

Effective Water Governance in West and East Africa

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Synthesis Report

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Glossary

CNEA	Commission Nationale de l'Eau et de l'Assainissement
CTE	Comité Technique de l'Eau
CWSA	Community Water and Sanitation Agency
DFD	Departments of Farm Development
EMCA	Environment Management Coordination Act
EPA	Environmental Protection Agency
GWCL	Ghana Water Company Limited
GWP	Global Water Partnership
IDAMCs	Internally Delegated Area Management Contracts
IWRM	Integrated Water Resources Management
KeBS	Kenya Bureau of Standards
NEMA	National Environment Management Authority
NEMC	National Environment Management Council
NWSC	National Water and Sewerage Corporation
ONEA	Office National de l'Eau et de l'Assainissement
PfEWG	Program for Effective Water Governance
SEEN	Société d'Exploitation des Eaux du Niger
SONEB	Société nationale des eaux du Bénin
WPC	Water Policy Commission
WRC	Water Resources Commission
WRMA	Water Resource Management Authority

1. Background

This report presents the synthesis of Programme for Effective Water Governance, undertaken by the Global Water Partnership. The Program for Effective Water Governance was implemented in 2005 and 2006 in seven countries in West and East Africa: in Benin, Burkina Faso, Ghana and Niger and in Kenya, Tanzania and Uganda through the concerned Regional and Country Water Partnerships. Financial support was provided from the European Union. It follows GWP engagement with water governance since 2002, when the Dialogues on Water Governance were organized in more than 30 countries.

Attention for effective water governance comes from this oft-repeated statement: 'the water crisis is a crisis of governance'. It is not so much an absolute shortage of water that is at stake but the inability to manage water properly. The World Water Vision in 2000 mentioned *governing water wisely* as one of the seven challenges for achieving a water secure world.

There are many definitions of governance – some factual, some normative, but they all point in the same direction. The description of governance is that it is the interaction between formal institutions and those 'others': civil society, private sector and citizens at large. OECD (2001) has then defined eight major characteristics of 'good' governance; "participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law. It assures that corruption is minimized, the views of minorities are taken into account and that the voices of the most vulnerable in society are heard in decision-making."

All these points apply in equal measure to water governance, but effectiveness is a key concern. In many areas there is simply no water management at all – neither good or bad. In other cases institutions and regulations for IWRM are in place – that follow many of the OECD list of good characteristics - but operationalization, effective management and broader stakeholder involvement is lacking for a wide range of reasons. The letter of the law may be there, but the spirit is missing. It is not only the stakeholders that are missing but also the doers and the implementers.

This synthesis brings together the results of the Programme for Effective Water Governance for seven countries in West and East Africa. The Program for Effective Water Governance was meant to put water governance on the agenda through thorough analysis and discussion and through action planning. In each country a similar process was followed, consisting of a diagnosis, national workshops and the preparation of action proposals. For the diagnosis and mapping of water governance a visually clear standard format was used, the so-called Water Governance Scorecard. The Scorecard allowed a snapshot overview of current water governance arrangements and the scope for improvements. As such it served as to build the agenda for national governance discussions. While it suffered from the unavoidable constraints of standard document, the Scorecards had the important advantage of allowing a comparison of water governance between countries.

Apart from giving a bird's eye overview, the Scorecard helped identify priority improvements. The assessments - put together by national consultants - were next discussed in national workshops, organized with the help of the Country Water Partnerships. The workshops served to validate the Scorecards but also importantly to identify follow up actions. A special effort was made to be selective in the organization of the workshop so as to get participants together that had the capacity to change governance and become champion of actions that may follow. The capping stone of the programme was that – following the national workshops - action proposals were being worked out. The emphasis was on specific doable actions – distinct activities that could be undertaken to practically move effective water governance forward – not strategy and frameworks that fall severely short of doing things.

This report is a synthesis of the results of the Program for Water Governance and brings together the main findings from the governance assessments and practical ways forward and action proposals. Section 2 summarizes the status of water governance in the seven countries – discussing legislative frameworks, regulatory instruments, new institutions in IWRM, the role of water service providers and coordination with other sectors. Section 3 discusses the way forward towards more effective water governance and possible practical actions.

2. Analysis of water governance

The Scorecard followed the structure of the GWP Toolbox on IWRM, particularly as effective water governance is the 'heart and soul' of integrated water resources management – with its emphasis on balancing objectives and bringing together diverse interest and stakes. This chapter discusses the main governance elements as they are categorized in the Toolbox: the overall legislative framework, the regulatory instruments, the new institutions in IWRM and the coordination with other sectors, in particular agriculture, energy and local government. It also gives

In many countries new policies and legislation have been put in place

in tabular form the scores of the validated scorecards – in terms of status of effectiveness and barriers to it.

2.1 Legislative framework

2.1.1 Legislation for water allocation

In many countries new policies and legislation have been put in place in the last ten years to allocate water and set out water rights. In principle this is an effective way to regulate water use, safeguard priority uses and avoid ambiguity. In some countries the legislative framework on water allocation is still at policy level, in other countries it is translated in laws and procedures. In some countries new organizational structures have been created alongside the new legislation that are tasked to operate in a consultative manner (Kenya). In other countries local and traditional organizations are given a role in water allocation (Niger, Ghana), whereas elsewhere water allocation is the exclusive prerogative of officers of the Water Ministry.

In Benin regulation on water allocation is still at policy level only. The principles on how water rights should be defined are described in the Water Code and the National Water Policy. The National Water Policy describes for instance the importance to fulfil basic needs, the support to productive uses of water (energy, irrigation, fishery, industries, leisure), the priority for drinking water, the need to incorporate environmental flows and the need for balanced water allocations. As yet these general principles are not translated in operational procedures and mechanisms. In the meantime different water use rights – for instance on navigation and fisheries - are described in separate sectoral legislations.

In other countries in West Africa more progress has been made. Water allocation between different uses is the subject for instance of the Water Use Regulation (1996) of Ghana. This regulation mandates the Water Resources Commission to grant water rights. It vests water resources in the President and sets the framework for acquiring a water permit. It describes the uses for which it is mandatory to acquire a water permit, as well as the exemptions (water for fire fighting for instance). It provides for the involvement of stakeholders such as the Environmental Protection Agency, traditional, local authorities and other relevant government institutions and agencies. The law also makes provisions for compliance monitoring by the Water Resources Commission.

Similarly, in Burkina Faso the Law 002-2001/AN (8 February 2001) establishes the prerogative of the state to control and requisite water. This Law has then been followed by several decrees that describe the power of the Minister in Charge, the exceptions and the main water uses. Also, in Niger the Law N° 98-041 (7 December 1998) describes the water uses that requires an authorization as well as the accompanying procedures. It distinguishes several regimes: free utilization, declaration, authorisation and concession. In case of free utilization, every administrative authority can define the way the water is used within its areas of jurisdiction and can adopt measures accordingly. The authorities that are include traditional and local authorities – traditional and local -, as well as the Ministry in charge and its decentralized services and other state organizations.

In East Africa legislative frameworks on water allocation have progressed steadily in the last ten years. In Kenya the Water Act 2002 is the main policy document for the management of water resources. The act was enacted to make provisions for the management, conservation, use and control of water resources and the acquisition and regulation, and management of water supply and sewerage services. Pursuant to the Water Act the Water Resource Management Authority (WRMA) was established. The WRMA is meant to conserve and manage water resources efficiently through participatory involvement of all stakeholders. The Act empowers the Authority to have prosecution powers by consent from the Attorney General, but also creates consultative and advisory structures at decentralized level.

in the last ten years to allocate water and set out water rights. In principle this is an effective way to regulate water use, safeguard priority uses and avoid ambiguity.

Where these regulations are in place there is a general need to popularise them and familiarize lawyers, water

In Tanzania legislation on water allocation dates back to 1929. At that time grants to use water were provided on request. This regulation was updated with the passing of the Water Utilization (Control and Regulation) Act No.42 of 1974 (and amendments in 1981, 1989 and 1997) and the Water Act 2002. According to these Acts permits are required for a prescribed sets of water uses. The Act vests the ownership of all water in Tanzania in the United Republic. The nature of the water right can be freehold, leasehold, and right of occupancy for 99 years. The water right is personal to the grantee and may not be transferable without consent from the water officer of the Ministry of Water.

In Uganda the rights in water administration, including the right to investigate, control and manage water are laid out in The Water Statute 1995. The Statute provides the basic declarations of Government and individual rights to water. The statute caters for the establishment of a Water Policy Committee, which advises the Minister of Water (and other line ministries) on issues of policy. The implementation of the statute is supported by The Water Resources Regulations (1998), which outlines the factors to be taken into account when considering an application to abstract water for different purposes. It is the mandate of the Director for Water Development to grant or reject an application for a water abstraction permit

In summary there is substantive progress on the legislative side of the water allocations. Overall effective implementation is limited, however. In Burkina Faso, Tanzania, Niger and Uganda main legal and political documents are in place, but the detailed regulations and determination of responsibilities are missing. Then there is the problem the technical basis for determining water permits. In Uganda for instance it is reported that there is a lot of room for subjectivity and political interference into allocation of water projects.

Also where these regulations are in place there is a general need to popularise them and familiarize lawyers, water users, water service providers, private business and local governments of the scope within these laws. In reality other stakeholders are hardly if ever involved in the determination of the water rights. In Kenya a special problem is the time consuming nature of the water permit procedures, which discourages involvement and encourages short cuts. Finally, even where permits are given, inspectorate functions for monitoring and enforcement are not in place.

users, water service providers, private business and local governments of the scope within these laws.

LEGISLATIVE FRAMEWORK - Allocation of water rights between different types of uses

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
	•			Benin	•	•		•
	•			Burkina Faso	•	•		
•				Ghana		•	•	
	•			Niger		•		
	•			Kenya		•		•
	•			Tanzania				•
	•			Uganda		•		

LEGISLATIVE FRAMEWORK - Conflict resolution mechanisms (between different water user groups)

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
	•	•		Benin				•
	•	•		Burkina Faso		•		
•				Ghana		•		•
•				Niger				
				Kenya				
	•			Tanzania		•		

LEGISLATIVE FRAMEWORK- Legislation for water quality

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
•	•			Benin		•		•
•				Burkina Faso		•		
	•			Ghana				•
	•			Niger				•
	•			Kenya			•	
	•			Tanzania				•
	•			Uganda		•		

2.1.2 Legislation for water quality

Legislation for water quality is in place in all countries, but in many cases the attention is more token than real. It appears that water quality legislation is less advanced than regulation of water allocation, with water quality being more intractable and given less emphasis, in spite of its importance for public health.

In Uganda for instance the National Water Quality Management Strategy has just been formulated and is expected to be transformed into a policy in the near future. No water quality standards have been formulated so as an 'interim' the WHO norms are to be used. These are however not practicable and most public water sources would have to be closed – as there is no consideration for for instance surface water storage and pools, which in many areas are the only source of domestic and livestock water. In Ghana also water quality legislation has progressed relatively little, compared to other countries. There is no separate legislation on water quality, but it has been provided for in Water Resource Commission Act (Article 522) and the EPA Act (Article 490, LI 1652). The Water Resource Council is expected to advise pollution control agencies in Ghana. The Commission may even make regulations 'for the granting of permits to discharge waste into water bodies'. The Environmental Protection Act empowers the EPA to make regulations in respect of discharge permits.

In other countries water quality legislation consists of water quality standards and procedures for effluent discharges. In most cases different norms are established for different uses. In Burkina Faso potable drinking water quality norms are defined in several documents, among others in article 46 of Law n°002-2001/AN of 8 February 2001, that was formulated jointly by the Ministry of Health and Ministry of Water. In Benin different legal documents establish different water quality standards. Decree 2001- 094 (20 February 2001) establish. Norms for drinking water quality, and the General Ordinance of 30/10/1987 sets the norms for industrial process water and norms for different types of effluents. Other decrees discuss urban water quality and public health.

In Tanzania the Water Utilization (Control and Regulation) Act - Act No. 42 of 1974 (as amended in 1981) provides for the control of water pollution and standards in respect of effluent and receiving water. Over the years the Act has been amended by increasing the penalties. The same law also provided for the establishment of Temporary Water Quality Standards. These standards have remained temporary since 1974. The Environmental Management Act of 2004 has a clause on the establishment of environmental standards including those for water resources, but these standards are still under process.

In summary what is happening in the different countries is that water quality is expected to be 'governed' by water quality norms and effluent standards, While these are important, there is little attention for larger spatial and IWRM processes that would safeguard or improve overall water quality, for instance environmental sanitation and drainage programs, artificial and natural wetland management, industrial allocations, waste recovery programmes and groundwater protection. As was observed in Uganda: "The challenge to enforcement is that the approach and the regulations are not holistic, it should involve preserving water quality at both the discharge and abstraction stages, e.g. if you do not have a good set of standards for some effluent water quality parameters, how do you ensure the standards for fishing and water abstractions of the receiving waters." "Water quality is affected by a number of other activities such as sanitation, solid and liquid waste disposal; if the laws governing these are not concurrently formulated and rationalised with other existing national laws, management of water quality will remain difficult".

What is happening in the different countries is that water quality is expected to be 'governed' by water quality norms and effluent standards, While these are important, there is little attention for larger spatial and IWRM processes that would safeguard or improve overall water quality.

The other fundamental obstacle is that even at a more basic level there is little enforcement of the legislation that is there. In some cases there are several lists with water quality standards, initiated from different corners. There is in many countries no systematic monitoring, Kenya being an exception with the National Water Quality Monitoring Program that has been running since 1982. In many counties laboratories to test water quality and share and popularise the results are simply not there.

2.1.3 Conflict resolution mechanisms

The legislation on water quality but even more important on water allocation is to be supported by conflict resolution mechanisms. In many countries informal arbitration mechanisms and legal procedures exists. There is a tendency to exclude informal and voluntary conflict resolution measures, and focus on newly formulated official and legal procedures, even where the first are more effective and cost efficient. In Benin the traditional 'vaudou' system plays a role in conflict resolution.

In Burkina Faso there are in addition a number of official conflict resolution mechanisms. In normal condition conflict resolution between different groups of users are resolved by the National Water Commission and the (future) basin committees. During droughts this pre-rogative resolves to the Minister of Water (according to decree 2003-265/PRES/PM/MAHRH of 27/05/03).

In Ghana elaborate conflict resolution mechanisms have been provided for under various acts: Act 522, 1996, Water Use Regulations LI 1692, 2001 Environmental Assessment Regulation LI 1652 1999. Act 522, 1996 Section 16 (4 -6) states that a person who claims that his interest will be affected by the grant of water right may notify the Water Resources Commission. Section 8 (b) of the LI 1692, 2001 states that where conflicting claims of interest are made over the same water resources, the claim shall be referred to a Water Users committee of the WRC for resolution, whose proceedings shall be informal and governed by the rules of natural justice. The law sets out the priority of water use and refers to the prevailing water policy – with priorities for domestic water use and any other water use, which fulfils the goals of national socio-economic development. The law makes provision for investigations and public hearing and ensures participation especially the people in the area of the proposed water use activity, likely to be affected. The involvement of stakeholders such as the Environmental Protection Agency, Traditional and local authorities and other relevant government institutions and agencies has been provided for. Finally, LI 1652 section 27 makes provision for aggrieved persons spells out the procedure for complaints and for determination of appropriate course of action.

The effectiveness of official conflict resolution mechanisms is limited. Court procedures are often time-consuming and costly. Another handicap is that the role of different parties in conflict resolution is not well understood, even by those directly involved. In Tanzania for instance basin water officers, are expected to play an important role in conflict resolutions. Yet in many instances they cannot actively stand on their stage. This is because, some of them do not know their roles properly, and secondly, they lack adequate, facilities, funds and even knowledge. When a conflict arises between government-backed projects against local communities, it becomes very difficult to resolve through official conflict resolution mechanisms.

2.2 Regulatory instruments

There are several special regulatory instruments that in addition to the legislative framework can safeguard sound water management, such as groundwater regulation, land use planning controls and nature protection.

The effectiveness of official conflict resolution mechanisms is limited. Court procedures are often time-consuming and costly. Another handicap is that the role of different parties in conflict resolution is not well understood.

2.2.1 Groundwater regulation

Groundwater is an increasingly important source for high quality water supply and for agricultural growth. Through the interaction with wetlands, rivers and soil moisture groundwater also is essential in preserving vital ecological functions.

In general groundwater regulation has not moved far in any of the countries covered under the Program for Effective Water Governance. In Burkina Faso and Benin for instance there is no special regulation for groundwater extraction. Regulation is assumed under general water resource management, in spite of the specific nature of groundwater. In Benin there are three different sets of rules that relate to groundwater management, without any one of these being effective in managing groundwater resources.

In other countries – Niger, Ghana, Uganda and Kenya - rules on drilling licenses are in place, regulating the activities of drilling operators. In Kenya for instance no person can construct a well without having first given notice to the Water Resources Management Authority. There are, however, many requirements to be fulfilled before a permit is issued. This long process increases the risk of misuse. In Ghana new legislation is under preparation. The new ground water development regulations being prepared in Ghana require drillers to follow sound practices in the field as well as collecting data on groundwater resources. Groundwater legislation in Niger appears most advanced and practical, as it engaged local governments in the well licensing procedures. In Niger Law 98-041 of 7 December 1998 permits for groundwater abstraction in excess of 40 m³/year needs to be authorized by local governments. The law also has provisions for groundwater protection zones to safeguard groundwater quality. This is the only example of spatial planning being integrated in groundwater management. Groundwater management planning – looking at a wide range of options of improving recharge and controlling abstraction – does not take place anywhere.

In general groundwater resources in Africa are underdeveloped and hence the need to manage this resource is not considered so urgent. Even the very basic rules on drilling permits are not always used. There are important and urgent exceptions though, especially close to urban areas, where there are examples of overuse that jeopardizes the sustainability of urban water supply. Groundwater quality is in many cases a larger problem, due to contamination of shallow aquifers and naturally occurring hazards, such as high fluoride levels, common in the Rift Valley but also in parts of Niger.

The new ground water development regulations being prepared in Ghana require drillers to follow sound practices in the field as well as collecting data on groundwater resources.

Regulation on groundwater

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
			•	Benin	•			
•	•	•	•	Burkina Faso		•		•
				Ghana	•			
		•		Niger		•		
	•			Kenya			•	
	•			Tanzania				
	•			Uganda			•	

Land use planning controls

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
	•			Benin		•	•	
	•			Burkina Faso		•	•	•
		•		Ghana			•	•
•				Niger		•		
	•			Kenya				•
	•			Tanzania				
		•		Uganda	•			

Nature protection (water-related)

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
		•		Benin		•		•
		•		Burkina Faso	•	•		•
				Ghana			•	
•				Niger		•		
	•			Kenya				•
	•			Tanzania				
		•		Uganda			•	

2.2.2 Land use planning controls

In principle land use planning can be an effective instrument for integrated water resources management. Land use planning regulates building activities in flood plains; in groundwater recharge areas or other sensitive areas. In and near urban areas land can be set aside for areas can be designated for groundwater protection areas, water fronts, storm water drainage or parks.

In most countries there are a large number of institutions and rules working on land use planning and in principle the regulatory instruments are in place. An example is Tanzania, where the Town and Country Planning Ordinance Cap 378 of 1956 (as amended in 1961) provide the technical procedures of preparing land use plans. The Land Act (1999) and The Village Land Act (1999) guide issues of land ownership and transfer. Other laws include the Land Use Planning Commission (1982) and local Government Authorities (1982). In general, however, in Tanzania and elsewhere it is unusual for land use planning to be strongly connected with water management. This can lead to a decline of water resources, for example in the Usangu plains in Mbeya (Tanzania). An exception is the Water Resource Commission in Ghana that by law is allowed to designate areas for catchment protection.

In implementation there is a variety of problems: a contradiction between modern and traditional land use regulations (Burkina Faso) or inconsistencies within the various official rules (Kenya), government organizations themselves violating land use regulation (Ghana), or inadequate records (Uganda) and in general a lack of familiarity of the provisions. Ambiguity on land ownership also sometimes complicates land use planning: for instance in issues such as squatters on privately owned land and in acquiring land for investment. Land issues are frequently politicised making it difficult to implement the legal and policy frameworks

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2.2.3 Nature protection

Environmental regulation offers considerable opportunities for supporting sustainable water management. Most countries have provisions for environmental impact assessment and the protection of wetlands, fisheries and forestry. In Uganda there are general National Environmental Statutes, and in addition there are specific regulations governing the protection of water and related natural resources. These are the Water Statute (1995) and the Water Resources Regulations (1998). Niger has an environmental plan that is updated every five year by cabinet.

A general complaint in the functioning of these various environmental regulations is a lack of coordination between the different agencies responsible for the management of natural resources. A second recurrent theme is a general lack of awareness of environmental regulations. The situation in Kenya is exemplary. There is role conflict and duplication of efforts between different nature protection agencies. There has been poor forest management and leadership by the forest department, which has allowed uncontrolled logging and damage to the catchments. Also due to the structural adjustment and the downsizing that took place within the forest department, the department has been left with too few professional staff to fulfil its mandate. In addition there is lack of community involvement and capacity building in catchment protection.

2.3 Institutions

2.3.1 Water resource management organizations

In most countries the increased concern on sustainable water use has triggered considerable institutional change. Several new organizations have been established in the last 5 to 10 years that would facilitate the integrated management of water, especially apex organizations and basin organizations. In some countries efforts have been made to formalize the role of local community organizations in resource management.

Apex bodies

In each of the countries in the Program for Effective Water Governance there is an apex body in place that oversees water management in the country.

In some countries the apex organizations are housed outside the regular ministries. In Kenya for instance the Water Act 2002 established an independent Water Resource Management Authority (WRMA) that is responsible for the management of Kenya's water resources. Through regional offices in the six river basins, the WRMA is supposed to monitor water resources and administer the water resources regulations. Similar arrangements of apex bodies linked to local water management boards are in place in Ghana and Burkina Faso. Placing the apex bodies outside existing Ministries makes it easier to incorporate a range of players in these organizations, representing different categories of water use, private sector, civil society and local government, as with the Water Policy Commission in Uganda. In other countries, whereas there is a separate 'water' ministry the apex function is positioned within such ministries. In Tanzania the Central Water Board and the Basin Water Board are both hosted within the Ministry of Water, for instance.

In reality the effectiveness of the apex bodies is limited because of two related categories of reasons – resources and authority. Apex bodies suffer from inadequate personnel, resources or lack of understanding for instance in Benin, Burkina Faso, Ghana or Kenya. In other cases the analysis is that the apex bodies lack the practical authority to overcome powerful sector interests from hydropower or agriculture. In Kenya the Water Resources Management Authority has concentrated more on regulating water services and less on managing water resources. Other apex bodies have been passive. The Water Policy Commission in Uganda for instance has generally been inactive since its inception. The assessment is that the legal provisions establishing this WPC were adequate but it needs re-activation to undertake the roles for which it was formed.

Basin organisations

Another set of IWRM organizations that have been established are basin organizations. In the region transboundary basin organizations have a long history. The transboundary L'Autorité du Bassin du Niger that was for instance established in 1980 (replacing an even older organization, the Commission du Fleuve Niger dating back to 1964). In addition there are transboundary organizations for the Volta, Lake Victoria and Lake Chad, for example.

A general complaint in the functioning of these various environmental regulations is a lack of coordination between the different agencies responsible for the management of natural resources.

The effectiveness of the apex bodies is limited because of two related categories of reasons – resources and authority.

In comparison to the transboundary organisations, in-country basin management organizations are relatively new. In most countries such basin management organizations have now been established on a number of important river or lake basins. For instance in Tanzania water allocation and pollution control issues are managed by basin water boards of which there are nine. In accordance with the Water Utilization Act No. 42 of 1974 it is an offence to abstract, dam or divert water from a surface or underground source without a water right granted by the Principal Water Officer or any Basin Water Officer. Similarly it is prohibited by this act to discharge any type of effluent into a surface or ground water body without consent of a water officer. In Ghana the Densu Basin is a pilot programme initiated by the WRC to create a suitable basin-based management structure. The institutional framework centres on a Basin Office, Basin Board (bringing together a large number of public and private sector interests) and a Planning Office of the District Assemblies. Its core functions are less regulatory and more coordinating as compared to Tanzania. Its organisational structure is to liaise and collaborate with institutions within the basin for its proper management using IWRM approach. In Benin the basin organizations are similar in nature.

The in-country basin organization is faced with a number of shortcomings, which are partly similar to those of the apex organizations and partly typical of new organizations: inadequate staff capacity, lack of resources and modern equipment and in some cases no clear operational rules. In Kenya the position vis-à-vis local government is unclear and sometimes conflicting. Under funding and the insufficient capacity to generate resources of their own are highlighted as issues for basin organizations in Tanzania, Benin and Kenya. In some countries active membership is tilted towards public organizations, with civil society and private sector as add-ons.

The transboundary basin organizations similarly have difficulties in achieving their objectives. Several of them are very 'governmental', with no representation other than member states. Where the secretariats depend on payment from member countries, continuity is often in peril. In general there has been sufficient study in transboundary water management but limited implementation and hence visibility among the population.

Community resource management organizations

For several water management functions community organisations are the most appropriate level. Legislation with respect to community resource management organizations differs between countries and reflects the extent in which the State promotes co-management of water and other natural resources. In Benin, Burkina Faso and Niger there is a long history of legislation on community resource management with several legal formats to enable this.

It does not necessarily follow that in each of these countries local resource management is very manifest. In other countries local resource management is seen as a function of local government – for instance Ghana and Tanzania, through district environmental committees. In Tanzania for instance the Land Act (1999) and The Village Land Act (1999) declare all land in Tanzania to be "public land" and are held by the state for public purposes. The Acts empower the President of the United Republic of Tanzania, to revoke the "Right of Occupancy" of any landholder for the "public/national interest" should the need arise. This discourages community resource management.

Under funding and the insufficient capacity to generate resources of their own are highlighted as issues for basin organizations in Tanzania, Benin and Kenya.

In Benin, Burkina Faso and Niger there is a long history of legislation on community resource management with several legal formats to enable this.

Apex bodies in water management

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
		•		Benin	•	•	•	•
•		•		Burkina Faso				
•				Ghana			•	•
		•		Niger				•
		•		Kenya		•	•	
•				Tanzania				•
	•			Uganda			•	

Basin organisations

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
		•		Benin				•
		•		Burkina Faso	•		•	
		•		Ghana			•	•
		•		Niger				•
		•		Kenya			•	
•				Tanzania				•
	•			Uganda				

Laws or legal framework on community resource management organizations

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
		•	•	Benin		•		
		•		Burkina Faso	•	•		•
				Ghana			•	•
•				Niger		•		
				Kenya				
	•			Tanzania				
				Uganda				

Regulatory bodies

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
		•		Benin	•			•
				Burkina Faso				
	•			Ghana			•	•
		•		Niger			•	
	•			Kenya		•	(•)	
		•		Tanzania				
		•		Uganda		•		

Enforcement agencies (inspectories)

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
		•		Benin			•	•
•				Burkina Faso				•
	•			Ghana			•	•
		•		Niger			•	
	•			Kenya				•
		•		Tanzania				
		•		Uganda			•	

Awareness raising

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
		•		Benin		•		•
	•			Burkina Faso		•		
		•		Ghana		•		•
		•		Niger			•	
				Kenya				
	•			Tanzania				
				Uganda				

2.3.2 Regulatory bodies, enforcement agencies and awareness campaigns

Whereas apex bodies, basin management organizations and community organizations aim to safeguard the coordinated development of water resources, a second category of institutions that have come up are concerned with the effective implementation of IWRM: regulatory bodies, enforcement agencies and awareness campaigns. Regulatory organizations are emblematic of a separation between execution and regulation – and efforts to create more accountability by segregating these two functions.

These environmental agencies, however, typically suffer from large mandates.

Regulatory organizations

In most countries steps have been taken to establish regulatory organizations. In Benin the regulatory mechanisms are being reviewed as part of the formulation of the new water law. Where new apex bodies are created, as in Kenya or Ghana, these apex bodies are supposed to regulate the use of water resources. In Niger, Tanzania and Uganda these regulatory functions in water management are vested with the ministries or sections thereof. In most countries environmental protection agencies have some regulatory functions in water management as well, especially on water quality or upstream protection. These environmental agencies, however, typically suffer from large mandates, which are difficult to do justice to. In general inadequate capacity, especially at local level, lack of familiarity and sometimes political interference hamper effectiveness. In Uganda poor planning regulations especially from other agencies that have a stake in water resources management such as municipal and town councils jeopardizes. Lack of implementation capacity e. g at the local government levels hampers the role of the Directorate as a regulatory body.

In some countries in addition regulatory organizations have been created that regulate water related services, in particular the Public Utilities Regulatory Commission in Ghana or the Energy, Water Services Regulatory Board in Kenya and Water Utility Regulation Authority in Tanzania. In Ghana the Water Resources Commission regulates the allocation of raw water resources

Enforcement agencies

The second category of organizations are enforcement agencies or inspectorates. In some countries there are several such inspectorates. In many countries such inspectorates are still very sectoral. In Benin for instance there is the sanitary police, environmental police, fishery and forestry inspectorates. In other countries there are environmental inspectorates but no matching organizations for water resources management.

Effective enforcement requires local enforcement. In some countries there are provisions to engage local organizations. In Niger the enforcement by law is explicitly placed with local governments. In Kenya the minister, by notice in the Kenya Gazette, can appoint provincial and district environmental committees in every province and district. These Committees will be responsible for the proper management of the environment within the province and district. The EMCA 99 Environment Management Coordination Act gives provision for complaints committees, which can undertake in-depth and independent investigation. In Uganda similarly local administrations (at various levels) are to be involved in the management of the environment through District Environment Committees, which enables public participation

In many countries such inspectorates are still very sectoral.

in environmental management at the lowest level.

Where inspectorates exist the problems to come to effective implementation are the commonplace constraints of inadequate capacity and facilities (especially transport and laboratory equipment). In addition the inspectorates are often little known – and are seen to ‘impose’ regulation rather than support local management. In other countries such as Niger where considerable responsibility on paper is vested with the local government these provisions are not known and not activated.

Awareness campaigns

Implementation of IWRM is greatly facilitated by awareness building. Awareness building can help to create general and equal understanding of water issues, encourage good water behaviour and create ‘social norms’ as well as promote local championship in water resources management. With respect to water governance, awareness can prepare the ground for the introductions of new laws and regulations and make sure they are not seen as alien or imposed.

Much of the water awareness activities, that are taking place in the different countries, are very general in nature, making use of mass media to raise the profile of water. In addition, however, there are also several examples of specific awareness building – for instance on sanitation and safe water handling around water points in Niger. In Tanzania the directorate of water resources in the ministry of water has a unit dealing with awareness issues. Its major function is to promote efficient water resources management by raising awareness of communities. The unit goes beyond this general task and also organizes dialogues between the different parties.

It appears that awareness activities at times fail to reach their target, as the objective of the awareness activities are not always clear and as a result lack the focus to reach the right audience with the right message. In general it appears there is very little awareness in support of more effective water governance. This is a missed opportunity because legal information campaigns are powerful instruments in making new laws and institutions more broad based. Another observation from the various countries is that in awareness building there are many ‘one-offs’: there is a lack of integration with others and as a result no critical mass or gestation occurs.

With respect to water governance, awareness can prepare the ground for the introductions of new laws and regulations and make sure they are not seen as alien or imposed.

2.4 Water service providers in IWRM

In addition to organization in water management and regulation, water service providers play an essential role in water management and water service delivery. A trend parallel to the promotion of IWRM has been the separation of implementing and regulatory responsibilities and the larger engagement of local private sector and community organisation in water and sanitation services.

2.4.1 Urban water supply

In most countries public drinking water companies provide water supply and (in some cases) water treatment services in urban, peri-urban areas and small towns above a minimum size. In Benin SONEB is created under the tutelage of the Ministry of Water. SONEB will. A comparable arrangement is in place in Burkina Faso (ONEA), Ghana (Ghana Water Company Limited), Niger (Société de Patrimoine des Eaux du Niger). In Uganda the National Water and Sewerage Corporation (NWSC) is responsible for the larger cities. Large towns under NWSC have a population of about 2.1 million people accounting for 57 per cent of the urban population in the country. The NWSC has over the last 8 years significantly improved its performance. The NWSC adopted a number of strategies to ensure compliance with its targets. The NWSC receives some subsidies in form of investment funds mainly from the donors. The NWSC also cross-subsidises the operations in the different towns, with the more profitable ones supporting the weaker ones. In line with the ongoing reforms, NWSC is in the process of transforming the existing Area Management Contracts into Internally Delegated Area Management Contracts (IDAMCs). The first such contracts were signed in December 2003, and focus on the overall sector reform objective of separating operations from asset management

In all countries private sector services delivery has been promoted. In Niger an affrimage contract with performance criteria is granted to SEEN (Société d'Exploitation des Eaux du Niger), a private company, to provide urban water services. Similarly in Uganda the policy is that small town water services are performed by private operators under the supervision of the local authorities. This policy is already in place in 57 towns, while the remaining 10 are still operated by the town councils. In Tanzania. Kenya and Ghana private operators are increasingly made use of – sometimes under contract of the public water company.

There are still a number of issues – the capacity of the some of the public water companies is weak – in terms of overall service delivery and revenue collection. The GWCL in Ghana is faced with non-revenue water of over 50% – which undermines the financial sustainability and capacity to perform and expand, particularly in the context of financial autonomy. Similarly in Niamey the technical services are satisfactory, but the financial position makes it difficult to expand services to peri-urban areas. In other countries the perilous financial position of service providers makes it difficult to undertake basic maintenance and result in water services that are expensive for the quality offered – for instance in Kenya and Uganda. In small towns it is problematic to recruit trained technical personnel.

In some cases water larger water resource management issues jeopardize services – for example saline groundwater intrusion in Godomey in Benin.

In Niamey the technical services are satisfactory, but the financial position makes it difficult to expand services to peri-urban areas.

The role of the public sector in rural water supply is far more prominent. Most investments in community water supply systems in rural areas come from national or international public funding.

2.4.2 Rural water supply

In contrast the role of the public sector in rural water supply is far more prominent. Most investments in community water supply systems in rural areas come from national or international public funding. A typical example is the Community Water and Sanitation Agency (CWSA) in Ghana. This autonomous body under the MWRWH, is responsible for the overall management, planning, budgeting, resource mobilization and coordination of rural water and sanitation projects. Being the focal point of rural water supply, CWSA collaborates with a large number of donor organizations. Apart from routing public investments to rural water supply systems, planning guidelines and model designs are prepared by the public organizations and efforts are made to set up local committees that will undertake management and take care of financing operational costs. There is in general very limited synergy in this sector with private investment in individual systems, even though in several areas private wells and other family systems account for a large part of the service delivery.

In general there is a weak integration of the irrigation sector with the overall water resources sector.

The weakness in this sector is that often self-financing is weak, related sometimes to weaknesses in community management and government surveillance, posing a threat the sustainability of the rural water supply systems. This is reinforced by the limited availability of technical staff at field level both in the public, private and non government sector. In some countries donor-dependency is high and is likely to remain so in the wake of the various investment programs that mean to achieve the Millennium Development Goals in water supply.

2.4.3 Water treatment

Water treatment is largely limited to urban environments. In Burkina Faso and in Ghana it also comes under the responsibility of the public drinking water companies. In some countries an elaborate system of water quality control is in place. In Kenya for instance the Kenya Bureau of Standards (KeBS) and NEMA ensure the quality of water through the water quality standards, which are benchmarks, established for various uses. In Niger public and private organization test water quality with crosschecking done in principle by third parties.

As elsewhere it is difficult to maintain quality services in water treatment. In poor economies water supply almost always takes precedence over water treatment. In Burkina Faso and Niger the different waste producing industries are inadequately organized to start common industrial treatment facilities. In Uganda the small operators do not have economies of scale, making water treatment services in small town relatively costly. Overall several treatment plants are outdated and replacement is delayed.

2.4.4 Irrigation and flood control

Irrigation development in several countries holds much promise but unlike other part of the world irrigation departments do not have long institutional history in the countries covered under the PFWG. In Niger irrigation potential for instance is estimated at 270,000 ha, of which less than a third is developed. In some countries (Niger and Tanzania) irrigation is placed in the framework of national food security, whereas elsewhere irrigation is placed within a broader framework of integrated water resources management. In Uganda for instance the Departments of Farm Development (DFD) has the

mandate to promote and spearhead sustainable agriculture through the provision of guidance and strategies in, among others, irrigation, drainage and water harvesting. The DFD's major responsibility is to modernize agriculture by transforming subsistence agriculture into an economically viable venture, through the promotion of appropriate technologies in the water sector. The Irrigation and Drainage Section within the Division of Watershed Management of DFD is oversees issues related with promotion and modernisation of agriculture through irrigation.

In general there is a weak integration of the irrigation sector with the overall water resources sector. Where basin management initiatives exist, as for instance in the *Aménagements Hydro-Agricoles* in Niger they are not updated and brought in line with present-day imperatives in water management. In other countries (for instance Ghana, Kenya and Tanzania) there is no policy process in the irrigation sector, which makes it hard to connect. Given the ambitions with regards to irrigation in several countries it is important that such processes make a start.

Urban water supply services

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
		•		Benin				•
		•		Burkina Faso				
	•			Ghana			•	•
•				Niger				•
	•			Kenya			•	
•				Tanzania				•
	•			Uganda			•	

Rural water supply services

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
		•		Benin			•	
		•		Burkina Faso				
•				Ghana			•	
		•		Niger				•
		•		Kenya			•	
	•			Tanzania				•
	•			Uganda			•	

Water treatment services

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
	•	•		Benin				•
		•		Burkina Faso				•
	•			Ghana			•	
		•		Niger				•
	•			Kenya			•	
	•			Tanzania			•	

Irrigation/flood control services

Status of effectiveness					Barriers to effectiveness			
Very effective	Much activity but not effective	Only part of mandate done	No action		No authority Not operational	Not recognized or known	No capacity or enforcement	No integration
		•		Benin				•
		•		Burkina Faso				
	•			Ghana				
		•		Niger				•
		•		Kenya		•		
				Tanzania				
		•		Uganda		•		

2.5 Coordination mechanisms

2.5.1 Agriculture

Agriculture is an important economic sector in terms of employment, water consumption and in some areas pollution. Yet in most countries there is no coordination between the agricultural sector and the water sector.

Burkina Faso is the main exception where at interministerial level there is the Comité Technique de l'Eau (CTE). The mandate of this technical water committee is to coordinate the policies of the different ministries with respect to water. The committee has held several sessions since its establishment in 2004.

Also in Niger, there is a National Water and Sanitation Commission (Commission Nationale de l'Eau et de l'Assainissement or CNEA), established very recently (Décret N° 2006/032/PRN/MHE/LCD of 03/02/06). Its tasks are consultative and coordinating and it will have seven water management units in the country.

2.5.2 Energy and forestry sector

Similarly there is in several countries limited coordination with the energy and forestry sector. This is a pity because many basins are severely affected by charcoal production and firewood collection. In addition there is a strong link between water management and hydropower.

In Burkina Faso however the Technical Water Committee tries to synchronize policies in both fields. Similarly the forestry and energy ministries are represented in the board of the Water Resources Commission in Ghana. In Tanzania the coordination is initiated from the National Environment Management Council (NEMC), which is mandated to oversee the effect of energy sector (and other sectors) to the environment. In addition, there are interministerial coordination protocols, guiding the work of the Ministry of Energy and Minerals.

2.5.3 Local governments

In many countries there has been a process of decentralization recently, giving local governments a larger role among others in water resource management, water supply and sanitation and solid waste management. In Burkina Faso the main function of local authorities is in solid waste disposal. The same is the case in Tanzania. In Tanzania much progress has been made by involving the local private sector in solid waste disposal.

In other countries local government has a larger role in water supply services, though in some cases there is an amount of ambiguity. In Kenya local authorities were given a role in water services, but with the substitution of the Water Act (cap 372), the responsibility is now transferred to the water boards. In Benin water supply services – in addition to waste disposal development and maintenance of water resources were supposed to be transferred to local governments, but this transfer is effective in a few cases only.

The role of local government in Ghana, Uganda and Niger is more substantial. In Niger municipalities are tasked with urban drainage and storm water disposal, as well as the maintenance of public water points. In Ghana local

The forestry and energy ministries are represented in the board of the Water Resources Commission in Ghana.

In many countries there has been a process of decentralization recently, giving local governments a larger role among others in water resource management, water supply and sanitation and solid waste management.

government are an implementing partner in the provision of water supply services. District Authorities have to pay 5% of capital cost contribution for community water and sanitation sub-projects, have to select beneficiary communities and to contract the private sector to provide the goods and services for the implementation of water programs. The National Sanitation Policy gives mandate to local government for the provision of sanitation services as well.

In Uganda decentralisation has moved furthest. The water and sewerage boards at the Town Council level are mandated with overseeing effective water supply and sewerage management. Water supply is mainly implemented through management contracts with private water operators. In contrast sewerage services have lagged behind.

In water resource management the role of local government is smaller. In general the functions of local governments in spatial planning (where there could be a strong link with IWRM) are not articulate. In Burkina Faso IWRM the Ministry of Water Resources does planning at basin level. The same applies in Tanzania and Kenya, where river basin organisations are entrusted with this task. As yet there is not much interaction between the organisations and local governments. In Niger under the new framework water users associations are expected to play a role in water resource planning, however this framework is not operational yet.

Though the principle of managing water at the lowest appropriate level is sound, with respect to local government it is limited to water supply and sanitary services – not to IWRM. In several countries, moreover, there are issues of capacity – for instance in local drainage (Benin) and in general in the practical skills of local actors (Niger). Decentralization has also come with delays in the transfer of responsibilities and in overlapping and non-matching mandates in water supply (Niger) and sanitation (Burkina Faso). In other cases fiduciary problems at decentralized level slow down disbursements and investments.

It is important to have the new governance architecture, but a similar effort has to take place to make it work effectively.

There is a need to move land use planning out of a limited domain by popularising the different legal provisions, so as to link a larger constituency to this topic.

3. Actions

Impressive achievements have been made in the last ten years in putting in place the architecture for water governance in all countries that were part of the Program for Effective Water Governance. Though routes and trajectories have been different, considerable efforts have been made everywhere to announce new laws and regulations and set up institutions and regulatory mechanisms. It seems like the construction is all in place and in many cases follows international good practice, but that in many cases the house is still empty. The challenge at this stage seems not to have more governance arrangements but to have more effective water governance on the ground, on the basis of the institutions and mechanism that are in place. In other words – to make water governance effective it is time to match all the new institutions with human resources, with initiatives and active and broad stakeholder engagement.

The national discussions and the scorecard process identified a large number of activities in this regard, particular to the country and particular to the field of governance within the country. These activities can be summarized under three headings: *Operationalizing*, *Activating* and *Linking*. In a number of cases new governance arrangements are on the drawing table, but they need to be *operationalized* in official policy and law, supported by more precise operational guidelines and criteria and synchronized with possible overlapping governance arrangements. In other cases *activation* is the key word: supporting what is agreed and what is written down with capacity building and resourcing water governance with laboratory facilities, transport and others. In this respect funding is of high importance – how to be able to sustainably finance the transaction costs that are inevitable in water governance? Finally *linking* is important – popularising the different new laws and institutions through awareness building so as to draw in a large audience in their implementation; synchronize water governance with the work of local governments and informal organizations; and more closely cooperate with important sectors and organisations, in particular agriculture, energy and environment, making an effort to dovetail activities and programs.

What is becoming clear from the country cases is that water governance is a 'necessary condition' for sustainable water management but not a 'sufficient condition'. In other words it is important to have the new governance architecture, but a similar effort has to take place to make it work effectively.

Several next steps have been identified and discussed as part of the Effective Water Governance process, and these now need to be supported. In operationalizing the legal framework on water allocation, water quality and conflict resolution (section 2.1) the priorities are to iron out a few remaining inconsistencies in case of legislation on water allocations and agree on criteria and monitoring mechanisms in case of water quality. In several countries the need to activate the legislative frameworks with inspectorates or a water police was mentioned. Also the need to familiarize all those that are involved or affected by the implementation of these laws through governance awareness campaigns was highlighted – from the general public to lawyers and magistrates. Water quality management is of particular importance as it seems that in several countries pollution of water bodies is taking place, that may prove very difficult to repair in the future.

With respect to making the different regulatory mechanisms (section 2.2) in water management effective – in particular in land use planning, groundwater management and water-related nature protection – a comparable set of activities emerges. In case of groundwater management the priority is to

Community resource management organizations can also play a larger role in water resource management.

Awareness raising can be very powerful and the need for special legal and institutional awareness campaigns has been made several times. This would make water governance less exclusive and reclusive.

create the legal basis for effective groundwater management, which may have to go beyond drilling licensing procedures. In many countries groundwater resources are also a big 'unknown' and more investigation is required without this being considered the end-point in groundwater management.

In IWRM land use planning can be a powerful instrument and stronger linking is required between water management and the sometimes many land use planning mechanisms in the countries. The point was made in a number of countries that political interference is rampant in land use planning and hence there is a need to move land use planning out of a limited domain by popularising the different legal provisions, so as to link a larger constituency to this topic. There is also a need to develop special enforcement cadres rather than let speculation rule land management. There is similarly a large need to harmonize the different instrument that exist in environmental planning and environmental management with water management. The linking would work two ways – it enlarges the repertoire of water governance instruments and it will systematically incorporate environmental concerns in water management, for instance in wetland management, environmental sanitation and in safeguarding environmental flows.

The past ten years also has seen considerable energy in setting up new organizations to support IWRM (section 2.3). In almost every country there is a national apex organization for water management, sometimes as part of the main ministry, sometimes set up as a coordinating mechanism outside the line organizations. Many of these apex organizations are relatively weak still and to activate them capacity building and adequate resourcing is required. Also in some cases it is important to broad-base the apex organizations and have more involvement of non-state organizations in their day-to-day activities. Similar points are made with regards basin organisations. In some countries these are on the drawing table and now need to be operationalized. Where they exist they would need to be activated by capacity building initiatives as well as more consideration to their long-term financing. Community resource management organizations can also play a larger role in water resource management than what happens currently. Their activities would need to be integrated in the larger picture of IWRM and the interaction with basin organizations and other water management organizations would need to be identified. Having legal frameworks for community resource management organizations, having legal framework is useful, but not enough. In many cases local resource management needs to be activated and encouraged – one can not always assume this to happen spontaneously.

Another set of organizations that have come into being in the implementation of IWRM are regulatory organizations, enforcement agencies and awareness campaigns. To activate the regulatory bodies in water management and water supply services they need to be better resourced with staff and facilities. At the same time more thought is required into their long-term financing. Enforcement agencies are now often still very sectoral in nature and usually attached to a special ministries. It is recognized that they have a large role to play in the implementation of IWRM and better linking is required between the different inspectorates and IWRM activities. Also in a number of cases there is scope to make the inspectorates more effective by expanding their scope of work and authority.

Awareness raising can be very powerful and the need for special legal and institutional awareness campaigns has been made several times. This would make water governance less exclusive and reclusive – but would make the new laws and organisations instruments for many to use. In general there is

The role of urban water service providers is becoming increasingly important with the global demographic shift towards cities and with urban cities becoming centres of growth and development.

a need to be more specific on the target groups and outcomes of water awareness campaigns, do better planning, more creative linking (to unexpected constituencies for instance religion or business) and create a larger critical mass between the now large number of small one-offs in awareness building.

The implementation of IWRM hinges not only on basin organizations and regulatory bodies but also very much on the functioning of the main water service providers (section 2.4). Their role is also crucial in basic poverty alleviations and in the fulfilment of the Millennium Development Goals.

The role of urban water service providers is becoming increasingly important with the global demographic shift towards cities and with urban cities becoming centres of growth and development. To improve their functioning capacity building of the water service providers (in most countries a public corporation) needs to be improved as well as that of their local partners – through training, (water quality) monitoring and creating the capacity to implement and maintain water facilities. As all cities grow there is a constant challenge of serving the peri-urban areas. There is a need for public drinking water companies to link and engage themselves more effectively in partnerships with community organisation and strengthen client relationships. A major challenge for urban water service providers is financing. The trend in urban water supply is that of full self-financing of services, but in particular in funding sanitation and water treatment services this requires a lot of innovation. In general there is a need to expand the scope of urban water services to urban water management and more systematically link with urban storm water management, water resource protection and the development of urban water amenities.

The challenges for rural water service providers is different. In most countries investments in rural water supply are still largely funded from public sources, with donor contributions taking care of a large part of this. The main challenges are to closely link and tap into the private sources of rural water supply financing. In many areas there is considerable private and community investment in wells, drinking water ponds and other water supply facilities. The challenge is to synchronize these two local financing flows – public and private - and have local capacities in developing and maintaining water facilities support both. The common modality is for local communities to manage the rural water facilities: these communities need to strengthened and activated and supported by local service providers.

Another service provider, that is weakly developed in many African countries, including the countries covered in the Program for Effective Water Governance, are irrigation and flood control organizations. Much of the irrigation development in Africa is small scale and scattered. As a result strong organizations in irrigation development and flood management have not developed. However with the increase in irrigation, there is a need to activate, develop cadre and integrate irrigation and flood management in IWRM. In general coordination with the agriculture sector as well as the forestry and energy sector is undeveloped terrain, but important opportunities exist in coordination and in developing joint programmes in water management extension and watershed protection.

Finally, in many countries decentralization is a given and promoting effective water governance needs to capitalize on this. The capacity of local government in providing basic services – where they are mandated to do – in water supply, sanitation or solid waste management needs to be strengthened, often in conjunction with local private parties. In many cases the creation of water units within the local governments should be

The challenge is to synchronize these two local financing flows – public and private - and have local capacities in developing and maintaining water facilities support both.

considered.

To take the above recommendations further, a number of action proposals have been developed as part of the Program for Effective Water Governance. In Kenya an action proposal was developed to integrate environmental concerns in the Tana river basin and better organize the different players and stakeholders in sound environmental management, In Ghana a proposal to support capacity building for local government in water resource management was prepared. In Uganda the proposal concerned the activation of catchment management in Kyoga catchment zone - including the strengthening of water management through the districts. In Benin action proposals were formulated for a legal awareness campaign on the various water laws and institutional reforms, using a wide range of media. In Niger similarly a comprehensive information and communication campaign has been proposed as well specific activities to training water users as well as legal personnel in water governance and to more effectively engage women in water management. In Tanzania the strengthening of four important Basin Water Boards for effective coordination of water management and minimization of water use conflicts has been prepared. In Burkina Faso a comprehensive program of integrating improved water governance in the National IWRM Plan was prepared.

Interest in the topic of water governance has been unexpectedly high in all countries where the program was implemented. Given the potentially 'abstract' and 'vague' nature of the concept of water governance this was surprising and encouraging. Instead of everywhere a large number of practical next steps have been identified to make water governance more effective and make it instrumental to sustainable resource management, poverty alleviation and the improved coverage of water-related services, as described in the Millennium Development Goals.

It is sincerely hoped that the Program is followed through, by scaling it up to other countries, by implementing the action proposals and also by developing cross-cutting and even regional programs in support of the various themes in effective water governance.

Everywhere a large number of practical next steps have been identified to make water governance more effective