On the other hand, the elements of the process were considered in detail and evaluated: as a first step, the stakeholders, as representatives of water management, fisheries and nature protection services, presented their vision of the watercourse. In a second phase, the citizens of the entire river basin were invited to give their opinion in an online survey. The third step was defined by a
4.4 Developing events that foster public participation

By organizing events open to the basin population, the basin organizations can raise the civil society awareness on the situation of water resources, on the basin status, the problems encountered, the solutions imagined. It is also a way to develop a vision of the entire basin shared by the majority of its inhabitants and stakeholders, necessary for the actions envisaged in the plans and programs to receive wide approval.

It may also promote the initiatives that some stakeholders or groups of the civil society have implemented in all or part of the basin, e.g. to conserve the biotope, to promote water savings, or to protect the basin against pollution.

Events can take various forms: exhibitions, forums, videos, days dedicated to the river, a day for cleaning the river bed and banks.

Box 28: Great Lakes - St. Lawrence Gulf Symphony

The Great Lakes - St. Lawrence Gulf Symphony is a citizens’ initiative aimed at raising awareness on the Great Lakes, St. Lawrence and Gulf Basin and on protecting the basin’s water resources. This territory, which extends from the western tip of Lake Superior to the Gulf of St. Lawrence, involves sixth Canadian provinces and eight American states. Coordinated by the International Secretariat for Water (ISW), the project promotes the many local, regional and transboundary initiatives on water management in a densely populated river/lake basin. It attempts to define the conditions wished for the future according to a participatory process open to all. It is also an opportunity for citizens to express themselves on the water issue.
through various means and it is a way to establish links between citizens across the borders. The project allows sharing a vision of the entire basin with the “Basin Inhabitants” and the promotion of citizen initiatives in the basin.

From Duluth, Minnesota to Corner Brook, Newfoundland via Chicago, Toronto, Buffalo, Montreal, Uashat Mak Mani-Utenam, Gaspe, Blanc-Sablon and Charlottetown, the populations were invited to conduct a vision exercise on the future of the Great Lakes, St. Lawrence and Gulf basin. Young people, First Nations members, representatives of the civil society, academics, artists, elected officials, economic and industrial stakeholders, all basin inhabitants were invited to take part in this process. Beginning in the spring of 2011, several local consultations across the basin helped to gather testimonials and the first elements of a shared vision articulated around five questions: What brings us together? What is our concern? What do we want to value? What is our shared vision for the future? What actions should we take to achieve this vision? In June 2012, the ISW and its partners organized ‘The Meeting of Quebec’, which gathered citizens from the Great Lakes, the St. Lawrence River and the Gulf of St. Lawrence to conduct a first basin-wide exercise. This working seminar helped to develop common guidelines, define the conditions for better citizen participation in integrated management, and led to the adoption of a citizen appeal “From Solitude to Rallying”. On 28 June 2012, the ISW was invited to present the first message from the Basin inhabitants to the mayors of the Great Lakes and St. Lawrence Cities Initiative, gathered in an annual General Assembly.

In 2014, a traveling exhibition entitled “Large Cities, Great Lakes, Large Basin” was produced to share the vision of the whole basin in a context of adaptation to climate change.

# The main outcomes were as follows:
- A vision of the entire basin shared by all basin inhabitants;
- A process of permanent promotion of the basin inhabitants’ initiatives for the basin conservation and protection as part of an overall vision;
- Several bodies of the exhibition that share the vision of the entire basin in three countries (United States, Canada, France);
- 1,000 annual visits to the exhibition.

Website: [http://www.sie-see.org/fr/project/symphonie-grands-lacs-saint-laurent-golfe/](http://www.sie-see.org/fr/project/symphonie-grands-lacs-saint-laurent-golfe/)

---

A Regional Stakeholder Forum on Water Governance in the Niger Basin was organized in February 2017, with the aim of informing the main stakeholders in the water sector and discussing the improvement of water governance in the basin. This forum contributed to the essential idea that information sharing should be considered as an ongoing process to ensure that all stakeholders are receiving the same information.

The Forum was organized in partnership with the International Union for the Conservation of Nature (IUCN), as part of the Partnership for Environmental Governance in West Africa (PAGE). In addition to the representatives of the NBA Member States and NBA executives, the event gathered the National and Regional Coordination Bodies of Users of Natural Resource in the Niger Basin, sub-regional organizations and Technical and Financial Partners. The participants exchanged on policy documents and their implementation instruments adopted by the NBA statutory bodies to establish and sustainably ensure good governance of water resources in the Niger Basin.

# More specifically, the forum allowed:
- Discussing water governance through exchanges and knowledge sharing between stakeholders;
- Improving the State and private stakeholders’ knowledge of the various legal, institutional and technical tools and/or mechanisms for water management in the Niger Basin;
- Strengthening the partnership between the various potential stakeholders, on the one hand, and between the stakeholders and the NBA Executive Secretariat on the other;
Box 29: cont’d

- Improving the communication and sharing of information on the various water uses in the Niger Basin with a view to preventing possible conflicts.

The exchanges highlighted the constraints that must be removed: e.g. the low ability of the stakeholders in the planning and implementation of the programs, the difficulties encountered when collecting data to feed the different water management tools, or the lack of internal synergy or the delay in the effective implementation of the Water Charter (effectiveness of certain standards, weak functioning of some water management bodies, etc.)

At the end of the debates, the forum led to the formulation of recommendations regarding financing aspects, the operationalization of tools and instruments of good water governance (legal instruments, water management bodies, technical management tools and planning tools), the acceleration of the process of setting up a network for the management of data and environmental and socio-economic information of the Niger Basin with a view to improving the supply of relevant data to the tools, the systematic production of NBA working documents in English and French, the strengthening of internal and external partnerships, the support to the National User Coordination Bodies (CNU) and the Regional User Coordination Bodies (CRU) of the Basin and their greater involvement in the activities and management bodies set up within the NBA (NBA Executive Secretariat and Member States).

Website: www.abn.ne

Box 30: Lakes and rivers celebration, an event for disseminating knowledge on river basins in Quebec

"Lakes and rivers celebration" is an operation that was implemented in 2007-2010 in the river basins of Quebec and in other river basins around the world. The objective of the operation was to raise awareness on local issues related to water resources and their access, with a view to establishing action plans to be implemented by the citizens themselves.

The project was supported by the ISW with many partners.
Box 30: cont’d

Through the “Lakes and Rivers Celebration”, the ISW enabled more than 800 young people, aged between 16 and 25 and coming from 22 Quebec regions, to get involved in projects in collaboration with their schools and their local river basin organizations, while being twinned with water initiatives under way elsewhere in the world, also led by youth. The meeting and sharing of experiences between Quebec participants and those at international level raised awareness on the similarities and differences between the countries as well as on the will for mutual assistance that has materialized in the form of international solidarity projects.

For 3 years, young people from Egypt, Niger, Moldova, Costa Rica, Mexico, Colombia, France, Haiti, Luxembourg, Germany and Brazil have shared with Quebec citizens their realities in relation to the water resource and the solutions they have found to face the many challenges in their country.

# The achievements: …

- 22 action plans including local actions in Quebec, in the twinned country, and cooperation projects between them both were presented to the elected members of the Quebec National Assembly;
- For 3 years in a row, teachers and students from Cégep (educational institution) carried out cleaning and revegetation work on the banks of the Assomption River. They also helped in the construction of a reservoir as part of a drinking water supply project in the Peruvian Andes;
- The “Lakes and rivers celebration” was in Baie-Comeau an opportunity for students from the Eco-Locaterre committee and the “Rivière aux Anglais” Basin Committee to launch an ice fishing initiation activity for elementary school kids. This activity, which also includes a training component on fish habitat, its biology and the rules to be followed during fishing activities, has been repeated annually since;
- The environmental committee of Cégep Limoilou, in Quebec, in collaboration with the Québec’ERE organization and the Saint-Charles River Basin Committee, has set up an educational activity with biology teachers. Students taking the biology course carried out water analyzes in the Saint-Charles River, with participants in the “Lakes and Rivers celebration”. The results of these analyzes were taken up by the City of Quebec.

Website: http://www.sie-see.org/fr/project/lacs-et-rivieres-en-fete/

4.5 Developing the skills and capacities of the stakeholders

For citizens and water stakeholders to fully and effectively participate in water resources management actions in the basin, they must be able to understand the challenges, problems and potential solutions. The same is true when the population is asked to give an opinion during the consultations carried out by the basin organization.

It is therefore important to implement actions that promote the development of knowledge of the different categories of stakeholders and populations. For the action to be effective, it should be targeted according to the group of people concerned: an educational action on water management for very young people or teenagers will not have the same content and the same method than an action intended for the entire population and for a specific issue such as the protection of wetlands.
The basins are all affected by climate change, which has a significant influence on water resources. In France, the Seine-Normandy Water Agency has defined a climate change adaptation strategy that was approved by the Basin Committee on 8 December 2016. This strategy aims to encourage the basin’s stakeholders to start practical actions immediately to adapt to climate change and to reduce its consequences.

To meet this new challenge, the Seine-Normandy Water Agency has launched a call for initiatives to support the basin’s stakeholders in the implementation of educational actions and to carry out participatory workshops aimed at mobilizing basin stakeholders on climate change.

The project is addressed to the organizers of active training for elected officials and local authorities, farmers, industrialists and citizens (associations, water class relays, agricultural high schools).

The supported actions consist in organizing “WATER and CLIMATE” workshops in the form of a 3-to-5 day active training, articulated around 3 components:

- Meetings with competent personalities on the issue;
- Field visits and / or case studies;
- Group work and collective production.

The selected projects will receive funding up to 80% of the total budget. Among the criteria used for selecting projects, it is necessary to mention the implementation of an active and participatory pedagogy, the making of an evaluation at the beginning of the action, the active discovery of the local environment, the learning of gaining citizenship, the study of water management, its stakeholders, the links between the water cycle and climate change, and finally the representativeness of water stakeholders in the intervening bodies.

Website: http://www.eau-seine-normandie.fr/domaines-d-action/appels-a-projets/education_changement_climatique
Box 32: IOWater webinars, to interact with local authorities and to share knowledge

To facilitate the development of the water stakeholders’ skills, especially local authorities, and to promote access to information, IOWater is organizing online seminars called webinars. These are interactive events organized through a virtual platform. Each session is designed to guarantee exchanges in real-time between the speaker and the participants, either orally or through a chat. Webinars are recorded and can be made available to online users.

In 2017, IOWater organized about a dozen webinars gathering nearly 200 participants over the year:

- The webinars of the National Observatory of Water and Sanitation Services are addressed to the small local authorities contributing to the observatory and aim at developing their skills to improve the production of the Report on Price and Quality of Services. These events were carried out with the financial support of the AFB;
- The webinars proposed by “Eaudanslaville” deal with current topics and are reserved for subscribers;
- The “Gest’eau meetings” are open to the community of the facilitators of SAGEs and environmental contracts. They mainly focus on professional issues and facilitate exchanges between the various stakeholders.

In its training catalogue, the IOWater Training Center also proposes webinars to address important topics in the water world. To exchange, to get information, to compare one’s experience with the case studies presented, to assess the state of the art and regulatory changes, are topics of the proposed program.

Box 33: A pedagogy for citizen education on the themes and stakes of the “Water” resource and of the living world on a basin scale – “Fleuve Grandeur Nature (FGN)”

Promoted by the Education League of the Loire, with the Permanent Education League of Belgium and the Italian associations “Solidarci” and “Attività di Pensiero”, “Fleuve Grandeur Nature” (Full-Scale River) is an initiative shared by 180 stakeholders, associations, river basin authorities, educational and cultural institutions, which cooperated in order to achieve an easy-to-use pedagogical toolkit for “educators” and citizens of various ages, cultures, experiences, skills.

The stakes of water resources are well known: their indispensable nature for life, their increasing pollution, their insufficient quantity to meet the needs, the basins’ biodiversity at risk, etc. Faced with this and to solve local problems, the critical and participatory educational action that mobilizes the various stakeholders and interested bodies on the basin scale is often a source of solutions.

FGN considers that it is not possible to develop the stakeholders’ participation without starting a multidisciplinary educational action throughout the river and basin lives. Formal and informal education are both needed: in the training room and outdoors, on the banks of the river or lake, in a protected area, on an urban bank, at the river headwaters or at its mouth.

# A pedagogy for all audiences: innovative, open, critical and adaptable

Developed as part of a major European ERASMUS+ project, the FGN method is a critical planetary pedagogy inspired by the work of various authors at the international level (in particular Paulo Freire, Catalina Ferrer, Real Allard, Philippe Perrenoud, Edgar Morin, Jean Macé, ...). It has several goals.
Box 33: cont’d

- Move from a theoretical vision to a vision rooted in the land, to allow for attachment, understanding and knowledge of its environment with the perspective of a citizen commitment and a double citizenship believing to be and to act as a citizen of the Earth, without ceasing to belong to smaller communities.

- Move from a local vision (close to home) to a global understanding (and vice versa) to evidence the multiple interdependencies between the local and the global, highlighting the belonging to a community which is both local in the area and also wider.

It is a pedagogy that aims to enhance the emotional intelligence, the real life experience, while addressing the social reality (problems and wealth) starting from local realities of stakeholders in educational action (“the educating community”) to get prepared to understand later realities.

Eco-designed and copyright-free, the FGN pedagogical toolkit contains many tools that can be examined in detail on the website www.fleuves-grandeur-nature.org
The latter also includes online interactive games to discover the rivers live!
The set is available in French, Italian and English, and may be available in other languages.
Box 33: cont’d

The FGN pedagogical toolkit was developed through a research-action-participation process.

FGN intends to add other rivers to those already studied (Scheldt, Garonne, Loire, Meuse, Rhone, Seine, Tiber and Volturno), as well as on the website.

Website: www.fleuves-grandeur-nature.org

4.6 Pooling local knowledge and know-how

Box 34: “GEST’EAU”, website of the “SAGE” integrated management tools

The Water Development and Management Plan (SAGE) is a planning tool, established by the 1992 Water Act, which aims at the balanced and sustainable management of water resources. This is a local variation of the Master Plan for Water Development and Management (SDAGE) which sets the basic orientations of water policy at the level of the major French river basins.

The SAGE sets, coordinates and prioritizes general objectives for the use and protection of water resources while taking into account the specificities of the area. It sets out priorities for actions, identifies the means to be developed, and enacts rules for sharing uses. Although it is based on a voluntary approach, it has become a preferred tool for achieving locally the objectives of the Water Framework Directive (WFD), especially the objective of good status of water bodies. An environmental contract (usually a river contract, but also a lake, bay or groundwater contract) is a voluntary action plan, with financial commitment from relevant partners for comprehensive, concerted and sustainable management at the level of a coherent river basin unit. With the “SAGE”, the environmental contract is a relevant tool for implementing the “SDAGE”, while taking into account the WFD objectives and provisions. It can be an operational version of a “SAGE”.

Who are the stakeholders involved?

The “SAGE” mobilizes water and local stakeholders, gathered in a Local Water Commission (LWC). It is a parliament where all the stakeholders can have a free speech and express their points of view, allowing a real consultation, the tangible achievement of the work to be done in the area and the application of common rules. The LWC is composed of three colleges: that of the State, users and local authorities, allowing a good representation of the area. The supporting structure (group of local authorities, interdepartmental institution, mixed syndicate, etc.) provides the secretariat and facilitation of the LWC. It is the owner of any studies and work to be done. Finally, the State services accompany and supervise the drafting and implementation of the “SAGE”, while the Water Agencies finance and provide technical and methodological support to the “SAGE” facilitators.
The environmental contracts are signed by the partners involved: the prefect(s) of the department(s), the Water Agency and Local Authorities (general council, regional council, municipalities, intermunicipal syndicates...). A river (or bay) committee is created by prefectoral decree to manage the drafting of the contract which it facilitates and follows up. As for the “SAGE”, a support structure is responsible for facilitating the contract execution.

In order to promote a balanced and sustainable management of water resources and aquatic environments and to gather stakeholders, IOWater is responsible for the facilitation of the network of SAGE and environmental contract stakeholders.

The objective is to meet the needs of local stakeholders, taking into account the national priorities of water policy, its links with the biodiversity policy, the Flood Framework Directive, its integration into the policies of regional planning and economic development, thus the territorial reform. Since 2002, IOWater has been leading the network of local water management stakeholders, providing it with structuring information on local water management, especially through “Gest’eau” (www.gesteau.fr) by:

- Taking care of the pooling and dissemination of knowledge, by gathering, sharing and highlighting experiences, thanks to:
  - the dissemination on “Gest’eau” of the descriptive sheets of the “SAGEs” and contracts;
  - An information watch extended to aquatic biodiversity, as well as to the management of aquatic environments and the prevention of floods and its dissemination;
  - the provision of raw or detailed information (news, articles, information leaflets, documentary notes, testimonials, key figures, computer graphics, synthetic and detailed mapping, etc.), the feeding and facilitation of the “Sharing experiences” heading and related sections (documentary and regulatory watch, news, territorial life, research-development, training, forum, etc.).

- Accompanying the stakeholders and increasing the skills of the facilitators, thanks to:
  - the organization of “Gest’eau meetings”, in the form of web-conferences;
  - feeding the future "job section" (information on training, kit for starting a job, guides, models of documents...);
  - the facilitation of the forum.

- Contributing to the networking and federation of stakeholders through:
  - the organization of the National SAGE Facilitators’ Seminar, that has been held every 18 months since 2003.

www.gesteau.fr
The wetlands of the Colorado Delta, located between the States of Sonora and Lower California, had once covered an area of more than 400,000 hectares. The total flow of the river that comes down from the Rocky Mountains in the United States creates an estuarine zone of great biological richness in the Gulf of California. Colorado is currently one of the most regulated rivers in the world, with more than 80 dams and an increasing water demand for more than 40 million users in the United States and Mexico. The impact on the delta has been significant, causing the degradation of 80% of these wetlands.

The delta is one of the most important wetlands at the continental level: more than 200,000 migratory birds arrive there every winter; it is home to more than 75% of the total population of the “Palmoteador de Yuma”, a bird endemic to the lower Colorado basin which is protected in Mexico and in the United States. Wetlands are also an important source of income for many communities in this region, through fishing and tourism.

Due to its biological value, the delta is recognized as a wetland of international importance by the Ramsar Convention and is protected in the Upper Gulf of California and Colorado River Delta Biosphere Reserve, under the direction of the National Commission of Protected Natural Areas (CONANP).

Since 1997, a bi-national coalition of environmental organizations, government and academic institutions has made an effort to restore this ecosystem. The process included conducting hydrological and ecological studies to determine restoration strategies, as well as management processes, community participation, and the application of tools to protect the water resource and ensure the long term conservation of sites.

In this process, interaction with various sectors and water users has been fundamental, especially with the agricultural sector of the Mexicali Valley irrigation district.

The project received support from the Mexican National Water Commission (CONAGUA), the Colorado River Users Association and various irrigation modules in the region. In addition, in 2010, civil society organizations were encouraged to join the Baja California Peninsula Basin Council to represent environmental interests.

As a continuation of the wetland restoration process and with the support of various users, a process of integration of the Colorado Delta Wetland Specialized Working Group (Grupo Especializado de Trabajo en Humedales - GETH) as an auxiliary body of the Baja California Peninsula Basin Council, was initiated with the aim of strengthening the participatory process and institutionally consolidating the restoration of the environment.

One of the first steps was to organize participatory workshops for the preparation of the Colorado Delta Wetland Management Program to generate the guidance document defining the objectives and strategies to be achieved. This was done in March 2012, with CONAGUA support. More than 50 people from 21 institutions participated in this process, including federal government agencies, as well as state and local authorities, universities, water users and environmental organizations.

In this management program, the overall goal is to ensure that the Colorado Delta wetland system has a good conservation status, through the preservation of the natural heritage, the restoration of environmental services and the promotion of positive socio-economic impacts, which enable the fulfillment of the commitments defined in national laws and international treaties in this area.

For this purpose, seven strategic lines were defined:
1. Inter-institutional coordination and coordination with the society;
2. Compliance with legislation;
3. Environmental education;
4. Allocation of water for wetlands;
5. Improvement of water quality in wetlands;
6. Infrastructure for wetlands management and use;
Box 35: cont’d

ге Management and conservation of native flora and fauna.

For each strategic line, a series of activities and checking means were defined, and a working group was created to coordinate implementation, as well as the communication of the progress made to the rest of the group. This became the guidance document for the functioning of the GETH.

The next step was to formalize the installation of the Colorado River Delta GETH; this was done in April 2012. The group approved the appointment of the Technical Secretary designated by CONAGUA, as well as a General Coordinator for the operation and monitoring of the civil society organizations (Pronatura Noroeste) and the representatives of each strategic line.

In recent years, the GETH has held several meetings which have examined compliance with objectives, the revision of strategies, the implementation of new actions, as well as the identification of opportunities for institutional synergy and priority issues.

# To date, the main achievements are as follows.

- Inclusion of an environmental component in Law 319 of the International Water Treaty between Mexico and the United States as part of the International Boundary and Water Commission (IBWCO), signed on 20 November 2012, which guarantees an allocation of 195 million m³ of water for the environment in 5 years, jointly contributed by Mexico, the United States and environmental organizations.

- Release of a volume of 130 million m³, with a maximum flow rate of 120 m³ per second, by opening the gates of the Morelos dam, between 23 March and 15 May 2014, to restore the flow of the Colorado River along the delta, reconnecting the river to the Gulf of California for the first time in over 20 years. This flow enabled the revitalization of wetlands, increasing plant biomass by more than 40%, with an increase in bird diversity of 43% and the germination of native plants.

- Restoration of 265 hectares of riparian wetlands, with the planting of more than 210,000 native trees (willows, poplars and mesquites). The work was carried out thanks to the support of the environmental organizations (Sonoran Institute and Pronatura Noroeste), the support of government agencies (CILA, CONAGUA, CONANP, SEMARNAT) and the work of thousands of volunteers in the region.

- Integration of the Colorado River Delta Water Trust, which has delivered 35 million cubic meters of water to wetlands, for the maintenance of restored sites and as part of the commitments made by environmental organizations in minute 319. This was possible thanks to the support of the CONAGUA, the Colorado River Users Association, irrigation units and farmers from the Mexicali Valley who participated in this initiative, as well as the Gonzalo Rio Arronte Foundation, which supported the water allocation process for the Colorado River.

- Communication and environmental education campaigns, and more than 200 workshops and guided tours in wetlands. Every year, at least 8 reforestation campaigns are carried out, involving nearly 2,000 volunteers. An important part of the process has been the celebration of World Wetlands Day (2 February) and World Water Day (22 March), in coordination with CONAGUA, CONANP and other government agencies.

- Inspection and monitoring in coordination with the users and various authorities, CONAGUA and PROFEPA in particular, which enabled to stop illegal water abstraction in wetlands.

- Development of a monitoring and scientific research program under the direction of the Autonomous University of Lower California and the participation of institutions from Mexico and the United States, which generated crucial information for defining the environmental flows and the ecosystem response to restoration efforts.

With the establishment of the GETH and the integration of the management program, it has been possible to create a stronger institutional base for the recovery of the Colorado River Delta, resulting in a common understanding of long-term goals and strategies to achieve. This has allowed for better coordination between the various government programs and the civil society, as well as better communication between the stakeholders concerned and other water users in the region.
Box 36: The OMVS Picture Boxes

As part of the drafting of the Senegal River Basin Management Plan, three “Picture Boxes” were developed as information, awareness and knowledge exchange media for the populations. The tool is used to support the formulation and implementation of the Master Plan for Basin Development and Management (SDAGE) both in understanding the basin and in facilitating proposals from the people. Each box corresponds to a phase of the SDAGE development process, each time constituting the lever for the participation of the populations during village events organized in many basin communities.

Each picture represents a basin-related issue and suggests a set of observations, and questions that open up a discussion and provide answers, including explanations and knowledge inputs. The tool is effective with the village populations because it is based on pictorial representations and may be suitable even if one cannot read.

4.7 Developing mechanisms for facilitating youth participation

All over the world, youth is the future. It is also often a weak category of people, strongly affected by the lack of sanitation or of access to drinking water while being an important part of the living forces that must apply policies in the field. More than 50.5% of the population is under 30 (UNESCO statistics) worldwide. In Europe, 15-29 year olds represent one fifth of the population (27 members), i.e. more than 100 million people.

Too often left behind or manipulated, they are usually left with only folklore, music or social networks to express themselves and participate, instead of inviting them into the consultation structures. Sustainable water management needs participation, as required, for example, by the European Water Directives, as well as a reliable representation of all stakeholders, and therefore of youth.

For this to work, it is necessary to create the conditions for a balanced, sustainable and democratic representation of young people to guarantee their participation, the competence of each and their real representativeness.

Young people especially must acquire the basic knowledge and the ability to act and express themselves, which implies the adequate financing of the existing mechanisms.

Youth is also a way of entering into families to disseminate principles and facilitate the implementation of actions promoting water management.

Box 37: Preparing for the future, example of youth participation in the International Scheldt District

The International Scheldt Commission (ISC/CIE) with the Artois-Picardy Water Agency and two NGOs, “Good Planet Belgium” and the International Secretariat for Water (ISW), pioneered the establishment of a “youth for water” policy adapted to each level of consultation.

The different elements of this policy cover awareness raising, education, participation and action.

# The objectives of this “youth for water” policy are to:
- Implement the participation of young people to mobilize them on water and climate;
- Give meaning to education for sustainable development by strengthening a partnership with educational authorities (National Education, “Francophonie – French speaking world”, French and Flemish communities, etc.);
- Prepare young people for water professions, water governance and the challenges of climate change;
- Transmit know-how and values for water;
- Develop a culture of water;
- Reappropriate water near home by eco-citizenship and a common identity.
# The founding principles are to:
- Give young people the means to innovate, to think together, to meet the stakeholders of today’s water and to give their vision of water policy;
- Give young people the means to have a “first chance” to act and implement their projects.

# The actions are:
- Fostering exchanges by gathering young people from different backgrounds to enable them to commit themselves to water, to meet each other, to express themselves, to know the water issues and challenges and to build relationships with water stakeholders, etc.;
- Involving young people in participatory water management: projects, twinning arrangements, etc.;
- Supporting the implementation of projects prepared by young people with Young Water Solutions and the SEE (website: youngwatersolution.org)

# Various youth consultation bodies are proposed at the different levels of water management: Artois Picardy Basin, since 2003: Youth Parliament for Water
- 80 school members, meeting in plenary session twice a year,
- An average 3-year commitment with a renewal of 30% between each session,
- International agreements organizing “green schools” with Bulgaria and Morocco.

# International Scheldt District, since 2006: the Scheldt Youth Parliament
- 20 members, 18-25 years old, from France, Wallonia, Flanders, Brussels and the Netherlands, meeting twice a year
- 2 projects a year,
- Observer members with the ISC and therefore in the working groups and the plenary session;
- Signing of a Sebou/Scheldt youth agreement at the COP22 in Marrakech.

Mechanisms for representing youth stakeholders in the Artois-Picardy basin

# Europe, since 1998: European Youth Parliament for Water
- Created by ISW and GoodPlanet, a meeting a year with experts on a theme- 5 young ‘Scheldt’
- The 14th Parliament met from 1 to 8 October in Italy on the theme: "Water and Peace".

# The World, since 2012: World Youth Parliament for Water
- Created by ISC, the Artois Picardy Water Agency, GoodPlanet and ISW at the 2012 World Forum;
- Objective: to make the voice of youth heard in international conferences dedicated to water.
For the future, the main challenge is to sustain the process. In particular, it should be recognized at all levels, obtain sustainable funding, have an administrative status accepted by all to take place alongside other stakeholders and to be accepted on a long-term basis in the various networks of water stakeholders.

The “Youth for Water” project should also develop and support other youth parliaments (Meuse, Sava, Danube, Asia ...).

**Website:**
- www.sie-see.org/fr/project/les-parlements-europeens-de-la-jeunesse-pour-leau
- www.pmje-wypw.org

---

**Box 37: cont’d**

The world’s first resource requires accountability, protection and sustainable management. This needs a clear understanding, increased awareness and in-depth knowledge from the generation that will impact and shape the future of water.

A sustainable alternative for raising awareness about the significance of water and for inspiring young people on water issues is the "water platform" for young people called "Blue Generation".

"Blue Generation" was launched by the Austrian Ministry of Agriculture, Forestry, Environment and Water Management to raise awareness among the younger generation about its future responsibility for water and sanitation and to increase accountability. This platform invites young people to get informed, to participate and to understand the diversity of the water field.

"Blue Generation" is the largest water project for Austrian youth. The main targets of "Blue Generation" are awareness and knowledge transfer in the field of water. The vision is to develop and shape a new generation focused on water. Thanks to sustainable penetration over a long period, "Blue Generation" creates an attractive effect and generates involvement and identification. Young people aged 13 to 19 are approached with a content related to the target group (wording and appearance) and specific identification tools (buttons, free cards, etc.). In addition, "Blue Generation" supports the inclusion of attractive projects and contests as well as on-site activities (events, conferences, etc.).

# The means of communication implemented are as follows:

- **Website:** The basic support is the Web platform www.generationblue.at. This platform offers easy water-related content, online games, a newsletter, an information space for teachers, and much more. In addition, innovative school activities (workshops, projects, competitions, etc.), specific media (info file, poster, gimmicks, etc.), field activities and a media presence complete the program.

- **Facebook:** To better reach people of the target group, "Blue Generation" has created a Facebook site, which provides an "entertainment info" content on water, through fun facts, photo and video content and active community management.

- **Youtube:** The channel offers the whole content of the videos that have been produced so far. The videos range from simple news clips to short summaries of "Blue Generation" events such as the Danube Day or the Danube Art Masters.

- **Cooperation:** "Blue Generation" cooperates with various water-related institutions, organizations and companies. For example, the Belvedere Museum offers special water tours for students on World Water Day, “ÖVGW” cooperates with "Blue Generation" in terms of learning materials for teachers and students.
Box 38: Blue Generation in Austria: the “Water Platform” for young people

- **Events**: In addition to the online content, “Blue Generation” takes advantage of appropriate events to present its services and contents to the public. The annual highlight is the International Danube Day, celebrated in Vienna’s municipal park by 1,000 children and teenagers. Many exhibitors participate, including “Blue Generation”, which allows knowing everything about the Danube.

- 17,000 visitors per month
- 300 downloads per month
- 4,000 to 5,000 fans on Facebook, a very stable and active community
- More than 15,000 clicks on Facebook posts
- 1,000 visitors a day at the “Danube Day”

**Website:**
- [www.generationblue.at](http://www.generationblue.at)
- [www.facebook.com/GenerationBlue/](http://www.facebook.com/GenerationBlue/)
- [www.youtube.com/user/generationblu](http://www.youtube.com/user/generationblu)

Box 39: Young people’s awareness of the problems in the Niger River Basin

The first regional forum for users of the Niger River Basin was held in February 2006 in Fada-Ngourma, Burkina Faso.

For the first time, this step allowed for discussions with organizations of the civil society in villages and with young school children to address water and river-related issues, in the presence of representatives of the administration and partners.

The work could be done in a pedagogical and tangible way by using a model of the basin. Thus young children and other participants could visualize the basin and become aware of the problems and scope of the solutions and actions proposed by the authorities.

**Young school children from a village in Burkina Faso around the model of the Niger River Basin**
Contributors

Géraldine AUBERT: Artois-Picardy Water Agency, France
Christophe BRACHT: International Office for Water, France
Lorena Martinez CISNEROS: CONAGUA, Mexico
Teodoro ESTRELA: Jucar River Basin Authority, Spain
Monica Gpe. Camarena GARCIA: CONAGUA, Mexico
Alejandro Rodriguez GONZALES: Guadalquivir Hydrographic Confederation, Spain
Pamela Alejandra Rojas HERNANDEZ: CONAGUA, Mexico
Stephanie LARONDE: International Office for Water, France
Arnould LEFEBURE: International Scheldt Commission, Belgium

Ramiro MARTINEZ: MENBO
Marion MELLOUL: North America Network of Basin Organizations, Canada
Jorge Peña MENDEZ: Titicaca Lake Authority, Peru, Bolivia
Richard MULLER: Global Water Partnership Central and Eastern Europe, Slovakia
Tatiana ORTEGA: Jucar River Basin Authority, Spain
Fredéric PARAN: Mines School St Etienne, France
Guy PUSTELNIK & Olivier GUERRI: Territorial Basin Agency for Dordogne, France
Milvia RASTRELLI & Franck BEYSSON: ‘Fleuves Grandeur Nature’ Initiative, Italy
Ernst ÜBERREITER: Ministry of agriculture, forest, environment & water management, Austria
Adrian SCHMID-BRETON: International Commission for the Protection of the Rhine, Germany

Websites

http://www.abn.ne/
http://www.eaufrance.fr/
http://www.chj.es/es
http://www.portail-omvs.org/
https://www.iksr.org
http://www.chguadalquivir.es/inicio
http://www.gesteau.fr/presentation/sage
http://www.agua.gob.ec/
https://www.epstb-dordogne.fr/
http://www.alt-perubolivia.org
http://www.oieau.fr/eaudoc/ebooks/sage/#/spreads/1
http://www.raneau.org/
https://www.icpdr.org/main/
http://www.covabar.qc.ca/
http://www.sie-see.org/fr/project/symphonie_grands-lacs-saint-laurent-golfe/
http://www.sie-see.org/fr/project/lacs-et-rivieres-en-fete/
http://www.raneau.org/
http://www.epstb-dordogne.fr/domaines-d-action/appels-a-projets/education_changement_climatique
http://www.fleuves-grandeur-nature.org
http://www.gesteau.fr
http://www.inbo-news.org/
The participation of the Local authorities, the economic stakeholders and the civil society in water resource management is a crucial component for any water policy implementation. It has to be achieved at all relevant levels and particularly on a basin scale, whatever the type of basin: river, lake, aquifer, and national or transboundary basins; indeed, the basin is a critical place for developing participative approaches in the decision processes.

Today, efforts must be increased to obtain a real and efficient participation at basin level, through various mechanisms within the basin organizations and different informal mechanisms and events promoting information and public consultation.

To help this process, the International Network of Basin Organizations (INBO), the Brazilian Network of Basin Organizations (REBOB), the International Office for Water (IOWater), with the support of the French National Agency for Biodiversity (AFB) have joined their forces to write this handbook.

This document underlines why participation is so important in water resource management. It describes the key elements of the participation in water management and it gives numerous concrete examples from basins around the world which show what can be done to make the participation of stakeholders and civil society a reality and an added-value in the decision making process at basin level.

This handbook is addressed to water-sector decision-makers and to those interested in developing their capacities for improving water management and increasing the participation of stakeholders and civil society.