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Integrated  
**river basin**  
Management  
*From Concepts to Good Practice*

**Briefing Note 12**

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Stakeholder Partnerships,  
Participation, and Funding

## Stakeholder Partnerships, Participation, and Funding

This note is one in a series explaining the attributes and practical application of integrated river basin management. The purpose of the briefing note series and the issues and aspects that are covered are outlined in the mini-guide.

This note discusses:

- The importance of developing strong stakeholder participation and partnerships
- How such participation can be achieved at various organizational levels
- Funding mechanisms for participation



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## Introduction

Developing and implementing a form of stakeholder involvement and participation appropriate to the social and political characteristics of a country (or number of countries) is an aspect of integrated river basin management that should be given high prominence.

The views of the direct stakeholders and the community in general can no longer be ignored. This probably should never have been the case, but traditionally, river basin planning professionals – the engineers, planners, economists, geographers, and others – undertook multi-objective planning and developed basin *master water plans* in accordance with strict or specific government guidelines. This approach did not benefit from the rich and diverse knowledge in terms of local community know-how regarding usage and reliance on the natural resources, emerging trends apparent at the local level, and local aspirations for future resource development and use.

Most river basin organizations are therefore now seeking ways to involve communities better. This is often proving difficult. First, many of the technicians, planners,

and bureaucrats find it difficult to develop appropriate approaches and processes and to manage such non-technical procedures, since they have no experience with such tasks. In addition, it is still largely perceived that the technical people know best and time spent consulting with groups that lack professional/technical knowledge simply delays good planning and may create pressures to alter plans.

Compounding the problem is the fact that most local communities and farmer groups in developing countries – and some in the developed countries – have not had the chance to acquire knowledge and understand the broad issues and problems affecting the natural resources of a basin. There may be good understanding of the issues at the local village level, but when the debate is expanded at the catchment or sub-basin level, it becomes very difficult for stakeholder groups to contribute meaningfully.

Other interest or lobby groups are also stakeholders, and the basin planners and managers must also develop appropriate forms of interaction for all these various groups.



These circumstances highlight a number of issues:

- River basin planners and managers need to develop new approaches and become better trained in the aspects of community involvement and participation – not just token versions for improving community awareness.
- The stakeholder involvement processes must then be carefully followed. There must be open and transparent auditing and reporting on the implementation process.
- In time, the basin community should also be involved in the debate on how the financial resources are raised for the program of integrated river basin planning and management since the community will likely be charged fees to support these programs.
- The community at all levels – direct stakeholder and user groups, special interest or lobby groups, cities, towns, villages, schools, and all other groups with a perceived interest – need to be made more aware of the natural resource issues affecting the river basin. This process should occur through a carefully structured community awareness and education program.
- Once the awareness of the natural resource problems

facing a river basin has been raised, ownership, empowerment, and participation then become relevant.

*Subsidiarity* and *decentralization* are important aspects in the promotion of participation and in ensuring its success. The subsidiarity principle is intended to ensure that decisions are taken as closely as possible to the citizen and that constant checks are made as to whether action at the community level is optimal and justified in the light of the possibilities available at the national, regional, or local level. The river basin organization (RBO) should therefore play a facilitative, coordinating role but leave many actions to other lower and more appropriate levels. For example, regional offices and centers should be assigned tasks and empowered with the resources to carry them out and community participation should occur at the sub-basin level – or perhaps even lower levels.

The first three points regarding ensuring proper stakeholder participation are dealt with in this Briefing Note. Note 13 addresses the last point: raising the awareness of the basin community with regard to natural resource issues.

## When Is Stakeholder Input Needed?

Partnerships between the basin managers and the community need to be developed at various levels. Stakeholder input at the executive level of a basin organization should occur, or at the top level of the water resources agency (in some cases, both may be appropriate). This input may be through a formal agreement where the stakeholders form part of the executive decision-making process, or of an informal high-level advisory nature, which is openly processed and managed by the organization.

Input can be obtained from the community as low as the sub-catchment level. This is arguably one of the reasons why some RBOs are more successful than others.

### Top-level Stakeholder Participation

It is not easy to change long-established administrative and political processes to incorporate a greater level of stakeholder participation in the decision-making process for integrated river basin planning and management. This is even more difficult in developing countries, where traditional processes have tended to follow the *command and control* model of management. It is therefore not surprising to find that the cases where the community has a major role in river basin management are in the developed countries and in those countries that have a long history in river basin management. This note describes the scenarios in Spain, France, and Australia. Canada, the United Kingdom, the United States, some members of the European Union such as the Netherlands, and more recently, Mexico all provide relevant examples.

### Spain

Spain has a long history of integrated water resources and river basin management due to its strong system of central/regional government, which has existed for hundreds of years. This is reflected in a very mature water management structure attuned to European climatic conditions.

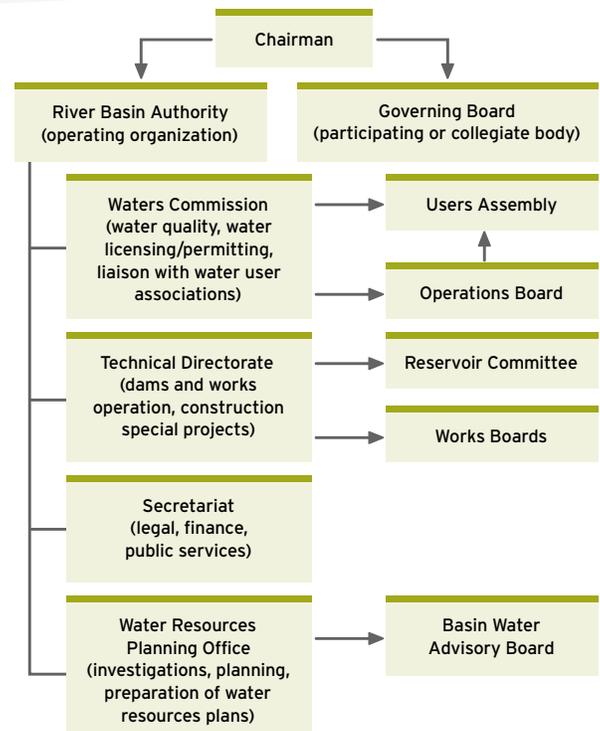
Broad national water policy and planning is undertaken by central government, while operations and management has been decentralized to a series of autonomous regions. Because most river basins in Spain cover more than one region, planning and management at the river basin level is carried out by the Hydrographic Confederations or River Basin Authorities, as mandated by the National Water Act. These bodies act like “water parliaments” with a senior-level Board of Management or basin committee. Under them, the technical groups develop the project plans to implement the policy and strategy decisions of the Board of Management.

Close watch is kept through a very strong stakeholder participatory framework. Stakeholders have significant input into the work of the basin authorities.

The basin authorities basically have two arms: an executive or operating arm, and an advisory or participating arm. One chairman presides over both (see figure 12.1).

figure 12.1

### RIVER BASIN AUTHORITIES IN SPAIN



The governing board operates like a management board (or commissioners of the Authority) and sets policy, formulates budgets, and oversees plans. Although the Chairman is the head of both the executive and advisory arms, the Board does not get involved in the affairs of the executive arm. The Board membership comprises state and regional representatives, members from the executive arm, and water user and community representatives.

The Operations Board, the Works Board, and the Reservoir Committee are appointed by the Users Assembly. They directly assist the Technical Agency, but in an advisory capacity, in the day-to-day operations and decisions within their charter. The Basin Water Advisory Board is more involved in the long-term planning and introduces critical stakeholder perspectives into the water planning studies.

Any disputes are first raised through the appropriate board. If not resolved, the matter would then go to the governing board for consideration. In the event that there are disputes between basin authorities that cannot be resolved by debate and consensus, the matter is referred to the National Water Council. The Minister in charge makes the final decision. Such an occurrence is however rare, as the participative mechanisms at the various levels have been very effective for dispute resolution.

The first formal Water Act was adopted in 1879 and remained the fundamental water law of the land for the next 106 years. The current legislative framework for water quantity and quality management is the Water Act (1985), with numerous subsequent amendments. It allows for integrated management of the quantity and quality aspects. This Act also makes provisions for the establishment of river basin authorities and assigns power and functions to them; these provisions previously existed in a specific Hydrographic Confederations Act (1926). A series of government decrees, regulations, or policy statements either give greater meaning to parts of the Act or provide the policy framework upon which the Act can be interpreted and implemented. The Act also includes the provisions for raising funds through user

charges and for setting the level of capital funds that may be provided by the central and provincial governments to match local funds. The ratio of the various funds depends on the type of the project. For example, if it is more significant regionally and/or nationally, the central government would likely provide a higher proportion of funds.

Stakeholder participation is strongly mandated by the provisions within the Hydrographic Confederations Act and later, by changes provided in the Water Act. A Users Assembly must be established. The composition of the membership is defined by the legal provisions. Some of the assembly members form part of the upper-level Governing Board, together with selected technical experts and other appointments that may be made by the regional or national governments. Other advisory groups may be established by the stakeholder participation arm (the Assembly) or by the technical arm (the Basin Authority). These must be ratified by the Governing Board to take account of program priorities and budget commitments and limitations. Overall, the basin arrangements and the degree and nature of stakeholder participation are very strongly supported and empowered by the provisions in the two Acts.

Four fundamental aspects form the basis for integrated river basin management in Spain. These are typical for the industrialized countries where good integrated river basin management (IRBM) occurs.

- The functional unity of water management— that is, the need for integration across all aspects of water resources management
- Treating the river basin as the unit for water planning and management to achieve the best regional economic and social development
- The incorporation of water users in water planning, development, management, investment, and administration through representation in the governing board of the basin organization
- The decentralization of authority to the basin and local water organizations, according to their competency. ➤

In this way, water users have been involved in the planning, construction, and management of water projects and natural resource protection. This occurrence has improved sustainable river basin management throughout the country.

## France

The French example presents a very strong model of stakeholder participation and effective funding mechanisms. It allows for participation at the highest levels as well as at the sub-basin level; however, it does not intrude into the lower operational levels, which rest with the city and town mayors.

The administrative systems of France have been in existence for over 100 years. The country is divided into approximately 36,500 towns or communes, 95 Departments, and 22 regions. Each town, irrespective of size – ranging from Paris to villages of about 20 people – elects a council and a mayor, who are jointly responsible for civil administration of the area. In the past, they decided what drinking water supply and sewerage projects were to be implemented and collected the taxes necessary to finance them. With such a localized system of management, basin-wide issues were seldom taken into account. Consequently, water pollution, misallocation of increasingly scarce water resources, and resource degradation problems began to occur.

In the 1960s, a new Water Act was passed. A complementary system of river basin management was set up. A series of river basin committees and basin agencies provide planning guidelines and a strong water resources policy and financial management framework, with which the various administrations must comply.

The new Act was based on three principles, fundamental to good integrated river basin management:

- Recognition of the increasing interdependence among water users and the need for participation to encourage stakeholders to minimize pollutants, follow efficient water use methods, and collectively plan for the future
- Recognition of water as an economic good (with associ-

ated costs) by all stakeholders such that there must be an appropriate charging or tariff structure for water use and water discharge

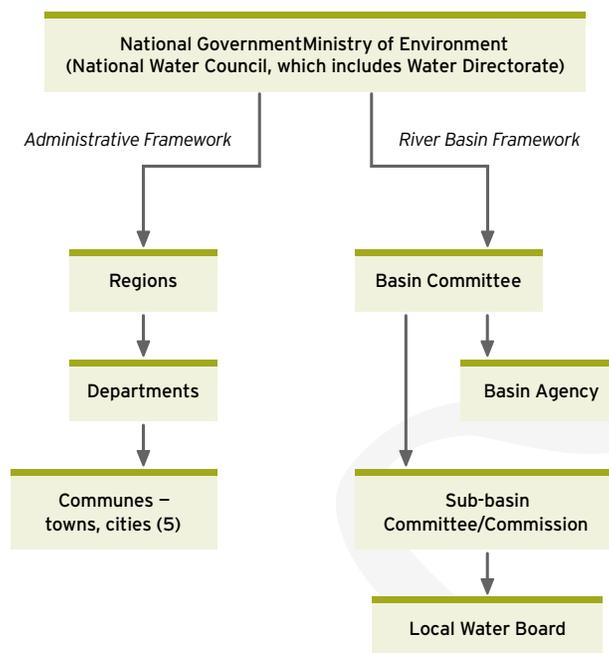
- Recognition of water resources (groundwater and surface water) as a single resource. Long-term planning for both water quantity and quality must be done taking all basin-wide uses into account, not just those at the local administrative level.

Most importantly, the Act introduced a process whereby charges can be set and collected to cover the costs of any investments for improved basin management, such as the creation of the Basin Committees and the related water agencies. This aspect is discussed later in this Briefing Note.

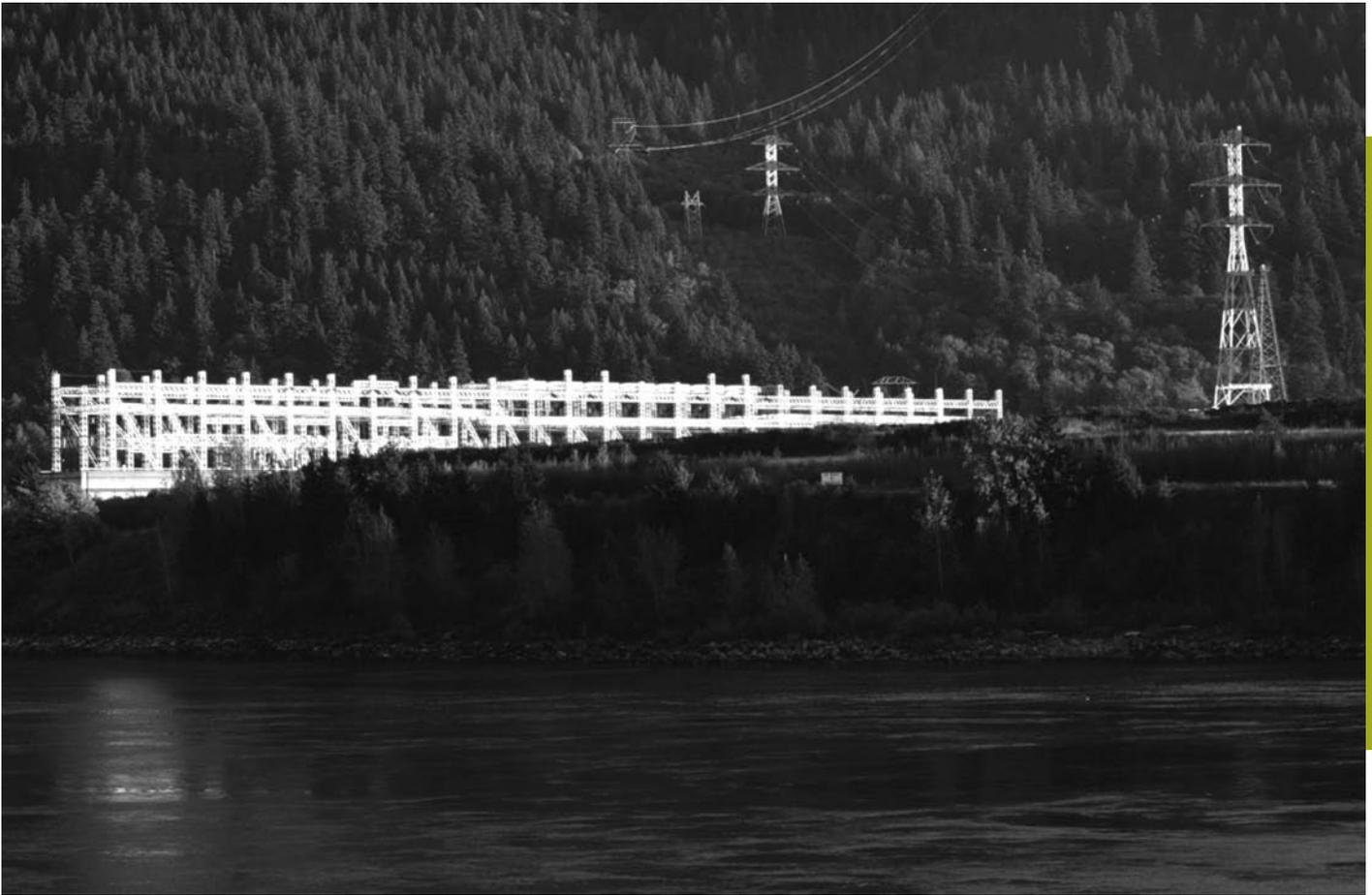
The general structure for river basin management in France is shown in figure 12.2.

figure 12.2

### RIVER BASIN MANAGEMENT STRUCTURE IN FRANCE



The discussion in this Briefing Note concentrates on the *River Basin Framework* arm of this diagram and in particular, the Basin Committee (often referred to as a Water Parliament for



the basin) and the Basin Agency (the developing/implementing agency that reports to the Committee).

*The Basin Committee* is comprised of elected and appointed persons from the full spectrum of water interests within the basin, including government officials, industrialists, regional developers, agriculturists, water distribution companies, water users, fisherman, and environmental groups. This wide representation is necessary to ensure that the concerns of all stakeholders are voiced and considered and that the resulting integrated water-related policy has been agreed to by all.

The overall aim of the Basin Committee is to support the river basin development program, including new water development and pollution abatement measures for both point and non-point source pollution. The Committee also gives advice/approval on the water agency's multi-year programs and on the related financial measures to fund the programs. Specifically, the Committee:

- Consults on and finally approves, the technical program of the Basin Agency
- Debates and approves the fees and charges to pay for the development program
- Considers any disputes referred to it by a Minister or a Prefect in a Department
- Considers and debates any issues relating to the Water Act and any related legislation.

*The Basin Agency* is a public body with a legal identity and financial independence. It is administratively under the Ministry of Environment (Water Directorate) but reports to the Basin Committee for endorsement of its yearly work program, the budget, and the financial strategy in support of it. The Agency is directly controlled by a Board of Directors consisting of elected officials, users, and state representatives appointed by the Basin Committee.

It can levy charges on water users, public or private, to finance ►

projects to improve resources and control pollution. For projects considered to be of major importance, grants are provided by the State. In addition to the development and planning function, the Basin Agency undertakes or supports technical research for the advancement of best practices and for raising public awareness on water resources management issues.

The Water Law requires two sets of planning to be done at the basin level. *The Water Resources Development and Management Master Plan* details the objectives and the policy for water resources development and pollution control within the basin. The technical resources of the regional central agency departments undertake the necessary investigations and planning. The Master Plan is then prepared and endorsed by the Basin Committee.

Since there are numerous sub-basins within the overall basin, sub-basin committees also prepare *sub-basin policies and strategy plans*. This will be discussed in more detail later in the section on lower-level participation approaches.

## Australia

The Australian Constitution is based on a federation of six states. All states were independent before 1901 and controlled directly as colonies from England. They then agreed to form

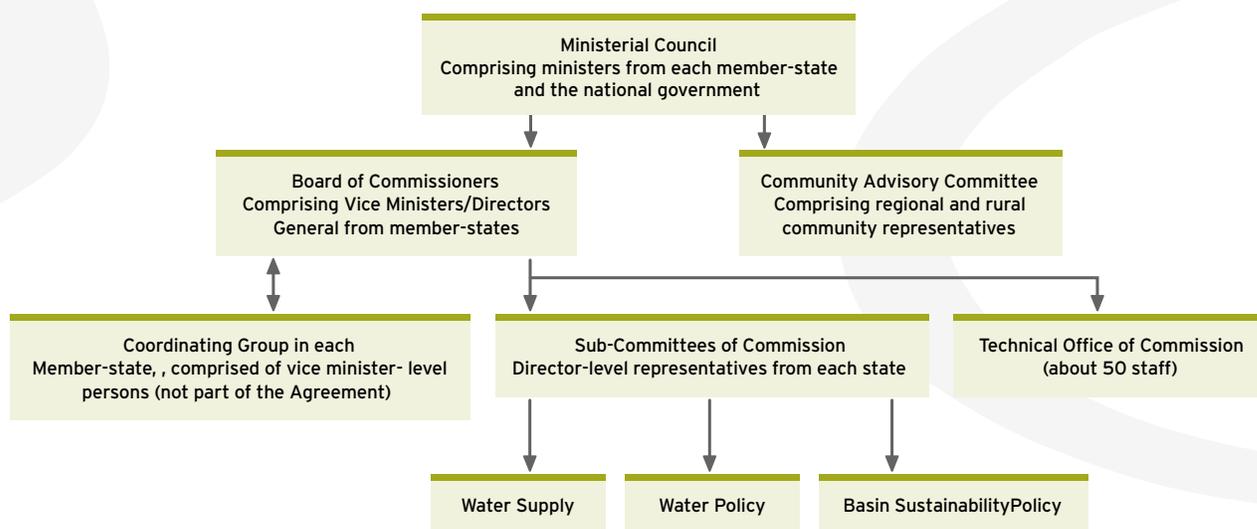
a federation in which certain powers and rights were ceded to federal control (defense, financial policy, international conventions, foreign policy) while other activities or sectors remained the sovereign rights of each state, such as transport, education, health, and water and natural resource management. To this day, the federal government is not very involved in the natural resource sector except in regard to international agreements and in terms of setting general policy for the betterment of the nation.

Each state therefore has its own water legislation and has developed its own approaches to water resources management and stakeholder participation.

When the federation was formed in 1901, the three states through which the Murray River flows realized that some form of coordination was necessary; it simply would not suffice for each state to manage its Murray River resources without some recognition of the rights and needs of the others. For example, the most downstream state used the river for extensive navigation while the two upper states were increasing irrigation and wanted to build large dams to regulate the variable flow regime. More dams and greater river flow regulation meant less water for navigation. To avoid severe conflict, it was agreed to establish what was then known as the *River Murray Commission* to regulate and share the

figure 12.3

### MURRAY-DARLING BASIN COMMISSION IN AUSTRALIA



waters of the main river in the basin, and to meet both water conservation and navigation goals. Its responsibilities did not, at that stage, extend to the entire river basin – only to the main stem (the River Murray). This was changed in the 1980s to embrace natural resource planning and coordination issues for the entire river basin. The River Murray Commission was absorbed into the Murray-Darling Basin Commission (MDBC), which is the only major basin organization in Australia. From inception, a high-level stakeholder participation mechanism was included in the legal agreement. *The institutional structure is shown in figure 12.3.*

The sub-committees oversee the technical work done in each of the three areas – water supply, water policy, and basin sustainability – to ensure that the views of each member-state are properly considered. They also help prioritize problems and assist with strategic planning. Each of these committees has a consultation/participation process that links it directly with the community.

A key feature of this model of basin management is the high-level stakeholder committee called the *Community Advisory Committee*, which independently advises the Ministerial Council on the development of policies and strategies and their impacts, and on how funding should be sourced and

*figure 12.4*



directed to priority areas. This committee has about 25 members representative of all the major non-government stakeholders in the basin. This closely approximates a smaller version of the stakeholder models in Spain and France. The Committee deals with a similar range of issues but has only an advisory role, whereas the counterparts in Spain and France have governing roles. Nevertheless, it is quite influential. It is independent from the Board of Commissioners and the Commission's technical office and reports directly to the Ministers. As such, it is not seen as having any undue bureaucratic input, which has strengthened community

participation and awareness. It has a small budget, mainly to conduct its consultation activities throughout the basin. It receives most of its technical help from the technical office or the state water and natural resources agencies, but is not obliged to accept the views provided.

Each state within the basin operates a very strong stakeholder participation model that complements and fits with similar work of the MDBC. Within the four states, there are about 15 major sub-basins that collectively make up the Murray-Darling Basin. Community-driven committees, called **catchment or sub-basin management boards** or *total catchment management committees* prepare (with technical help from the agencies) detailed strategic natural resource plans and corresponding action plans. These plans are the mechanisms used to address non-point source pollution and are similar to the activities of the Basin Committees/Agencies in France and to those of the Spanish Basin Authorities. The plans are widely distributed throughout each sub-basin and are finally endorsed by the relevant state minister, after the MDBC has ensured that they comply with basin-wide policies. The annual business or action plans of the various resource-related state agencies must comply with the strategic natural resource plans. The Committee/Board audits and reports on compliance to the Minister.

The stakeholder participation model for the state of New South Wales (NSW) has been continually evolving over the last decade and is again under review. Generally, it is as shown in figure 12.4.

Stakeholder participation occurs at the points shown in bold in figure 12.4.

*The Cabinet Committee on Natural Resources* is the ministerial committee that coordinates natural resources policy and strategy for the state. It is supported by a high-level group of department/agency heads. In this way, integrated responses to resource problems made by the Ministers are supposed to permeate into departmental activities.

*The Water Advisory Council* is the highest level advisory group on water issues and comprises top-level representatives (some elected, some appointed by the Minister), including water user groups, industry, tourism, environmental groups, indigenous people, local government, and professional experts. It is similar in concept to the MDBC's Community Advisory Committee; some members are common to both. However, this Council advises only the NSW Ministers and has no direct input to the Murray Darling Basin Ministerial Council. It considers policy and legal issues referred to it by the Minister, can comment on disputes, and subject to the Minister's endorsement, can initiate reviews and assessments.

*Each State Catchment Committee and the various Sub-Basin Boards/Committees* are made up of landholders and water users, environmental groups, local government, and indigenous people. The landholders/water users hold majority membership. The key government agencies assist the Sub-basin Management Boards in planning and monitoring. They do not vote on the water resource issues to be tabled or implement any plans. However, they provide the planning framework and financial assistance to groups of landholders/industry to undertake projects or schools and community groups to increase the awareness of natural resource issues. Funds are obtained from national government grants, fees collected from residents, and local government contributions.

The chairperson of each Sub-Basin Board sits on the *State Catchment Committee*. This group discusses state

government policy, strategy, and legal issues and sets the framework for the individual sub-basin planning. The State Catchment Committee also distributes the government

grants amongst the sub-basins according to priority of issues and liaises closely with the MDBC's Community Advisory Committee on basin-wide policy issues that may impact the sub-basin plans.

The Australian model for stakeholder participation is quite detailed. This is largely because the Constitution is such that each state manages its own natural resource management affairs and hence has a separate but similar set of participation arrangements. In addition, the Murray-Darling Basin is a single, relatively large river basin that covers parts of four states. This requires a separate set of coordination and participation arrangements for basin-wide issues.

Despite what appears to be duplication, the arrangements work well, in large part because of the high level of community awareness throughout the basin. Over the last 30 years, the MDBC and the agencies have put significant effort and resources into awareness building in regard to the existing and emerging natural resources problems – to such an extent that the complex level of stakeholder participation that has evolved is currently demanded by community. Anything less would be seen as attempts by the politicians to reduce community involvement.

**The Spanish, French, and Australian models for high-level stakeholder participation all relate to countries with a long history of integrated river basin management and to scenarios in which the communities have had inputs, in one form or another, to how water is being used and allocated. The organizing power of water users in Spain and the influence of the special interest groups (particularly the irrigation sector and later the environmental groups) is unique to the political and social customs there. The French basin management structure inclusive of all stakeholder groups works well because of the enabling**

institutional, legal, and regulatory frameworks already in place. These arrangements cannot be readily replicated in most other (developing) countries. The challenge therefore is to use these successful examples as best practice guidelines, compare and contrast them with the local customs and practices, and then decide the best package of participation arrangements that could be followed.

### Local-level Stakeholder Participation

Stakeholder participation should not occur only at the high organizational levels. It should be included wherever relevant throughout the organizational structure for water resources management, as far down as the local user groups. The arrangements for lower-level stakeholder participation in Spain, France, and Australia are discussed below.

In **Spain** at the local level, relatively simple hierarchies of autonomous water user entities exist. Lower-level participation takes place within a well-defined structure: at the first level, through local community groups that have common interests; at the level of the community, units that deal with the whole sub-basin; and at the level of the basin, the basin-wide entities mentioned above.

This has allowed local groups to contribute to the affairs of the basin-wide *Hydrographic Confederations*. The communities may be organized voluntarily or under direction of the government. As a legal entity, these associations acquire licenses to use public water, which is delivered to their take-off point by the state agencies or the Hydrographic Confederations.

These community groups are included in the stakeholder participation structure shown in figure 12.1. There are stakeholder advisory boards /committees for water operations, reservoir issues, engineering works, and most importantly, for water planning and management. Feedback from these advisory boards flows upward to the Users Assembly and then to the Governing Board of the Confederation. Any disputes or any inputs to planning or

management that the community wishes to make are first raised through the appropriate participation board (for example, at the Basin Water Advisory Board for planning and strategy). If the matter were not resolved, the Governing Board of the Confederation would then consider the issue.

In **France**, where there are numerous sub-basins within an overall basin, Sub-basin Committees prepare *sub-basin policy and strategy plans* that provide more details for the smaller sub-basins and the regions and towns/cities within them. These sub-basin plans are very important for local policy guidance as they most closely reflect the requirements of local water user groups.

The Sub-basin Committees have a similar spectrum of membership to the over-arching Basin Committee – local government, users, and state/regional representatives – but the former are not as large and the development of sub-basin plans are not as formal. Such a cross-section of basin stakeholders at each sub-basin level is indicative of the commitment of the main players in water management to have the stakeholders actively involved, rather than have the decision-making done by central government.

The sub-basin plans are submitted to the Basin Agency for inclusion into the overall *Water Resources Development and Management Master Plan*. As in the Spanish example, this provides the lower-level community groups with a well-structured and accountable process to contribute to the river basin planning. As previously mentioned, stakeholder participation does not extend to construction, operation, and management of infrastructure because the French approach to integrated river basin management is confined to planning, budget provision, and financial management.

**Australia** arguably has the most detailed and comprehensive form of lower-level stakeholder and community participation of the three countries reviewed in this note. Within each sub-basin, there are many small drainage units or catchments. Within these, there are as many as 50 or so large farms and a number of towns and villages. ▶



These small drainage units have established local-level “Landcare” or “Rivercare” Committees, which undertake planning at the farm level. In this manner, each small drainage unit contributes to the sustainability of the sub-basin, which in turn, contributes to the overall sustainability of the Murray-Darling Basin. In Australia, this type of planning is known as Land and Water Management Planning. All parties agreed that this planning and the subsequent implementation should be undertaken in partnership since the benefits would be shared by all. The basic objectives agreed for these plans were to:

- Improve regional productivity through increased farm productivity, improved management efficiencies, and improved farmer education and awareness
- At least maintain, and where possible enhance, the sustainability of the soil, land, and water resources by addressing problems in an integrated and holistic manner
- Achieve an acceptable outcome that is a balance of economic, social, and environmental concerns within the range of the values and expectations held by the community.

Note 7 provides more details on this type of lower-level stakeholder participation, or bottom-up planning.

It is important for women and other minority or disadvantaged groups to be included in the lower-level planning process. It is often more effective to use the skills and experiences of the nongovernmental organizations (NGOs) already operating in the basin, as the activities of these groups tend to be concentrated at the community level. Often this resource is overlooked as the NGOs are perceived as opposition. For this collaboration to be effective, funds must be provided so that the NGOs can facilitate the lower-level stakeholder interaction and some formal reporting/participation procedures can be developed.

Compensation for the community should also be considered, since it will be otherwise difficult for poor communities that cannot afford the time and travel costs to participate.

**The provision of knowledge, information, infrastructure, and finance are important for local people to succeed in managing their water resources more effectively. The arrangements to get water users such as farmers involved should take account of all these aspects.**

## How to Fund a Participative Planning and Management Process?

Around the world, it has proven very difficult to obtain sufficient budgetary resources to maintain annual work programs (the ongoing operations and maintenance needs of a river basin organization or a national water resources agency). Government funds are always scarce and the natural resource management sector competes with the consumer sectors (education, transport, health) for these monies. Therefore, it is not uncommon for basin organizations to have difficulties in obtaining an acceptable level of funding to support work programs. In addition to the annual programs, there are many other new resource utilization and protection programs to either improve water use efficiencies or to overcome the heavy pollution affecting rivers, particularly those in developing countries. These programs are usually funded from government or donor grants, user charges (water consumption and pollution discharge fees), a basin environmental fund, or a combination of all of the above.

**France** has the most well-known and well-established approach for funding basin-wide activities. In fact, the primary reason for establishing the Basin Committees and Basin Agencies was the need to create some means of funding for the various water quantity and quality programs that the city mayors wished to undertake.

The overall aim of the Basin Committee is to support the river basin development and rehabilitation program—new water development and pollution abatement measures covering both point and non-point source pollution—by approving the basin agency’s multi-year programs and the related fees and charges. Specifically, the Basin Committee approves:

- The five-year investment program for the basin, including the grants and loans that the Agency intends to allocate to the cities, towns, and others
- The taxes that the Agency will be allowed to levy during these five years. (The global income from the taxes must equal, on the five-year basis, the global expenses.)

As mentioned, charges can be levied on public and private water users as taxes, according to the quantity

of water they use and the pollution they introduce in the watercourses. Grants can also be obtained from the state or the regions for important projects. Aside from the development and planning functions, funds can be used to support research for technical and best practice advancement and for raising public awareness of water resources management issues.

**The French basin management financial model is very effective in countries where water users and polluters are willing and able to pay the relatively high charges to fund the extensive work programs for improvements in water use efficiencies and pollution abatement.**

The arrangement in **Spain** is somewhat similar to France. The operating arm of the Hydrographic Confederation undertakes the planning, develops annual work plans, and suggests the charging regime necessary to fund the work program. Funds can be obtained from rates collected by the Basin Authority (water use or wastewater discharge fees and charges) or be provided by the state.

The Governing Board of the basin organization approves the charging structure. At this point, stakeholders can influence the nature and magnitude of the charges. In both the French and Spanish cases, the stakeholders have an input to the planning and management decisions but they now also must approve charges that will impact their constituents.

In **Australia**, user charges cover the annual running costs of basin organizations and the water resource agencies. However, funds for the repair of the Murray-Darling Basin’s resources as a result of almost a century of intensive development must be obtained by other means. In this regard, government-stakeholder partnerships become important.

The national government has decided to fund the rehabilitation of the resources and the efficiency improvements

pertaining to resource utilization, since both issues impact the competitiveness of Australia's overseas agricultural trade. Similarly, the state governments, which are directly responsible for natural resource management under the Constitution, have had to introduce new policies and find innovative ways to fund them, if sustainable natural resource management is to occur.

The stakeholders now understand that their livelihoods in terms of resource health (soil, water, vegetation) are dependent on their contribution to the management of the land and water resources.

A joint government-user panel assesses all the sub-basin plans developed by the Sub-Basin Management Boards, as well as the lower-level Land and Water Management Plans. A cost sharing arrangement is determined to reflect the spread of benefits.

The costs are approximately shared two-thirds among the national, state, and local governments and one-third among the land and water users. These proportions change from plan to plan, depending on how the benefits are shared. A Natural Heritage Trust (using some of the profits from the privatization of key government companies) has been created by the national government to support these cost

sharing arrangements. Monies can be obtained from this Trust for various natural resource improvement initiatives, including Land and Water Management schemes. User groups and the Sub-Basin Management Boards may apply for funding. The submission is reviewed by the MDBC for compliance with basin policies and economic validity.

The concept of a **River Basin Environmental Improvement Fund** is being tested in a number of countries and has been established in the Tarim River Basin in western China as part of a World Bank project. In this instance, a comprehensive mix of donor grants, central and regional government funds, and a range of user-based charges have been proposed. The fund has not been very effective because of general funding shortages and other government priorities, as well as the financially poor state of most farmers.

**Sharing the costs for river basin planning and management between government and the stakeholders — more often referred to as funding the partnership in natural resource management — is highly recommended for most scenarios, even in cases where the users' share may be much less than mandated or may include on-the-ground labor as payment in kind.**

## How to Move Stakeholder Partnerships, Participation, and Funding Forward: A Few Key Questions

- Do the current arrangements for integrated river basin and natural resource management include a process for stakeholder/community consultation?
- Is this process actively supported by the top levels of government?
- Do the top levels of government accept the active contribution of the stakeholders in decision making?
- Are the participation arrangements appropriate for the prevailing cultural, social, and political values? Have all relevant parties been included, particularly at district/village levels, and is it affordable for them to participate?
- Is there genuine participation, or is it information sharing through informal consultation?
- Are the skills and experiences of the NGOs being used to help with community participation? If so, are the NGOs formally linked into the process or is it on an ad hoc basis? Is it necessary to formalize the involvement of the NGOs? Are the NGOs being paid for their contribution?
- Are the stakeholders involved in the decision making for the aspects of IRBM that are of interest and relevance to them?
- Are stakeholder groups genuinely happy with the roles they now have?
- Should this role be formalized in basin agreements or water resources laws so as to assure long-term participation?
- Can major stakeholder groups access the highest planning and management levels (say ministerial level) through an advisory mechanism?
- Are new lower-level planning processes needed to provide better interaction and partnership between government and the land and water users?
- Have the options for funding annual work programs as well as the natural resource management functions been reviewed and decided?
- Have various combinations of government grants, user charges and taxes, donor funds, and a basin environmental trust fund been considered as funding options?
- Has an ability-to-pay study been done to assess the contributions users can make?
- Have all stakeholder groups been involved in the ability-to-pay studies and in the final decision making process on charges?

## Abbreviations and Acronyms

<b>BDP</b>	Basin Development Plan	<b>OMVS</b>	Organisation pour la Mise en Valeur du Fleuve Senegal
<b>BET</b>	Beneficial Evapo-transpiration (ET)	<b>RBO</b>	River basin organization
<b>CU</b>	Consumptive Use	<b>SMART goals</b>	Goal that are S (Specific), M (Measurable), A (Achievable), R (Realistic), and T (Time-based)
<b>DSF</b>	Decision Support Framework	<b>SW</b>	Surface water
<b>ERS</b>	Environmental Resources Study	<b>SWOT analysis</b>	Analysis of Strengths, Weaknesses, Opportunities, and Threats
<b>ET</b>	Evapo-transpiration	<b>TBWRC</b>	Tarim Basin Water Resources Commission
<b>GW</b>	Groundwater	<b>TQM</b>	Total Quality Management
<b>IRBM</b>	Integrated river basin management	<b>WSC</b>	Water supply corporation
<b>KRA</b>	Key Result Areas	<b>WUA</b>	Water user association
<b>LWMP</b>	Land and Water Management Plans	<b>WUP</b>	Water Utilization Program
<b>MDBC</b>	Murray-Darling Basin Commission		
<b>MRC</b>	Mekong River Commission		
<b>NBET</b>	Non-beneficial Evapo-transpiration (ET)		
<b>O&amp;M</b>	Operation and maintenance		

## References

### WEB SITES

#### **Water Resources Management**

Sectors and themes including:

- Coastal and marine management
- Dams and reservoirs
- Groundwater
- Irrigation and drainage
- River basin management
- Transboundary water management
- Water and environment
- Water economics
- Water supply and sanitation
- Watershed management

Information and access to the respective Web sites can be found at:

<http://Inweb18.worldbank.org/ESSD/ardext.nsf/18ByDocName/Sector-sandThemes>

#### **Dams**

Benefit Sharing from Dam Projects, November 2002

<http://www-esd.worldbank.org/documents/bnwpp/2/FinalReportBenefit-Sharing.pdf>

Good Dams and Bad Dams: Environmental Criteria for Site Selection of Hydroelectric Projects

[http://essd.worldbank.org/essdint.nsf/90ByDocName/WorldBankSafeguardPolicies404NaturalHabitatsGoodDamsandBadDamsEnvironmentalCriteriaforSiteSelectionofHydroelectricProjects/\\$FILE/Good+and+Bad+Dams+final.pdf](http://essd.worldbank.org/essdint.nsf/90ByDocName/WorldBankSafeguardPolicies404NaturalHabitatsGoodDamsandBadDamsEnvironmentalCriteriaforSiteSelectionofHydroelectricProjects/$FILE/Good+and+Bad+Dams+final.pdf)

#### **Groundwater**

GW-MATE: Groundwater Management Advisory Team Briefing Note Series.

The overall structure of the series is as follows:

Notes 1 and 2 - Broad introduction to the scope of groundwater management and groundwater system characterization  
Notes 3, 4, 5, 6, and 7 - Essential components of management practice for major aquifers with large groundwater storage under stress from intensive water-supply development for irrigated agriculture and/or urban water-supply

Note 8 - The protection of potable groundwater supplies

Notes 9, 10, and 15 - Planning national and regional action for groundwater resource management

Notes 13 and 14 - Management of smaller-scale water supply development in the rural environment

The remainder of the series (Notes 11,12,16, and 17) deals with a number of specific topics that pose a special challenge.

<http://Inweb18.worldbank.org/ESSD/ardext.nsf/18ByDocName/Sector-sandThemesGroundwaterBriefingNotesSeries>

The Murray-Darling Basin  
Murray-Darling Basin Initiative  
<http://www.mdbc.gov.au/>

The Living Murray Initiative  
<http://www.thelivingmurray.mdbc.gov.au/>

Heartlands Initiative  
<http://www.ciw.csiro.au/heartlands/partners/index.html>

**Toolkits**

Benchmarking, Rural Water Supply and Sanitation for Multi-Sector Projects, Gender, Hygiene and Sanitation, Private Sector Participation, Small Towns

<http://www.worldbank.org/html/fpd/water/toolkits.html>

Global Water Partnership IWRM Toolbox

<http://gwpforum.netmasters05.netmasters.nl/en/index.html>

**Water Demand Management**

Building Awareness and Overcoming Obstacles to Water Demand Management, Guideline for River Basin and Catchment Management Organizations, IUCN

[http://www.gwpforum.org/gwp/library/River\\_basin\\_management\\_guideline\\_26Oct2004.pdf](http://www.gwpforum.org/gwp/library/River_basin_management_guideline_26Oct2004.pdf)

**Water Resources and Environment Technical Notes**

The overall structure of the series is as follows:

- A. Environmental Issues and Lessons
- B. Institutional and Regulatory Issues
- C. Environmental Flow Assessment
- D. Water Quality Management
- E. Irrigation and Drainage
- F. Water Conservation and Demand Management
- G. Waterbody Management
- H. Selected Topics

<http://inweb18.worldbank.org/ESSD/ardext.nsf/18ByDocName/Sector-sandThemesWaterandEnvironmentWaterResourcesandEnvironmentTechnicalNotes>

**Water Supply and Sanitation**

<http://www.worldbank.org/html/fpd/water/index.html>

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