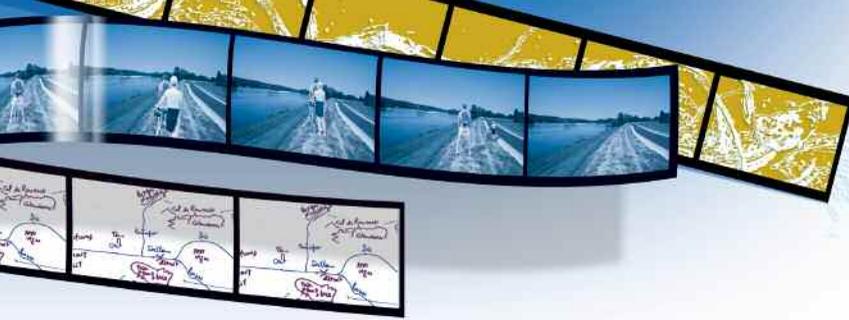


## Contribution of stakeholder perceptions to managing aquatic environments

Anne Rivière-Honegger, Marylise Cottet et Bertrand Morandi (coordinators)



## Foreword

Trends in the relations between nature and society are impacted by technical and scientific progress, however they also signal changes in how people think about the environment. These changes are the product of modifications in individual perceptions and in the collective representations prevalent in society, an example being the current shift of our societies toward sustainable development.

The water and aquatic-environment sector is one of the fields where the relations between nature and society take form, are visible and may be observed, whether they concern the protection and management of environments and water resources or the creation of organisational structures for negotiations between stakeholders, drafting of new legislation, etc. Similarly, because the sector also brings into play values, imagination, memory and the very identity of humans and territories, as well as action plans and relational systems, the many uses of water differ significantly and in potentially conflictual manners.

Attempting to understand the individual perceptions and collective representations of water and aquatic environments, without forgetting that they always exist in a spatial and temporal context, is essentially an attempt to understand the meaning that individuals and social groups assign to water and aquatic environments. In the framework of integrated, basin-centred management requiring prioritisation among issues, this approach is the means to unite stakeholders around a shared vision, to understand their reactions and even to reduce tensions.

With this book, Onema again highlights the valuable contribution of the human and social sciences in implementing water policy.

Structured around two essential steps in a management project for aquatic environments, namely the formulation and assessment stages, this book looks at the contributions and limits of current research on stakeholder perceptions and expectations in an array of different situations. The study of each step is illustrated with ample feedback from projects and diverse stakeholder viewpoints that facilitate the learning process for the knowledge required for the operational management of projects by water managers.

**Philippe Dupont**

Director of the Research and development department, Onema



## Preface

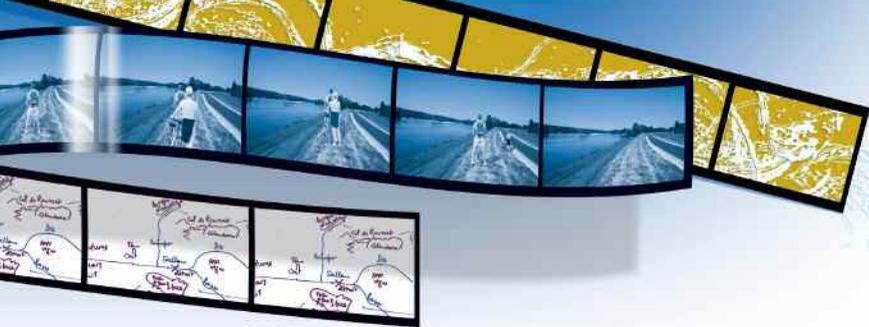
**M**anagement of water and aquatic environments currently finds itself in a context where particular attention must be paid to the perceptions held by the various stakeholders (managers, elected officials, people active in those environments, the general public, etc.). The European water framework directive (WFD) specifically targets the involvement of all stakeholders and requires an integrated approach to water and aquatic environments by one and all. Unfortunately, a more fragmented knowledge base is often observed. The new conditions now prevailing (climate change, territorial modifications, water quality, biodiversity, population growth, social change, trends in governance, economic pressures, etc.) are a source of tensions between present and future water uses and values. In view of creating a shared vision and reducing tensions, it is worthwhile to study, in different contexts and for various types of aquatic environments, the potential contribution of stakeholder perceptions in managing aquatic environments.

This book, written collectively, emerged from a national multi-disciplinary symposium of young researchers titled Perception and management of aquatic environments that was held in Lyon over the end of 2011 and the beginning of 2012 (<http://perception-aqua.ens-lyon.fr/>). The series of meetings was an occasion to review the scientific and operational issues and the progress made in the field. Presentations and round-table discussions facilitated the sharing of information and experiences between renown researchers, water managers and younger researchers. The group as a whole took a critical look at the methods currently employed.

The book itself was drafted collectively during writing workshops held throughout the year 2013. This experimental approach brought together approximately 60 people, including researchers from the human and social sciences (geography, sociology, etc.) and from the earth and life sciences, as well as water managers.

The objective of this book is to facilitate the implementation of integrated and participatory management of water and aquatic environments, and to initiate dialogue at the interfaces between the various disciplines and where the scientific and management fields meet. A further objective is to provide insights based on recent research. Finally, a number of case studies highlight the diversity of the aquatic environments studied and of management situations.

**Anne Rivière-Honegger, Marylise Cottet, Bertrand Morandi**  
Coordinators



## Abstract

### Contribution of stakeholder perceptions to managing aquatic environments

Integrated management of aquatic environments requires that particular attention be paid to studies on the perceptions held by the various stakeholders (managers, elected officials, people active in those environments, the general public, etc.). The questions that arise concern the utility and methods of mobilising these studies for operational management.

#### A collective approach

This book is the result of recent work by 23 young researchers who addressed the issue of perceptions and expectations via a number of different and complementary approaches, including interviews, questionnaires, participant and non-participant observations, analysis of document collections, etc. They produced scientific knowledge on an array of aquatic environments (peat bogs, ponds, small and large rivers, etc.) and for different territorial situations (cities, predominantly agricultural rural regions, areas only slightly impacted by human activities, both in France and abroad), associated with a number of management issues (socio-economics, ecology, landscape, hydraulics and flood control, patrimonial<sup>1</sup> and recreational issues, etc.). The knowledge produced was discussed during a multi-disciplinary national symposium bringing together researchers and water managers. The process was overseen by a scientific committee and a number of experienced researchers contributed their ideas.

#### Four chapters

The contributions of studies on stakeholder perceptions are analysed taking into account the essential development steps in management projects for aquatic environments. Prior to the project itself, these studies produce knowledge by identifying stakeholders and their expectations (Chapter 1), and by delving into the history of the relations between societies and aquatic environments (Chapter 2). At the end of a project, they are an important factor in questioning and assessing management practices (Chapter 3). The book also presents the opinions of stakeholders in the field in the form of feedback from management and research projects, both in France and abroad (Chapter 4).

#### 1 Identifying stakeholders and their expectations

Study of the perceptions and expectations of the various stakeholders concerning aquatic environments produces useful information during the preliminary diagnostic phase of the project. By characterising the diversity of stakeholders and their expectations, it provides the information required to address all the issues involved when developing a project. That is why the study must be launched in advance in order to effectively define the project. Awareness of the perceptions of the various stakeholders makes it possible to improve stakeholder-involvement efforts that take into account the interactions between stakeholders and to make decisions during the discussions that are a necessary part of defining a management plan. Conversely, lack of knowledge on public perceptions raises the risk of neglecting issues and of setting management objectives that do not correspond to the expectations of certain stakeholders.

## **2 Learning more about the history of the links between societies and aquatic environments**

The case studies presented in this chapter demonstrate the value of studying the relations between history and aquatic environments when implementing management projects. Discussing and explaining past events enhances our understanding of more recent development work. This in turn raises questions on environmental dynamics over relatively long time spans and thus puts into perspective and/or pinpoints contemporary problems. Information on the history of aquatic environments can also be used for mediation work during project implementation. It is of value in creating a story, a narrative on aquatic environments.

## **3 Questioning and assessing management practices**

An assessment of a project acquires greater depth by integrating an analysis of the perceptions of the various stakeholders involved. The analysis can be used to evaluate the environmental measures taking into account the complexity of the relations between stakeholders and the environment, and thus enhance management of future projects. Different stakeholders can have very different opinions on management projects. The perceptions concerning each aquatic environment differ for each person, with different expectations as a result. The fulfilment or the frustration of those expectations can profoundly influence the final assessment of a management project. Assessment results depend on how the project is set up and conducted.

## **4 Feedback**

The book also presents the opinions of water managers and scientists who discuss their practical experience and provide their thoughts on the subject of the perceptions of aquatic environments. This information takes the form of feedback from eleven projects addressing the diversity of the aquatic environments studied (river basin, small and large rivers, etc.) and a number of research and management situations, both in France and abroad (Austria, Canada and Switzerland). The objective is to pull together a number of "stakeholder viewpoints" providing examples and feedback useful in expressing various needs and gaining perspective in terms of current practices.

## **Also in the book**

### **■ Case studies**

A total of 18 case studies, from different regions in France, illustrate the links that studies on perceptions and expectations have with:

- various legislative and regulatory texts in the water sector and more generally in the environmental and landscape-planning field, e.g. SBMPs (sub-basin management plans), river contracts, flood-prevention plans, local zoning documents, regional nature parks, etc.;
- specific aspects of each project, ranging from urban areas to nature parks and from the restoration of river banks for landscaping and recreational purposes to flood control;
- the diversity of the areas studied on different spatial scales, including peat bogs, ponds, small and large rivers.

### **■ Viewpoints, concepts and methods**

The book also contains 13 Focus sections on viewpoints, concepts and methods providing readers with background information on the theories and methods used to produce the data on stakeholder perceptions of aquatic environments. The sections also present the strengths and the weaknesses of the methods employed, notably surveys based on interviews and questionnaires, participant and non-participant observations and analysis of document collections (oral, written, imagery).

1. Patrimony or heritage? See the introduction to Chapter 2 on the difference in French between the two terms. This English translation uses the two words in the French sense.