Public Participation in River Basin Management in Germany

"From borders to natural boundaries"

This report has been produced as part of
Work Package 4 of the HarmoniCOP Project

by
Eleftheria Kampa, Nicole Kranz, and Wenke Hansen,
with contributions from Natasha Madeira and Antje Vorwerk

Ecologic, Institute for International and European Environmental Policy

December 2003

Table of Contents

List of Figures

List of Tables

List of Acronyms

For interpretations of the German terms, please refer to the glossary and definitions in section 8.

ARGE Elbe	Arbeitsgemeinschaft Elbe
BMU	Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit
BUND	Bund für Umwelt und Naturschutz Deutschland
BW	Baden-Württemberg
BY	Bayern (Bavaria)
CIS	Common Implementation Strategy
DSS	Decision Support Systems
EU	European Union
GDR	German Democratic Republic
GIS	Geographic Information Systems
GNU	Gesellschaft für Natur und Umwelt
HE	Hesse
ICPE	International Commission for the Protection of the Elbe
ICPR	International Commission for the Protection of the Rhine
ICTools	Information and Communication Tools
IAWR	Internationale Arbeitsgruppe der Wasserwerke im Rheineinzugsgebiet
LA21	Local Agenda 21
LaN	Landesbüro der Naturschutzverbände
LAWA	Länderarbeitsgemeinschaft Wasser
LNU	Landesgemeinschaft Naturschutz und Umwelt
NABU	Naturschutzbund Deutschland e.V.
NATO	North Atlantic Treaty Organisation
NGO	Non-Governmental Organisation
NRW	Nordrhein-Westfalen (North Rhine-Westphalia)
PP	Public Participation
RBM	River Basin Management
RBMP	River Basin Management Plan/Planning
RP	Rheinland-Pfalz (Rhineland-Palatinate)
WFD	Water Framework Directive
WHG	Wasserhaushaltsgesetz
WWF	World Wildlife Fund

Preamble

Public and stakeholder participation is a central theme in many conferences on water. Governance is often perceived to be more important than technical solutions to deal with water resource problems. The issue receives a unique importance with the introduction of the European Water Framework Directive. Nevertheless, the theme has received comparatively little attention in the research community.

A lot of expertise is available – but it is fragmented. Most research projects and comparative analysis have focused on national accounts. This is unsurprising given the strong influence of national regulation, cultural heritage and institutional factors that govern the setting up of any participatory process.

The HarmoniCOP project aims to improve the conceptual base for participatory planning in river basin management. It thus has a clear scientific goal with the idea that a better understanding of PP in river basin management is key to developing better practical approaches and implementation schemes. Comparative studies in a number of European countries will assist in defining what could be "European Governance", while respecting national traditions.

An initial objective of the project is the development of descriptive national reports that compose Deliverable 5 of the HarmoniCOP project. Nine reports on "national experiences with participatory planning processes" will discuss the national PP experiences and traditions and the influence of institutional, legal, cultural and geographical/physical differences. This report forms one of these nine reports and focuses on the national experience of Germany.

At the same time, HarmoniCOP will produce a handbook as a practical guide that allows users to tailor a participatory process to regional/local conditions. The handbook will give rules of good practice illustrated by a number of case studies. It should become a living document embedded in a community of practitioners, institutions and communities.

A basic premise of the HarmoniCOP project is that social learning is crucial to the development and implementation of management schemes that meet environmental targets, are economically and socially sustainable and are accepted by the broad public. Hence PP should not be seen as a burden imposed by law, but as an opportunity. We expect to develop our research practical guidance on how to exploit this potential within the constraints of everyday practices and how to avoid pitfalls that undeniably exist.

The project has assembled a group of enthusiastic people with different scientific and practical backgrounds. In and of itself, the project presents a major challenge and a practical lesson in social learning in order to promote and guide the research process to profit from the diversity of knowledge and experiences.

Ecologic, Institute for International and European Environmental Policy, is grateful for the support of the European Commission in providing funds for this research and to the national organisations contributing to the project.

Claudia Pahl-Wostl
Coordinator HarmoniCOP project
December 2003

1 Introduction

The HarmoniCOP German national report aims to explore the underlying issues with respect to the involvement and participation of the public in river basin management that may arise from differing administrative structures, cultural backgrounds and the natural conditions of different regions within the country.

Scope

The national report is based on research in two of the major river basins in Germany. It has been considered appropriate to focus discussions on specific river basins which are the spatial unit of interest in this case. The two river basins examined are the basin of the River Rhine in western Germany and the basin of the River Elbe in eastern Germany. The two river basins have been chosen based, on the one hand, on their comparable importance and size – they cover most of the country and involve most of the federal states (*Länder*) of Germany – and, on the other hand, because of their contrasting histories. The choice of these two specific basins also allowed consideration of transboundary issues, given the transboundary nature of both river basins.

The Rhine Basin is an interesting case for the development of public involvement in river management in Germany after World War II. The River Rhine has been a major economic factor in its region, with some of the most industrialised areas of Germany surrounding the Rhine and its many tributaries. Due to the visibility of the pollution problems affecting the Rhine, there have always been many citizen initiatives and a high level of public awareness in this area.

The Elbe Basin is another interesting case, also from the perspective of German political development before and after the re-unification in 1990. The differing structures and political climate in these two politically distinct periods created different circumstances for the involvement of the public in issues of river management and planning.

Methodology

Data and information for the national report was gathered through literature and internet-based research, complemented by numerous interviews with key stakeholders of the river basins (see section 10 for a list of interview partners).

As mentioned, the two river basins of the Rhine and the Elbe are large and involve many of the *Länder* of Germany. Therefore, it was considered appropriate to focus research on specific areas of the basins so as to cover all the different governance levels in both river basins. These governance levels included the entire basin level, the *Länder* level and the regional/local level (such as municipalities). Research on each of these governance levels took place in selected locations, e.g. in two or three instead of all *Länder* in the basin, in order to focus the search for relevant material and interview partners. Nevertheless, the knowledge gained especially from the interview partners can be considered valid for the specific governance level elsewhere in Germany, e.g. in many other *Länder* or municipalities.

Structure of the report

Chapter 2 establishes the framework for water and river management in Germany, providing historical, geographical, legislative and institutional information. The history and institutional background of public participation is discussed in light of cultural changes and recent developments in Chapter 3. Chapter 4 presents the involvement dynamics in river basin management within the two river basins. The highlighted experiences form the basis for the analysis, in Chapter 5, of horizontal themes of interest on the national approach to public involvement in river basins. The concluding Chapter 6 summarises the main lessons learned and comments on the national approach in view of the Water Framework Directive (WFD) requirements. A glossary and definitions for certain terms specific to the German context are provided in section 8.

2 Framework for Water and River Basin Management in Germany

2.1 General Background

Germany is situated in the heart of Europe, surrounded by nine neighbouring countries: France, the Netherlands, Belgium and Luxembourg to the west, Switzerland and Austria to the south, the Czech Republic and Poland to the east and Denmark to the north. Germany is a federal republic consisting of 16 federal states, or *Länder* (see Figure 1). Germany has long been a symbol of the geopolitical situation of the Cold War era, having been divided into two parts by the victorious powers of the Second World War. After the fall of the Berlin Wall in 1989, re-united Germany has become the emblem of a free and democratic Europe. The Federal Republic is, more than ever, a link between East and West, being situated on the eastern border of the European Union, but also between Scandinavia and the Mediterranean. As an integral part of the European Union and NATO, Germany is a bridge to the countries of Central and Eastern Europe. This role is likely to strengthen with the eastern enlargement of the European Union in 2004.

Figure 1 The 16 *Länder* of the Federal Republic of Germany

2.2 Geography and Hydrology

Germany covers a surface area of about 357,022 km^2, stretching 880 km from north to south, and 750 km from east to west. From the North Sea and the Baltic Sea in the north, to the Alps in the south, the Federal Republic of Germany can be divided into several geographical units: the North German Plain, the Central Upland Range, the South German Alpine Foreland and the Bavarian Alps. The North German Plain is a western extension of the East European Plain, which was reshaped by Nordic ice sheets. The average altitude does not exceed 200 m above sea level. It passes into the Central Upland Range which shows a considerable variety of landscapes. The Central Upland Range rises up to 1,493 m at the highest elevation in the Black Forest, dividing northern Germany from the south. The narrow Central Rhine Valley between Bingen and Bonn is one of few natural arteries of north-south traffic. The broad South-German Alpine Foreland has an average altitude of about 500 m above sea level. It is connected to the Alps by its evolution and its geological and geomorphological characteristics. The Alpine region of Germany, between Lake Constance and Salzburg, covers only a small portion of these fold mountains. The highest rise is the Zugspitze, at 2,962 m above sea level.

The Federal Republic's climate is characterised by its location in a zone of temperate climatic conditions with frequent weather changes. There is precipitation all year round, varying from an average of 600 mm a year in the North German Plain to 1,500 mm a year at the peak of the mountains. Moving from the north-west to the east and south-east, the maritime climate gradually changes into a more continental climate. Sharp changes in temperature are rare. In the winter, the average temperature lies between 1.5°C in the lowland areas and -6°C in the mountains. In the warmest month of the year, July, temperatures are between 18°C in low-lying regions and 20°C in the sheltered valleys of the south.

The surface waters in Germany are comprised of six river systems and the coastal regions of the North Sea and Baltic Sea. The Rivers Rhine, Ems, Weser and Elbe drain into the North Sea, the Oder drains into the Baltic Sea and the Danube flows into the Black Sea (see Table 1). Of these river systems, four are transboundary: the Rhine, the Elbe, the Oder and the Danube. Natural lakes are mostly found in the North German lowlands and in the Alpine foreland. They cover a total area of 1,213 km². There are 26 natural lakes with a surface area of more than 10 km² each. The biggest lakes, with an area in excess of 100 km², are Lake Constance and Lake Müritz (BMU, 2001a).

Table 1 Dimensions of German River Basins

River System	**Length** (km)	**Navigable Length** (km²)	**Surface of Basin** (km²)	**Monitoring Point: Average Flow** (m³ / second)	
Danube	647	386	56,215	Jochenstein	1,430
Elbe	700	700	98,046	Neu Darchau	750
Ems	371	238	12,649	Herbrunn	85
Oder	162	162	4,366	Hohensaaten	550
Rhine	865	778	102,111	Emmerich	2,260
Weser	440	440	41,194	Hemmelingen	350

Source: Kraemer et al. (1998)

In accordance with the European Water Framework Directive (WFD), the German Federal Water Act (as of its 7th amendment of 2002)[1] defines ten river basin districts which have to be managed as coherent units, ignoring political boundaries (see Figure 2). The river basin districts of the Maas, Rhine, Ems, Weser, Elbe and Eider rivers drain mainly into the North Sea. Only the areas in the north and north-east of the Mecklenburg Lake Plateau drain into the Baltic Sea by the Schlei/Trave, Warnow/Peene and the Oder basin districts. The south of Germany is part of the Danube river basin district. Co-ordination of activities is usually undertaken at a lower organisational level than the river basin district level. The Federal Water Act does not prescribe any specific structures in this direction since this is in the sphere of competence of the individual *Länder*. Because of the size of German river basins, they are subdivided into subbasins (*Teileinzugsgebieten*). Moreover, two or more *Länder* are often involved in each subbasin, so that co-ordination between these *Länder* is necessary (Fichter, 2003). In the different river basin districts, the subdivision into subbasins is arranged differently. For example, in the river basin district of the Elbe, five co-ordination regions (*Koordinierungsräume*) have been set up to structure the necessary work for the WFD implementation in a meaningful way. For each of these co-ordination regions, one state is leading the completion of the tasks. The river basin district of the Rhine has been subdivided into nine working areas (*Bearbeitungsgebiete*).[2]

Figure 2 River Basin Districts in Germany

Source: Federal Environment Agency, 2000.

1 As published in the announcement of 19.08.2002, Federal Law Gazette 2002 I, p. 3245.

2 In some river basin districts, a further, third level of subdivision has been undertaken for the collection of data in smaller geographical units.

2.3 Water Bodies in Germany

Germany is a country rich in water resources. However, there are considerable differences in water supply, owing to different factors in the individual regions such as precipitation, yield of groundwater resources and availability of surface waters. The same applies to water requirements, which are particularly high in urban agglomerations. On the whole, however, there is no reason to expect any critical situations with regard to water supply resources. Reserves are ensured by a total of 291 dams for drinking water purposes, flood prevention, power generation and for backing up low water (BMU, 2001a).

Surface water quality in Germany is monitored within the national and international frameworks. Monitoring activities on the national level take into consideration water quality from a biological and chemical perspective, as well as the morphological quality of surface waters. At regular intervals, LAWA (*Länderarbeitsgemeinschaft Wasser* - the Federal Working Group on Water Issues) publishes maps representing the current status of the German rivers with respect to these two aspects.

With respect to specific substances, there has been a continual improvement in water quality in the past two decades. The improvements can be attributed to the construction of treatment facilities, combined with higher technological standards, improved treatment of industrial effluent, the use of phosphate-free detergents and – especially for the rivers Weser and Elbe – the industrial decline in eastern Germany after re-unification (LAWA, 1997). As this report focuses on the river basins of the Elbe and the Rhine, some further information on the water quality of these two river systems is given:

The Elbe: The water quality of the Elbe has improved continuously since re-unification. While in 1990 parts of the Elbe and its tributaries were declared to be ecologically destroyed, today its water quality is 'only' critically to moderately polluted. In spite of this improvement, however, the sediments, mussels and fish in particular still show high concentrations of heavy metals and chlorinated hydrocarbons (Kraemer et al., 1998). On the whole, water quality in flowing waters in the new *Länder* (former East Germany) is still lower than in the old *Länder* (West Germany) of the river basin (BMU, 2001b).

The Rhine: The Rhine is still the most exploited river in Germany. For many substances, the Rhine is the main source of the pollution load being discharged into the North Sea. However, biodiversity in this water system has largely been restored to its state at the beginning of the last century due to improvements in water quality within the last twenty years (Kraemer et al., 1998). Contaminant and pollutant levels for a number of substances were reduced by between fifty and ninety percent from the early 1970s to the late 1980s. However, this generally positive trend should not obscure the fact that the Rhine is still subject to sizeable inputs of pollutant substances (BMU, 2001b).

Considering the overall water quality in German waters, the situation still remains problematic for the following reasons:

New substances - even though a considerable number of substances are withdrawn from the market, new chemicals are continually being developed, applied, and emitted into the water courses.

Diffuse/non-point sources - in the past, only a few point-source industrial polluters had to be monitored and controlled. Today, agricultural and urban run-off, as well as other diffuse sources, have gained increasing significance. Agricultural diffuse sources in particular remain a major source of nutrients and pesticides.

With respect to morphological quality, all major rivers in Germany have been developed to a greater or lesser extent and linked by canals. The Rhine is one of the most extensively modified rivers in Germany. However, work has lately been focused on restoring the ecological continuity of the river corridor from Lake Constance to the North Sea. Unlike the Rhine, the near-natural character of the Elbe and its floodplains has largely been preserved to the present day, at least in its middle reaches (BMU, 2001b). Regarding the overall morphological quality of German waters, a large percentage of German rivers have been classified as substantially or heavily modified according to an assessment report by the

LAWA (LAWA, 2001). More work in the area of aquatic systems restoration is therefore considered necessary.

2.4 Socio-Economic and Cultural Context

2.4.1 Demography and Anthropogenic Pressures on Water Bodies

The total population of Germany is about 82.54 million (Kappler et al., 1996), making it the second largest in Europe after the Russian Federation. The population density of 231 people per km^2 is rather high compared to an average of 116 citizens per km^2 in the European Union as a whole. Only Belgium, the Netherlands and Great Britain have higher population densities. Germany's capital and largest city is Berlin, which is home to approximately 3.4 million people. The population of Germany includes 7.3 million foreigners, of which Turkish citizens make up the largest group (~2 million), followed by Yugoslavians and Italians (each ~ 600.000). Most came to Germany as migrant workers (the *Gastarbeiter*) starting in the 1950s, contributing considerably to recent German economic development (Kappler et al., 1996).

The population of Germany is distributed very unevenly, with nearly one third of the population living in 84 large cities with more than 100,000 inhabitants. The main population centres are Berlin (3.4 million), situated on the River Spree, and the Rhine-Ruhr area, where more than 11 million people (about 1,200 per km^2) live in an industrial agglomeration without any distinct boundaries between the individual cities. Especially in this former coal mining and heavily industrialised area, water bodies have been subject to extreme pollution pressures over many decades. While strong efforts have been undertaken to improve and ensure water quality, the high population density still poses considerable challenges to water management activities in this area. The two main population centres mentioned above, Berlin and the Ruhr, are both situated within the two river basins examined in this report (in the Elbe and Rhine basins, respectively). Therefore, it was possible in the context of our research to take a closer look at the wider area of the two main German population centres, as well as the ensuing problems in river basin management. Other important population concentrations can also be found close to rivers, such as the Rhine-Main area around Frankfurt, Wiesbaden and Mainz, the Rhine-Neckar industrial region around Mannheim and Ludwigshafen, the industrial area around Stuttgart, and the catchment areas of Bremen, Cologne, Dresden, Hamburg, Leipzig and Munich.

The densely populated regions contrast with very thinly populated areas, for example in the headlands and moorlands of the North German Plain, parts of the Eifel Mountains, the Bavarian forest, the March of Brandenburg and large parts of Mecklenburg-Western Pomerania. The western part of Germany is much more densely populated than the eastern part, where less than one fifth of the population lives on roughly thirty percent of the national territory.

2.4.2 Economic Activities

The mainstay of the German economy is industry, which, in spite of considerable declines in recent years, employs more people than any other sector. The most important branch of the Germany economy is the automobile industry, with more than half a million employees and an annual turnover of €202 billion in 2001. This industry sector is mostly dominated by large corporations competing on an international market.

The mechanical engineering sector is of similar relevance but has a completely different structure. Small and medium-sized companies have always predominated due to their flexibility and technological efficiency. Other important industry sectors are the chemical industry, electrical engineering, mining and metal producing and processing. While raw material extraction and processing is still being carried out to a limited extent, German industry is predominantly focused on providing high-quality technology products to world markets.

In terms of environmental impacts, all of the sectors mentioned above contribute to pollution and degradation. Before recent advances in environmental technologies such as sewage treatment and process optimisation, the chemical industry was regarded in particular as the main culprit in river pollution, with almost all major German chemical companies being located on a river bank. Due to strict regulation of effluents and improved environmental management at the production site, it has been possible to control and limit the chemical pollution of the rivers. While problems due to industrial activities still remain, pollution resulting from agricultural activities, such as high nutrient loads, have become increasingly relevant.

2.4.3 Cultural Background

As Germany's geography is dominated by rivers and other interconnected waterways, rivers have always had a special significance for German culture. Throughout the centuries, many settlements were founded on river banks, developing from simple trade posts to cities. Some, such as many cities on the Rhine and the Elbe, have retained their relevance until the present day. Others have kept their historic characteristics and serve as testimonies of historical developments throughout the centuries. While the Rhine and Elbe are especially busy waterways that are crucial for the national and European transportation of goods and serve as a site for numerous industrial and agricultural activities, the notion of the rivers has changed significantly over the centuries.

In particular, the Rhine and its tributaries have been of special significance for the development of German culture, literature and music. Although it inspired painters and poets for centuries, the Romantics of the mid-18th century drew particular inspiration from its dramatic beauty as reflected in the famous legend of the Lorelei. Similarly, the River Weser was a birthplace of fairytales and other myths. On a more pragmatic level, rivers in Germany have also always served as borders and as links to other European neighbours to the east and west. The Oder and Neiße Rivers constitute the border to Poland, and the Rhine lies in a linguistic borderland and straddles a large part of what is often called 'Europe's fault line' between Romanic and Teutonic Europe. In that function, the Rhine basin is also a melting pot where cultures intermingle and provide a fertile ground for *inter alia* cultural and economic development. The attractiveness of the rivers in respect to their economic and cultural significance is limited by heavy floods that occur frequently in the major river basins, often leading to devastation and destruction. However, the changing reaction to floods also exemplifies the general change in the public perception of the river basins.

At the beginning of the 20th century, with increasing industrialisation, rivers were seen as service providers for industrial activities. These uses included using the river as a source for water supply, an outlet for waste water discharge and for cooling. As uses often required controlled river flows, rivers were consequently heavily channelled. Often, ecological quality considerations were only relevant when drinking water quality was at risk. In the late 1970s, people became more aware of the negative effects of river pollution and also realised that floods were often aggravated where rivers were channelled.

Environmental awareness is relatively high in Germany, especially towards water protection issues. Freshwater has a leisure and recreational value, which contributes to the interest of people in preserving aquatic natural sites. Germans are also quite aware and informed of the impacts of human activities on natural resources in terms of water consumption as well as waste management. A boom of environmental awareness was especially evident in the 1980s with respect to nuclear safety, acid rain and marine pollution This was in response to major pollution events such as the Chernobyl nuclear power station disaster in 1986 and the major chemical spill into the Rhine from the Sandoz pharmaceutical factory in Switzerland[3]. In the same time, political leverage for environmental issues

[3] In 1986, fire at the Sandoz factory lead to a cocktail of chemicals being washed into the Rhine.

increased with the introduction of the Green Party to the German parliament in 1981, which also contributed to building public environmental consciousness.
Nevertheless, some differences should be pointed out regarding environmental awareness and engagement between western Germany and eastern Germany (former German Democratic Republic). In eastern Germany, although the public is concerned with the environment, economic growth and unemployment are still today accorded higher priority (Wood 1999). According to a recent study on environmental awareness in Germany (Kuckartz and Grunenberg, 2002), there are more people actively committed to environmental issues in their own residential area in western Germany than in eastern Germany. Additionally, the percentage of individuals who could imagine an involvement in environmental affairs is higher in the West. The same study also investigated the opinions of German citizens about the environmental quality in the country. Within this survey, environmental quality in the western states was rated higher than the state of the environment in the eastern states.
It is also important to point out that although different cultures co-exist in German society (as the demographic figures on foreign residents illustrate), the German culture and sense of identity remains strong and evident. German citizens are also characterised by trust in the government, the established structures and organisations. *Ad hoc* responses, such as demonstrations, to new policies are rare, and reactions of the public are mainly channelled through representative bodies and lobbying activities.

2.5 Institutional Framework and Actors in Water Management

This section first sets the legal institutional framework for water management in Germany. It includes first a brief review of recent water legislation, especially the most relevant to the management and planning of river basins. Second, the main actors in water management in the different administrative levels are introduced. For a schematic representation see Figure 3.[4] A discussion on the relevance of the institutional framework and administrative scales for public involvement is presented in sections 5.2.2 and 5.2.3.

2.5.1 Legal Institutional Framework

The overall institutional framework for water resource protection, planning, and management in Germany is embedded in the general political, legislative and governmental structure of the Federal Republic of Germany. It is characterised by three primary levels of authority in addition to the European Union: Federal Republic, *Länder*, and municipalities. These do not form a strict hierarchy, but are each endowed with specific responsibilities. At all three levels (Federal Republic, *Länder*, and municipalities), contracts or treaties have been concluded allowing for regional or inter-regional co-operation, sometimes concentrating responsibilities and resources in order to overcome the limitations that would otherwise result from the existence of political boundaries.
Due to the federal character of Germany, legal as well as administrative powers are clearly divided between the government of the Federal Republic (*Bund*) and the *Länder*. Legislative and enforcement powers are divided among the federal parliament (*Bundestag*), the second federal chamber representing the *Länder* (*Bundesrat*), the parliaments of the sixteen *Länder*, and respectively, the federal government and the governments and authorities of the sixteen *Länder*. The federal constitution recognises the eminent role of the *Länder* and guarantees their statehood and autonomy[5]. In the area of water management, the federal government can only enact framework laws, while the *Länder* are free to determine the actual structure and substance of water management within the limits set out in federal

[4] This section is mainly based on the former work of Interwies et al. (2003). The reader should refer to the latter for more explicit information on the institutional framework and individual actors.

[5] This constitutional guarantee is absolute in that the articles in the constitution providing that guarantee cannot themselves be amended in any way. The guarantee is to remain in force forever and is understood to be an indispensable characteristic of the Federal Republic of Germany.

legislation (Betlem 1998). Water policy, therefore, is one area where the authority of the *Länder* is most pronounced, and this is of consequence for the institutional mechanisms for water management (Kraemer and Jäger, 1998). Table 2 below summarises the role of the different relevant authorities and their institutional arrangement.

Federal level

Federal water management legislation consists mainly of the Federal Water Act (*Wasserhaushaltsgesetz*, WHG), which provides a general legal framework for *Länder* legislation, and the Effluent Charges Act (*Abwasserabgabengesetz*). Regarding the management and planning of river basins, the Water Management Act is most relevant. The first Federal Water Act (WHG) passed the *Bundestag* (federal parliament) almost unanimously on 27 June, 1957.[6] The act was a response to the existing legal fragmentation and the water resource situation at that time. This was characterised after 1945 by a constant increase in the water demand of the industrial and agriculture sector, as well as households. In accordance with this, the quantity of waste water increased, which led to increasing pollution of water bodies (Interwies et al., 2003).

The Federal Water Act provides for water management planning based on river basins. The 7th amendment to the Federal Water Act of 2002[7] implements the requirements of the EC Water Framework Directive (WFD)[8]. It brought about important changes to the water planning instruments. It introduced the programme of measures (*Maßnahmenprogramm*) and the (river basin) management plan (*Bewirtschaftungsplan*). These revoked the water planning instruments covered by earlier versions of the act,meaning that the four planning instruments which previously made up the Federal Water Act (WHG) were reduced to a single planning instrument. The four former planning instruments included: the water management framework plan (*Wasserwirtschaftlicher Rahmenplan*), the (old version of the) water management plan (*Bewirtschaftungsplan*), the wastewater disposal plan (*Abwasserbeseitigungsplan*) and the water quality regulation (*Reinhalteordnung*). The *Länder* were responsible for the preparation of these plans. The water management framework plans were to be prepared for river basins and urban areas, or parts of them (Betlem 1998). In reality, according to Moss (2001), the water management framework plans stopped at *Länder* borders, the only exception being the framework plan for the Berlin metropolitan area produced jointly by the *Länder* of Berlin and Brandenburg. In practical terms, the management plans (*Bewirtschaftungsplan)* were more important, as they concentrated on a specific water body or parts of it. In the context of water management planning, mainly water development plans (*Gewässerentwicklungspläne)* and water maintenance plans (*Gewässerunterhaltungspläne)* were prepared. These plans primarily served the purpose of restoring river stretches (Muro 2002).

According to Ell (2003), the importance of water planning has been restricted up to now, since it is considered to be cost-, time-, and labour-intensive. Water planning has not been characterised by the flexibility which is necessary for efficient water management. In some cases, due to long planning procedures, the content of the plans has been out-of-date by the time of completion (Schmalholz, 2001).

Länder level

The Federal Water Act is designed to work in conjunction with the Water Acts of the *Länder (Landeswassergesetze)*, which fill in the framework it provides. The *Länder* are primarily responsible for water management and for the execution of water regulations. An exception exists for the national

---

6 Act on the Regulation of matters relating to water (*Gesetz zur Ordnung des Wasserhaushalts*), of 27.07.1957, Federal Law Gazette I 1957, p.1110, 1386.

7 As published in the announcement of 19.08.2002, Federal Law Gazette 2002 I, p. 3245 (revision in 2002 to transpose the WFD).

8 Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a Framework for Community Action in the Field of Water Policy, OJ EC No. L 327, 22.12.2000, p. 1.

waterways; the Federal Republic, as the owner, is responsible for their administration and may adopt concurrent legislation concerning shipping (Kraemer & Jäger 1998).
In the *Länder*, legislative power is held by parliaments which also exert democratic control over the executive activities of governments. The *Land* water laws are thus debated in, and adopted by, *Land* parliaments. In this context, the legal transposition of the WFD into German law, which started with the 7th amendment of the Federal Water Act, will be completed via amendments of the *Länder* Water Acts and additional regulations. The *Länder* participate in the federal legislative process through the *Bundesrat*.

Local level

The Basic Law (*Grundgesetz*) guarantees local authorities (cities, towns, and rural districts), which are collectively referred to as municipalities (*Kommunen*), the right to self-government within the confines of the law[9]. Municipal autonomy includes the responsibility for the local environment and provision of vital services on their territory; legal foundation for municipal autonomy is laid down by the *Land* Municipalities Acts (*Gemeindeordnungen*). Water supply and sewerage services are part of the services that must be available to satisfy the basic needs of society. Municipalities have the right to establish or join single-purpose inter-municipal associations for water services *(Zweckverbänd*e) or water management associations *(Wasserverbänd*e).

Table 2 Allocation of Water Management Authority in Germany

Institution	**Water Management Role**
Federal Republic	Represents Germany on the international level (international commissions, European Court of Justice, etc.) Transposition of EC Law Administration of federal waterways
Co-operation of *Bund* and *Länder*	Marine protection, Monitoring programmes
Länder Treaties	Transboundary water supply, sewerage, and water resources management
Länder Co-operation (LAWA)	Harmonising legislation and implementation
Länder Institutions	Water management, in future also river basin management
Länder Parliaments and Governments	Transposition of European Laws and Länder water legislation
Water authorities and agencies	Implementation of federal and *Länder* Legislation Collecting effluent charges Collecting abstraction charges Monitoring, enforcement, information
Water associations	Cover, e.g. water supply, sewerage and water resources management, flood control
Inter-municipal associations	Water supply and sewerage

Source: Adapted from Kraemer and Jäger, 1998

[9] Article 28 (2) of the Basic Law.

2.5.2 Main Actors Involved

Based on the general description of the institutional framework above, the most important actors in the German water sector are briefly introduced.

Federal level

The Federal Ministry of the Environment, Nature Conservation, and Nuclear Safety (*Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit* - BMU) deals with water resource management and policy and with transboundary co-operation in this field. The Federal Environmental Agency (*Umweltbundesamt* - UBA) and the Federal Agency for Nature Conservation (*Bundesamt für Naturschutz* - BfN) report to the Federal Ministry of the Environment. Other ministerial partners of the Federal Ministry for the Environment with water management responsibilities are summarised in Table 3 below. The German Council of Environmental Advisors (*Rat von Sachverständigen für Umweltfragen* - SRU) is a scientific advisory body of the Federal Government (*Bundesregierung*) set up to describe, survey and report on the environmental situation and development trends and policies in Germany, as well as to develop and provide options how to improve the situations.

Table 3 Other Federal Ministries with Responsibilities for Water Management.

Federal Ministry	Water Management Responsibility
Consumer Protection, Food and Agriculture *Bundesministerium für Verbraucherschutz, Ernährung und Landwirtschaft* – BMVEL	Deals with and promotes water resource management in rural areas, including flow regulation, flood control, and coastal protection at the North Sea and the Baltic
Health and Social Security *Bundesministerium für Gesundheit und Soziale Sicherheit*- BMGS	Ensures the quality of drinking water
Transport, Construction and Housing *Bundesministerium für Verkehr, Bau und Wohnungswesen* – BMVBW	In charge of the administration of federal waterways and all matters relating to navigation on inland and maritime waterways
Economics and Labour *Bundesministerium für Wirtschaft und Arbeit* – BMWA	Safeguards economic interests in environmental protection and has general responsibilities for prices, charges, and tariffs for water supply (and sewerage).
Economic Cooperation and Development *Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung* – BMWZ	Oversees International co-operation.

Source: Interwies *et al*, 2003.

As explained in section 2.5.1, the *Länder* are mainly responsible for water management, an exception being the national waterways which are owned and administered by the Federal Republic (Federal Ministry of Transport - *Bundesministerium für Verkehr*). Kraemer, *et al* (1998) characterised the administration of inland shipping in Germany as a case where co-operation among the authorities may have to be improved for the purpose of integrated river basin management. Subordinate to the Federal Ministry of Transport, a three-tier administration has been established with responsibility for the management and maintenance of the waterways and related technical installations (Federal Waterway Administration). The national waterway network is divided into seven regional zones, each of which is run and supervised by an 'intermediate-level' federal authority. The established regional zones do not reflect the river basin approach, as their boundaries only partly conform to existing river basin morphology. Co-operation between the federal authorities and the responsible water management authorities at the *Länder* level in terms of management and development of the federal waterways is normally limited (Kraemer et al., 1998). The Länder authorities need to be consulted with respect to

measures affecting federal waterways, according to the Federal Law on Waterways[10], but their participation takes place only at the end of the decision-making process. From this it can be derived that integrated water management within federal states *(Länder)* and river basins cannot be successfully implemented as long as the *Länder* are not involved early in the decision-making processes concerning river maintenance and extension.

Länder level

Länder institutions are of great importance, as responsibility for water management is primarily located in the *Länder*. All *Länder* authorities for water management except for the City States of Berlin and Hamburg have technical agencies supporting them. In addition, power over water resource protection and management is in most *Länder* allocated at several levels of government, normally following the structure of administration generally. A three-level split can be found in most *Länder* (see summary in Table 4). The precise allocation of the various water management functions thus varies considerably among the *Länder*, as do the number of levels of individual institutions.

To achieve inter-governmental co-operation on waters which cross borders of *Länder*, the supreme water authorities of the *Länder* established a joint working group, called the LAWA (*Länderarbeitsgemeinschaft Wasser* - the Federal Working Group on Water Issues). The purpose of the LAWA is to harmonise *Länder* water law, to discuss matters of common interest and to prepare joint reports on water issues (Kraemer & Jäger 1998). This co-operation has brought a convergence of water resource protection and management as well as reporting procedures across the *Länder*, even though LAWA decisions and recommendations do not have the force of law.

Table 4 Levels of Government within the *Länder*

Level of *Länder* Government	**Types of Responsibility**
Supreme Water Authority *Oberste Wasserbehörde*	Usually the respective *Länder* Ministry of the Environment is responsible for strategic decisions in water management and supervision of lower water authorities and agencies
Upper Water Authority *Obere, höhere OR mittlere Wasserbehörde*	Usually the regional government (*Regierungspräsidien, Regierungspräsidenten* or *Bezirksregierungen*) is responsible for regional water management planning, permitting, licensing (for uses with regional impact) and other water management functions, and administrative procedures
Lower Water Authority *Untere Wasserbehörde*	Usually cities, city districts and rural districts, as well as technical agencies (*Wasserwirtschaftsämter*) are responsible for permitting, licensing (for small uses), monitoring, technical advice, and other enforcement functions

Source: Interwies *et al*, 2003

Municipalities, associations

Municipal authorities are responsible for water supply and sewerage services, as well as the development and maintenance of water bodies of local importance. In this way, an important part of decision-making processes in water management takes place in relatively small territorial units. The proximity of decision-makers to the water bodies affected allows for specific regional conditions to be taken into account in the legislative process. Proximity is a significant aspect of municipal parliaments or councils with their influence over water supply and sewerage. They are usually elected by the population of the area supplied, as supply areas often coincide with municipal borders (Kraemer and Jäger, 1998).

As mentioned, municipalities have the right to establish or join single-purpose inter-municipal associations for water services *(Zweckverbände)* or water management associations *(Wasserverbände).*

[10] *§ 4 WaStrG und Art. 89 ABs. 3 GG.*

Municipal associations are active in the sphere of water policy because of municipal responsibility for water supply and sewerage services.

There are also numerous working groups in which co-operation takes place between the Federal Government, the Federal Länder, municipalities, associations, universities and industry. The following technical-scientific associations are concerned with goals of water resources management:

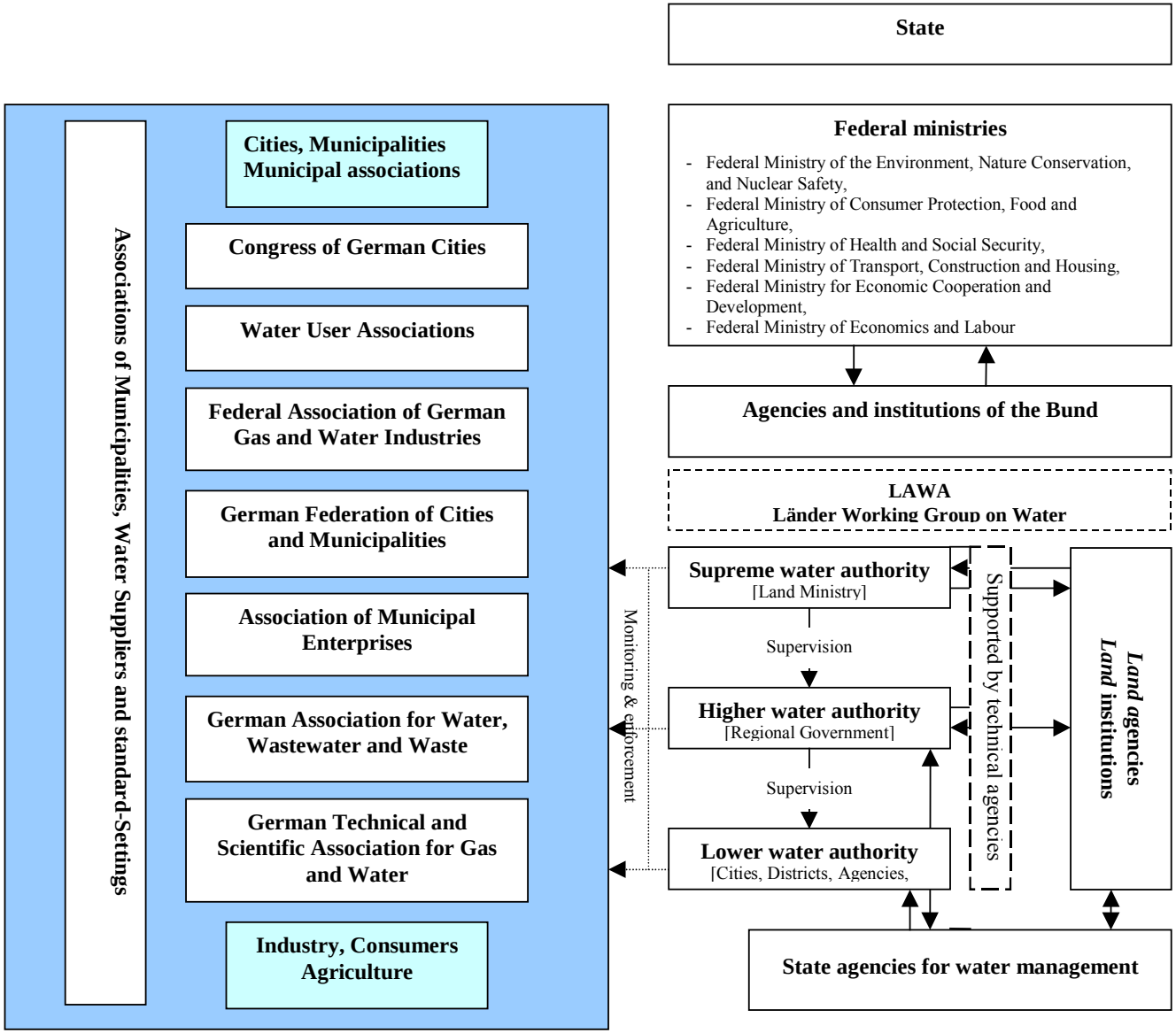
- Association for Sewage Technology (ATV)
- Association of Engineers for Water Resources Management, Waste Management and Agriculture (BWK)
- German Limnology Association (DGL)
- German Association of Gas and Water Experts (DVGW)
- German Association for Water Resources and Land Improvement (DVWK)
- Association for German Water Protection (VDG)

Finally, water associations may be formed for a variety of functions[11], in effect creating intermediate units of water management, usually set up following strict hydrological considerations. Water associations are public law corporations with a statute and are financed through members' contributions. In the following section (section 2.6), the formation of river basin associations during industrialisation is described.

The following figure from Interwies et al. (2003) (adapted from Kraemer and Jäger, 1998) shows an overview of this systematic structure for the *Bund* and some *Länder*:

[11] Their scope includes the allocation of services among users, sewerage, the promotion of co-operation between agriculture and water management and other water management functions (Kraemer and Jäger, 1998).

Figure 3 Institutions and Functions in Water Management in Germany



2.6 History of River Basin Management Planning

Although Germany did not 'invent' *river basin management* (RBM), the various states and provinces in what today is Germany were among the first to develop river basin institutions and instruments or procedures for 'modern' river basin management. This was mainly to cope with the specific requirements of shipping, irrigation, or flood defence as well as, more recently, in reaction to the pressures of industrialisation on water resources (Kraemer et al., 1998). Examples are the Ruhr association or the international co-operation in the Rhine basin.
In Germany, river basin management takes place within the overall institutional framework for water. Basically, any actor in general water policy also plays a role in the context of river basin management. Apart from some associations which are responsible for the operational management of a specific river basin (like the Ruhr association), hardly any genuine RBM institutions exist. Therefore, the list of German water management actors and institutions presented in section 2.5 can also be seen as a description of the main actors of RBM. In the following sections, an overview is given of major river basin management developments in Germany at the national and international level (cross border situations).

2.6.1 RBMP at the National Level

As explained in section 2.5 on the institutional framework, operational functions (water supply provision, sewage disposal services, the maintenance of smaller watercourses and flood protection measures) are primarily the responsibility of local authorities, many of which operate their own water utilities (Moss 2001) and provide water management services in the public interest. In addition, private water users can also form water management associations (*Wasser und Bodenverbände*). According to Kraemer (1995), in Germany there is a centuries-old tradition of collective resource management based on co-operative structures usually established on a voluntary basis. The inheritors of these structures are the present-day water management associations.
With the onset of industrialisation, however, it was not possible to rely only on voluntary co-operative arrangements. Especially in the wider Ruhr area, in the *Land* of North Rhine-Westphalia (NRW), the booming industry and population led to high pressure on both water resource quantity and quality. The institutional answer was the establishment of river basin associations by special administrative agreements. These associations dealt mainly with point sources of pollution as well as water transfer schemes and power generation. Membership of local authorities, industry, water supply and water treatment companies within the basin was compulsory (Betlem 1998). According to Teclaff (1967), these river basin associations were the first example of basin-wide (actually sub-basin-wide) agencies administering the multi-purpose development of water resources. The associations controlled river basins that are tributaries to the Rhine and the Niers, a tributary to the Meuse. In the case of the River Emscher, the beginning of urbanisation and industrialisation had made the river a convenient dumping ground for waste water, and it was becoming a major health hazard. For that purpose, a special co-operative society (the *Emschergenossenschaft*) was formed in 1904 incorporating all public bodies and private companies emitting waste water into the rivers. For the River Ruhr, a similar model was adopted. The use of the Ruhr as a source of drinking water also meant that the effluents directed into the river were required to be cleaned. To this end, a separate co-operative society was formed (the *Ruhrverband,* which is the Ruhr association) (Rüdig & Kraemer, 1994). In this context, NRW is the German *Land* where the river basin has functioned most prominently as a unit for water administration. Outside NRW, no other statutory river basin associations were set up, but the influence of the structure in NRW was felt in federal legislation. As already mentioned, the Federal Water Act provided for a planning mechanism for water management based on river basins.

It is interesting that until 1990, i.e. until the re-unification of Germany, a form of river basin management was standard practice in the former German Democratic Republic (GDR). Since the beginning of the 1950s, the originally decentralised municipal structure gradually became highly centralised during the 40-year period of the GDR. Many water management functions were combined and concentrated in the process. Water Management Directorates (*Wasserwirtschaftsdirektionen*) were created in 1958 according to river basins (van der Wal and Kraemer 1991). Thereby, the organisational structure and instruments of water management planning of the former GDR were designed around seven (and after 1975, five) large river basins, rather than around political-administrative boundaries. Areas of *Flussmeisterei* (River Management Zones) consisting of 50 km stretches of a river were also established. This led to a new form of river basin management. The *Flussmeister* (River Manager) was responsible for all local issues of water management and had administrative, monitoring and advisory tasks (van der Wal and Kraemer 1991). The *Flussmeister* had to advise the local agencies and the communities in particular. In addition, the *Flussmeister* was also required to mobilise the public on tasks such as the maintenance of shores and flood and water protection measures. These were intended to be carried out together with other organisations which were accepted by the state,[12] such as the GDR *Kulturbund* (cultural union).

However, this early orientation towards river basin management was only partly driven by concern for integrated water management (Moss 2001). The main objective of the State was to centralise control of water resources so as to secure strategically important water supplies for industrial and household use (van der Wal and Kraemer 1991). After the collapse of the Communist system, which lead to the dissolution of East Germany in 1989, the river basin structures of the GDR were reorganised. They were adapted to the administrative structures of the Federal Republic of Germany, with its emphasis on the federal state boundaries (*Länder*). Now, in view of the requirements of the Water Framework Directive, water management structures have to be re-organised once more to allow for integration of river basin management systems.

Returning to the developments in western Germany and re-unified Germany after 1990, apart from the river basin associations in the *Land* of North Rhine-Westphalia (NRW), river basin committees were set up for rivers crossing boundaries of different German *Länder*. These inter-state committees produce action plans and programmes designed to give guidance to water authorities. Such river basin committees exist for the Rivers Elbe and Rhine and since 1992 for the River Weser (Betlem 1998). In the case of the committee for the Elbe (*Arbeitsgemeinschaft*-ARGE Elbe), even after the re-unification of Germany, not all new German *Länder* of the river basin entered the basin committee. For instance, the *Länder* of Thüringen and the city of Berlin did not enter the committee, making it difficult to implement plans in practice on a river basin level[13]. This situation, however, is now starting to change with the implementation of the WFD, encouraging broader communication among authorities of different *Länder*.

2.6.2 RBMP at the International Level

On the international level, river commissions for the protection of the Rivers Rhine, Elbe, Danube and Oder exist. These commissions represent voluntary, contractual forms of co-operation between national or sub-national authorities (Moss 2001). Since this report focuses on the river basins of the Elbe and the Rhine, a brief overview of their corresponding international commissions is given. The International Commission for the Protection of the Elbe (ICPE) was established on 8 October 1990 through an agreement between the European Community, Germany and the former Czech and Slovak Federal Republic (the legal successor is the Czech Republic). The ICPE deals with different themes: the

---

[12] Organisations registered with a public board or authority.

[13] Information available online from www.rettet-die-elbe.de/5kapitel/plan2/plan2.htm (21.07.2003).

development of an action programme, water quality, ecology, accidental water pollution and hydrology[14]. Like many of the other international commissions for the protection of certain river basins, the ICPE's institutional set-up was modelled on the International Commission for the Protection of the Rhine (ICPR), which was founded in 1950 as the first of its kind. The ICPR was founded through an agreement between Luxembourg, France, the Netherlands, Germany and Switzerland (the European Community joined later). Leading government authorities, as well as water management experts of the riparian states, collaborate on ensuring more sustainable future development of the Rhine Basin. Through this collaborative effort, which is based on programmatic agreements, major improvements in water quality have been achieved.

3 History and Institutional Background of Public Participation

This chapter provides a detailed description of public participation in Germany, with a particular focus on public participation in water and river management.
Throughout the long history of development of the political structure in Germany, the notion of public participation has changed and developed with the evolution of the present democracy and the increasing awareness and use of democratic rights by German citizens.

3.1 Early Beginnings

The earliest case, which features characteristics comparable to today's public participation processes, dates back to the late 18th century, when Germany was still a monarchy. Most remarkably, the first official legal provisions requiring the consideration of the interests of other affected stakeholders were included in the 'General Land Law' (*Allgemeines Landrecht*) on the issue of mill authorisations (Wesel, 1997) and the subsequent implications for the use of the water resources by other stakeholders in a river basin.
Consequently, it can be said that water management issues were the first policy area where it was deemed necessary to consider the interests of all affected stakeholders and apply procedures ensuring the representation of all possible issues and stakes involved. Water law also served as a blueprint for official planning procedures and the detailed and clear regulation of property, 'first use' rights and compensation clauses (Fisahn, 2002). This is not surprising, taking into account the uniqueness of the water resources, its many different uses and consequently the variety of interests and involved stakeholders. However, it became very clear to regulators at a relatively early stage that dealing with natural resources requires going beyond property allocation and reconciliation of many different interests. This notion became even more prominent with increasing industrialisation and the subsequent population growth at the end of the 19th century, and as the resultant scarcity of natural and other resources became more obvious to a growing part of the population.
While the case of mill authorisations can only serve as a proxy for the structures which where to be established and further developed in subsequent years, it already reveals the rudimentary functions of public participation in an interpretation similar to the current understanding.
The years following this initial phase witnessed other interesting developments, particularly in the area of water resource management and planning. With respect to dam constructions for milling and draining of land, legal provisions were developed foreseeing procedures for conflict resolution. For example, the land use and drainage plan (*Entwässerungsplan)* itself was drafted exclusively by the royal government authorities. Still, public participation was encouraged in the implementation of the plan, as well as in the conception of compensation schemes. The *Entwässerungsplan* was institutionalised by means of a jury comprised of representatives of selected affected stakeholder

[14] Information available online at the official ICPE website: www.ikse.de (15.7.2003).

groups[15]. This system facilitated conflict resolution among affected stakeholders and reflected the then-popular concepts of decentralised self-governance, postulated by the Stein and Hardenberg reforms[16].
However, these approaches were soon to be deconstructed in the era of the so-called 'restoration' in the middle of the 19th century (Rürup, 1992). Reflecting the general anti-liberal and anti-democratic political climate at that time, the involvement of public stakeholders was reduced to information and consultation. In water management, private property rights were strengthened and 'first use' privileges were given more leverage in conflict situations.

3.2 Cultural Change

Towards the end of the 19th century, the dominant administrative procedures, featuring various participative approaches of differing intensity, underwent a re-interpretation with the changing political system. These initial approaches were the result of increasing liberalisation of the bourgeoisie,[17] as a surrogate for the failed democratisation in Germany in the late 19th century. With the changing notion of the public, the focus of participative processes was no longer on private interests, but instead on the 'public good,' defined according to the ideology of a monarchist state. Again, with respect to water planning, the Prussian law from 1843 on the utilisation of private rivers and streams exemplifies the situation. The public participation provisions, which were included in the planning procedures for public works (*Planfeststellungsverfahren*) only in response to pressure from bourgeois parliamentarians, exclusively served the purpose of legitimising certain water uses and pre-empting possible citizen claims. In this way, the river utilisation law was completely different from previous legislation, which had put emphasis on the representation of private interests (Fisahn, 2002).

3.3 Recent Developments

After the political perturbations caused by two world wars and the National Socialist (Nazi) regime in Germany during the first half of the 20th century, new developments with respect to public participation began with the foundation of the German Federal Republic in 1949. Through its evolution over the past 50 years, three phases can be distinguished: The first phase encompasses the period of the fifties and sixties, and can be characterised by the transfer of the planning procedures and public participation approaches which were developed in the *Kaiserreich*[18]. The second phase, starting in the seventies, features the emergence of extensive legislation in the environmental field, the standardisation of administrative procedures through the *Verwaltungsverfahrensgesetz,*[19] and a clear intensification of public participation and its comparably far-reaching public discussion. Finally, the third phase begins with German re-unification (after 1990) and the challenge of making administrative procedures more efficient while still maintaining the established level of public participation and accommodating new European and international requirements. Clearly, the provisions of the WFD pertaining to public participation are likely to support the consideration of these concepts in water management.
In the following paragraphs current approaches and mechanisms for involving the public in environmental decision-making will be roughly outlined:

---

15 Ibid.

16 Freiherr vom Stein and Freiherr von Hardenberg, two Prussian statesmen at the beginning of the 19. Century, intended to reform the administrative structures in Prussia at that time relying on increased decentralisation of government tasks as well as self-determination (Heffter, 1996).

17 The bourgeoisie in this context refers to the privileged societal groups, which were characterised by economic wealth as well as access to education. These citizens oftentimes critically reflected upon the legitimacy of the monarchy and were the first to take on parliamentary duties.

18 German Emperor-governed monarchy came to an end after World War I, when the Weimar Republic was created. This democratic state however failed with the coming to power of the Nazi party in 1933.

19 Law regulating administrative procedures (VwfG).

A. Public Planning Procedures

Public participation in a very formalised way, as it can be found in approval procedures for public planning (*Planfeststellungsverfahren*), is required for any major projects or plans, including those which have a considerable impact on the natural environment. The procedures foreseeing the consultation of the public are highly structured. The basic steps can be summarised as follows (Kahl, 1998).

- Project proposal, including expected consultation procedures, are submitted to the planning authority by the person responsible for the project,
- Review by planning authority and other affected authorities,
- Public presentation of proposed activities with all supporting documents at the local or regional level, for two to eight weeks, to allow affected citizens to be informed about the project,
- Objections by the general public or affected stakeholders within a certain time frame. The written statements usually effect a formal preclusion[20],
- Consultation meeting: Objections submitted within the deadline will be discussed at a public meeting with the public authorities. The project carrier will clarify problematic issues, inform concerned citizens and grant pre-emptive legal protection[21]. Consultation meetings may last several months with regard to big projects like nuclear plants. The meetings do not necessarily remain on a pragmatic level but may provide the opportunity for the expression of personal opinions. that are at times strong.
- Issue of the planning decision: This document serves several functions, as it legitimises the projects and all possible outcomes, pre-empts all other potentially necessary decisions by other involved authorities, establishes certain requirements for the project to be undertaken and excludes all possible appeals by private persons on the implementation of the plan.

The above procedure has been a central instrument for stakeholder groups, as well as individual citizens, to gain access to decision-making processes. Similar procedures can be found in regulations pertaining to environmental impact assessments. Planning procedures for public works and environmental impact assessment (EIA) also provide the opportunity for involvement of the public in planning issues specific to water bodies, such as for river improvement works in the context of works on national waterways.

The German legislation which transposed the EU Directive on Environmental Impact Assessment[22] is the Environmental Impact Assessment Act (*UVP-Gesetz*)[23]. In July 2002, the rights for information and consultation were extended to transboundary areasthat are or could be affected by the proposed project. The new Strategic Environmental Assessment (SEA) Directive[24] is to be implemented by Member States until July 2004 and has further implications for PP and domestic planning legislation.[25] The SEA Directive is an instrument which requires an environmental assessment for plans and programs. In Germany there are about 50 plans and programs which fall under the Directive. The only planning

---

20 i.e. other issues might not be discussed during the following consultation meeting, material preclusion even excludes certain issues from court cases, which could have been raised at the objection phase.

21 *vorgelagerter Rechtsschutz.*

22 85/337/EEC with its amendment of 97/11/EC.

23 Provisions for public participation are made in § 9 UVP-Gesetz and the procedures are determined by § 73 Abs. 3, 4 to 7 VwVfG[23]. With §§ 8 and 9 of the Gesetz zur Umsetzung der UVP-Änderungsrichtlinie, der IVU-Richtlinie und weiterer EG-Richtlinien zum Umweltschutz vom 27.7.2002.

24 2001/42/EC.

25 The requirements for the procedures on PP are listed in article 6 of the directive. The definition of public is left to the member states even though a description of a broad understanding of public is given explicitly including non-governmental organisations.

procedures in the scope of the Directive that already foresee public participation according to national law are the regional planning procedure (Raumordnungsverfahren), the land utilisation plan and urban building plan (*Flächennutzungs- und Bebauungsplan*). As a consequence, extensive adjustments of the legal procurements concerning all the other plans have to be made. However, not only the legislation has to be adjusted, because PP strongly depends on the practical framework in the administrative system. German administrative bodies should be furnished with sufficient personal and training in order to meet the requirements of PP (Kumpfer 2003).

B. Participation of Organised Stakeholder Groups

During the seventies, a distinct ecological movement began to emerge in West Germany. It was organised by a great variety of groups and associations, ranging from local citizen initiatives (*Bürgerinitiativen*) to organisations on the federal or *Länder* level, from groups specialising in bird protection, or forest preservation, to more recent foundations with a broader field of activity, and usually a more political stance (including several environmental NGOs such as the Bund für Umwelt und Naturschutz Deutschland (BUND), Greenpeace and Robin Wood) (Ormond 1991).

One way for these groups to participate in administrative proceedings concerned with planning or the granting of environmentally relevant permissions is by exercising their rights as citizens and members of the general public. In many cases, especially in proceedings for the grant of licenses under the Clean Air or the Atomic Energy Acts, organisations are not even given the opportunity to take part, as the focus is purely on the general public.

However, §§ 58 and 60 of the Federal Nature Protection Act[26] award specific participative rights to environmental groups approved by the Federal Environment Ministry[27]. According to its provisions, approved associations have to be granted a hearing and given the opportunity to review the relevant expert opinions in planning procedures, the preparation of programmes and other regulative procedures pertaining to nature protection. These privileges apply on the national as well as on the *Länder* level. Furthermore, § 61 of the Federal Nature Protection Act provides environmental groups recognised as registered non-profit organisations with the right to issue legal remedies to official approvals of plan. Once the NGOs were granted the right to participate in the planning procedure itself, such legal remedies were usually excluded. Also, these remedies (*Verbandsklage*) have not been utilised extensively by environmental organisations as of yet.

C. Local Agenda

Another important development for increasing momentum for public participation at the local level was the emergence of the Local Agenda movement in the wake of the 1992 UNCED conference in Rio de Janeiro. Specifically, Article 28 of the declaration highlights the relevance of cities and communities in implementing the concepts of sustainability at the local level. In the past ten years, agenda activities have been started in many German cities and rural communities. While the intensity and thematic emphasis might be subject to the individual characteristics of the communities, the common features of agenda activities are the intelligent usage of natural resources at the local level, including water resources through an active involvement of decision-making processes, integration of relevant stakeholder groups and increased transparency of administrative structures. To support the communities in their efforts and co-ordinate activities throughout German, the Federal Environment Ministry has set up a Local Agenda Contact Desk[28].

---

[26] in its revised version of April 2002, BGBl. I S. 1193, Gesetz zur Neuregelung des Rechts des Naturschutzes und der Landschaftspflege und zur Anpassung anderer Rechtsvorschriften.

[27] Terms for approval are given in § 59.

[28] For more information refer to www.agendaservice.de.

D. Focus on Water Management Planning

Regarding water resource planning specifically, the potential for public participation stems from German water law, particularly the *Länder* Water Acts. There have been some relevant provisions in the context of the two main water resource planning instruments foreseen by the Federal Water Act (version before harmonisation with the WFD, i.e. 6th amendment, 1996). Outside the context of the planning instruments, there has also been potential for public participation in the context of several programs and participatory activities (Muro, 2002).

For the formulation and specification of the water management framework plans, the laws of some *Länder* (Rheinland-Pfalz, Saarland and Sachsen-Anhalt) did not foresee participation. In Bavaria, there was a provision for the water management framework plan to be agreed on by representatives of the different regional planning groups and authorities. In other *Länder* (such as Lower-Saxony, Schleswig-Holstein, Hesse, Thuringia, Mecklenburg-Western Pomerania), there were more advanced provisions for participation during the formulation of the water management framework plans. Usually, the parties involved include other affected authorities, organisations representing part of the public interest, public bodies, as well as local authorities (Muro 2002).

Regarding the formulation of water management plans, a few *Länder* had no relevant provisions for participation. In most *Länder*, there were provisions for the involvement of interested parties during the formulation of the plan and/or after the preparation of the draft plan. Interested parties, again, may include other affected authorities, public bodies, and organisations representing part of the public interest (Muro 2002).

New provisions for public participation will come into force with the imminent amendments of the *Länder* Water Acts following the 7th amendment of the Federal Water Act of 2002 transposing the WFD.

E. Outlook

As a final remark on the historical and institutional background to public participation in Germany, it is interesting to mention the definition of the functions of public participation agreed upon by German scholars of today. The definition given below presents the current philosophy and general understanding of this term in this country. Accordingly, the purpose of public participation is:

- to assist informing public authorities,
- to provide control and transparency of administrative procedures,
- to increase efficiency in administration,
- to provide integration and compensation,
- to serve as pre-emptive guarantee of civil rights (Fisahn, 2002).

Public participation is currently receiving more and more attention, reflecting the latest developments with respect to the Aarhus Convention and new relevant European directives, most notable of which are; the recent Directive on Access to Environmental Information[29], and the proposed Directive on Public Participation[30]. Furthermore, stakeholder involvement is becoming increasingly more important in the context of public scrutiny of the conduct of private organisations and businesses.

---

29 2003/4/EC, Official Journal of the EU, L 41/26.

30 2003/35/EC, Official Journal of the EU, L 156/17.

4 Involvement Dynamics in River Basin Management

This section describes the involvement dynamics in river basin management in Germany to date. The description includes examples in the context of formal participatory procedures, informal participatory processes as well as examples of bottom-up grassroots activity.

Formal procedures and processes are defined as required by legislation. In these cases, public participation is absolutely required.
Informal processes are not required by legislation. They are of a more voluntary nature and have been initiated by authorities and public bodies in an effort to reach out and involve stakeholders and the public. Such processes have often developed in a "give-and-take" iterative manner rather than exclusively top-down. The reader should also refer to sections 5.2.4 and 5.2.5 for a discussion of experiences with formal and informal processes.

Finally, descriptions of bottom-up grassroot activity (environmental and water protection movement) were also included, as this can be considered to be closely intertwined with the development of actual public participation on behalf of the authorities. The definition of public participation as spelled out in the inception report of the HarmoniCOP project, i.e. as direct participation in decision-making by the organised stakeholders and unorganised groups (the "general public") (Mostert, 2003) is also valid in this report. However, the initiation and organisation of public participation by administrative bodies appears to be intermingled with several initiatives independent of administrations, such as citizens initiatives, which in many cases prepared the ground for actual participation forms. In the context of this report, we consider the rise of the environmental movement as an integral part of a process leading to the formation of the basis for public participation, e.g. through the appearance of organised contact points and the increase of the awareness of the public, in our case for water and river protection.

In the report, it was tried to present separately activities linked to the implementation of the WFD from other activities related to nature protection or other environmental issues. For narrative reasons, this has not been possible in all cases since certain earlier participation activities and approaches have simply given way to activities which are considered a response to the current WFD requirements for PP. Usually, activities relevant to the WFD are presented in the end of each section, since chronologically they correspond to the most recent developments.

Focus on two river basins

The discussion of the development and current state of public involvement in river basin management will focus on two exemplary river basins, the Elbe Basin and the Rhine Basin. Apart from the fact that these river basins cover a considerable part of the country and involve most of the federal states (*Länder*) of Germany, these two particular basins have also been chosen due to their comparable importance, yet very different histories. The following paragraphs will briefly highlight the characteristics of each basin.
The River Rhine has its source in Switzerland and passes through France before it crosses the border to Germany near Karlsruhe. Over fifty percent of the Rhine catchment area is within German territory. The Elbe originates in the Czech Republic and crosses the border to Germany near the city of Dresden. On its way to the North Sea, it passes through Hamburg, the second largest city in Germany.
The Rhine River Basin is an interesting case for taking a closer look at how public participation developed in the Federal Republic of Germany after World War II. The River Rhine has influenced and inspired the German culture over the past centuries. Moreover, it has been a major economic factor in its region, with some of the most industrialised areas of Germany surrounding the Rhine and its many tributaries. The Rhine has been at the center of attention due to chemical spills and high pollution levels, especially in the past 20 to 30 years. Due to the visibility of the problems affecting the Rhine, there have always been many citizen initiatives and a high level of public awareness in this area.

The River Elbe has a comparable catchment size, but a quite different history. The Elbe River Basin (see Figure 4) provides an interesting case for insight into public involvement in river management, mainly from the perspective of German political development before and after the German re-unification in 1990. The River Elbe runs from the former East to West Germany. The differing structures and political climate in these two politically distinct periods also created different circumstances for public involvement on issues of river management and planning.
Discussions on the involvement of the public have been structured mainly according to different scales, including the river basin level, the *Länder* level, and the regional/local level. Given the cross-border nature of both river basins, it has also been possible to identify and present participatory approaches in a cross-border context.

4.1 Elbe Basin

A short historical review of the rise of river protection awareness in the Elbe is given in the first part of this section. Special reference is made to the situation in the former German Democratic Republic (GDR) (see also section 5.2.1 discussing cultural influences of the GDR regime and the German re-unification). The second part of this section highlights the involvement of the public at different governance levels in the Elbe Basin. A map of the Elbe Basin is provided below in Figure 4.

Figure 4 The River Elbe catchment showing national and German *Länder* borders.

4.1.1 Emergence of Environmental Awareness in the Elbe Basin

The following description of the emergence of public involvement before German re-unification (before 1990) focuses only partly on river management issues. The intention is to provide a more general picture of the conditions surrounding involvement of the public and environmental groups in the Elbe Basin[31] during the regime of the German Democratic Republic (GDR).

In the former GDR, a weak case can be made with respect to participatory processes in all sectors of public interest, including river and water management. Water management and planning was carried out internally by the authorities (see section 2.6.1 for the water management structure of the GDR). The public was not informed or involved in internal procedures and decision-making. In a sense, the civil servants within the authorities were considered a source of information on these activities on behalf of the broader public[32]. At the implementation phase of water management plans, and for the purpose of investment preparations, other affected authorities were involved, as well as nature protection organisations which were accepted by the state such as the GNU (*Gesellschaft für Natur und Umwelt*, 'the Society for Nature and Environmental Protection of the *Kulturbund* of the GDR), the church and autonomous groups.

According to Behrens et al. (1993), the GNU, which was active on a national level, published different journals of environmental concern which developed into a critical voice for nature protection. Nevertheless, due to the political regime at that time, publishing organisations could not publicly sell such journals at places like kiosks, but instead used them for internal publicity.

Apart from the environmental movement accepted by the state in the GDR, there were also autonomous groups of a more local character which dealt with ecological problems. Autonomous environmental groups began to form at the end of the 1970s. They mainly began to form under the roof of the Protestant Church. There were several activity centres like the *Kirchliches Forschungsheim* in the city of Wittenberg, and the Zionsgemeinde Environment Library (*Umweltbibliothek der Zionsgemeinde*) in the city of Berlin (Behrens et al. 1993). The *Kirchliches Forschungsheim* published the written series 'Briefe,' which mainly included theological discussions on man and nature, natural science contributions, social events with environmental relevance and critiques on available environment-related literature. The Zionsgemeinde Environment Library published brochures with environmental information (*Umweltblätter*), which mainly conveyed the message that politically radical changes were a decisive factor for an ecological society. These two organisations in Wittenberg and in Berlin formulated, to a great extent, the work of church environmental groups in the GDR. However, room for action by these groups to exercise public influence was very limited (Behrens et al. 1993). It was not possible to use the press as a means of public information, either[33]. At times, there were common activities with governmental bodies and social groups (such as planting trees). Nevertheless, these public and environmentally-oriented activities were subject to a narrow-minded, patronising attitude on behalf of the government (Behrens et al. 1993).

The establishment of the Environment Library in Berlin in 1987 was also combined with the creation of the network ARCHE, which aimed at co-ordinating the work of environmental groups. ARCHE consisted of several project groups, including one for water issues. The network issued a publication called ARCHENOVA, which included a section on water resource protection. The publication was

---

31 In this context emphasis is put on the situation in the former GDR, activities in the riparian states of Hamburg, Lower Saxony, Schleswig-Holstein and West-Berlin are comparable to a considerable extend to the situation as outlined in the Rhine chapter.

32 Interview 1b with State Ministry of Brandenburg for Agriculture, Environment and Spatial Planning, Dept. on Water Management and Water Protection (Mr. Dunkel and Mr. Troschke), 11 July 2003.

33 Interview 1a with the environmental group Grüne Liga (Mr. Bender), 26 June 2003.

secretly sold in churches and other group meetings. It is interesting to point out that there was high demand for copies of this publication[34].

Shortly before the collapse of the Communist system, however, environmental problems in the GDR became increasingly public. For instance, prior to the disintegration of the GDR, the environmental group ARGUS, from the city of Potsdam, investigated water quality in the Havel and unofficially gave relevant information to the public. This action caused upheaval at the Water Management Directorate (*Wasserwirtschaftsdirektion*), given that environmental data in the GDR was kept secret[35].

Wood (1999) actually described the state of the GDR environment at the time of German re-unification in 1990 as catastrophic. With regards to water resources, pollution was a grave problem facing the GDR. At that time, 42% of water courses and 24% of lakes were so polluted that even after treatment, they were unfit for drinking water. Trends on water and soil pollution from the early 1990s indicate some improvements. The shutting down of many obsolete industrial plants has meant that less waste is being discharged into the water. In particular, the chemical industry, located largely in the Leipzig-Halle-Bitterfeld areas, has undergone significant reductions and shutdowns, resulting in positive effects on river water quality. Measurements show a decline in concentrations of nitrates, nitrogen, mercury and cadmium in the River Elbe (Umweltbundesamt and Statistisches Bundesamt 1995). However, they remain significantly higher than those found in the River Rhine.

In short, it can be concluded that the conditions in the GDR did not allow for extensive public participation in water management issues. The state-society relationships until 1990 were dominated by a top-down approach. Actually, the East German culture, as formed through the 40-year GDR regime, still shows its effects today via a pre-disposition of the public for low participation.

In the meantime, in the Federal Republic of Germany (West Germany), public concern about the bad ecological state of the Elbe had already begun to organise itself in environmental initiatives. In Hamburg, for instance, which was part of West Germany, an organisation called *'Save the Elbe' (Rettet die Elbe)* was founded in 1978 by a group of employees, farmers, fishermen and students interested in the protection and restoration of the Elbe. The organisation is still active today through a variety of public activities such as demonstrations, festivals, press conferences, publication of brochures and boat trips[36].

4.1.2 Involvement of the Public at Different Governance Levels

River Basin Level

On a river basin level, the International Commission for the Protection of the Elbe (ICPE) was established in 1990 (soon after German re-unification) as a voluntary political initiative of the contracting parties, i.e. Germany, the Czech Republic and the European Union. The ICPE aimed to address the alarmingly low water quality of the Elbe at the time. Environmental NGOs did not play a role in the initial phase of the establishment of the ICPE. There were no really influential environmental NGOs, either from the Czech Republic or the former GDR, that could have exercised pressure to set up the ICPE[37].

Since 1991, the ICPE organises annual international information events for environmental NGOs from the Czech Republic and Germany. These events, which are bilingual in German and Czech, are called 'Meetings of the ICPE President with representatives of German and Czech environmental organisations'. The organisation of such information events began just a year after the establishment of the ICPE, because informing the public about the ICPE activities was soon identified as an important

---

34 Interview 1a.

35 Interview 1b.

36 Information available online: www.rettet-die-elbe.de/weristre.htm (21.07.2003).

37 Personal communication with a representative of the ICPE, 24.06.2003.

aspect of the Commission's work. Press statements and the publication of reports were not considered sufficient forms of public information[38].
The information events are organised by inviting the main Czech and German environmental NGOs in the Elbe River Basin, whose details are included in a large ICPE database. The participants in these events include representatives from environmental NGOs and other organisations, such as chemical industry associations, the President and representatives of the ICPE and scientific experts. The ICPE invites NGOs active on different levels, i.e. local, regional, as well as national. National NGOs like the German BUND are represented in the ICPE database by several of their members from their regional offices in the river basin. Therefore, the number of different organisations participating in the events is smaller than the overall number of participants. For example, during the ICPE information event in 2002, there were 32 participants (three Czech and 29 German) representing 17 organisations[39]. Approximately one-third of the participants were representatives of German national environmental NGOs (such as the BUND, NABU and WWF) and their regional offices[40].

Apart from the activities of the ICPE, there have been no other participatory processes covering the entire basin level. There have been however numerous grassroots activities focusing on the problems of the Elbe Basin and its subbasins. In the following paragraphs, some of the important activities are presented.
In the initial period after German re-unification, there was an attempt to set up a network of NGOs on the level of the entire Elbe Basin. This attempt, however, was not fruitful, mainly because the issues most NGOs were dealing with were local, rather than at a regional or river basin level[41]. Environmental protection NGOs have nevertheless played an important role in the participation of the public in the context of their activities. In the Elbe River Basin, church communities have played a particularly important role, even after German re-unification, mainly through involvement in discussions about river improvement works of the Elbe. Church community meetings have served as a place for people outside the church to express their opinions and demonstrate their willingness to participate in the protection of the River Elbe[42].
In the Elbe River Basin, it has also been possible to build the largest environmental education network in Europe, involving 180 schools from Germany and the Czech Republic (Wotke, 2003). Such initiatives are considered important for improving knowledge and awareness of river systems, and to change public perceptions about these ecosystems. As a more concrete example, under the framework of a project called 'Living Elbe', the 'Schools for a living Elbe' initiative was created with the aim of introducing the idea of the 'Elbe' in as many schools as possible within the Elbe River Basin.
The project 'Living Elbe' was set up in 1997 by the organisation Deutsche Umwelthilfe together with a publisher (Verlagshaus Gruner & Jahr), and in co-operation with the European Rivers Network. The aim of the project is to network people, organisations and unions that are engaged in the protection of the Elbe; it also seeks to carry out projects on nature protection, pedagogy, science, culture and communication[43]. The 'Living Elbe' project networks over 450 environmental groups, authorities and citizen initiatives active in the Elbe and its river basin.
The need has also arisen to set up such networks on a more regional level, as in the case of the River Spree. This sub-basin of the Elbe is expected to come under increasing pressure in the future due to the

---

38 Ibid.

39 Ibid.

40 Interview 1c with Winfried Lücking of the BUND Berlin, 29. October 2003 in Berlin.

41 Interview 1a.

42 Ibid.

43 Information available online: www.rivernet.org/lebendige-elbe/welcome.htm (21.07.2003).

expected reduced water supply, increased tourism and potential conflict with land use management. As a result, local actors expressed the need to initiate a dialogue between the different stakeholders of the basin. This need culminated in November 2002 with a Conference on the Spree to discuss the creation of a 'Living Spree' network similar to other networks of 'living rivers' such as the Rhine, Neckar, Elbe and Werra[44]. In the context of such a network, different initiatives, authorities, organisations and actors along the Spree should be able to cooperate, communicate and inspire one another. The vision is for the public, and the local action groups, to identify themselves with their river and work jointly towards common goals[45].

Nowadays, along the German area of the River Elbe, there are numerous citizen initiatives engaged in the protection of the River Elbe (Dörfler, 2003), such as 'PRO ELBE Madgeburg', the initiative on the protection of the Elbe set up in 2001[46], and the 'Natural Elbe' (*Naturnahe Elbe*). With the closing down of several former GDR industries following German re-unification, water quality in the Elbe has improved. Therefore, the main issue motivating citizen initiatives in the Elbe basin has been physical river improvement works. Experiences from several Elbe citizen initiatives have shown that, for media-effective actions, it is important to have prominent personalities on one's side. Politicians can also guarantee interest on behalf of the media.

Länder level

In the case of the Elbe, there have been few specific mechanisms or procedures for participation on river management issues on a *Land* (federal state) level. In the different *Länder*, which also have their own 'water' administrative structures, the setting for formal and informal public participation procedures can be different in some aspects. In this report, several examples are provided, in particular for the sub-basin of the Havel, which belongs to the *Länder* Brandenburg and Berlin. It has been possible to gather detailed information on the *Länder* Berlin and Brandenburg in the context of a research project on public participation in the Havel area supported by the Berlin Centre of Competence for Water (KompetenzZentrum Wasser Berlin)[47]. The state of Brandenburg was entirely part of the former GDR while Berlin was divided between the GDR and the Federal Republic of Germany for approximately 40 years. This particularity of the political structure in the sub-basin of the Havel made administrative coordination for river management issues difficult.

After the re-unification of Germany, the political climate in the *Länder* of the former GDR became more favourable for the involvement of stakeholders in the decision-making processes of water administrations. The importance of such processes should be considered against the background of considerable shortcomings with respect to participation during the GDR regime.

In some cases, advisory committees on environmental issues were set up to work closely together with the authorities. For instance, in the state of Brandenburg, an *Umweltbeirat* (environmental advisory committee) was voluntarily established to advise the Environment Minister of the *Land* on different environmental issues, including water management in Brandenburg. In the beginning of its establishment, the *Umweltbeirat* consisted of environmental NGOs. After the merging of the Environment Ministry with the Agriculture Ministry of Brandenburg, the *Umweltbeirat* was extended to include more stakeholders, such as farmer associations, industry, and trade associations. The *Umweltbeirat* has also been used as a target audience for information events on the new Water Framework Directive making suggestions to the Ministry on its implementation[48].

---

44 Information available online: www.duh.de/spree/ (18.02.2003).

45 Information available online: www.duh.de/spree/ (18.02.2003).

46 Information from the Elbe-telex, Informationsdienst für Elbe-Aktive. April 2001.

47 Kranz N., Vorwerk A., Kampa E. and Hansen W. (2004): Beteiligung der Öffentlichkeit im Koordinierungsraum Havel, Berlin, Ecologic.

48 Interview 1b.

Another interesting institution is the *Landesbüro für anerkannte Naturschutzverbände* (LaN) (State Office of Nature Protection Groups) of Brandenburg, which involves five NGOs and has special rights in participation processes in this German *Land*. The LaN is financed by the *Land* in order to promote co-operation and co-ordination of the positions of the individual NGOs. Such co-ordination allows the presentation of a common position to the Environment Ministry of Brandenburg. A comparable institution also exists in Berlin, the Berlin *Länder* Working Group for Nature Protection as well as in North Rhine-Westphalia in the Rhine Basin.

Regional and Local Level

After 1990, bottom-up grassroot activity was influenced by a general trend for transformation of the environmental movement and the appearance of engaged citizen initiatives also in the field of water resource protection. At that time, real participation processes were not yet initiated by the authorities of the former GDR *Länder*.

Most GDR environmental organisations active on a local level were dissolved after German re-unification due to restructuring and reorientation of their members. The NGO Grüne Liga, for instance, was created as a network of church and other environmental initiatives of the former GDR. Meanwhile, environmental NGOs from western Germany rapidly established regional offices in the new *Länder*[49].

In the new German *Länder* (of the former GDR), membership in environmental national NGOs was low after re-unification, partly due to social or financial reasons, such as unemployment. Possibly, there was also a lack of identification with such organisations resulting from the rapid collapse of 'old' GDR environmental organisations (such as GNU). There was also deep mistrust of the centralist tendencies of national environmental organisations (Behrens et al. 1993).

In general, in the period after re-unification, the environmental movement faced a difficult time in the new German *Länder* (of the former GDR). This was a period when the environmental movement was also in crisis in western Germany. A survey carried out in Germany at the end of August 1992 by the journal 'Natur' revealed 'little faith in the environmental organisations' (Behrens et al. 1993).

Although real participation processes were not yet initiated by the authorities, on a local level, people became more interested and engaged in issues of their local water resources. There were effective citizen initiatives established, such as the citizen initiative on the Lake Müggelsee in the area of East Berlin. The lake was a source of drinking water, and the issue of motor boats traffic and subsequent pollution was important to the local public. The activities of the citizen initiative resulted in an initial ban on motor boat traffic, which later gave way to specific traffic lanes[50].

Later on, interesting experiences with actual participatory processes were made. In a part of the River Spree sub-basin (in Spreewald), there is a long-term project on riparian zones supported by the German Federal Agency for Nature Protection. In order to achieve broad co-operation for the purposes of the project, an association (*Zweckverband*) and an advisory committee (*Fachbeirat*) have been founded. The association consists of local authorities as well as a nature protection union. The committee involves further stakeholders such as nature protection unions, farmers' unions and organisations of fishermen, among others (Kehl 2003).

In general it appears that regional and local actors have proved more valuable than national actors in participatory processes concerning local and regional issues. For instance, in Brandenburg, regional actors are considered more important contact partners for the authorities because they have valuable knowledge and access to local data. Regional actors are personally affected and are therefore eager to participate actively in processes on local issues. Their interest lies less in broad national plans and more

---

49 Interview 1a.

50 Interview 1a.

on concrete issues of their region. Processes involving national NGOs have at times proven to be less constructive than those addressing groups at the regional level[51].

4.2 Rhine Basin

As with the historical review above of the developments in the Elbe Basin, the following section highlights the main developments within the Rhine Basin. A map of the Rhine Basin is provided below (Figure 5).

[51] Interview 1b.

Figure 5 The Rhine Basin and its Sub-Basins

4.2.1 Emergence of Environmental Awareness in the Rhine Basin

The Rhine, a river in the heart of Europe, has always been of particular importance for all its riparian states, especially for Germany and France. In the past, it has been used as a national symbol on both sides, for good and for bad, to define a border, a claim or a right, a destiny or an identity (Erbe 2002). Like any borderland, the Rhine Basin is also a melting pot where cultures, language, religions and personal histories intermingle and provide a fertile ground for human development (Kraemer & Kampa, 2003).

The Rhine still is one of the most intensively, but also most diversely, used rivers in Europe. Due to its strategically beneficial location, the Rhine has been the most important inland waterway for

transporting goods for several hundred years. In most parts, the river has been channelled to accommodate ever larger vessels. At the same time, several economic centres are located either directly on the Rhine or on many of its tributaries These places include the Ruhr coal mining area and the chemical industry in Mannheim/ Ludwigshafen, Cologne, Leverkusen and near Frankfurt. The economic activities in the Rhine Basin have resulted in population growth in the entire basin amounting to 50 million people, of which 34 million live in Germany. This growing population has lead to an increased demand for many other water services directly or indirectly related to the river, such as the provision of drinking water, sewage treatment, agricultural activities and recreation.

For a while – especially during the period of economic resurgence of Germany after World War II – it seemed as if the Rhine was a never-ending resource for wealth, resulting in manifold pressures on the river ecosystem and bringing the river close to ecological collapse. The river was considered one of the most polluted water bodies in Europe, with heavy metal, salt and nutrient concentrations far above average[52]. Additionally, the riverbed had been considerably modified to provide space for new and growing settlements as well as for protection against flooding.

Still, for a long time, the public considered the river a common good and economic resource. Only very few would criticise the exploitation of the Rhine, and only a few concerns were raised about its diminishing ecological quality. In addition to lacking in awareness, the secretive behaviour of the water management authorities could also be seen as a reason for this situation.[53] For instance, when massive fish deaths occurred in 1969, neither the authorities nor the general public were pushing for an investigation of the causes.[54]

Even before the environmental movement became visible in the Rhine area, the operators of water works voiced their concern about ever increasing pollution. Since a substantial share of the drinking water in the Rhine Basin is derived from bank filtration of Rhine water, the water works operations were directly influenced by low water quality. Organised at the regional (Oberrhein, Mittelrhein, Unterrhein) as well as the international level (IAWR), the water works have been increasingly successful at making their voice heard. In the beginning, this success was mostly contingent on the commitment of individual lobbyists approaching authorities at several levels.

Increased environmental awareness of the problems of the Rhine basin first appeared in the Netherlands, since due to its downstream location it was affected the most by chemical loads originating from Germany and other upstream locations and the resulting low water quality. A main constituent at this time was the environmental NGO Stichting Reinwater. In pursuing their environmental goals, they early-on started collaboration with the Rotterdam Port Authorities, which at that time were faced with costly clean-up efforts to mitigate pollutant loads in their waters. Rotterdam Port supported Stichting Reinwater by sponsoring a laboratory ship, which allowed for the close monitoring and analysis of industrial sewer effluents. These observations were also used in the context of the first so-called World Water Tribunal set up in Rotterdam. Before this symbolic judicial body, international cases of water pollution due to industrial activities were tried, and identified culprits charged. Although defendants usually chose not to appear, the discussion of the respective issues at this forum contributed to raising the awareness of the general public and eventually to the reduction of heavy metal and chlorinated compound loads.[55]

---

52 Interview 2a with Dr. Anne Schulte-Vülwer-Leidig, Vice Executive Director, International Commission for the Protection of the Rhine, 16 July 2003 in Bonn.

53 Interview 2g with Nik Geiler, Association of Citizens' Initiatives for the Environment, Working Group Warer, BBU, AK Wasser, 9 September 2003 in Berlin.

54 Interview 2g. While at the time it was assumed that prolonged heat and resulting low oxygen levels had led to the exodus, later explanations included the release of the fish poison Thiodan from Hoechst AG as well as the disposal of barrels with poisonous contents from Rhine vessels.

55 Interview 2g.

Parallel to these developments, these early concerns led to an agreement on the foundation of an International Commission for the Protection of the Rhine (ICPR) among the riparian states of Germany, Switzerland, Luxembourg, France and the Netherlands in 1963. The ICPR was set up as an international supranational body to co-ordinate national efforts in tackling the issues to be solved to mitigate water pollution and river pollution in the Rhine Basin.
Then, in the mid 1970s, several insecticide spills (in particular Endosulfane) led to massive fish deaths in the Rhine causing a scandal and also putting water quality issues on the German public agenda. In 1986, a major chemical spill occurred in the upper Rhine at Sandoz in Basel, resulting in heavy contamination throughout the entire basin with far-reaching effects on the river's ecosystems and the drinking water supplies. This event proved to be the wake-up call for the broad public initiating a discussion of water quality issues People considered the responsibility of corporations for their actions and the control the public needs to exert to provide for a healthy environment (Kerner et al. 1987). At the same time, the spill was the impetus behind many decisions with respect to emissions standards for the Rhine and the setting of water quality targets. In more concrete terms, the Rhine Action Plan was agreed, setting a 50% pollution reduction goal. While no international emission standards were developed, it was up to the ICPR countries to decide how to reach this goal.
Due to increased public awareness of environmental issues, as well as a stronger political leverage following the introduction of the Green Party to the German parliament in 1981, the climate for environmental stakeholder groups became more and more favourable[56]. Still, at the government level, where the Rhine minister conferences were spearheading the efforts in establishing action plans for the Rhine basin, stakeholders were not included until the 1990s.

4.2.2 Involvement of the Public at Different Governance Levels

River Basin Level

The International Commission for the Protection of the Rhine (ICPR) monitors and facilitates efforts in terms of co-ordinating the various riparian states in their differing river basin management approaches. In this function, the ICPR has no legislative powers but is in charge of drafting general policy statements affecting various river basin management issues, which then need to be integrated into national programs and legislation. In this process, however, the ICPR also serves as a forum offering various NGOs an opportunity for information and consultation. This involvement was less consistent in the early years, but the participation of environmental NGOs has now been officially included in the 1999 Convention on the Protection of the Rhine. Firstly, the ICPR is required to exchange information with relevant NGOs, take their positions into account when making decisions, and inform the organisations about the decisions. Secondly, international NGOs are afforded observer status. Their role includes outlining their goals as well as describing the composition of their member-base and their specific expertise in the area of river basin management. Meanwhile, the ICPR considers various stakeholder groups invaluable partners. Thus, a number of international stakeholder groups[57] were invited to the Rhine ministerial conference in Rotterdam in 1998. Moreover, the 1999 Convention was drafted with the co-operation of these selected stakeholders groups.

Länder level

---

[56] Interview 2a.

[57] These stakeholder groups were Alsace Nature, BUND, Schweizerisch-deutsche Arbeitsgemeinschaft Renaturierung des Hochrheins, Internationale Arbeitsgemeinschaft der Wasserwerke im Rheineinzugsgebiet (IAWR), European Union of National Associations of Water Services (EUREAU), Conseil Européen de l'Industrie Chimique (CEFIC), Verband der chemischen Industrie (VCI), die Hochwassernotgemeinschaft Rhein, der Gemeinde- und Städtebund, Umweltstiftung, Auen-Institut des WWF Deutschland, Greenpeace International, NABU Naturschutzstation and the Rhein-Kolleg.

The agreements achieved at the Rhine ministerial conferences, under the auspices of the ICPR, are considered at the country level of the riparian nations. For Germany, this mostly entails the respective *Länder* in the Rhine basin; these include North-Rhine Westphalia (NRW), Hesse (HE), Baden-Württemberg (BW), Rhineland-Palatinate (RP) and Bavaria (BY). Due to the German federal set-up, the administrative structures in these *Länder* differ considerably, and therefore, so do the associated institutions and procedures for water management, including public participation. While this situation complicates the co-ordination of public participation measures across *Länder*, it also offers the possibility of designing measures in a way that takes into account specific local or regional requirements.

For an illustration of the practices and situation with respect to different *Länder*, this report will highlight experiences made in North Rhine–Westphalia, Rhineland-Palatinate and Baden-Württemberg. As illustrated in Section 2.6.1, NRW is also the German *Land* where the river basin has functioned most prominently as a unit for water administration.

Generally, the involvement of the public occurs at many different levels with varying intensity. The general observation throughout the different *Länder* is that, at the higher level (i.e. river basin), involvement is usually directed more towards the participation of organised stakeholders and may, in particular cases, even lead to alterations in overall management strategies. At lower levels, the general public seems to get increasingly involved, with solutions being more practice-oriented and suited for implementation on the ground. However, at this level, the activities are often limited to information dissemination.

The main governmental actors in the area of water management in all *Länder* at the state level are the State Ministries of the Environment (*Umweltministerium*) and the State Environment Agencies (*Landesumweltamt*).

In analysing the involvement of organised stakeholders in water management issues, it is necesary to consider the established organisations for nature protection and the environment. A variety of different organisations usually organised at the federal level can be found in each of the *Länder* at the state, regional and local level.

In Rhineland-Palatinate, a so-called environmental council at the Ministry for the Environment has been created which comprises a total of 30 representatives from various stakeholder associations, such as environmental NGOs, fisheries, local and regional authorities, agriculture, etc. The council, however, does not have any decision-making power but rather serves in an advisory function ensuring the approval of new legislation by a wide range of societal groups.

An interesting institution in NRW set up by three environmental NGOs, namely the LNU, the NABU and the BUND, is the so-called *Landesbüro der Naturschutzverbände* (LaN) (State Office of Nature Protection Groups). This office co-ordinates the efforts of the represented organisations when it comes to activities related to formal participation procedures, such as the planning procedures for public works (*Planfeststellungsverfahren).* The development of this well-established institution, which was founded in 1982, demonstrates the evolution of the participation of organised stakeholder groups. While the involvement for a long time was limited to those procedures where participation was absolutely required, through persistency and proven expertise in the area of water management, the LaN was able to establish itself as sought-after-experts, one of the major achievements being the direct input to a new framework legislation on stream re-structuring. Thus the NGOs through this joint institution (the LaN) were able to gain leverage even in policy processes, although this was not officially provided for by law. Moreover, the LaN is also very important for establishing the link to the general public through activities such as information events and brochure distribution. With respect to the implementation of the WFD in the Rhine Basin the LaN has been very involved in the implementation process and contributed to the discussion by submitting position papers. Also, representatives of the LaN participate in the NRW sub-working group on the WFD implementation.

In the context of the implementation of the WFD in NRW, a steering committee has been established at the *Land* level which comprises, *inter alia*, a sub-working group on public participation. The group consists of representatives from the different government institutions, at all levels, as well as relevant stakeholders, such as farmers and fisheries associations, nature protection groups, but also water utilities and the so-called *Wasserverbände*, which will be described in more detail later. The mandate of this working group is to structure and conceptualise public participation in the field of water management in NRW.

One of the first tasks of the sub-working group of public participation was to draft a practical guidance (*NRW-Leitfaden*)[58] on the implementation of the public participation requirements of the WFD. This guidance is based on the practical experience of each of the steering committee members and was inspired by the assessment of pilot studies, workshops and information sessions. The guidance is intended to support authorities in implementing public participation in RBM and thus serves as a toolbox for practitioners and informs stakeholders about their rights and opportunities for involvement. The guidance on public participation is predominantly addressing the first phase of WFD implementation: the analysis of pressures and impacts.

The documents starts out by describing the general requirements for public participation under the WFD and continues by describing procedures for sensitising the public through public outreach, internet forums, the involvement of schools and the utilisation of press releases, brochures and exhibitions. While it also gives a broad overview of PP within the entire implementation process of the WFD, the guidance then predominantly focuses on the involvement of the public in impact analysis. In the following, the most important stakeholder groups as well as the most salient issues to be considered in this implementation state are highlighted. Based on this, the guidance develops recommendations on how to establish a dialogue among the various relevant stakeholder groups as well as elaborates on the role of the authorities. Finally, a general outlook on the future scope of PP is included. The annex contains checklists for the preparation of information events, a sample invitation, feedback-sheet and agenda as well as suggestions for the content of flyers and brochures.

Regional Level

At the regional level, involvement efforts are more concrete, dealing with issues directly related to river basin management, which are then more refined at the municipal level. In NRW, the main responsibility in this respect lies with the Regional Environment Authorities (*Staatliche Umweltämter*). They co-ordinate the information and involvement of various stakeholder groups.[59]

Currently, most efforts concerning public involvement are addressed to organisations representing part of the public interest. The most important of these groups in NRW are the water users associations, agricultural and farmer's associations, industry organisations and nature protection groups. In this context, the special role of *Wasserverbände* (water management associations) in public involvement in NRW should be illustrated. The *Wasserverbände* are non-governmental, not-for-profit associations carrying out water management tasks on behalf of the public authorities. These associations are usually formed for the management of a specific water body and feature delegates from many different user groups, such as industry and farmers. The *Wasserverbände* in NRW are interesting because of their ambiguous nature in terms of public participation. On the one hand, they need to be involved by the authorities in decision-making processes pertaining to water management, since they are in charge of implementing these decisions. Due to the most recent developments in the context of the WFD, the *Wasserverbände* have been involved by the public authorities, considerably more. On the other hand,

---

[58] Necker, Ulla [2002] NRW-Leitfaden zur Umsetzung der WRRL, Teil 4 Themenbezogene Arbeitspapiere, Kapitel 2 Öffentlichkeitsbeteiligung, first Draft, Working Group on Public participation, March 2002.

[59] Interview 2b with Dr. Ulla Necker, Chair of the Working Group on Public Participation in Northrhine-Westphalia, 17 July 2003 in Dusseldorf. The responsibility for the implementation of the defining the status quo lies has been assigned to so-called Geschäftsstellen (help desks) at the Regional Environment Authorities.

the *Wasserverbände* are also conceived as the main addressee for requests and inquiries about water management issues by the general public, as well as by other organised stakeholder groups. Therefore, the *Wasserverbände* also initiate outreach activities to inform the general public, as well as consult with other organised stakeholder groups, such as the so-called water symposia series created by the *Wupperverband* (the *Wasserverband* for the catchment of the Wupper, a tributary to the Rhine)[60].
In some areas the *Wasserverbände* have established close co-operation contracts with the Regional Environment Authorities (*Staatliche Umweltämter*). This process is considered to be the most effective according to the *NRW-Leitfaden*, especially during the stage of status quo analysis. Most valuable is the direct dialogue with organised stakeholder groups. To this end, regional fora (*Gebietsforen*) were established which cover parts of rivers or river basins where issues could be addressed and discussed on a regular basis. Another approach advocated by the guidance document is to hold initiation events (*Auftaktveranstaltungen*) that mostly focus on the presentation and discussion with relevant stakeholders. In contrast to this, the *Gebietsforen* are far more institutionalised and have a defined selection of members, whereas initiation events are usually open for a wider range of stakeholders.

Local level

When it comes to involving the individual citizens, this lies entirely within the responsibility of the municipalities. In this context the Local Agenda 21 (LA 21) process has proved to lead to good results in terms of reaching and involving a relatively large number of citizens. In saying this, one also has to consider that the LA 21 incorporates many facets of sustainable development at the local level and does not exclusively focus on water resource management.
With respect to utilising LA 21 to engage citizen in sustainable water management, there have been a few interesting initiatives, as for example in the City of Karlsruhe in BW. In order to support the implementation of the LA 21 process, a working group on "man and environment" was established, and is supporting the local environment agency in their efforts, which focus on the re-naturalisation of the local River Alb. One of the central goals of this working group is to increase the awareness of the citizens as to the relevance of the River Alb to the urban ecosystem, and also in the context of the European network Natura 2000. Following the re-naturalisation of the river,[61] a nature trail along the river was built, inviting the citizens to learn more about the river, its problems and how they can get involved[62].
Comparable activities have been initiated in the City of Freiburg by the Association of Citizens' Initiatives for the Environment, Working Group on Water, to raise the citizens' awareness for the River Dreisam. The Dreisam has been heavily modified in the past, and has therefore lost its natural functions to a large extent. The group addressing these issues, Regiowasser 2005, has members from the above mentioned NGO groups as well as other water experts from the region. The group works semi-professionally and is supported through a fund established by the regional utility Badenova. Among the ideas for re-vitalising the Dreisam is the publication of a book which compares the historic and current states of the river.
With respect to the implementation of the WFD, the role of local municipalities needs to be pointed out. In contrast to NRW, where the *Wasserverbände* play a vital role in a number of water management aspects, in RP and BW the local municipalities traditionally[63] take over the majority of responsibilities,

---

60 Interview 2c with Monika Ebers, Responsible for Corporate Communications and Public Outreach at the Wupperverband, 17 July 2003 in Wuppertal.

61 The renaturalization of the river was already initiated about 20 years ago and is not a direct result of the LA 21 process. Still, as an important element of the LA 21 process, these efforts are closely interrelated.

62 Interview 2e.

63 Despite an increasing tendency towards privatizing the provision of public services, local municipalities still play a crucial role in this respect. A discussion of the merits and threats of an increasing privatisation of public services exceeds the scope of this study. Interested readers may refer to WRc/Ecologic (Eds.) (2002) for further information.

such as sewage treatment and river maintenance. Consequently, with the implementation of the WFD the municipalities will be faced with a number of new challenges. The Association of Cities and Municipalities (*Deutscher Städte und Gemeindebund),* which exists in similar form in each of the *Länder* as well as at the national level, advises municipalities on the tasks to be performed in the context of the WFD and also liases with government authorities at all levels representing the interest of the municipalities. In this function the *Städte- und Gemeindebund* closely collaborates with the authorities, thus providing a direct link to decision-makers for the local municipalities. It is through the representative of the *Gemeinde- und Städtebund*[64] that the municipalities can voice their concerns and partake in decisions made in water management that might affect their operations[65]. An interesting institution established with the involvement of the *Gemeinde- und Städtebund*, which combined local efforts with a cross-*Länder* scope, is the flood response association (*Hochwassernotgemeinschaft*). The goals of this association, which was founded in the wake of heavy floods in the 1980s and draw its members from municipal authorities in the Rhine basin in NRW, HE, RP and BW as well as interested individuals, is to provide information on flood response as well as participate in the drafting of flood prevention measures by getting involved in flood prevention and mitigation planning.

4.3 Levels of Public Participation*: Elbe Basin*

Discussions in this section have been structured according to the different levels of public participation as outlined by the WFD: information, consultation and active involvement.

4.3.1 Information Level

On a river basin level, the annual information events for environmental NGOs of the International Commission for the Protection of the Elbe (ICPE) take place every November, a month after the annual ICPE board meeting where strategies and action plans are adopted. Different themes are chosen for each event, varying for instance from flood protection to water quality and impacts of sewage treatment plants. The main aim of the ICPE information events is to inform environmental NGOs about each year's activities, strategies and action plans of the ICPE regarding specific issues in the Elbe River Basin. Secondly, the events aim to serve as a platform for discussion where environmental NGOs can provide ideas and feedback to be considered for that year's ICPE activities[66]. However, to date the process of input of this feedback mechanism to the high, official ICPE level has not been systematic.

Currently, there are thoughts to go beyond the information of organised environmental stakeholders and extend their involvement to the annual ICPE board meetings. These considerations have been initiated partly in the context of discussions on the WFD requirements. Apart from environmental organisations, involvement of representatives from industry, trade, and agricultural associations is being considered[67]. Such a move by the ICPE, from information dissemination to a form of consultation with river basin stakeholders, is still under discussion. If this change in level and form of involvement proceeds, it will also mean that the number of participants involved will be reduced[68].

Regarding other information activities on the river basin level, educational activities on issues of the Elbe initiated by non-governmental organisations appear as an important element of a more active and

---

64 In addition to the Städte- und Gemeindebund, interests of municipalities are also represented by the *Deutscher Städtetag* and the *Landkreistag.*

65 Interview 2f.

66 Personal communication with representative of the ICPE.

67 Personal communications with representative of the ICPE and representative of the Thüringen Ministry for Agriculture, Nature Protection and Environment.

68 Personal communication with representative of the ICPE.

'to-the-root' information process. As already mentioned, in the Elbe Basin, the largest environmental education network in Europe has been built, co-ordinated by the environmental organisation Deutsche Umwelthilfe.

On the level of the *Länder*, there are several unions and establishments which have been used to date for informing interested parties on environmental and river management issues. These are now increasingly used as target groups for information events on the issues of the WFD. In the *Land* of Brandenburg, information events have been held for the state farmers' association (*Landesbauernverband*), the state water associations' parliament (*Landeswasserverbandtag*), and the environmental partnership (*Umweltpartnerschaft)*. The latter has existed as an organisation since 1995, meets twice a year, and is effectively used for information dissemination regarding conflicts of environmental interests, also involving large companies and industry. In the past, more intensive information activities took place on particular water issues important to the local population, such as drinking water protection areas.[69]

In the context of the WFD requirements, activities in the *Länder* of the Elbe River Basin to date have mainly consisted in the provision of information through relevant publications of the authorities or presentations at workshops and conferences.

The state of Thuringia has already published regular information letters regarding the objectives of the WFD and its implementation in Thuringia. These information brochures intend to raise awareness of the broader public, and can be considered a good example of information on a regional level. The Thuringia Ministry for Agriculture, Nature Protection and Environment has also organised information events, the first of which took place as early as January 2001, only a month after the entry into force of the WFD. A number of other events have taken place to inform relevant authorities, such as the Environment Committee of the Thuringia parliament (*Umweltausschuss des Thüringer Landtages*) and the Nature Protection Advisory Board of the *Land*, *Landesnaturschutzbeirat*[70].

The state of Schleswig-Holstein (also in the Elbe River Basin) has started an information campaign with the publication of an info-letter on the EU WFD available also online. The info-letter aims to serve as an information instrument for involved and interested institutions. It is accompanied by several information events, workshops, competitions and school visits, including also more informal events such as an information water-tour throughout the state, and a water summer festival as a kind of 'info-tainment' event[71].

The ICPE (International Commission for the Protection of the Elbe) administered in 2003 a questionnaire in all the *Länder* in the Elbe basin which aimed to gain insight into the current status of information and consultation activities for the implementation of the WFD. The measures that the Länder stated they have taken or planned to take by the end of 2003 included the following:[72]

- Brochures, flyers and information letters. This was actually the most common measure taken aiming to inform the general public and stakeholders.
- Internet presence. This was the second most common measure mainly aimed at the general public and experts.

---

69 Interview 1b.

70 Thüringen Ministry for Agriculture, Nature Protection and Environment (2001) 2nd Information broschure on the EU WFD 2000/60/EC, July 2001.

71 Infoletter zur EU WRRL, Nr. 1/2002, available online: www.wasser.sh (1.7.2002).

72 Information here is based on the results of the questionnaires in seven of the *Länder* in the Elbe basin. The questionnaires were kindly passed on to the investigators of this report by the ICPE upon consent of the *Länder* authorities.

- Information events were also quite common. Representatives of the interested public (agriculture, nature protection, industry etc), associations and experts are usually invited. Information events have also been held for representatives of the administration.
- Initiation events (*Auftaktveranstaltung*) were in some cases held for certain co-ordination areas, such as the Havel and the Saale (see section 2.2 for a description of spatial units in the context of the WFD). In the latter case, feedback from participants was characterised as very positive.
- An exhibition on the WFD aimed at associations, authorities and municipalities was held in the state of Thüringen.
- Teaching material aimed at the general public.
- Production of a guidance document in the state of Sachsen describing the technical issues for the implementation of the WFD. This is aimed at the administration and the interested public.
- Communication portals such as the hotline and hotmail set up for issues of the WFD in the state of Schleswig-Holstein.

This shows the variety of measures taken so far in the individual *Länder* in order to prepare for the involvement of the public in river basin management as foreseen by the WFD.

4.3.2 Consultation and Active Involvement Levels

Consultation in the Elbe Basin has been taking place with organised stakeholders in the context of formal planning procedures, as well as through the establishment of advisory committees.

With regard to public participation in formal planning procedures, experiences in the context of water and river basin management have been similar in different regions in Germany. Nevertheless, some differences may also occur due to the different conditions set for planning in the distinct *Länder*.

For the production of water management framework plans in the state of Brandenburg, for instance, planning is undertaken internally by the authorities, involving hardly any participation process. At a later stage, during plan implementation and preparation of investments, the public is allowed to participate. Public participation is foreseen in planning for public works regarding distinct river sections (*Abschnittsweiseverfahren der Planfestellung*)[73].

There is also regular communication of environmental NGOs with navigation authorities in the context of planning procedures[74]. During the preparation of river improvement and navigation works, environmental NGOs can play a role with respect to specific conditions, which are open to consultation (Interview 1b). To date, however, environmental organisations have only been able to play a limited role, contributing merely 'cosmetic' improvements of the plans. This is due to the fact that the plans are already largely formulated before they are open to consultation and therefore, it is only possible to influence and change particular points[75].

Nevertheless, although limited as a consultation instrument, formal planning procedures have constituted a means of certain involvement in river management issues. The Hamburger organisation, *'Save the Elbe' (Rettet die Elbe)* has been able to exercise public critique in the context of official consultations and planning procedures for public works (*Planfeststellungsverfahren*). 'Save the Elbe' has participated in planning procedures for public works through objections (*Einwendungen*) to the construction of a sewage treatment plant, the extension of the port in Hamburg, as well as the deepening of the Elbe[76]. Similarly, several citizen initiatives for the protection of the river established in different parts of the Elbe basin have been able to participate in river management by reacting to publicly available planning documents on improvement works along rivers, canals, etc. The reaction to date has

---

73 Interview 1b.

74 Interview 1a.

75 Ibid.

76 Information available online: www.rettet-die-elbe.de/weristre.htm (21.07.2003).

mainly involved sending out comments to the responsible ministries or other public authorities and aiming at delays, or even reversals, of projects with questionable impacts on the ecology of the Elbe (Dörfler 2003).

Overall, legitimate participation, i.e. participation in formal planning procedures, has only involved limited participation. This is due to the fact that plans reach the public for information and consultation only in a very advanced state when only a few changes can still be acceptable. This procedure is considered ineffective, since involvement should start as early as possible in the process[77].

Due to late and ineffective involvement of environmental organisations in formal planning procedures, these organisations have, to date, exercised more effective pressure via their lobbying activities and connections to political parties. According to a representative of an environmental group, it appears that lobbying may well also be the point of emphasis for these groups in the process of the WFD implementation in Germany.[78]

With respect to consultation outside the sphere of formal planning procedures, this has been possible to a certain extent through establishments such as advisory committees. The environmental advisory committee (*Umweltbeirat*) in Brandenburg, for example, advises the Environment Minister of the *Land* on water and river management issues[79].

An interesting stakeholder-internal co-operative and consultative structure has been developed for the project on riparian zones in Spreewald of the River Spree sub-basin (described in the section 4.1.2). In the context of the association (*Zweckverband*) and the advisory committee (*Fachbeirat*) set up for the project, thematic and local working groups have been initiated through a so-called moderation process. This cooperative structure aims to secure good information exchange and co-operation. The moderation process offers the opportunity of mediation in conflict situations and maintains focus on the initial project objectives through continuous feedback mechanisms. This project attempted to use professional moderation processes in order to categorise, discuss and develop strategies for resolving conflicts (Kehl 2003).

In view of the implementation of the Water Framework Directive, in the state of Schleswig-Holstein (partly situated in the Elbe River Basin), river basin advisory boards (*Flussgebietsbeiräte*) were founded in April/May 2002 for each of the three river basins of the state. Participants of the river basin advisory boards (approximately 70) include chief representatives of agriculture, water authorities, fisheries, nature protection, other associations and the church.[80] On the one hand, the river basin advisory boards should serve as a forum for information on river basin planning. On the other hand, the involved stakeholders should be able to promote their own interests, which may then be discussed and considered in future planning[81]. It is nevertheless considered that the river basins are too large to ensure the required involvement of all affected local parties. Therefore, within the three river basins which belong to Schleswig-Holstein, thirteen smaller working areas committees have been set up. Specific planning aspects and technical issues of local planning aspects will be agreed upon within these committees. Participants include, among others, local institutions (cities, communities), a representative of the administrative district and representatives of pressure groups. They meet monthly and are led by a representative of the water and soil management associations (*Wasser- und Bodenverbände*).[82] In

---

77 Interview 1a.

78 Interview 1a.

79 Interview 1b.

80 Information from the questionnaires of the ICPE on the *Länder* in the Elbe basin. The questionnaires were kindly passed on to the investigators of this report by the ICPE upon consent of the *Länder* authorities.

81 Schleswig-Holsteinischer Landtag, 15. Wahlperiode, Bericht der Landesregierung. Drucksache 15/1645. Umsetzung der WRRL in Schleswig-Holstein.

82 Ibid.

Schleswig-Holstein, there is a contractual regulation according to which the water and soil associations are given important tasks for the implementation of the WFD (Moss, 2003).
In the state of Thuringia, a water advisory board for the implementation of the WFD has been set up to advise at the level of the supreme water authorities. The aim is the early involvement of all interested parties and the discussion of issues of general state-wide interest. Members of the involved authorities and representatives of the leading pressure groups participate. Three regional water fora have also been set up at the Regional Environment Authorities (*Staatliche Umweltämter).* Their aim is agreement on essential issues of the WFD, compromise of conflicts and discussion of solutions, networking of regional activities and information of the public through presentation and information exchange. Participants represent the fields of water management, agriculture, spatial planning, fisheries, forestry, nature protection, authorities for dams, administrative districts, rural areas, water supply and sewerage, industry and neighbouring federal states.[83]
Similarly, the state of Lower Saxony has an advisory board at the state level as well as five regional fora on the level of working areas for the implementation of the WFD.
In Hamburg, which is also part of the Elbe Basin, the water administration responsible for the implementation of the WFD has already made the first results of its analysis required by end of 2004 (Article 5 of the Directive) available on the internet. The public, including the general public, is thereby invited to submit complementary contributions and positions.

4.4 Levels of Public Participation: Rhine Basin

4.4.1 Information Level

On the level of the entire river basin, the International Commission for the Protection of the Rhine (ICPR) is also very active when it comes to informing various stakeholder groups. ICPR representatives are frequently invited to speak at other organisations and inform about certain aspects of the river basin management of the Rhine Basin. The broad public is usually addressed through special brochures and information events. This information issued by the ICPR is also considered a valuable source for citizen initiatives to obtain relevant data. As one of the main tasks of the ICPR is the monitoring of the state of the river, a comprehensive collection of relevant data is provided on the Committee's webpage. One of the most recent projects of the ICPR also included the atlas on flooding, depicting those areas in the Rhine basin potentially affected by flooding events. Especially after the 2002 Elbe floods this information was heavily sought after, both by government authorities as well as the general public.
In the state of North Rhine-Westphalia (NRW), approaches for involving the general public have been less consistent and are usually undertaken by the organised stakeholder groups rather than the authorities themselves. Also, these initiatives are mostly targeted at informing the general public rather than actively involving them in decision-making processes. In general, it can be said that these initiatives are also highly dependent on public awareness of environmental problems. While public attention in the Rhine Basin was at its height in the 1970s and 1980s due to pollution events, public interest tapered off during the last few years, leaving the field to organised stakeholder groups.
In terms of information initiatives, interesting approaches are followed by the *Wasserverbände* in NRW. Here the strategy combines a tangible experience for the interested public with information about the river basins. According to the public relations representative at the Wuppertal-based *Wupperverband* it is always more efficient to visualise the problem for the citizens than to merely provide information, if citizens are to be actively involved in river basin management. Consequently, the *Wupperverband* offers trips to dams and sewage treatment plants to provide practical experience for the interested public.

---

83 Ibid.

For the organised public, the *Wupperverband* organises regular water symposia, where issues related to the sustainable management of river basins are discussed with representatives from stakeholder groups. The events also go beyond mere information, since they provide a platform for the relevant groups to meet and get to know each other, thus creating the necessary basis of trust, as well as the working relationships necessary for a further involvement.
In view of the WFD, information activities have been increased at the local level. This mostly included printing and distributing flyers and brochures. In some cases, so-called regional forums (*Gebietsforen*) were organised by the regional authorities. These were mostly tailored towards the organised stakeholders, rather than to the general public.

4.4.2 Consultation and Active Involvement Levels

The predominating participation mechanisms for water management issues are almost exclusively tailored towards the involvement of organised stakeholder groups (*Verbandsbeteiligung*). There have only been a few initiatives and attempts to actually involve the general public. For this, the authorities mostly rely on stakeholder groups to reach out to their members and thus to the broader public.
On the international level, the ICPR has been collaborating with the key stakeholders of the river basin over many years, and has thus created a relationship of trust that facilitates good working conditions. Another positive example which features far-reaching involvement of the public is the collaboration of authorities, utility companies and NGOs on the licensing of dams in the Upper Rhine area near Kembs.
At all administrative levels existing in the Rhine Basin, there are several procedures for the involvement of organised stakeholder groups. In this role, stakeholders either get involved by using the official consultation procedures where, after the publication of certain management plans, they have an opportunity to make comments and suggest alterations, which then need to be considered by the responsible authority. However, in the course of the consultation, stakeholder groups merely take on a reactive role, since the rough outline of the plans has already been set and allows for corrective changes only (as already made obvious from experiences from the Elbe Basin). Sometimes, as already described in the case of the LaN (*Landesbüro für Naturschutzverbände*) in NRW, opportunities for involvement arise through active lobbying as well as through participation in policy processes. Stakeholder groups have increasingly fought for this kind of participation[84].
Another positive example documented in NRW are so-called round tables organised by the regional environment authority in the city of Krefeld. The goal of these events was to draft a concept for sustainable wetland management together with the affected stakeholders. Through this involvement activity, it was possible to obtain the input from many different groups and thus create a widely accepted management plan.
Recently, the implementation process of the WFD has led to other remarkable involvement processes in terms of establishing steering committees and working groups at *Länder* and regional levels, which also include a selection of the most relevant stakeholder groups. It remains to be seen how these institutions will develop in the future.

4.5 Use of IC Tools to Stimulate Involvement

4.5.1 Current Situation

Information through written material

In general, it seems that there have been a few technological tools used for information and communication in river basin management till now. In the river basins of the Elbe and the Rhine, ICT

[84] Interview with Sabine Hänel, Legal Associate at the Landesbüro der Naturschutzverbände, 17 July 2003 in Oberhausen.

have mainly included printed material such as brochures, flyers and publications by authorities or other organisations.

Questionnaires

The ICPE (International Commission for the Protection of the Elbe) administered in 2003 a questionnaire in all the *Länder* in the Elbe basin to obtain information on the current status of information and consultation activities for the implementation of the WFD in each of the federal states of the river basin. Although the target group of the questionnaire were the authorities responsible for the implementation of the WFD, this is considered to be an activity aiming at the improvement of participation conditions.

Use of the internet

The number of two-way-communication internet pages on river basin management issues has been relatively small.[85] One-way-internet sites have been much more commonly used. For instance, the initiative 'Living Elbe' of the organisation *Deutsche Umwelthilfe* maintains an information service on the Elbe in cooperation with the European Rivers Network. This service includes an interactive e-mail list, a newsletter on the Elbe (published 1-3 times a month), as well as an Elbe-telex that can be downloaded from the internet or ordered for post delivery (the telex is produced 4-6 times a year)[86].

During the implementation of the WFD, it is expected that more interactive internet portals will be set up to facilitate the communication and co-ordination of larger networks of organisations active on the issues of the Directive. For instance, a new WFD environmental network was created in April 2003 in the *Länder* of Lower Saxony and Bremen (*Umweltnetzwerk Wasserrahmenrichtlinie Lower Saxony-Bremen*)[87] which is also preparing an interactive internet page. The aims of this network, which is intended to be a communication and co-ordination body, is to support all environmental NGOs in the river basins of the Rivers Weser, Ems, (Elbe) and Vechte in the implementation of the WFD.

On the level of the entire country, an internet forum named "WasserBLIcK" has been established to serve as an information and communication platform between the federal and the *Länder* level and thereby support the implementation of the WFD.[88] This internet forum is operated by the federal government (represented by the Federal Environment Ministry) and the *Länder* (represented by LAWA, the Federal Working Group on Water Issues). The target group of the forum is the water management administration in Germany, which can exchange documents and information in a password-protected area. The forum includes, among others, legal texts relevant to the WFD, implementation documents, maps and reports. Other users of the forum (e.g. river basin commissions, NGOs, associations, etc.) can also exchange information in selected areas depending on their access rights.

Overall, the potential of the internet inform the public on issues of water and river basin management is considered to have been so far limited. In the example of the association *Havelbündnis*, which serves as a network of environmental organisations in the Havel sub-basin, personal presence and face-to-face contact are still the most important and indispensable means of information and exchange between environmental NGOs (interview 1a). In cases of regional networks which involve a limited number of participants, exchange via telephone contact is also considered very helpful. Tools such as e-mailing lists and internet pages are important, but only able to target a certain type of public. There are, for instance, many stakeholder representatives who do not use e-mail or internet pages for their information and participation in networking activities[89].

---

85 One example is the internet forum of a citizen initiative against structural alterations of water bodies in the *Land* of Sachsen in the Elbe Basin. See http://www.fliessgewaesserschutz.de/Forumthemen.html.

86 Information available online: www.rivernet.org/elbe/general/.

87 Information from BBU-Wasser-Rundbrief, Nr. 715 of 11 May 2003, p.4.

88 See www.wasserblick.net.

89 Interview 1a.

Other technological tools

An interesting approach followed by the *Wupperverband* in the Rhine Basin makes use of Geographic Information Systems (GIS). GIS obviously helps in efficiently structuring and collecting relevant geographical data and information on various water related topics. For example, the *Wupperverband* and the City of Wuppertal, in a pilot project, combined their data sets and now provide access to a comprehensive shared database[90]. Thus, the application of GIS not only leads to considerable efficiency gains in dealing with complex environmental data, but at the same time also allows for displaying these data to decision-makers in public policy as well as the general public[91]. Because of the positive reaction on the pilot project the aim is now to integrate more institutions and create an interoperable river basin management that is based on web-connected heterogeneous Geographic Information Systems.

Regarding the use of Decision Support Systems (DSS), in the case of the Elbe River Basin, DSS have apparently not been used, until now, for issues of river management and planning, at least not in the sphere of activities of the responsible authorities. The main obstacles to their use lie in the requirement for skilled personnel, time and financial resources. Lately, however, there are research projects which have started to explore the use of DSS for river basin management. In the context of a research project on the Havel sub-basin, a DSS is being developed aiming partly to serve as a communication instrument between scientists, decision-makers, users and the public[92]. The specific research project has placed emphasis on the issue of information and consultation of the affected public and decision-makers, to develop its end-products. In this context, the research results with local and regional dimensions have been discussed in regional conferences with water users, associations and other interested stakeholders. The discussions during the conferences have indicated an increased need of local users for information exchange with the project managers and scientists, as well as strong interests in application-oriented implementation of measures. The scientific project results, including the development of a DSS, have also been complemented by a survey of regional actors via structured interviews to solicit their views on water scarcity and water quality problems.

'Soft' tools

Round tables have been used in some cases on the local level as in the example of the city of Krefeld in the state of NRW. In this example, a round table was organised by the regional environment authority and proved to be successful in the drafting of a concept for sustainable wetland management together with the affected stakeholders. Through this involvement activity, it was possible to obtain the input from many different groups and thus create a widely accepted management plan.

Other interactive methods for participation, either initiated for the purposes of the WFD or existing beforehand, include regional fora, advisory committees, river basin advisory boards mainly targeting the informed and organised public, rather than the general public. Information on these interactive discussion groups has been given already in sections 4.3 and 4.4.

4.5.2 WFD Outlook for IC Tools

In the context of the WFD implementation, some German *Länder* plan to place emphasis on the information level of the public on issues of river basin planning. Holding information events has been characterised as too demanding for the capacity of authorities, in terms of both time and cost[93].

Most *Länder* water authorities already have a good internet presence providing information on the main issues of the Directive and clarifying responsibilities within the authority. In some cases, however, the

---

90 www.ims.wupperverband.de.

91 Wupperverband 2002, GIS – Innovative Ansätze und praktische Umsetzung, Wuppertal.

92 Second interim report of the project "Bewirtschaftungsmöglichkeiten im Einzugsgebiet der Havel". Available online: www.havelmanagement.de (10.7.2003).

93 Interview 1b.

internet has been judged as playing a subordinate role in terms of informing the broad public[94], especially when there is no interactive forum but simply an information internet page. This limitation of the internet as an ICTool should be taken into consideration in the PP processes for the WFD. Despite the increase of internet and technology users, interpersonal communication and interaction is expected to remain very important.

In terms of information initiatives, it has been made apparent that tangible experiences for the interested public with information about the river basin are effective tools. If citizens are to be actively involved in river basin management, it is more efficient to visualise the problem for the citizens (e.g. through trips and hands-on experience) than just to provide information.

The WFD has already provided the incentive for the set-up of regional fora and advisory boards, which are organised by the regional authorities with the intention to proceed beyond the level of public information. Also, advisory boards existing long before the introduction of the WFD are being used in this respect. Their target group is mainly the informed and organised public, rather than the general public. Other tools that have been used on a more local level, such as the round table at Krefeld in NRW, have been valuable in the past and should be further explored as a means to reach the WFD's objectives on the local level.

It was made apparent through interviews with relevant actors that authorities have not incorporated assessment procedures to measure the effect of their information activities (publications, flyers and one-way-internet sites) on the general public to date. The questionnaire administered by the ICPE (International Commission for the Protection of the Elbe), as mentioned above, is an encouraging step forward for authorities to start evaluating their existing strategies. It has become obvious that assessment procedures for the effectiveness of participation processes should be given more consideration for the better implementation of the WFD.

5 Analysis of the National Approach to Public Involvement

5.1 Comparison of Involvement across Germany

Experiences with public involvement across Germany include formal as well as informal processes. Formal procedures and processes are defined as required by legislation. Informal processes are not required by legislation but are more voluntary processes initiated by authorities and public bodies. Our findings have also revealed that the involvement of the public has in some cases been in the hands of organised stakeholders which hold an important position in water management, such as the water management associations in NRW. These organisations generally play an important role with respect to public participation as on the one hand they are valuable stakeholders for the authorities themselves and on the other they often are in a better position to reach out to the general public. As we already pointed out in section 4, grassroots activities linked to the environmental and water protection movement were also identified and described. The latter, although they are not participatory processes themselves, have played an important role in Germany in preparing the ground for actual participation.

The type of public involved in river basin management in the two river basins featured in this report does not vary to a great extent. In general, it appears that mainly organised stakeholders are involved in participatory processes in river basin management issues rather than the general public. Especially in the area of the Elbe Basin (whose greatest part belonged to the former GDR), the general public does not have previous experience with participatory processes. As illustrated earlier in the report, in the former GDR the public was neither informed nor consulted on river management issues.

In the Rhine Basin, organised stakeholders have more experience and tradition in public participation processes compared to their counterparts in the Elbe region. Participation of the general public has also

94 Ibid.

been more often and systematic in the Rhine Basin, at least on the information level. This is mainly due to the heavy pollution incidents on this river. The latter have acted in the past as a catalyst in motivating and awaking the interest of the general public to exercise bottom-up pressure for their involvement. At present, the problem of water quality has subsided, thereby also reducing the need and interest for participation. Similarly, in the Elbe Basin, water quality has improved since the German re-unification. Therefore, citizen grassroots activities today mainly deal with issues of river improvement works and structural quality. It can be argued, however, that until now, structural quality does not appear to have been an issue largely interesting the general public. This is probably because structural quality is not perceived as an issue of emergency compared to water quality. This is especially true for rivers such as the Rhine, which have been morphologically modified for a long time, their status being therefore accepted by the population as 'normal'. Moreover, structural quality, and the related consequences of its degradation, is also an issue relatively unknown to the general public.

Concerning the type of public involved on the international level, again mainly organised stakeholders and NGOs have acted as participants, but with varying degrees of intensity and levels of participation in the two examples. In the Rhine Basin, NGOs and stakeholders from riparian states other than Germany, e.g. NGOs from the Netherlands and France, have been quite actively involved in the activities of the International Commission for the Protection of the Rhine (ICPR). Their involvement has also been institutionalised by the 1999 Convention on the Protection of the Rhine. In the Elbe Basin, some NGOs and stakeholders from the upstream Czech Republic have participated in the information events of the International Commission for the Protection of the Elbe (ICPE). Their involvement has not reached, however, the level of systematic consultation. Therefore, the ICPE has, till now, informed interested environmental NGOs on its activities and plans, while the ICPR has during its history, organised public participation both on an information and a consultation level.

Across the country, there are similar experiences in the context of consultations within official planning procedures. It appears to be a general lesson learned that these procedures have been partly ineffective in terms of input through participation. This has been due to the fact that consultation only starts at a later stage of the plan formulation, allowing for few substantial changes on behalf of the interested public, stakeholders and NGOs.

There also appear to be similarities in the types of establishments used to co-ordinate the input and positions of several NGOs and stakeholders. For instance, it has been documented that the *Landesbüro für Naturschutzverbände* (LaN) in the *Länder* of North Rhine-Westphalia (NRW) (in the Rhine) and of Brandenburg (in the Elbe) have the same function. These establishments aim to co-ordinate the positions of NGOs in order to submit common input and comments to the authorities. The LaN in NRW was established much earlier than its counterpart in Brandenburg. Through its long-term persistence and expertise, the LaN in NRW has established itself as an expert in both planning and policy processes. This achievement also means that, apart from its role in formal procedures, the LaN in NRW is also informally invited to consult with the authorities.

Additionally, there are similar types of advisory boards to the environment ministries in different *Länder*. Examples documented in this report include the *Umweltbeirat* in the state of Brandenburg and the steering committee for the implementation of the WFD in NRW.

On the other hand, there appear also to be differences in the types of organisations which are of importance or hold key positions in public participation in different regions. For instance, the special role of the *Wasserverbände* (water management associations) in NRW in terms of participatory processes was highlighted. In NRW, these associations seem to play a critical role as a link between the public authorities, the general public and organised stakeholder groups.

Moreover, in view of the implementation of the Water Framework Directive, some *Länder* have followed a more pro-active approach in issues of public participation than others. For instance, NRW has been intensively occupied with the issue, and has published the first guideline document for public participation and the WFD in Germany, drafted by the sub-working group of the NRW's WFD steering

committee. This progress is linked to a quite favourable climate for public participation in NRW, which can partly be attributed to the political structure being dominated for a long time by a Social Democratic – Green coalition. Public participation in this state has long taken place by involving well established stakeholder groups and relying on them to reach out to the public. With the introduction of the WFD, these efforts are now being re-emphasised and structured. Many other *Länder* have still not considered the issue in depth, providing information only through flyers. It is obvious therefore that the level and intensity of public participation differs from *Land* to *Land*. Similarly in the Elbe Basin, Thuringia has been much more active and open with the public in the process of the WFD implementation, while other *Länder* (e.g. Sachsen and Brandenburg) have been less active until now.[95] Certainly, such differences should be closer examined in the context of financial and personnel capacities of the respective *Länder* administrations as well as their differing prior experience with participatory processes.

5.2 Discussion of Main Issues

5.2.1 Cultural Influences

There is generally a high awareness of the main environmental issues in Germany compared to the EU as a whole, Scandinavia and the Netherlands. Water quality issues in the past have in particular contributed to the awakening and development of environmental awareness, especially as a response to critical pollution incidents such as the chemical spill in the Rhine in 1986. On the one hand, environmental awareness, combined with a principally good trust of authorities to manage environmental issues, presents an encouraging prospect for increased public participation in water management issues. On the other hand, the overall willingness to participate on the part of the general public is fairly low, as this is usually entrusted to environmental NGOs or other organised stakeholder groups such as water management associations. Organised stakeholder groups have been able to develop good collaborative relationships with formal institutions based on increasing mutual trust.
The East-West Germany perspective has had a marked influence on public participation up to now. On the one hand, in the West, there has been a long tradition of public participation and participating groups are already fairly well established. However, due to the increasing number of new environmental regulations and initiatives requiring public participation, there is a danger that 'participation fatigue' might develop. On the other hand, the East German culture, as formed through the 40-year GDR regime, still shows its effects today via a pre-disposition of the public for low participation. However, the very lack of experience with public participation might also constitute an opportunity for motivating the general public in the former East to engage in participatory processes and practices more easily. The lack of established participating groups may also provide more scope for developing new and innovative initiatives.

5.2.2 Institutional Framework

The institutional framework system is complex with a large number of actors involved within both, the public and private sectors. Nevertheless, so far there has been good co-operation on general water management issues between the different governance levels, e.g. between the *Bund* and the *Länder*, and at the inter-*Länder* level. However, the administrative framework for water management is strongly shaped at the *Länder* level, and most major decisions are taken at local, regional and *Länder* levels. This presents a great challenge for the institutional framework with respect to co-ordinating integrated catchment management planning over *Länder* boundaries, for the purpose of RBM plan development including also the related public participation issues. Within the institutional framework for water

95 Ìnterview 1a.

management, public participation has until now been organised mainly at the *Länder* and local or regional level; for the former, regional authorities and, for the latter, municipal authorities have served as contact points.

In order to harmonise the transposition of the detailed provisions of the WFD into the law of the individual *Länder,* the LAWA has drafted a blueprint regulation (*Musterverordnung*) for the new *Länder* Water Acts as a guideline. While the *Länder* are not obliged to follow this example, it is in their interest to include the most important aspects, which can be expected to lead to similar legislative structures in all *Länder*. Furthermore the role of the international river commissions in promoting an integrated management of river basins should not be underestimated. Finally, the competent authorities for the implementation of the WFD at the regional level are equally obliged to co-operate with neighbouring states in the case of transboundary river basins.

Another marked feature of the water institutional framework in Germany is the existence and importance of associations. The involvement of the public has in some cases been in the hands of organised stakeholders which hold an important position in water management, such as water management associations.

In NRW, the role of water management associations (*Wasserverbände),* such as the *Wupperverband*, which historically have represented the main interest groups, has been described. Their experiences in consulting with stakeholder groups and reaching out to inform the public are already being used or are being considered for the public participation processes required by the WFD. These associations serve as an important link between the public (organised and general) and the authorities. The *Wasserverbände* are considerably more involved by the public authorities in the context of the recent developments of the WFD. The water and soil associations (*Wasser- und Bodenverbände*) hold similarly important positions in other Länder (including Niedersachsen, Schleswig-Holstein, Mecklenburg-Vorpommen).

All in all, organised stakeholder groups such as the water management associations, but also environmental NGOs and other types of organisations, fulfil several decisive roles in determining the outcome of participation processes in Germany. This is due to the fact that consultation procedures and active involvement initiatives are mostly geared towards these groups rather than the general public. Furthermore, organised groups are usually in a better position to follow these processes more consistently and over a longer period of time.

5.2.3 Scale

Administrative power is withheld within the different scales of governance, from federal, *Länder*, to regional and local[96]. Thus, water management and related public participation activities are essentially kept within the scale level. Within the German context, this is particularly reinforced by the federal structure of the country and the individual approaches of the federal states (*Länder).* There have been a number of institutions and initiatives aiming at activities across the *Länder* boundaries, but they have had varying degrees of effectiveness. For instance, in the case of the inter-state river basin committee for the Elbe (*Arbeitsgemeinschaft*-ARGE Elbe), not all former GDR *Länder* in the basin entered the basin committee after the re-unification in 1990. This made it difficult to implement plans in practice on a river basin level.

Within each scale level, there is generally good accessibility to authorities by actors such as NGOs to present issues of their concern. However, the higher up the level, the more organised the groups have to be in order to be effective, and the more difficult is the involvement of local and regional actors such as NGOs. For example, the ICPR is not seen as relevant at the local level, where usually only local groups and the general public are engaged on a practical or awareness-raising basis. As such, at the local level, the main actors are uncertain or unaware about the requirements of the WFD and do not have the broad

[96] For instance, the right to make decisions on key service matters is at the local authority level.

perspective of water management issues. Nevertheless, the public participation activities on the ground often encompass the basic requirements for RBMP described by the WFD.

5.2.4 Formal Processes

Participation in the context of formal planning and consultation procedures has been mainly restricted to organised stakeholder groups over the last few years. Moreover, participation in formal processes has only been a limited type of participation till now. This is due to the fact that plans are already advanced in their formulation before they are open to consultation. Consultation takes place at a late stage in the planning procedure, and therefore only a limited number of issues are open for discussion and modification on behalf of the interested stakeholders. This procedure has been characterised as ineffective and it is recommended that involvement starts as early as possible in future participation processes. Active involvement within planning development is unusual, and thus presents a major challenge to integrated catchment management planning.

Nevertheless, despite their limitations, formal consultation procedures have in some cases provided an access route to more balanced stakeholder input, including NGOs. There is increasing indication that because of positive experience made with co-operation of authorities and stakeholders in the context of formal processes, in some cases stakeholders are now being consulted in earlier phases of policy and planning processes, even informally before formal consultation. The example of the *Landesbüro für Naturschutzverbände* (LaN), a joint institution of NGOs, in North Rhine-Westphalia (NRW) has been quite illustrative in this context. Through persistence and proven expertise in the area of water management, the LaN was able to establish itself as sought-after experts, one of the major achievements being the direct input to a new framework legislation of NRW on stream re-structuring. Thus, the LaN was able to gain leverage even in policy processes, although this was not officially foreseen by the law.

The example of the LaN in NRW (and also in Brandenburg) also showed that co-ordination mechanisms are of great importance for water and river management activities. These mechanisms are effective in co-ordinating and bringing common positions of stakeholders to the authorities. This way, they have been able to provide a valuable input into formal processes; as already mentioned, thus there is now a tendency to consult the LaN before formal consultation, in an attempt to avoid unnecessary obstacles during the formal process. This shows a strong indication for future greater involvement in water management issues within this sort of involvement framework.

5.2.5 Informal Processes

Informal processes for participation in water management in Germany are relatively important.

Involvement of the general public at an awareness-raising level is carried out mainly through informal processes on the initiative of motivated actors such local environment authorities and within Local Agenda 21 processes. This has been exemplified by the case of the City of Karlsruhe in Baden Württemberg. In this case, in order to support the implementation of the LA 21 process, a working group was established which is supporting the local environment agency in their effort to re-naturalise a local river. One of the central goals of this working group is to increase the awareness of the citizens of the relevance of the river to the urban ecosystem (learn more about the river and its problems) and to make the citizens think how they themselves can get involved. In general, Local Agenda 21 appears to be important in supporting consideration of water management at the local level and for providing a framework for increased public participation.

NGOs are key actors involved in informal participation processes. They are also important because of the bottom-up pressure they exercise on authorities in order to initiate further participatory processes. They clearly serve a watchdog function, certainly some more than others, by monitoring the public authorities in implementing water management plans at the practical level, but also in their adherence to more general political programmes influencing the respective planning processes. This has led to a better, more thorough and consistent implementation of the regulations.

In some cases, informal processes have provided support to formal processes. It has been indicated in some of the interviews conducted that if stakeholders have a good working relationship on the informal level, participation in formal procedures is usually much more productive and also inclusive.[97]

5.2.6 Social Learning

In some cases where the interplay among the actors involved has taken place over a relatively long time, one can discern an increase in mutual trust and process transparency, such as in the example of the involvement of the LaN, the joint institution of NGOs, in NRW. Also at the international level, the Commission for the Protection of the Rhine (ICPR) has established trust through long-term interaction with key stakeholders in the river basin. Mutual trust and transparency are often considered important factors for raised efficiency of participatory processes as well as the better integration of all possible aspects and positions. This can be attributed to the heightened awareness of government officials of the specific concerns voiced by the groups, which can then be integrated in the decision-making and planning processes at an earlier stage. Moreover, increased trust and transparency has resulted in some stakeholder groups being increasingly considered as advisors, and thereby more regularly consulted on certain issues, sometimes even involved in the drafting of political guidelines. However, this cannot be generally said, for all stakeholders groups and has not necessarily been reached to the same degree throughout Germany.

Organised stakeholder groups have been key actors in issues of social learning, as they have played a vital role in mobilising and reaching out to the general public through several campaigns. Since these groups usually have better access to the general public than government officials, their campaigns have been more efficient. Through their activities on a more local level, they were able to effect changes in the awareness of the general public. In some cases, this has also led to a better understanding of the issues related to water management, as well as decisions made by government authorities.

Additionally, through the information accumulated by organised stakeholder groups, a deeper understanding of sometimes complex matters, as for example those related to the WFD, has been reached by the stakeholders themselves. The stakeholders groups have then been able to make more valuable contributions in participation processes, thus contributing to the overall success of certain policies.

Authorities are likewise undergoing a process of social learning, in that in some cases they are increasingly recognising the value of participation with key actors such as NGOs at an early stage. There has been a development of mutual respect and acceptance that common goals can be achieved through working on common issues with more of the main affected or interested parties.

Certain activities, such as that of the ‘Living Elbe’ (networking in the basin and education programme ‘Schools for a living Elbe’) and of water management associations, have aimed at helping the public to get to know their waters and develop a relationship with them. These initiatives create a framework for involvement based on changing the fundamental relationship of the public with their river basin, and consequently their concept of their role within the basin. Subsequent public participation activities can then build upon these learning processes of improved awareness and identification with the basin, by drawing on identified key actors within basins and sub-basins.

An issue of relevance to social learning is also the set of conditions leading to involvement initiatives. It appears that interest on behalf of the general public in issues of river management has to a great extent depended on ‘shock events’ such as the pollution events in the Rhine. The threat therein lies in that the general public may not be largely interested in participation in cases where there is a lack of ‘shock events’. The key to a more proactive participation could be early education and awareness programmes on issues of importance which may not be yet perceived as urgent, such as river structural quality.

---

97 Interview 2g.

The latter is linked to the issues of maintaining the motivation of the public to participate, and thereby creating involvement dynamics which are sustainable. Effective engagement processes should maintain motivation and opportunities for collaboration throughout. Consideration of social learning outcomes within processes for planning could be useful to aid long term involvement. The emerging Local Agenda 21 activities are definitely structures which can facilitate social learning and engagement within Germany to reach sustainable involvement dynamics in the future.

6 Conclusions

6.1 The National Approach to PP and the WFD

The requirements for public participation, as stipulated in the WFD and specified in the CIS guidance document on public participation, are being met to different degrees by the various approaches undertaken to involve the public in river basin management decision-making in the river basins outlined in this report.

Although there might be a general difficulty in assessing the direct effects of public participation efforts and initiatives on the ground, it has been observed that since the entry into force of the WFD, many new involvement processes have been initiated at all levels of river basin management. So far, there has generally been a strong focus on informing the general public and raising awareness. Further collaboration has been undertaken with the organised public. This shows promising signs that there is motivation to collaborate towards developing workable river basin management plans. Nevertheless, there are a number of significant administrative, political, and practical issues which need to be addressed before effective involvement of all affected stakeholders can reach its full potential.

Beyond formalised participation mechanisms as institutionalised by law, there have only been very few instances where the public was actively involved in the development of plans to the extent required by the WFD. In this respect, considerable improvements can still be achieved considering the upcoming challenges within the implementation process of the WFD in the next years.

As the EU WFD and the relevant CIS guidance documents do not reflect the situation within individual Member States, including Germany, the LAWA has developed national guidelines on the WFD provisions for the competent authorities within each *Land*. However, it needs to be pointed out that due to the political structure of the country and the emphasis on the autonomy of the Länder, the national guidelines document does not provide detailed provisions with respect to public participation. Consequently, the *Länder* have been given room to interpret the CIS guidance and the LAWA guidance directly to inform their own state strategy on public participation. In this context, there are significant differences in the regional approaches taken by individual Länder. The 16 *Länder* implement the WFD, including the public participation requirements, setting their own emphasis and priorities. In some Länder, the support of and (technical) discussions with different stakeholder groups representing also other policy fields is actively sought after. In the example of NRW, there have been successful attempts to develop specific detailed guidance on this aspect of RBM planning. Other *Länder* have not gone yet beyond presentation and information in electronic and printed media following a reactive rather than proactive approach. Reasons for such differences can be sought in the administrative and financial capacities of water administrations in the different *Länder*, their priorities as well as their prior experience with participatory processes for water and river management issues.

On the issue of resource allocation, participation will require considerable resources both from the state, and especially from NGOs and environmental organisations. Neither the WFD nor the CIS guidance gives any specific indication as to how best to provide and allocate resources to support participation activities leading towards development of the RBM Plans. Insufficient resources may appear as a major factor hampering an effective involvement of the public in implementing the Directive.

To conclude, it is not possible or appropriate to speak of a uniform/consistent German national approach to public participation in terms of the WFD implementation. This report has shown that there is a lot of *Länder*–internal activity in the direction of public participation, also initiated prior to the WFD, but the co-ordination beyond *Länder* borders remains a big challenge for the purpose of integrated river basin management planning. In the context of more general institutional changes of German water and river basin planning due to the WFD, some positive steps have also been made towards the co-ordination of participatory processes among *Länder* sharing a basin. An example is the recent set-up of regional fora as platforms for exchange of information and consultation on the WFD implementation, also involving stakeholders from neighbouring *Länder* when issues of 'transboundary' nature are at stake. Although such steps are encouraging and indicate the will for co-operation, the search for appropriate models and scales to co-ordinate public participation tasks is only at the beginning.

6.2 Main Lessons Learned

The HarmoniCOP German national report on public participation in river basin management is based on the analysis of two of the major river basins in the country, the River Rhine in western Germany and the River Elbe in eastern Germany. The report aimed to explore the underlying issues with respect to public participation, arising from differing administrative structures, cultural backgrounds and the natural conditions of the different regions. Information has been gathered through literature-based research, complemented by interviews with selected key stakeholders within the two river basins. This final section summarises the main lessons learnt on the national approach to public participation to date.
Relatively high environmental awareness, combined with an in principle good trust of authorities to manage environmental issues, presents an encouraging prospect for increased public participation in water management issues. On the other hand, the overall willingness to participate on the part of the general public is fairly low, as this is usually entrusted to environmental NGOs or other organised stakeholder groups, such as water management associations. Additionally with respect to culture, the East-West Germany perspective has had a marked influence on public participation up to now, which was also partly obvious in our findings from the two examined river basins.
With regard to the institutional and administrative framework of water management in Germany, this is strongly shaped according to the federal structure of the country into *Länder*. This is bound to present a great challenge for co-ordinating integrated catchment management planning over *Länder* boundaries, and the related public participation processes according to the WFD. Related public participation activities have also essentially been kept within the distinct administrative levels and have been organised mainly at the regional and local level. The lack of interaction between levels so far poses a challenge in view of the WFD requirements, with respect to management issues following natural boundaries, such as the river basin. It was revealed that at the local level, the main actors are uncertain or unaware about the requirements of the WFD and do not have the broad perspective of water management issues. Nevertheless, the public participation activities on the ground often encompass the basic requirements for RBMP described by the WFD.
Concerning the type of public involved, participation has largely been influenced by the involvement and own activities of organised stakeholder groups. The involvement of the public has in some cases been in the hands of organised stakeholders which hold an important position in water management, such as water management associations.
Formal consultation procedures have been mostly geared towards organised groups rather than the general public. In most cases, experience with formal consultation and planning processes has shown that these have been ineffective and have offered space for only limited type of participation till now. Consultation takes place at a late stage in the planning procedure, and therefore only a limited number of issues are open for discussion and modification on behalf of the interested stakeholders. Apart from consultation, active involvement within planning development is unusual and thus presents a major

challenge to integrated catchment management planning. Nevertheless, despite their limitations, formal consultation procedures have in some cases provided an access route to more balanced stakeholder input, including NGOs.

Informal participatory processes initiated by the authorities have been important. For instance, of involvement of the general public has happened mainly at an awareness-raising level on the local level based on the initiative of motivated actors such as local environment authorities and within Local Agenda 21 processes.

Regarding social learning, this has not been explicitly considered or included in the participation strategies so far. However, indications for social learning taking place are obvious in some cases. For instance, in certain long-term processes of interplay among organised stakeholders and authorities, an increase in mutual trust and process transparency was expressed with officials becoming aware of the specific concerns voiced by stakeholder groups. This increase in trust has allowed for more dialogue and interaction to be integrated in the decision-making and planning processes at an earlier stage. Still this could only be observed in specific examples and cannot be claimed at the national level.

In terms of specific IC tools used in participation processes, apparently emphasis has been placed on (one-way) information activities including written material and internet presence. The limitations of such tools are recognised as well as the fact that assessment procedures for the actual effectiveness of information and communication instruments should be developed. More tangible experiences of information about the river basin (e.g. through trips) have been in certain cases used and are considered to be quite effective tools to stimulate involvement of citizens. The WFD has also already provided the incentive for the set-up of regional forums and advisory boards, which are organised by the regional authorities with the intention to proceed beyond the level of public information. Also, advisory boards existing long before the introduction of the WFD are being used in this respect.

All in all, it has been observed that the WFD, since its entry into force, has served as an incentive to initiate several new involvement processes at all levels of the river basin. This shows promising signs that there is motivation to collaborate towards developing workable river basin management plans. Nevertheless, there are still a number of administrative, political and practical issues which need to be addressed before effective involvement of all affected stakeholders can reach its full potential. These include the challenge of a co-ordinated basin-wide approach to participation and integrated catchment management planning beyond *Länder* borders, as well as the issue of resource capacity of parties to be involved in the participation processes (authorities, NGOs and other organised stakeholders, general public).

7 Acknowledgements

The authors would like to address special thanks to the European Commission for providing funds for this research, all interview partners who have generously offered their time and knowledge for the interviews as well as the International Commission for the Protection of the Elbe for providing results of their questionnaire on public participation activities in the Elbe Basin *Länder*. We would like to thank Natasha Madeira for her inspiring input to the report during her internship with Ecologic as well as Antje Vorwerk for her support in contacting interviews and collecting relevant literature material. We would also like to thank the Berlin Centre of Competence for Water (KompetenzZentrum Wasser Berlin) for funding our research project on public participation in the Havel subbasin which has served as a source of valuable information also for this report. Finally, we warmly thank all colleagues from partner organisations in the HarmoniCOP project who have provided their comments and feedback to the several drafts of the German national report as well as Dr. Heide Jekel (Federal Ministry of the Environment) for commenting on the final draft.

8 Glossary and Definitions

Allgemeines Landrecht	General Land Law in 18th Century
Arbeitsgemeinschaft Elbe **ARGE Elbe**	The river basin inter-state committee set up for the Elbe. Inter-state basin committees produce action plans and programmes, designed to give guidance to water state authorities.
Baden-Württemberg	Federal state
Bavaria	Federal state (Bayern)
Bewirtschaftungsplan	This is the term for water management plans which should be prepared for each river basin district according to the 7th amendment of the Federal Water Act of 2002 transposing the WFD. In earlier versions of the Federal Water Act, the term *Bewirtschaftungsplan* referred to the water management plans which were prepared for a specific water body or parts of it. This mainly involved water development plans and water maintenance plans.
Bund	Federation of the German Länder (Federal Republic)
Bund für Umwelt und Naturschutz Deutschland	German environmental and nature protection NGO
Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit (BMU)	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
Bundesrat	Second federal chamber representing the *Länder*
Bundestag	Federal Parliament
Bürgerinitiativen	Local citizen initiatives
Entwässerungsplan	Land use and drainage plan
Federal Nature Protection Act	National Legislation on nature protection and landscape conservation, last amendment in March 2002
Formal processes	Participative process foreseen by legislation, such as in planning procedures or environmental impact assessment
Gastarbeiter	Migrant (or Guest) workers in Germany, were brought to Germany mainly from the 1950s, considerably contributing to recent German economic development
General public	Unorganised members of the public, as opposed to organised stakeholders. The definition adopted in the HarmoniCOP inception report (Mostert, 2003) has been used
Gesellschaft für Natur und Umwelt	Society for nature and protection of the *Kulturbund* of the German Democratic Republic (GDR). It was the nature protection organisation of the GDR which was accepted by the state
Hesse	Federal state (Hessen)
Internationale Arbeitsgemeinschaft der Wasserwerke im Rheineinzugsgebiet	International working Group of water works in the Rhine Basin – collaborative pressure and lobby group of water utilities in Germany and the Netherlands
Informal processes	Participative process not formally regulated by law
Kaiserreich	German Emperor-governed monarchy which came to an end after World War I, when the Weimar Republic was created

Kulturbund	This organisation, the so-called cultural union, of the German Democratic Republic (GDR) was accepted by the state
Land	Individual federal state
Länder	Federal states
Länderarbeitsgemeinschaft Wasser	*Länderarbeitsgemeinschaft Wasser* (LAWA) is the Federal Working Group on Water Issues. It was established as a joint working group by the supreme water authorities of the *Länder* to achieve inter-governmental co-operation on waters which cross borders of *Länder*. The purpose of the LAWA is to harmonise *Länder* water law, to discuss matters of common interest and to prepare joint reports on water issues.
Landsmannschaften	Historical German tribes
Landesbüro der Naturschutzverbände	This is a State Office of Nature Protection Groups which has been set up in a few states. Such an office serves to co-ordinate the efforts of the represented organisations, when it comes to activities related to formal participation procedures, such as planning procedures for public works.
Lower Saxony	Federal state (Niedersachsen)
Municipality	Government authority at the municipal level within a *Land*
Naturschutzbund Deutschland e.V.	Environmental NGO
North Rhine-Westphalia	Federal state (Nordrhein-Westfalen)
Planfeststellungsverfahren	Planning procedures for public works
Rhineland-Palatinate	Federal state (Rheinland-Pfalz)
Ruhrgebiet area	Industrial zone in the federal state of Northrhine-Westphalia
(Organised) Stakeholder	Any person, group or organisation with an interest or "stake" in an issue, either because they will be affected or because they may have some influence on its outcome. Stakeholders may include other government bodies. The term "organised stakeholders" is reserved for well-organised and active groups and organisations, thus excluding the *general public*.
Verbandsklage (Association actions)	The association actions is strategy, which has not been followed intensively by environmental organisations, is the access to processes via courts.
Verwaltungsverfahrensgesetz	Law regulating administrative procedures (VwfG)
Umweltbeirat	Environmental advisory committee, in the state of Brandenburg, voluntarily established to advise the Environment Minister of the *Land* on environmental issues. It consists of environmental NGOs, farmer associations, industry, and trade associations.
Wasserhaushaltsgesetz (WHG)	Federal Water Act providing the general legal framework for *Länder* legislation
Wasserverbände (Water management associations)	These water management associations are non-governmental, not-for-profit associations carrying out water management tasks on behalf of the public authorities. These associations are usually formed for the management of a specific water body, water supply and wastewater treatment. They feature delegates from many different private user groups, such as industry and farmers.
Wasserwirtschaftlicher Rahmenplan	The water management framework plan is one of the water

	planning instruments which have been revoked by the latest (7th) amendment of the Federal Water Act transposing the WFD. The water management framework plan was to be prepared for river basins and urban areas, or parts of them.
Wasserwirtschaftsdirektionen	*Wasserwirtschaftsdirektionen* are the Water Management Directorates of the former German Democratic Republic (GDR) which were created in 1958 according to river basins.

9 List of References

Baumgart, H.C., Sperling, F. and J. Stemplewski (2003). River basin management, described for the example of the Emschergenossenschaft, Water Science & Technology, Vol. 47 (7-8), 141-147.

Behrens H, Benkert U, Hopfmann J and Maechler U (1993). Wurzeln der Umweltbewegung: Die Gesellschaft für Natur und Umwelt (GNU) im Kulturbund der DDR. Forum Wissenschaft, Studien Bd. 18, BdWi-Verlag, Marburg.

Bender M (2002). Die EU WRRL aus Sicht der Umweltverbände. In: NNA-Berichte: Fachtagung WRRL und Naturschutz. 15. Jahrgang/2002, Heft 2. Alfred Toepfer Akademie für Naturschutz, Schneverdingen.

Betlem I. (1998). River basin planning and management. In Correia F. N. (ed) Selected issues in water resources management in Europe. Volume 2. A.A.Balkema: Rotterdam.

Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit (BMU) (2001a). Water resources management in Germany, Part 1: Fundamentals, Bonn: BMU.

Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit (BMU) (2001b). Water resources management in Germany, Part 2: Quality of inland surface waters, Bonn: BMU.

Dörfler, E. P. (2003). Netzwerk "Lebendige Elbe": Anregungen und Erfahrungen aus einem bestehenden Flussnetzwerk, in Summary of presentations and workshops of the Spree Conference, 26 November 2002, Deutsche Umwelt Hilfe: Berlin.

Ell M (2003). Wasserrechtliche Planung. Die rechtliche und organisatorische Umsetzung der EG-Wasserrahmenrichtlinie. Lüneburger Schriften zum Umwelt und Energierrecht. Nomos, Baden-Baden.

Erbe, Michael (2000). Der Rhein als Nationalsymbol, Der Bürger im Staat, vol. 50 (2), 71-75

Fichter, H. (2003). Von Naturraum zum politischen Handlungsraum, in Moss, T. (Hg.), Das Flussgebiet als Handlungsraum, Institut für Regionalentwicklung und Strukturplanung/IRS, Berlin

Fisahn, A. (2002). Demokratie und Öffentlichkeitsbeteiligung, Mohr Siebeck, Tübingen

Heffter, H. (1996). Die deutsche Selbstverwaltung im 19. Jahrhundert, Stuttgart.

Interwies, E., Pielen, B. and Herbke, N. (2003). Analysis of the legislation and emerging regulation at the EU country level: Country report Germany, Working paper, Draft version of November 2003.

Kahl, W., Voßkuhle A. (1998). Grundkurs Umweltrecht, Spektrum, Heidelberg, Berlin.

Kappler A et al., (1996). Facts about Germany, Societäts-Verlag, Frankfurt/M.

Kehl, C. (2003). Gewässerrandstreifenprojekt Spreewald – Konfliktpotentiale und Kooperationsmöglichkeiten in einem Naturschutzgrossprojekt, in Summary of presentations and workshops of the Spree Conference, 26 November 2002, Deutsche Umwelt Hilfe, Berlin.

Kerner, I., Maissen, T., Radek D. (1987). Der Rhein- Die Vergiftung geht weiter, Rowohlt, Hamburg

Kraemer, R. Andreas & Eleftheria Kampa (2003). The Rhine – A history and a model in regime development. In: Maia, R., Vlachos, E. (Eds.): Implementing transboundary river conventions, Lisbon: Luso-American Development Foundation, 157-179.

Kraemer, R. A. & F. Jäger (1998). Germany. In: Nunes Correia F. (ed) Institutions for Water Resources Management in Europe.Vol.1. Balkema, Rotterdam.

Kraemer, R. A., Piotrowski, R., Hohmann M., Bär S., (1998). From Source to Sea? Approaches to River Basin Management in Germany, Contribution to the research project „Water 21: Toward Sustainable European Water Management“, Berlin: Ecologic).

Kraemer, R.A. (1995). Economic instruments and river basin institutions in Germany. Seminaire: Les Constraintes de la Politique de l'Eau dans l'Union Europeénne, Comité National Francais de la CCI & Agence de l'Eau Seine-Normandie, Paris, 15 March 1995, unpublished paper.

Kranz N., Vorwerk A.., Kampa E. and Hansen W. (2004). Beteiligung der Öffentlichkeit im Koordinierungsraum Havel, Berlin, Ecologic.

Kuckartz, U. und Grunenberg, H.(2002). Umweltbewusstsein in Deutschland, Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit.

Kumpfer, W. (2003). Anforderungen an die Öffentlichkeitsbeteiligung in der Strategischen Umweltprüfung – Europäische Zielsetzung und Umsetzung in Deutschland, in UVP report: Sonderheft UVP-Kongress 12.-14. Juni 2002 Hannover, S. 90-96.

LAWA (2001). Gewässerstrukturgütekartierung in der Bundesrepublik Deutschland, Verfahren für kleine und mittelgroße Fließgewässer, Worms, LAWA.

LAWA (1997). Die Beschaffenheit der großen Fließgewässer Deutschlands, Worms, LAWA.

Moss, T. (2001) Solving problems of fit at the expense of problems of 'interplay'? The Spatial Reorganisation of Water Management following the EU Water Framework Directive (draft), Institute for Regional Development and Structural Planning, Erkner, Available online: www.irs-net.de/workpaper3.htm (10.07.2003).

Moss, T. (2003). Induzierten Institutionen ‚von oben' und die Anpassungsfähigkeit regionaler Institutionen. Zur Umsetzung der EU-Wasserrahmenrichtlinie in Deutshland, in Moss, T. (Hg.), Das Flussgebiet als Handlungsraum, Institut für Regionalentwicklung und Strukturplanung/IRS, Berlin

Mostert, E. (2003). Public Participation and the EU Water Framework Directive: A framework for Analysis, Inception report of the HarmoniCOP project, RBA, Delft.

Muro M (2002). Zur Wirksamkeit der Öffentlichkeitsbeteiligung von wasserwirtschaftlichen Planungen in Deutschland. Diplomarbeit im Studiengang Landschaftsplanung. Technische Universität, Berlin.

Ormond, T. (1991). Environmental Group Action in West Germany in Participation and Litigation Rights of Environmental Associations in Europe, Führ, M., Roller,G. (Ed.) Peter Lang, Frankfurt am Main.

Rüdig, W. and R. A. Kraemer (1994). Networks of cooperation: Water policy in Germany, Environmental Politics, Vol. 3 (4), 52-79.

Rürup, R. (1992). Deutschland im 19. Jahrhundert, Göttingen.

Schleswig-Holsteinischer Landtag, 15. Wahlperiode, Bericht der Landesregierung. Drucksache 15/1645. Umsetzung der WRRL in Schleswig-Holstein.

Schmalholz, M. (2001). Die EU-WRRL – "Der Schweizer Käse" im europäischen Gewässerschutz?, Zeitschrift für Wasserrecht – ZfW 2001, p. 69.

Teclaff, L.A. (1967). The river basin in history and law, Nijoff, The Hague.

Thüringen Ministry for Agriculture, Nature Protection and Environment (2001). 2nd Information broschure on the EU WFD 2000/60/EC, July 2001.

Umweltbundesamt and Statistisches Bundesamt (1995). Environmental Data Germany. Hagedorn, Berlin.

Wesel, U. (1997). Die Geschichte des Rechts.

Wood, P.C. (1999). German Policy Response to an Environmental Crisis: The Case of the Former East Germany, in Soden D.L. and Steel B.S., Handbook of Global Environmental Policy and Administration, Dekker, New York

Wotke, A. (2003). Vorstellungen über ein Netzwerk aus Sicht der Deutschen Umwelthilfe, in Summary of presentations and workshops of the Spree Conference, 26 November 2002, Deutsche Umwelt Hilfe: Berlin.

WRc/Ecologic (Eds.) (2002), Study on the Application of the Competition Rules to the Water Sector in the European Community, Study (Contract No. Comp/2002/E3/SI2.334052) prepared by WRc and Ecologic for the European Commission – Competition Directorate General (Main Authors: S. Gordon-Walker, S. Marr).

Wupperverband (2002). GIS – Innovative Ansätze und praktische Umsetzung, Wuppertal

10 List of Interviews

The authors would like to extend their thanks to all interviewees for dedicating their time to contribute to this report.

Interview 1a Michael Bender, representative of the environmental group Grüne Liga, 26 June 2003 in Berlin.

Interview 1b Dr. Herbert Dunkel and Mr. Troschke, representatives of the State Ministry of Brandenburg for Agriculture, Environment and Spatial Planning, Dept. on Water Management and Water Protection, 11 July 2003 in Potsdam.

Interview 1c Winfried Lücking, representative of the environmental group BUND, Berlin, 29 October 2003 in Berlin.

Interview 2a Dr. Anne Schulte-Wülwer-Leidig, Vice Executive Director, International Commission for the Protection of the Rhine, 16 July 2003 in Bonn.

Interview 2b Dr. Ulla Necker, Chair of the Working Group on Public Participation in Northrhine-Westphalia, 17 July 2003 in Dusseldorf.

Interview 2c Monika Ebers, Responsible for Corporate Communications and Public Outreach at the Wupperverband, 17 July 2003 in Wuppertal.

Interview 2d Sabine Hänel, Legal Associate at the Landesbüro der Naturschutzverbände, 17 July 2003 in Oberhausen.

Interview 2e Dr. Hahn, Local Environment Authority (Umweltamt), City of Karlsruhe, 26 August 2003 in Saarbrücken

Interview 2f Dr. Rätz, Gemeinde- und Städtebund, Rhineland-Palatinate, 27 August 2003 in Mainz

Interview 2g Nik Geiler, Association of Citizens' Initiatives for the Environment, Working Group Water, BBU, AK Wasser, 9 September 2003 in Berlin