



**GOOD GOVERNANCE AND USERS' PARTICIPATION IN
PUBLIC WATER SUPPLY MANAGEMENT IN URBAN AND
PERI-URBAN ZONES FROM DEVELOPING COUNTRIES**

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Belgium, 13 April 2004

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INTRODUCTION

One of the best answers to the world's urban water crisis nowadays is given by the study and knowledge of user's participation issues within the good water governance context.

In the twenty-first century the overriding problem is one of water access, quality and management, as the number of people dying from water related problems like diarrhea diseases is equivalent to twenty fully-loaded jumbo jets crashing every day, with no survivors¹. Moreover, this water crisis is especially stressful and dramatic in the urban and peri-urban zones of developing countries, due to the population growth and urbanization, because as population increases, natural resources' use inevitable declines.

Meeting the water needs of fast-growing cities can be extremely challenging and new ways of responding to rapid change and making urban environment sustainable are being explored to come up with possible "solutions" especially through better management or good water governance, implying an active participation of the population involved. Thus, in this paper special attention will be paid to the good governance issue, trying to get to know in depth what implies sound water management, taking into consideration what makes governance effective can differ from context to context and depends on cultural, economic, social and political settings.

In this context several questions are formulated, like: "how are public authorities (e.g. municipalities) dealing with the challenge of learning to work with poor communities to deliver services?", a question that can be translated as: "which is the 'best option' to empower people to develop a shared water management in cooperation with the public authorities?", or another question like: "how can donors cooperate with local government officials to help develop the will, skills and capacity to work with citizens?". It is not easy to give an appropriate and perfect answer because it is difficult to generalise about more effective approaches to water management when considering all the world's cities. Nevertheless, intending to give an answer, on the level of policy making, local communities have increasingly become the focal point on the development agenda. Much of the competence of civil society organizations is found in their knowledge and within the local context, which are important in choosing appropriate solutions. So, due to the vital importance of user's participation within the good water governance context, a part of this paper will be dedicated to understand the complex issue of participation and a special emphasis will be paid to the ways and levels of user's participation.

Due to the public nature of the water resource, good governance must refer to a gamut of relationships – formal and informal – at different levels between the civil society and the state. Thus, water provision should be seen as a basic service where citizens and their social and economic organizations can play a role in the urban governance together with the government. Nevertheless, although it might be seen very difficult to achieve this in practice, is not at all impossible.

The Porto Alegre (Brazil) case analysed in this paper, is one of the most important examples of user's participation in a public water undertaking for an urban zone. This case shows how the public department of water supply and the civil society can work together through a participatory management system that systematically involves members of the community in the decision-making process.

Other interesting cases in urban and semi-urban zones are the Community Water Board in Itagua (Paraguay), The Saguapac Co-operative model in Santa Cruz (Bolivia) and the Urban Community

¹ Information based on the book "*The World Water Assessment Programme. Water for people, water for life*" United Nations World Water Development Report. 2003

Management in Lusaka (Zambia). In these cases, the main actor is the local community, which is responsible for the management of the water system, but it shares this role –somehow and in a lesser extent- with the public authority, remaining the ownership of the asset in the hands of the government.

These best practices of users' participation in the management of the water supply represent the possibilities and hopes for the thousands of people in the south whom are still looking for their -so expected- sustainable development. I am still wondering though, how these possibilities and hopes are being considered in the "north" within the international cooperation field.

In my opinion, these cases are emblematic symbols of effective coordinated work between the civil society and the public authorities to manage the water service provision; but in spite of their importance and success, these models, although recognised as valuable by the international community, aren't yet fully promoted. Moreover, within the international context a strong commitment which implies three radical changes are needed: a change of mentality, a more efficient management of the water sector and hydraulic infrastructures, an increase and more efficient use of financial resources.

I think the cases that will be analysed in this paper are accepted as "good" alternatives by the actors from the north; but it is necessary not only to recognise these cases as "best practices", but also to extend the models' application in the south. To do so, many political and economical interests behind the water management system should be diminished and eliminated, because it is important to believe that a change, especially in the north, is possible to create a real sustainable development

I. URBAN AND PERI URBAN ZONES' SITUATION

As mentioned in the introduction, the twenty-first century is the one in which the overriding problem is one of water quality and management. Water management has evolved, but in 2003 some 25,000 people are still dying from malnutrition and 6000 people, mostly children under the age of five, are dying from water-related diseases each day

Nowadays, both the availability and use of water are changing. The reasons concerning the world's water resource can be summarized within three key areas: water scarcity, water quality and water-related disasters. It has estimated that today 1.1 billion do not have sufficient drinking water and 2.4 billion have no provision for sanitation (WHO/UNICEF, 2000)

1. Urban Zones²

According to the UN Human Settlements Programme, in 1800 only 2% of the global population lived in cities and by 1950 already 30% was urbanised. By 2000, 47% of the world's population was estimated to live in cities, while projections for 2030 suggest this percentage may climb to 60%. Urbanisation rates in developing countries outstrip those in industrialised countries, with Africa – still predominantly rural (37.5% of urbanisation in 2000) – showing the highest annual growth rates at almost 4.9%.

In 1975, five mega-cities had populations in excess of 10 million inhabitants – Tokyo (19.8 million), New York (15.9), Shanghai (11.4), Mexico City (11.2) and Sao Paulo (10). By 2000, their ranks had swelled to 19, a large majority of them in developing countries. In addition, the world today has 370 cities with between 1 and 5 million inhabitants. Many of the inhabitants of these big cities live in slums and have no or inadequate access to running water.

1.1 Urban Zones and Water

The world is changing at an ever increasing rate. Many of these changes are having an impact on how humans utilize the world's water. In this context, two main aspects are important to highlight: population growth and urbanization

- *Population growth*

Rapid growth of the world's population has been one of the most visible and dramatic changes to the world over the last hundred years. Population growth has huge implications for all aspects of resource use, including water. As population increases, fresh water increases and supplies per person inevitably decline.

Specially, there exists a fast urban growth in the less developed countries: while the most developed regions still have a much higher percentage of their population living in urban areas, the 2015 projection shows the beginning of a reversing trend, with half of the population of the less developed regions living in urban areas, i.e 75 percent of the world's urban population.

As centers of economic and social activity, cities provide a unique critical mass of highly productive skills and opportunities that drive development forwards – but at a cost.

² Information based on the EU Water Initiative: http://europa.eu.int/comm/research/water-initiative/urbanisation_en.html and "The World Water Assessment Programme. Water for people, water for life" (2003). Op. Cit.

Many urban residents, and specially the poor, have only intermittent or no water supplies and no sanitation. For the urban poor, this lack of access to safe water and basic sanitation causes widespread illnesses that further limit their productive capabilities.

Nevertheless, although population growth rates are reducing and global population will eventually stabilize, the increase in numbers of people will still be a major driver of water management for at least another fifty years. The most alarming projections suggest that nearly 7 billion people in sixty countries will live water-scarce lives by 2050. Even by the lowest projection, just fewer than 2 billion people in forty-eight countries will struggle against water scarcity in 2050.

- *Urbanization*

In addition to general population growth, the changing demographics are affecting how water resources are managed. At the beginning of the twentieth century, only a small percentage of the population lived in cities in most regions of the world, but as the world population has increased, so has the proportion that live in urban areas. Between 2015 and 2020, urban population will exceed the one rural for the first time.

Among the consequences of this urban influx are the overloading of water supply and sanitation infrastructure –situation made worse by the geographical location of some of these cities. The problems of water supply have forced many urban authorities to over-exploit fragile sources, such as aquifers, and there are many examples of falling water levels in many cities (e.g. Manila in the Philippines). Deterioration of water supplies and sanitation leads to a progressive decline in urban living conditions- water shortages, pollution and unsanitary water conditions all of which contribute to an urban water and health crisis. Many poor people in cities also pay very high prices to private vendor for their water. Inadequate coverage and decline in urban infrastructure hits the poorest the hardest as wealthier households tend to have access to urban water supplies or can afford tube wells if the supply is unreliable or of poor quality.

Among others, water problems related to uncontrolled city expansion include:

- Difficulties in protecting water resources in urban development occur within watersheds and surface water sources become polluted.
- Damage to drainage systems, such as land clearance and deforestation
- Increases in wastewater, storm and surface runoff flows with the expansion of impermeable surfaces and extraction, use and disposal of available water resources, which often bring increased risks of flooding and reduced infiltration and recharge of aquifers
- The impact on peri-urban agriculture, as most major cities grew within fertile agricultural areas.

In this context, in order to have a clear view related to the water and sanitation crisis in all over the world, it is possible to make a difference between those countries with very high quality of provision for water and sanitation and those with little or none. So, basically there are three levels of provision:

1. In high-income countries, there is more or less universal provision of advanced water and sanitation facilities and other city water services, most of which provided by public sector utilities. The main challenges revolve around prevention of microbial and chemical contamination of water distribution systems, optimising the efficiency of utility operation both in economic and in ecological terms, dealing with issues of asset renewal and management residuals for water treatment, and ensuring that the impact of effluents from wastewater discharges on receiving waters remains within acceptable levels.
2. In middle-income countries, a great deal of water and sanitation infrastructure exists but it is often in poor condition. The service delivery systems are frequently underfunded, poorly

managed and in a poor state of maintenance with high levels of water leakage, and inadequate wastewater treatment. Here the most pressing issues are usually related to improving efficiency, infrastructure maintenance, renewal and extension, pricing and revenue collection, and more effective supervision and enforcement of regulations on industrial pollutants.

3. Lower-income countries have particularly difficult problems. They have less water and sanitation infrastructure than high- and middle-income countries. Likewise, their institutions and management systems are generally underdeveloped, and their overall capacity to deliver a reasonable water and sanitation service is very low. Big cities generally have some water and sanitation infrastructure in their central areas. However, in many peri-urban areas of large cities and in most smaller urban centers, water and sanitation infrastructure is very limited, and there are problems with industrial pollution. The overall result is widespread microbial and chemical pollution of water sources in and around the cities.

1.1.1 The Urban Challenge: Water Provision³

The proportion of the urban population in each of the world's region with access to "improved"⁴ sources of water and improved sanitation in 2000 can be appreciated in Annex 1, where the most relevant information is the big difference between the data from Europe and North America showing practically 0% of people unserved, in comparison to Africa and Asia where this percentage reaches 20% in the case of urban sanitation for Africa.

At present many developing countries have difficulty in supplying the minimum annual per capita water requirement of 17 cubic meters of drinking water necessary for active and healthy life for their people. The situation is particularly grave in many cities of the developing world. This is worrying given the predictions of a 60% world urban population by 2030. So, it is clear to say that at present, half the population of developing countries lives in water poverty.

According to what has been said, urban services face the greatest challenge: more than one billion additional people will need access to both water supply and sanitation over the next 15 years in order to meet the Millennium Development Goals⁵. Even to maintain the year 2000 proportional level of coverage in urban areas until 2015 will require an estimated 953 million people to gain access to water supply and an additional 838 million to sanitation; an effort equivalent to water supply and sanitation infrastructure development for a population three times the size of that of North America. So, meeting the water needs of fast-growing cities can be extremely challenging.

2. Peri-Urban Zones or Small Towns

The peri-urban zones or small towns, formed around the cities due to the uncontrolled physical growth, represent an important aspect of urban environment. Nowadays, most of these surrounding areas are considered as complete cities themselves with an often dynamic development of food, energy demand and production, and vibrant socio-economic structures. This is why they deserve special attention in order to understand further issues.

³ Information based on the "World Water Assessment Programme". UN. Op. Cit.

⁴ For this assessment, certain types of technology were designated as "improved" based on the likelihood that the water and sanitation provided were safe.

⁵ The Millennium Development Goal concerning water indicates "to halve, by 2015, the proportion of people who are unable to reach or to afford safe drinking water"

Nevertheless, although the peri-urban interface has attracted increasing attention, at it present is still poorly understood and some say towns are simply large villages so one should approach them as one would rural water supply, others say they are small urban centers, thus to approach them as extensions of urban water supply⁶.

Conceptually 'small towns' are difficult to understand. They exist somewhere in the continuum between the truly rural (villages) and the truly urban (towns and cities, with the infrastructure and institutions which go with them). The following list covers a number of the more important aspects of small towns⁷:

- Host a high proportion of the world's population which is projected to increase considerably over the coming years;⁸
- Can be business and trade centres that attract people from rural areas, and are dynamic and constantly evolving environments;
- Can be 'dormitory' settlements scattered around larger urban areas and projected to expand in the near future;
- Can be the product of increasing population density, which start to merge into a frequently unplanned town like structure;
- Are frequently at the intersection of major transport links (roads, railways, rivers);
- Frequently have a highly diverse population with a high proportion of transient inhabitants;
- Frequently lack the 'homogenous' or 'cohesive' community of rural areas, but have yet to develop the neighbourhood structures of true towns;
- Often lack a clear presence in institutional arrangements and can be managed at either the local municipal level or at the regional/district level.

This is probably wise to go in attaching a hard definition to small towns. The main points are : rapid growth, a variety of systems and the need to take a long term and a flexible approach to planning its needs. What constitutes a small town is highly context dependent, perhaps the simplest way to think of them are as rural areas in the process of becoming urban, and in need of support to make that transition. Water supply considerations taking into account continuing rapid population growth, improving infrastructure (roads, electricity), changing levels of education and economic growth, there continues to be a powerful dynamic of the rural-to-urban population movement. While migration to mega-cities receives much of the international attention, the mutation of villages or roadside 'business centres' into larger settlements and then into genuine towns is largely ignored.

2.1 Peri-Urban Zones or Small Towns and Water⁹

Water supply and sanitation in small urban centres has received much attention during the last two decades. Given the fact that more people live in small towns than in rural communities or urban centres and the relatively poor level of service in them, there's growing consensus that they deserve better.

In this context it is possible to say small towns are settlements that are sufficiently large and dense to benefit from the economies of scale offered by piped supply systems, but too small and dispersed to be efficiently managed by a conventional urban utility¹⁰. They require formal management

⁶ See http://europe.eu.int/comm/research/water-initiative/urbanisation_en.html

⁷ See: MORIARTY P, PATROCOT, G and others (2002) *"Between Rural and Urban: Towards sustainable development of water supply systems in small towns in Africa"* IRC/International Water and Sanitation Centre.

⁸ See Annex 2: [Population projections for urban areas 2000-2030](#)

⁹ A clear example of small towns in Africa is shown in Annex 3: [Background on water in small towns](#)

¹⁰ See Water Supply and Sanitation. The World Bank at <http://www.worldbank.org/watsan/topics/smalltowns.html>

arrangements, a basis for ownership and management, and the ability to expand to meet the growing demand for water and sanitation¹¹.

Moreover, concerning water, two main characteristics are possible to identify for small towns¹²:

- They have a mix of different water supply systems providing variable levels of service frequently struggling to cope with an increased demand for services;
- They have a user base that consists mainly of people with limited income and spending power which affect their ability and willingness to pay for increased services. Low income groups are often segregated in the worst located and often the most dangerous areas for which it is difficult and expensive to provide water, sanitation and drainage.

In addition, a small town will typically contain a mixture of some of the following supplies:

- individual household and business connections;
- standpipes and tap stands;
- private or communal wells and boreholes equipped with hand-pumps;
- tapped and protected springs;
- water carried from distant sources;
- water bought from a neighbour connected to the piped distribution system;
- water bought from vendors or kiosks;
- water illegally tapped from a leaking distribution pipe.

2.1.1 The Small Town's Challenge: Water Provision

It is clear the benefits of urbanisation are very unequally shared and providing citizens with access to adequate water and sanitation services remains a major challenge.

Water supplies in small towns need to be designed to cope with rapid, often unplanned growth. The capacity to take a flexible approach that won't rely on a single technical or managerial model, but that will make use of a dynamic and flexible mix where there will be different water supply options and systems for the different sectors and stages of development, must exist.

Steps to strengthen the water supply and sanitation service in small towns must bear in mind their constant expansion: therefore the structure of the service must be expandable, both technically and institutionally, to meet the expected size of small towns over a 10-20 year horizon. This calls for an ability to undertake realistic scenario planning which in turn implies access to reasonable data on which to base plans.

A more holistic view will be needed on the role of water in small town livelihoods. Small towns will need an increased level of service for their domestic uses, but also for their productive and industrial uses of water. Small towns are different from rural areas in that their waters have a wider range of potential uses and are also much more affected by the behaviour of people due to the greater population density.

¹¹ See: Jong, D. (2000). "Small towns water and sanitation: third electronic conference". Available at: <http://www.oneworld.org/thinktank/water/smtcon.htm>

¹² See MORIARTY P, PATROCOT, G and others. Op. cit

II. INTERNATIONAL COOPERATION AND WATER.

1. Evolution of the International Water Policies

The best starting point is the Statement on Water and Sustainable Development that was a contribution to the preparation of the Earth Summit in Rio. This statement includes the four Dublin Principles that have become the cornerstone of the international approaches to water policies:

- Fresh water is a finite and vulnerable resource, essential to sustain life, development and environment.
- **Water development and management should be based on a participatory approach, involving users, planners and policy makers at all levels.**
- Women play a central part in the provision, management and safeguarding of water.
- Water has an economic value in all its competing uses and should be recognized as an economic good.

The focus of these principles, and of the action plan, on issues of environment, gender, governance and sustainability are still relevant today. They are taken up in Chapter 18 of Agenda 21, prepared at Rio (1992), which states that:

“The holistic management of fresh water as a finite and vulnerable resource, and the integration of sectoral water plans and programmes within the framework of national economic and social policy, are a paramount importance for action”.

Chapter 18 of Agenda 21 (UN. 1992) defined the overall goal of water policy developments: Water is needed in all aspects of life. The general objective is to make certain that adequate supplies of good water quality are maintained for the entire population of this planet, while preserving the hydrological, biological and chemical functions of ecosystems, adapting human activities within the capacity limits of nature and combating vectors of water related diseases.

Agenda 21 set out a number of challenges for various areas of sustainable development and, in general, there have been huge difficulties converting principles into concrete actions. Although governance of water was not explicit as a programme area in chapter 18 of agenda 21, it was represented within most programme areas of water. It envisaged, inter alia:

- ✓ National comprehensive policies for water resources management, which are holistic, integrated and environmentally sound;
- ✓ Institutional strengthening and reform in conjunction with reform of water laws; and
- ✓ Integrated Water Resource Management based on dynamic, interactive and multi-sectoral approaches. Its evolution would embrace spatial and temporal integration and all water users, and would be integral to socio-economic planning.

Since Rio, significant international water goals relating to governance have been set, and the issues concerning water resources have been redressed since then through the importance given to freshwater issues by the Commission on Sustainable Development (CSD) in its second (1994), sixth (1998) and eighth (2000) session and in the 1997 UN General Assembly Special Session. All contained a call for a concerted effort to develop more integrated approaches to water management and for a stronger focus on the needs of poor people and poor nations. Within this commission, the CSD 6 session was of particular importance in the development of international approaches to water policies because the need for fundamental changes in the dominant approaches to water management was recognised, with a move away from technical and sectoral approaches and towards integrated approaches in which the social dimension of water management was central.

The meeting recommended the following issues as keys policies for water management: sustainability, capacity-building, information management, environment and development, economics and finance, participation and institutions and, finally, international cooperation.

The year 2000 saw several of these policy trends come together through a number of international events. These included the Millennium Session of the United Nations General Assembly that specifically states targets for 2015. The so-called **Millennium Development Goals** have become the key international development targets of the modern era. Only one directly relates to water (the Millennium Development Goal on environmental sustainability), but improved water management can make a significant contribution to achieving all of the goals. So, it is important to think about water in relation to a wider context: the ways in which it can contribute to the overall reduction of poverty¹³ and the development of people and nations. A clear example of this can be observed in TABLE 1.

Table 1

Millennium Development Goals: Water Management and Poverty Reduction

Millennium Goals		How Water management contributes to achieving goals	
		Directly contributes	Indirectly contributes
Poverty:	To halve by 2015 the proportion of the world's people whose income is less than 1 dollar per day.	<ul style="list-style-type: none"> • Water as a factor of production in agriculture, industry and other types of economic activity. • Investments in water infrastructure and services act as a catalyst for local and regional development. 	<ul style="list-style-type: none"> • Reduced vulnerability to water-related hazards reduces risks in investments and production. • Reduced ecosystems degradation boosts local-level sustainable development. • Improved health from better quality water increases productive capacities.
Hunger:	To halve by 2015 the proportion of the world's people who suffer from hunger.	<ul style="list-style-type: none"> • Water as a direct input into irrigation, including supplementary irrigation, for expanded grain production. • Reliable water for subsistence agriculture, home gardens, livestock, tree crops. • Sustainable production of fish, tree crops and other foods gathered in common property resources. 	<ul style="list-style-type: none"> • Ensure ecosystems integrity to maintain water flows to food production. • Reduced urban hunger by cheaper food grains from more reliable water supplies.
Universal primary	To ensure that, by 2015, children		<ul style="list-style-type: none"> • Improved school attendance from improved health and

¹³ The organization for Economic Cooperation and Development (OECD) Development Assistance Committee (DAC) has produced Poverty Guidelines (2001) that recognize the need for a sharper and more explicit focus on poverty reduction. In these, "poverty, gender and environment are mutually reinforcing, complementary and cross-cutting facets of sustainable development", so that any poverty reduction strategy must focus on gender and environmental issues.

education:	everywhere will be able to complete a full course of primary schooling.		reduced water-carrying burdens; especially for girls.
Gender equality:	Progress towards gender equality and the empowerment of women should be demonstrated by ensuring that girls and boys have equal access to primary and secondary education.		<ul style="list-style-type: none"> • Community-based organizations for water management improve social capital of women. • Reduced time and health burdens from improved water services lead to more balanced gender roles.
Child mortality:	To reduce by two thirds, between 1990 and 2015, the death rate for children under the age of five years.	<ul style="list-style-type: none"> • Improved quantities and quality of domestic water and sanitation reduce main morbidity and mortality factor for young children. 	<ul style="list-style-type: none"> • Improved nutrition and food security reduces susceptibility to diseases.
Maternal mortality:	To reduce by three quarters, between 1990 and 2015, the rate of maternal mortality.	<ul style="list-style-type: none"> • Improved health and reduced labour burdens from water portage reduce mortality risks. 	<ul style="list-style-type: none"> • Improved health and nutrition reduce susceptibility to anaemia and other conditions that affect maternal mortality.
Major diseases:	To halve, by 2015, halt and begin to reverse the spread of HIV/AIDS, the scourge of malaria, the scourge of other major diseases that affect humanity.	<ul style="list-style-type: none"> • Better water management reduces mosquito habitats and malaria incidence. • Reduced incidence of range of diseases where poor water management is a vector. 	<ul style="list-style-type: none"> • Improved health and nutrition reduce susceptibility to HIV/AIDS and other major diseases.
Environmental sustainability:	To stop the unsustainable exploitation of natural resources and to halve, by 2015, the proportion of people who are unable to reach or to afford safe drinking water.	<ul style="list-style-type: none"> • Improved water management, including pollution control and sustainable levels of abstraction, are key factors in maintaining ecosystems integrity. • Actions to ensure access to adequate and safe water for poor and poorly serviced communities. 	<ul style="list-style-type: none"> • Development of integrated management within river basins creates conditions where sustainable ecosystems management is possible and upstream-downstream impacts are mitigated.

Meeting the 2015 target of halving the population without sustainable access to drinking water globally means providing services for an additional 100 million people each year (274000/day) from 2000 to 1015.

There has, in consequence, been active development outwards refining the approach to water resources within the CSD and in the UN system in the years since Rio. There have also been parallel developments of great significance, perhaps the most important of which was the preparation of the World Water Vision, launched at the World Water Forum in the Hague in March 2000, and the Ministerial Declaration on Water Security in the 21st Century, affirmed by the representatives at the parallel Ministerial Conference in The Hague. This conference stated seven challenges for the global community: meeting basic needs, securing the food supply, protecting ecosystems, managing risks,

sharing water resources, valuing water and ***governing water wisely that means ensuring good governance (the involvement of the public and the interests of all stakeholders are included in the management of water resources).***

Nevertheless, work has continued after defining these challenges in order to identify specifically the key challenges facing water policy-makers, these are:

- **Water and cities: acknowledging that urban areas are increasingly the focus of human settlements and economic activities, and these present distinctive challenges to water managers.**
- Water and industry: focusing on industry needs and the responsibility to respect water quality and take account of the needs of competing sectors.
- Water and energy: recognizing water is vital for all forms of energy production, and there is a need to ensure energy requirements are met in a sustainable manner.
- Ensuring the knowledge-base: reflecting good water policies and management depend upon the quality of knowledge available to decision makers.

There has been an active development of these basic principles, since The Hague 2000. The German government hosted an International Conference on Freshwater in 2001 where the main issues were *governance*, mobilizing financial resources, capacity-building and sharing knowledge. In addition, at the 2002 World Summit for Sustainable Development (WSSD), Rio +10, the UN Millennium Development Goal for access to drinking water was reconfirmed and the Summit set the target for access to sanitation by 2015, i.e. halving, the proportion of people without access to basic sanitation, with the following action to be elaborated:

- Develop and implement efficient household sanitation systems;
- Improve sanitation in public institutions, especially schools;
- Promote safe hygiene practices;
- Promote education focused on children, as agents of behavioural changes;
- Promote affordable, socially and culturally acceptable technologies and practices;
- Develop innovative financing and partnership mechanisms; and
- Integrate sanitation into water resources management strategies

The last year (2003) was recognised as the international year of freshwater and Kyoto was the place where the Third World Water Forum took place. During this Forum different ***key issues*** were discussed, like safe clean water for all, governance, regional issues, capacity building, financing and participation. The central idea was that in addressing the challenge of balancing increasing human requirements for adequate water supplies and improved health and sanitation with food production, transportation, energy and environmental needs, most countries will require more effective governance, improved capacity and adequate financing. Inclusive community level public participation is fundamental to achieving these goals.

In this context, different actions and commitments were reported during the Forum, being the most relevant for this research, the ones related to *Local Actions-Participation* and *Creating Global awareness and Political Support*, emphasizing the good governance necessity. The dialogues on water governance have been held in over 30 countries. New national policies, strategies and laws for water resources development and management are being elaborated in a large number of countries, most often following the principles of IWRM. This often led to the reconstruction of the institutional framework and empowered communities and water users associations.

The participants of the 3rd world Water Forum recommended, among others, the following actions to be taken up as commitments to achieve the goals and responsibilities: Alliances, Partnerships, Networking, Participation and Dialogue.

Governments, civil society and industry continue to develop ways of collaborating, combining their strengths and skills, creating a new ethic of responsible water-use in society through advocacy, information sharing and education. This can only succeed if governments are clear on their strategies and priorities for the water sector.

Donor, NGOs, companies and others will assist, but there has to be a real political “ownership” from the host government as a pre-condition for the development of sound good governance that involves the population.

Local people, authorities, the research community, farmers, industries, women and minority groups are empowered and involved in the development of strategies and agreements. The water-related knowledge, practices and rights of communities in all cultural contexts and their contributions are recognised and better integrated in water management;

2. International Cooperation Challenges

Nowadays, although the water-related objectives in Agenda 21 remain unfulfilled, progress has been made in the areas of water governance and management. The increasing focus on water governance, IWRM and demand-driven approaches marks an important shift in how water is being governed in terms of equitable distribution and efficiency. In general, progress has been made in the following three areas:

- ✓ The increasing recognition of water governance and required reforms of policies and institutions as the key to sustainable water development, of which the adoption of appropriate legislation, policies and institutions is only a part of the governance issue: it is the way in which enhanced institutions and policies are being established and implemented that matters. *The existence of sufficient rules and regulations means little if they cannot be effectively enforced, due to power politics, vested interested and lack of funds, or the public's absence from the decision-making process.*
- ✓ *Reform of water institutions and policies is now taking place in many countries to address incoherent water property rights, fragmented institutional structures, inadequate policies, lack of incentives for increased partnerships and participation and various other aspects of water governance. However, progress has so far been too slow and too limited.*
- ✓ *Integrated approaches are widely accepted as the main vehicle or instrument to manage water in more effective ways, and the international community has made considerable efforts and progress in increasing awareness of water resources and their management. However, their implementation remains incomplete in both developed and developing countries.*

There is a strong momentum in the international community to recognise the importance of water management in the wider processes of poverty reduction and sustainable development. But to do so, changes to policies and laws are necessary, as well as to the “way of thinking” that implies new management practices. Such changes are happening in many places, though this is a long-term process, and actions to support future reform through enhanced international cooperation in particular will be a key issue for future water management.

III. GOOD GOVERNANCE AND WATER

The general overview concerning urban problems shows us a clear fact that the world is in a water crisis and the time to take action is now. Thus, in order to come up with a possible "solution", new ways of responding to rapid change and making urban environment sustainable are being explored, especially through better management that implies greater participation of community groups.

Moreover, within the international context, the problem is very well known: it is one of management, and targets improvements to be made by 2015¹⁴ have been agreed upon.

The water governance is a complex issue and a very variable one. Weakness in governance systems is one of the major reasons behind the difficulties encountered in both following a more robust sustainable development pathway and balancing socio-economic needs with environmental sustainability.

The success of the different initiatives will be dependent on instituting better urban water governance, otherwise the degradation and depletion of fresh water resources will threaten the very livelihood of cities and the sustainability of economic and social development. Furthermore, what makes governance effective can differ from context to context and depends on cultural, economic, social and political settings.

Aspects of water resources management must change. This is recognized in the United Nations (UN) Millennium Declaration (2000), which again called upon all members of the UN: "to stop the unsustainable exploitation of water resources by developing water management strategies at the regional, national and local levels which promote both equitable access and adequate supplies".

So in this section, special attention will be paid to the urban water management, to clarify and understand the good governance' implications within the development issues, because the water crisis is essentially a crisis of governance and societies are facing a number of social, economic and political changes on how to govern water more effectively.

1. Notions of Good Governance

The importance of good governance in sustainable development is a very hot topic at the governmental level, the level of the civil society and also at the industrial level. Generally, governance focuses on the interaction between the state, the private sector and the civil society and should enable a transparent and accountable management. More narrowly defined, good governance ensures the interests of the principle (e.g. the asset owner or the electorate) are served in the most efficient way by the agent (e.g. the management or the cabinet). Governance can be analysed on a global, regional, national as well as on a local level. At all levels though, it aims at optimising and improving the transparency and accountability by means of establishing more effective and legitimate institutions; by promoting social justice and human rights; and by optimising power sharing between central and local government, as well as between the state, the private sector and representative organizations of the civil society.

Nevertheless, the notion of water governance and its meanings are still evolving and there is no agreed definition agreed upon, governance refers essentially to the manner in which power and

¹⁴ See Millennium Development Goals.

authority are exercised and distributed in society, how decisions are made and to what extent citizens can participate in decision-making processes¹⁵.

Good governance as applied to public institutions (or public utilities) has to do with the efforts of all stakeholders to balance the interests of governments (municipality councils) to initiate policies; the implementation of these decisions by civil servants (or the management of public utilities) and the impact of these decisions on the society (or on the customers of the public utilities).

This balance is difficult to obtain and to sustain taking into account that the shareholders of the public utility (local or national governments) are also accountable to the costumers of the utility (mostly through elections), and the service providers are mostly working in a context of a monopoly, while water delivery is seen as a social service and a basic need.

Good governance mechanisms of public utilities will therefore be transparent to the government and to the costumers. The operational management should be accountable to the government while remaining sufficiently independent to guarantee effective and efficient management. The management mechanisms should fit with the social and ecological objectives put forward by the government in an open dialogue with the civil society.

2. Water Governance in Urban and Peri-Urban Areas¹⁶

It is difficult to generalize about more effective approaches to water management when considering all the world's cities. Clearly, there is a very urgent need to improve and extend provision for water, sanitation and hygiene in small towns and cities in low and middle-income nations. This includes the need for financially sound, operationally efficient, consumer-oriented water and sanitation agencies. For most cities, there is a need for water governance systems that improve watershed management, lessen the ecological disruption caused by water withdrawals and wastewater returns and that make better use of existing water resources.

In developing countries the overwhelming majority of water supply services in towns and urban areas are publicly provided. In many cases, this approach has failed to provide water users with adequate services. Poor governance has led to a bad service for the customers.

The water users and civil society are mostly not informed nor consulted with respect to the organizational, technical or financial set-up and eventual limits or problems of the water utility at their local level. This results in a low participation of the beneficiaries that produce a low ownership feeling, low willingness to pay for the water services, inexistence or poor management of public water taps, pirated connections, unpaid water bills, etc.

Nowadays, a lot of developing countries are actually involved in decentralization processes where the responsibility for water supply and sanitation is transferred to the local or regional authorities. While a lot of public water utilities for the urban sector are still nationally organized, more and more countries prepare or are already involved in a decentralization process of these water utilities. Other countries have a tradition of locally or regionally organized public services. A key element for good governance of these decentralized agencies is a sound balance of the interests of the local government, the management of the public utilities and the customers. The importance of sound cooperation between water users and water managers is evident for a better accountability of the public utility and for an improved responsibility for the customers, contributing to an improved performance of the water service. So, especially for the water utilities it seems important to have a good relationship with their customers. This can include information or consultation mechanisms or even an effective participation of users' representatives in the decision or controlling bodies of the utility.

¹⁵ See the "World Water Assessment Programme". UN. Op. Cit.

¹⁶ See the "World Water Assessment Programme". UN. Op. Cit.

City governance refers not just to the formal activities of municipal government but to a gamut of relationships – formal and informal – between the civil society and the state at the local level. Decentralization has focused attention on the city level while democratisation and the re-emergence of the civil society in many countries have provided opportunities for more responsive urban governance and for the poor to have an influence on the agenda of the institutions involved.

In rhetoric and policy, local communities have increasingly become the focal point for moving forward the development agenda through the concept of 'community participation'. In many developing countries, the responsibility for addressing urban poverty can often be founded at local governments and municipal levels of administration.

In addition, it is important to remark good governance and management are interdependent and it is clear water is integral to sustainable development, and is related in some way to sanitation, energy, health, agriculture and biodiversity. Furthermore water is relevant to all three strands of development – social, economic and environmental.

Thus, the idea of Integrated Water Resources Management (IWRM) has to be taken into account as the starting point for water management. The Global Water Partnership (GWP) has defined IWRM as a process, which promotes the coordinated development and management of water, land and related resources to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems¹⁷. So, there is a wide acceptance of IWRM as the appropriate management tool for sustainable use of water resources and for improved delivery of water services. IWRM¹⁸ promotes participatory approaches, partnerships, subsidiarity and decentralization, the need to strike a gender balance, the environmental, economic and social value of water. It replaces the traditional fragmented sectoral approach to water management that has led to poor services and sustainable resource use.

2.1 The Good Governance Challenge

Effective water governance requires changes in attitudes and behaviour amongst individuals, institutions, professionals, decision-makers – in short, between all involved. Participation by the public or stakeholders is an important tool in implementing such changes as it facilitates more informed decision-making. In other words, effective governance of water resources requires the combined commitment and effort of governments and various civil society actors, particularly at local/community levels.

Although there is no single model for effective governance, the following basic attributes are likely to represent some of its features¹⁹:

Participation: all citizens, both men and women, should have a voice –directly or through organizations representing their interests- throughout processes of policy and decision-making. Participation offers people the opportunity to meet their responsibilities, as well as the opportunity to claim their rights. It is important to remember that the higher the degree of participation by all interested parties, the more sustainable the resultant institutional frameworks will be.

¹⁷ See Annex 4: [The DPSIR Framework: Driving forces-Pressures-State-Impacts-Responses](#)

¹⁸ See Annex 5: [The Integrated Water Management Scheme](#)

¹⁹ See the "World Water Assessment Programme". UN. Op. Cit.

Water provision is seen as a basic service where citizens and their social and economic organizations can play a role in urban governance and thus reinforce the basis for local democracy.

Transparency: information should flow freely within a society. The various processes and decisions should be transparent and open for the scrutiny by the public.

Equity: all groups in society, both men and women, should have opportunities to improve their well-being.

Accountability: governments and civil society organizations should be accountable to the public or the interests they are representing.

Coherency: the increasing complexity of water resources issues, appropriate policies and actions must be taken into account so that they become coherent, consistent and easily understood.

Responsiveness: institutions and processes should serve all stakeholders and respond properly to changes in demand and preferences, or other new circumstances.

Integrative: water governance should enhance and promote integrated and holistic approaches.

Ethical considerations: water governance has to be based on the ethical principles of the societies in which it functions.

Key aspects of sustainability include empowerment of local people, self-reliance and social justice. These reflect concern about principles of equity, accountability and transparency. One way to incorporate these principles into real-life management is to move away from conventional forms of water governance, which have usually been dominated by a top-down approach, and by professional experts in the government and in the private sector and move towards a bottom-up approach, which combines the experience, knowledge and understanding of various local groups and peoples.

So, an alternative to government provision of services to poor urban communities is community-based service delivery. Much of the competence of civil society organizations is found in their knowledge about and their links inside the local context, which are important in choosing appropriate solutions. Local knowledge can form a basis for a flexible, innovative and dynamic institutional framework for sustainable water development.

IV. PUBLIC PARTICIPATION AND WATER

It has been said good urban water management requires an integral approach where the people's participation plays a crucial role, because an important shift in governance thinking is that development is now increasingly seen as a task involving society as a whole and not being the exclusive domain of governments. Moreover, the inclusion of civil society organizations and the local community groups is emphasized in most new approaches and policies. Indeed, changing institutional mandates is central to new water policies and laws around the world.

Due to the participation issues' importance within the water domain, a special emphasis on it will be made in the following lines, because water is often an initial starting point for community initiatives, as the essential nature of the issues means they are widely understood.

1. Participation's Challenges²⁰

International gatherings on key challenges of the twenty-first century have all reiterated that participation –making development everybody's business- is the *sine qua non* for reducing poverty and improving the welfare of people everywhere. Moreover, Public Participation (PP) has gained widespread recognition as a key water management principle. Moreover, effective PP is, in fact, an entirely different mode of governance.

Effective PP requires knowledge of participatory approaches and methods²¹. More important, however, it requires an open, transparent and outward-looking government recognising it cannot solve current water management problems on its own and having sufficient confidence to enter into direct discussion with its citizens. This is the real challenge of public participation.

There is no shortage of international declarations referring to PP as a key water management principle. Perhaps the best known are: the Dublin Statement (1992) and the Hague Declaration (2000). According to the second principle of the Dublin Statement, "water development and management should be based on a participatory approach; involving users, planners and policy-makers at all levels²²". The Hague Declaration lists seven challenges for achieving water security. *The final challenge is "Governing water wisely: to ensure good governance, so that the involvement of the public and the interests of all stakeholders are included in the management of water resources". The first challenge, "Meeting basic needs", refers explicitly to the need to "empower people, especially women, through a participatory process of water management".* In addition, many international conventions and regulations contain specific PP requirements, such as the UN-ECE Convention on Access to Information, Public Participation in decision-making and Access to Justice in Environmental Matters (Aarhus convention) and the EU Water Framework Directive (2000/60/EC)

Despite this official recognition, there is no consensus on the practical meaning of PP. While some see PP as a means of empowering people and enhancing democracy; others see PP mainly as a marketing tool.

²⁰ Information based on:

➤ The document "World Water Assessment Programme". UN. Op. Cit
➤ MOSTERT, E. (2003) "*The Challenge of Public Participation*". Delft University of Technology, Centre for Research on River Basin Administration, Analysis and Management.

²¹ See Annex 6 : [Designing public participation process](#)

²² See ACC/ISGWR (1992) "*The Dublin Statement and Report of the conference*". International conference on Water and the environment: Development issues for the 21st century. United Nations Administrative Committee on co-ordination Inter-Secretariat Group for Water Resources.

Public participation is defined as the direct participation by water users or non-governmental actors in decision-making. "Direct participation" includes many different activities like, e.g. the opportunity to send written documents, referenda, water user's associations, mass demonstrations, etc.

2. Reasons to Organise Public Participation

There exists potential benefits and potential problems of PP, as can be observed in the following Table 2²³

Table 2

Potential benefits	Potential problems
Better-informed and more creative decision-making	Reluctant government that gives no serious follow-up, resulting in disappointment and less public acceptance of decisions
Greater acceptance of decision, fewer implementation problems	Limited and unrepresentative response
Social learning of all involved	Low-quality response
More open and "integrated" government	Inconsistent decision-making
Enhanced democracy	Designing Costs and time
Environmentally and economically sustainable water management	

In order for the benefits of PP to be fully realised, a relatively high level of participation is needed. It remains, however, a matter of debate as to whether or not the public should actually get decision-making powers. This depends, firstly, on the issues at stake. Some issues demand significant government involvement, but others require much less, allowing the public to have a more prominent role. Moreover, the nature of the public and government in each situation is important. (Co-)decision-making powers are most needed where the government functions ineffectively. These powers can be implemented more easily if the public is well educated and interested in the issues at stake.

²³ See MOSTERT, E. (2003). Op. Cit.

3. Forms or Levels of User's Participation

In order to identify the different forms or user's participation, it is important to define and categorize them for a better understanding of the cases. In this context, taking as reference previous classifications²⁴ made by Janet Plummer²⁵ and Erik Mostert²⁶ concerned about different levels and forms of participation, a summarized general classification has been proposed in Table 3, useful for all kind of management options.

Table 3

Level of participation	Characteristics	Objectives	Possible PP methods
<i>Manipulation</i>	The participation of the community is included for exploitative reasons. Communities are included in the service delivery process without positive intention or meaningful end. There is no participatory decision-making. Initiatives manipulate communities to obtain agreement to interventions or human and financial resources.	<ul style="list-style-type: none"> • Free labour • Cost recovery • Meeting donor conditions • Political gain 	
<i>Information Participation</i> The public gets/has access to information (not genuine PP, but the basis for all forms of it)	Many projects masquerade as being participatory but only provide information to the communities (for example public reporting). Communities are given information about the water service provision. The management body controls this information and decision-making is unlikely to be open to change. The process could be considered as transparent because of the information provided. And/or Communities share information with the water service supplier. Could be there is no control over the way information is used and there is no feedback process.	<ul style="list-style-type: none"> • Services in place and in use minimise community resistance to proposed interventions • Increase willingness to pay 	<ol style="list-style-type: none"> 1. Leaflets and brochures 2. Mailings 3. Use of the media: press releases, press conferences 4. Information centres 5. Repositories (other than 4, e.g. Libraries and city halls) 6. (Travelling) exhibitions 7. Information hotlines/contact persons 8. Open house 9. Field trips 10. Briefings (at meetings of residents' associations, women's clubs, etc.)

²⁴ See Annex 7: Forms of Participation In The Delivery of Urban Services And Infrastructure Different Forms of Users Participation.

²⁵ See PLUMMER, J (2000) "*Municipalities & Community Participation*". Earthscan Publications. Pag. 52.

²⁶ See MOSTERT, E (2003). Op. Cit. The overview of the different levels of PP and the different methods that can be used mentioned by this author are based on Arnstein's "ladder of citizen participation" and subsequent variations (Arnstein, 1969; IAP2, 1969; Roberts, 1995; Creighton, 2000; Edelenbos, 2000).

			<p>11. Internet</p> <p>12. Cultural events (e.g. street, theatre, especially for raising awareness)</p>
<p>Consultation Participation</p> <p>The views of the public are sought</p>	<p>Form of participatory service delivery with positive intentions towards participation, some limited capacity building, but little institutionalisation of processes. Comprehensive communication/consultation mechanism between the water utility and the customers. Group formation promoted. Greater accountability.</p>	<ul style="list-style-type: none"> • Services in place and in use minimise community resistance to proposed interventions. • Sustainability • Efficiency • Targeting of vulnerable groups for more equitable development. 	<p>13. Reply forms</p> <p>14. Opportunity to comment in writing</p> <p>15. Public hearings and meetings</p> <p>16. Interviews</p> <p>17. Opinion polls</p> <p>18. "Stakeholder analysis"</p> <p>19. Gaming</p> <p>20. Internet discussions</p> <p>21. Advisory commission/boards, focus groups</p> <p>22. Non-binding referenda</p> <p>23. <i>Forums</i> are established through which communities can communicate their views on intended proposals.</p> <ul style="list-style-type: none"> • Methods 4,6,7,8,9 and 10 could be used for consultation too.
<p>Discussion</p>	<p>Interaction takes place between the public and government</p>	<ul style="list-style-type: none"> • Sustainability • Efficiency • Possible objective is the empowerment of the community 	<p>24. Small group meetings ("workshops", "coffee meetings", "round tables", "study circles", "brainstorm sessions", "planning cells", "citizen juries", etc)</p> <p>25. Large group meetings involving splitting up into smaller groups and/or rotation between front benches and back benches or between subgroups (e.g. working groups, "open space meetings", etc)</p> <ul style="list-style-type: none"> • Methods 8,9,10,19,21

			and 23 can be used too.
<p>Cooperation and mobilization Participation</p> <p>Stronger for participation. Decision-making promoted within the communities or communities are in control of decision-making processes and coordinate with the water service owner to enter into initiatives as required by the community.</p> <p>The water supplier and the community cooperate in an alliance towards improved and demand-responsive service delivery. For example: Shared responsibility structures (where the public utility is responsible for the water production and transfer whilst consumers' organisations take care of the local distribution). Full participation of customers' delegates to the planning and controlling bodies of the utility.</p> <p><i>In detail, within this level it is possible to make the following classification:</i></p> <p>a) Codesigning</p> <p>The public takes an active part in developing policy or designing projects.</p> <p>b Codecision-making</p> <p>The public shares decision-making powers with the government.</p>	<ul style="list-style-type: none"> • Community empowerment • Community manages service delivery • Community capacity building • Ownership • Sustainability • Efficiency • Target vulnerable groups • Cost sharing 	<ul style="list-style-type: none"> • Several of the meeting formats mentioned under 24 and 25 <p>26. Negotiations, e.g. resulting in a "voluntary agreement"</p> <p>27. Public representation in governing bodies</p> <p>28. Corrective referenda and all binding referenda initiated by government</p>	

<p>c) Decision-making</p>	<p>The public performs public tasks independently.</p>	<ul style="list-style-type: none"> • Some of the meeting formats mentioned under 23 and 24 may also be used. <p>29. Water users' associations and other NGOs performing public functions</p> <p>30. Popular initiatives Some of the meeting formats mentioned under 23 and 24</p>
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4. Recent trends

There has been a trend in recent years towards local management of water supply schemes and water resources. This is empowering communities to work together for the betterment of the societies, because improving the access of poor people to water has the potential to make a major contribution towards poverty eradication.

Local people have a direct interest in improving the quality of life in their community. For projects to succeed, for a sense of ownership to exist, their input into decision-making is critical. Consulting with communities is important for determining the most appropriate intervention, although not only consultation is necessary but also mobilization²⁷ of the people involved, because an open, transparent and continuous process of consultation and participation is essential if national water resources are to be managed in an equitable and sustainable way.

So, the adoption of participatory approaches in water management, greater public consultation on proposed schemes and devolved responsibilities to water user groups have stimulated knowledge amongst wide numbers of people on specific issues.

For the underserved urban population, there may be insufficient funding for conventional utilities to extend piped water and sewer connections to each home but it is possible to greatly improve provision through community-municipal partnerships or support for community provision²⁸.

²⁷ See PLUMMER J, (2000). Op. Cit.

²⁸ The trend towards decentralization in many countries has placed more decision-making power into the hands of civil society and local government.

V. PUBLIC WATER UNDERTAKING

Before continuing, it is important to clarify the kind of water undertaking that will be considered in the section about the case studies, following upon this one. In this context, one should be aware a new alternative model called “co-operation” exists, aside the (very) well-known public, private and public-private water undertaking. This new co-operative model is gaining force in the water supply and sanitation service provision.

In this study, special attention will be given to the "public scheme", because in the literature this one has been very poorly developed, nevertheless the vital importance of water as a public good.

1. Organizational Structures for “Public” Water Undertaking

Within the “public scheme” it is possible to find different organizational structures (See Table 4) like, administrative department or regional structures, regies, public corporations (municipally or state owned) under public or private law (p.l.c), co-privatisation, co-operative and public-public partnerships. In this research a special attention will be paid to the user’s participation in the new co-operative (community management) (See Table 5) alternative model, because this one could be considered a “public one”, due to its non-for-profit scheme²⁹. Although, in the pure sense of the model definition it is more like an alternative to public and private because the population (co-operative) is the responsible for the management of the water system and the local or national authorities, normally, don’t have any relation with the cooperative at the management level, just a little for the technical part.

The following tables explain in detail the different structures mentioned above:

²⁹ This issue can be widely discussed. Nevertheless, for this research it is important to remark that from the non-for-profit point of view the co-operative model can be seen within the “public scheme” and also, because the owner of the utility is still the state.

Table 4

Summary³⁰: Organizational Structures for “Public” Water Undertaking³¹

Type	Description	Adv/Dis	Ownership	Management	Examples
<p>ADMINISTRATIVE DEPARTMENT <i>(Regies³² can be considered within this type)</i></p>	<p>Water is carried out as part of a public authority's departmental Structures.</p>	<p><i>Pros</i> Reorganization of the public utility into smaller units could rationalize service and eliminate inefficiencies Allows the resources for infrastructure improvements—but the government remains sovereign, and tariff, access, equity and environmental appeals may be made through the accountability structure <i>existing within government</i>. In addition, the regie has the advantage of separate accounts which should improve financial discipline. Combined with publication, can improve transparency and accountability.</p> <p><i>Cons</i> Does not encourage investment from outside forces in the water sector. May allow for continued inefficiencies. A top-down government at the regional</p>	<p>Public</p>	<p>Departmental structure from the public authority or the internal entity within a municipality in the case of the regies.</p>	<p>Amsterdam, Netherlands Regies in Grenoble (France), Germany.</p>

³⁰ Compilation from different bibliography:

- HALL, D. LOBINA E (2001) " *Water in Public Hands. Public sector water management – a necessary option*", " *Public Sector Alternatives to water supply and sewerage privatisation*" (1999); " *International Solidarity in Water: Public-public partnership in North-East Europe*" (2003); " *No profits on water: The way forward public sector water and sanitation*" (2000). PSIRU, University of Greenwich. See: www.psiru.org
- CNES (2000) " *Democratising Local and National Governance of Water*" See : www.servicesforall.org

³¹ Include co-operative/community models.

		level would have similar problems with access and accountability. For large scale works and procurement, a national or regional structure may be most efficient			
PUBLIC CORPORATIONS	External corporatisation The possible legal status of such an external corporatised entity will DEPEND ON THE SPECIFIC LAWS of each country	Accounts separated which should improve financial discipline. Combined with publication, can improve transparency and accountability	Utility owned by the public authority	External entity	
PUBLIC LAW <i>Municipally owned:</i> (direct public model)	External corporatisation	The best for accountability Financial Autonomy Have the potential to be more efficient than central government bureaucracies in delivering water Keeps water distribution in public hands. As a municipal undertaking can enjoy tax-exempt status.	Public authority (Municipality)	Separate entity from the municipal government. Autonomous public body	Azienda Speciale (Italy) Stadtwerke (Germany) El Salvador, Guatemala
<i>State Owned</i>	External corporatisation	The best for accountability Financial Autonomy As a state undertaking can enjoy tax-exempt status. have the potential to be more efficient than central government bureaucracies in delivering water Keeps water	Public authority (the state)	Separate entity from the state.	Lilongwe Water (Malawi), SANAA (Honduras)

³² Regie³² is an internal entity, defined by a set of accounts, within a municipality.

		distribution in public hands.			
<p>PRIVATE LAW</p> <p><i>Municipal or estate owned</i></p> <p><i>Public limited corporation</i></p> <p>(quasi public model)</p>	External corporatisation	<p>Effective for borrowing money</p> <p>Financial Autonomy</p> <p>Unlike to enjoy tax-exempt status.</p>	<p>Shares owned 100% by the public author</p>	<p>External entity, operating as commercial company. Management may also have specific responsibilities (e.g. personal financial responsibility for gross misconduct/losses)</p>	<p>Netherlands water companies, SABESP (Brazil), Debreceni Vizmu (Hungary), Puerto Cortés (Honduras)</p>
<p>GOVERNMENT RUN BASIN LEVEL INITIATIVES</p>	A water distribution system is run through a basin-level initiative.	<p><i>Pros</i></p> <p>May provide adequate efficiencies of scale to support management and delivery of water services.</p> <p>May allow for optimal environmental and water resources management within a particular river basin. <i>Could allow for continued adherence to universal service obligation, and other norms in the nation.</i></p> <p><i>Cons</i></p> <p>Does not allow for competition or improving the climate for investment in services</p> <p>A large multi-jurisdictional authority is less likely to be as connected to local concerns.</p>	Public authority	<p>Managed by representatives from State/province/regional and municipal Governments</p>	<p>Delaware River Water Authority, United States</p>

COMMUNITY MODELS¹⁸ (INCLUDE CO-OPERATIVE MODELS)	<i>See Community Management</i>				
CO-PRIVATIZATION	Utility is bought out by employees—with systems for community input in management and distribution decisions	<p>Pros A more local option may improve service (especially to the poor). Improves the investment climate, guarantees profits that can be sunk into decrepit infrastructure improvements. Provides greater accountability to the clientele / constituency / consumers served. Meets economic goals of cost recovery. Improves likelihood of better performance. Deepens capital formation by consumer investment in industry</p> <p>Cons Not likely to increase efficiency by bringing in industry experts. Not likely to improve the investment climate. Complexity in converting consumer payments into capital infusion. Expect resistance from rent-seeking vested interests.</p>			Proposed
The last type in this classification, the Public-Public partnership, is separated from the rest because it can be developed in combination (at the same time) with some of the others already mentioned is the Public-Public partnerships. This is more a partnership than an exclusive organizational structure for public water undertaking, but due to the it's interesting characteristics is mentioned in this point:					

<p>PUBIC-PUBLIC PARTNERSHIPS</p>	<p>Partnership between public sector institutions, or in a broader sense as a partnership with another public sector institution or some form of public organisation, where neither partners seeks financial profit. The latter qualification is a key distinction between a PUP and a public-private partnership (PPP)</p>	<p>In developing countries, public water authorities may need assistance of various kinds to improve and extend their services, including: Consultancy, capacity building, financial These services can be provided by other public organizations, which already have the experience and capacity –through “public-public partnerships”, based on a common understanding of public service objectives. Partners may come from within the same country –“local PUPs” or from other countries – “international PUPs” <i>Pros</i> May improve systems for accountability within the public sector allowing for input management options. <i>Cons</i> Would not improve investment climate. Would not necessarily improve cost recovery</p>	<p>Public</p>	<p>Internal or external public body. Most of the time is developed at the level of municipalities.</p>	<p>PUP in north-East Europe Baltic states: international wastewater “twinning” South Africa: local and international public partner</p>
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Table 5Main aspects of different management options³³

	Community Management	Municipal Management
Ownership of the system	Can be either with the community or remain with (local) government.	Remains with (local) government normally the municipal water management
Management of the system	By the community. For larger systems a community can employ professional management staff.	Mainly by government 5DMM, AMM, MEC° although sometimes by a private sector or other partner (CM)
Monitoring	If done at all, normally by the community, but may be some element of external monitoring –for example of water quality	Various branches of government. For the system, by local government or water department. If quality monitored then normally by another branch of government.
Regulation	Normally, de facto; left to the community. Ideally an independent regulator within the framework of a national strategy.	By local government or an independent regulator within the framework of a national strategy.
Operation and maintenance	Either entirely by the community, or with some external support.	By local government –except under CM. Sometimes with external support of technical contractors.
Capital works and financing	Normally by an external agency – donor or government.	Local government. Funded either through government budgets, or in MEC through private sector.
Most suited to	Rural areas, simple systems, areas where government is weak.	Larger towns with strong capacity, large and complex systems, “wealthy” user base.
Least Suited to	Urban areas, complex systems, areas of resource constraint.	Small towns, rural areas, ad-hoc settlements where management capacity is weak or non-existent.

³³ See MORIARTY P, PATROCOT, G and others (2002) *“Between Rural and Urban: Towards sustainable development of water supply systems in small towns in Africa”*. IRC/ International Water and Sanitation Centre.

VI. CASES

In this section four cases in urban and peri-urban zones of developing countries will be explained in detail. These cases have been selected after an extensive review of the available information concerning user's participation in "public" provision of water supply service and sanitation in urban areas with more than 10 000 inhabitants belonging to developing countries.

These four cases are interesting best practices that could be adapted in other zones, because they represent clear examples, in urban and peri-urban zones, of good water governance actively involving the water users.

A closer look will be given to the following cases:

- 1. Participatory Water Management/ Water in Porto Alegre, Brazil.**
- 2. Community Water Board in Itagua, Paraguay.**
- 3. Saguapac Co-Operative In Santa Cruz, Bolivia.**
- 4. Urban community management in Lusaka, Zambia.**

1. Participatory Water Management/ Water In Porto Alegre, Brazil³⁴

Porto Alegre (1,360,000 inhabitants in 2001) is the most important case of user's participation within a public undertaking, around the world and that's why it has been considered for this study.

In Porto Alegre two main participatory mechanisms are relevant. First is the Deliberative Council of the DMAE³⁵ (Porto Alegre's department of water supply and sewerage) and second is the city's Participatory Budgeting processes or OP. These two mechanisms have contributed to the creation of a non-state public sphere – a situation where there is constant interaction between citizens and institutions of government³⁶. So, according to the classification of users' participation, this case is a clear example of cooperation and mobilization participation because decision-making is promoted within the population that has the control of this process. Moreover there exists a strong co-operation between the water supplier and the community towards improved and demand-responsive service delivery.

Nevertheless, it is important to remark that although Porto Alegre shows the most developed mechanism of user's participation (cooperation and mobilization), also it is possible to find, some other ones like information and consultation mechanisms, which are basic forms of participation, but that are include in the most developed one.

1.1 Management and Structure

³⁴ Information based on the following documents:

- VIERO, O; CORDEIRO, A (2003) *"Public Provisioning in Porto Alegre"* TearFund and WaterAid
- HALL, D; LOBINA, E; VIERO, O. MALTZ, H (2002) *"Water in Porto Alegre, Brazil"* PSIRU and DEMA for WSSD Joburg.
- MENEGAT, R. (2002) "Participatory Democracy and Sustainable Development: integrated urban environmental management in Porto Alegre, Brasil " in Local Agenda 21 in Porto Alegre. Environment and Urbanization. Vol 14. N 2. Brasil

³⁵ Public body that supplies water and collects sanitary sewage in the city

³⁶ Porto Alegre's guiding principles for the provision of services is that those essential for the population are strategic issues for a nation, and therefore have to be managed by the general will of the people and expressed through their representatives. The basic principle is autonomy of the administrative services, provided in Brazil's 1988 Constitution. For instance, the federal constitution has given to the counties the power to manage the water and sewerage services. Porto Alegre, like many other counties, makes full use of this prerogative. This devolution enables more effective social control, closer management of resources, a greater clarity in their application and also greater responsiveness to the public's demands.

The direct participation of citizens in the management of public resources and in defining the guidelines for state action paves the way for the construction of Porto Alegre's unique political system. The people of the city directly establish the priorities and delegate a revocable mandate to their representatives or civil servants.

1.1.1 First participatory mechanism: DMAE

The DMAE is a clear example of how a municipally- owned undertaking may achieve efficiency and outstanding performance without changing its status and ownership, and it is founded on the ethos of public service, to all citizens, equitably and efficiently. In this sense, transparency, accountability and public participation appear as the catalyst for the DMAE's success and call for attention to its institutional structure.

The DMAE's participatory management systems systematically involve members of the community in its decision-making, and enable true access and transparency.

Despite being wholly owned by the municipality of Porto Alegre, the DMAE enjoys:

- separate legal personality from the city council,
- operational autonomy and
- financial independence.

As an autonomous public body, it is a separate entity from the municipal government, and can make its own decisions on how to invest revenues it collected, and such decisions are not directly subject to interference or deliberation by the municipality. But the city government retains significant power, since the Mayor appoints the Director-General of the DMAE, and the representatives on its Deliberative Council.

The DMAE's institutional status as an autonomous but wholly municipally owned organisation is similar to the ones found in a number of European countries, including Germany, Italy and France. It is close to the French municipally- owned *régies à personnalité morale et autonomie financière*, for example, which are also accountable to civil society through the representation of different groups and organizations within its governing bodies. In the terminology of the European Union, it would be regarded as a trading body, and so its borrowing and debts would not be counted as government debts for the purposes of monetary control.

The DMAE's finances are ring-fenced – so it receives no subsidies, and makes no payments to the municipality itself, and as a municipal undertaking, it enjoys tax-exempt status. The DMAE has to be financially self-sufficient, covering all its expenses from its own income. It produces its own accounts, separate from the municipality. Also, the DMAE's distinct legal personality and financial self-sufficiency allow it to borrow the required investment finance without the support of the municipality.

1.1.1.1 Organisation

There are three key elements in the management structure of the DMAE.

First is the **general management**, headed by the **General Director**, who is appointed by the Mayor of Porto Alegre, for a four-year turn. The director-general in turn appoints senior managers among the Department staffs, composing the so-called Technical Management Council. He also has the option to hire to the Department staff during his term, about 25 people, which stick with his management principles. They are spread all over the Department, and eventually some of them can be nominated as senior managers. All other posts are publicly advertised and selected. All salaries have to be approved by the municipality.

Second, is the **Technical Management Council** (*Conselho Técnico Gestor*), consists of the CEO meeting weekly with the management (up to 30 people), being responsible for analysing the projects and the internal work of the Department, discussing annual budget and deciding the priorities. Herewith it also provides advice and technical support as well as information to the Deliberative Council.

Finally, and most importantly, there is the **Deliberative Council** (*Conselho Deliberativo*), which controls and approves all operations and decisions taken by the DMAE, exercising some oversight and de facto final management functions. The key instrument for citizens' participation is this Deliberative council. Chaired by the DMAE's CEO, the Deliberative Council is the equivalent of the Board of Directors and has the power to approve all major decisions to be adopted by the DMAE, as well as to advise on a number of secondary matters. The Council is made up of representatives of different civil society organisations, reflecting different political views and interests as to introduce a number of checks and balances in the DMAE's management. This feature of the Council is generally regarded as vital to ensuring its ability to enhance the company's accountability, and despite the different political views of its members there have never been politically dictated divisions on technical issues such as rate increases.

The members of the Council and their substitutes are appointed by the mayor from a list of three nominations for each of the organisations represented. The Council is responsible for approving work plans, contracts and agreements entered into by the DMAE, water supply and sanitation tariffs, budgetary proposals (*proposta anual de orçamento*), annual financial reports (*informe econômico financeiro*), financial operations and unusable material, the company's policy on personnel and human resources, when requested by the CEO.

Another separate special body that provides for greater participation is the "ouvidoria", which is the link between the administration and the workers. The ouvidoria is a forum where the DMAE workers can vindicate their rights, utter critics and suggestions as well as denunciations and demands. Once these are made, contact is established with the relevant area or department, which is then required to make a formal response. The constitution of the forum is a clear example of consultation participation³⁷ because it is established through which communities can communicate their views on intended proposals, how happens in Porto Alegre.

DMAE is subject to two further forms of accountability.

- First, it is subject to audit.
- Secondly, it is expected to reflect the popular will on the allocation and reinvestment of its revenues, as expressed through the Participatory Budget (*Orçamento Participativo*)

1.1.2 Second participatory mechanism: Participatory Budgeting in Water (OP)

The most important and widely publicized technique for participatory democracy is participatory budgeting, initiated in 1989. Participatory budgeting has completely reversed the traditional patronage approach that characterizes public administration in most Brazilian cities. In 2000, the participatory budgeting process involved approximately 30,000 citizens, thus ensuring that public interventions corresponded with the priorities of the population.

³⁷ See previous Table 3: Form of user's participation

The Participatory Budget process (*Orçamento Participativo*) is a form of direct democracy –a deliberative and transparent process-, allowing citizens to participate in the neighbourhood they live in or within a particular thematic area and choose which of their priorities the municipality should implement.

The OP promotes direct and continuous contact between the representatives and their communities. The OP values and revitalizes representative democracy, encouraging direct accountability between the representative and the represented.

Participation in the OP is voluntary and universal. Any citizen – associated or not with organizations such as parties, religious or neighbourhood associations – can participate in the process. All citizens have equal rights and every citizen that participates is entitled to vote in the selection of the priorities and for the selection of representatives. This process allows people to identify which demands or projects should be attended first.

Decisions made are documented, published and strictly implemented. Records of the decisions are presented in the year-end annual report, which allows the public to monitor the implementation of the decisions made within the OP. Billboards are placed in the city centre showing how the budget was spent, and how those projects were implemented. The information is now also available on the Porto Alegre City website. This transparency gives the population some social control over the government and shows a very well developed information participation mechanism³⁸.

The internal rules of the OP are established by participating citizens, making the process self-regulating. As a result of participatory budgeting there is *co-administration* of the city by the city government structures and the council of the OP. The purpose is to guarantee the independence of the civil society in its relationship with the State. This gives the participating citizens the power and the liberty to control the actions of the government.

1.1.2.1 Participation process

The Participatory Budget takes place in the 16 neighbourhoods in which the city is divided. Citizens meet to vote on which of their priorities the available resources(taxes revenues) should be invested, with each of the short-listed priorities being evaluated on a cost/benefit basis. Citizen meetings take place in three rounds, with a total of 51 meetings per year.

The Participatory Budget meetings take place under the guidance of the DMAE, which explains the technical criteria for the selection and implementation of works, but are also an occasion for the DMAE to be exposed to the criticism and suggestions of the public.

Once citizens have made their decision on the priorities for investments, the technical feasibility of such decisions are analysed by the DMAE according to a set of criteria approved by the Participatory Budget Council (*Conselho do Orçamento Participativo*). On the basis of the decisions made through the Budgetary Process, DMAE elaborates an investment plan, which requires the approval of the Participatory Budget Council, not only from the technical but also from the financial point of view.

Following the adoption of the investment plan, a number of commissions are set up within the Participatory Budget Council to monitor the implementation of the works until completion.

³⁸ See Table 3: Form of user's participation

At this point there is not doubt that this case is a perfect example of consultation, cooperation and mobilization participation where the community empowerment is promoted through the decision making process.

1.2 Factors of success

The success of Porto Alegre's publicly-owned and managed water and sewerage system can be attributed to institutional, economic and political factors:

- *Institutional and political:*

The creation of DMAE as an autonomous self-governing body, the competence of civil servants and the tradition of public services in utilities.

Participation and direct democracy are the main reasons why the system has evolved into its current state, within the structure rational investment decisions are made, reforms are carried out when and where needed, and prices are socially sensitive.

The transparency and accountability of these structures is remarkable. All decision-making processes are effectively open. The municipality remains in the background, though it appoints the key decision-makers in management and the Deliberative Council, and drives the participatory Budget process.

- *Economic:*

Tariff structures, including the Social Tariff, and the adoption of cost recovery: every citizen contributes their share to the maintenance and operation of the system.

1.3 Concrete Results

Coverage

Porto Alegre has nearly doubled in size from some 700,000 inhabitants in 1961 up to 1,360,000 in 2001 (Ghisleni, 2001; DMAE, 2001, p. 15). Over that period the DMAE has considerably extended service coverage and improved service quality.

Expansion of service coverage has been and, at least for sanitation, remains a priority in Porto Alegre. In 2001, the DMAE provided water supply to 99.5% of the population, an increase from the 95% supplied in 1990. The remaining 0.5% of the population is not connected to the network as resides in illegal settlements, areas subject to geological risk or liable to flooding, environmental preservation areas etcetera and is supplied – by the DMAE - with water by tank trucks.

In 1990, the DMAE provided sewerage³⁹ services to some 70% of households, and by 2001 it had extended service coverage up to 84%. Wastewater treatment increased from 2% in 1990 up to 25% in 2001 and is expected to reach 27% at completion of the R\$ 8.1m Belém Novo treatment plant presently under operations start. In the last 12 years, the DMAE has expanded the sewerage network according to the priorities indicated by the population through the Participatory Budget, including in low-income areas.

Detailed Water Figures in Porto Alegre can be appreciated in Table 6:

Table 6

Water Figures in Porto Alegre

Pumping stations for untreated water	8
Water treatment stations	8
Treated water pumping stations	92
Number of reservoirs	97
Capacity of reservoirs	184,230 cu. Meters
Number of truck that deliver water	12
Number of linked branches (1 linked branch provides connections to several households)	249,340
Number of households connected	539,772
Percentage of population connected to water system.	99.5%

Efficiency

Since 1996, the DMAE has introduced automation (“*automação*”) as a way of reducing operating costs and optimise water supply and sewerage systems. Automation also reduces human error; reduce the costs of electricity, chemicals and maintenance; allows the removal of employees from unhealthy sites; guarantees a longer life of the equipment; improves control of drinking water; allow the rapid detection of leaks and faults in plants, facilitating interventions and reducing the time of interruptions in water supply.

³⁹ See Annex 8: Sewage figures in Porto Alegre

The DMAE is evaluating the possibility of supplying raw water for non- human consumption to industrial and commercial users as a way of saving on treatment and optimising water uses.

The DMAE contracts out construction and other works through competitive tender, including:

- Water connection services;
- Sewage connection services;
- Paving recovery;
- Transportation services;
- Machinery and equipments rental;
- Vehicles rental;
- Data processing services.

The majority of works contracted out are awarded to Brazilian companies (around 95% including a small amount of works carried out by local subsidiaries of foreign multinationals, such as Suez

Service quality

While expansion of service coverage has been the primary priority in the DMAE's activity, the company has also improved service quality, most notably in water supply. An example is the construction of the R\$ 2.7m São José pumping station, completed in 2001 to supply a neighbourhood located on a steep hill.

As regards the monitoring of drinking water quality, each month the DMAE analyses 3,000 samples of water taken from over 280 points along the pipeline network and at water treatment stations..

Customer relations

The DMAE has set up a free phone line allowing customers to signal problems regarding the water supply and the sanitation system and to put forward complaints. The average time of intervention is 24 hours following a phone call signalling problems, but in case of supply interruptions water supply is re-established in 18 hours on average.

In November 2001, opinion analysts META – Research and Opinion carried out a survey on customer satisfaction with services provided by the municipality of Porto Alegre. The DMAE stood out as the most popular of municipal service providers. Water supply received an approval rate of 88% (good-very good), while the approval rate for sewerage was 53%.

Public service

The DMAE's performance on the key issues of coverage and demand management are interesting examples of how public sector organisations may have positive advantages. The increase in coverage is a clear public commitment, reinforced by the OP, which enables the DMAE to deliver it confident that the public is prepared to finance it. The ambitious target for sewage treatment will test this, but the economic advantage of the DMAE is that there are no possible competing claims for the company's surplus as there are with multinational companies e.g. dividend payments to shareholders, or investment in other company ventures: the DMAE by contrast is obliged to reinvest all its surplus.

Prices

Table 7 shows a comparison of Prices of Water and Sewage in Brazilian Cities

Table 7

Figures are in Brazilian Reais (Exchange rate used US\$1 = R\$2.8) are based on monthly consumption.

	Service/Company	City/State	20mcub Water+Sewage	20mcub Water	20mcub Sewage
1	CORSAN	Rio Grande do Sul	65.45	41.79	23.66
2	CASAL	Maceió/AL	56.92	31.62	25.30
3	CASAN	Florianópolis/SC	56.16	31.20	24.96
4	SANEPAR	Curitiba/PR	55.35	30.75	24.60
5	COMPESA	Recife/PE	50.86	25.43	25.43
6	DESO	Aracaju/SE	47.97	26.65	21.32
7	CESAN	Vitória/ES	45.25	25.15	20.10
8	CAESB	Brasília/DF	40.30	20.15	20.15
9	DMAE	Porto Alegre/RS	38.36	21.31	17.05
10	SABESP	São Paulo/SP	38.16	19.08	19.08
11	CAERN	Natal/RN	37.90	18.95	18.95
12	COPASA	Belo Horizonte/MG	37.61	18.80	18.80
13	SANEAGO	Goiânia/GO	37.15	20.65	16.50
14	SANASA	Campinas/SP	31.90	15.95	15.95
15	CAGECE	Fortaleza/CE	27.86	13.93	13.93

Source : PSI

2. Community Water Board In Itagua, Paraguay⁴⁰

This case study describes a successful approach for providing water supply services in Itagua, a town located 25 kilometres east of Paraguay's capital of Asuncion, using a community-based water board model.

This example offers powerful evidence of what local control can accomplish through cooperative and mobilisation participation.

2.1 Management and structure

The community based water board model, referred to as the *junta model*, is used in Paraguay primarily for communities with fewer than 4,000 people. It is based on a board of directors elected by a general assembly of water users. Originally established in 1974 when the population of Itagua was 2,975, the junta now serves the entire urban population of 25,000 people with water supply services and has a full-time staff of 23 employees. Itagua's junta stands out among the approximately 600 juntas in Paraguay because of its size and its financial stability. The junta is completely separated from the municipality, administratively and legally, although one of the five board members is a municipal representative.

⁴⁰ Information based on the document: FRAGANO, F "Management Models for Small Towns: Community Water Board in Itagua, Paraguay" EHP, Environmental Health Project - USAID.

One of the outstanding characteristics of the Itagua junta is the professional and technical staff that keeps the system operating and financially sound. Often the boards of the juntas must perform all the administrative functions on a pro-bono basis.

The Itagua junta presently has 23 full-time employees: 10 administrative and 13 in operations.

The municipality of Itagua, according to the laws of the junta, has one representative on the board. This municipal representative has the specific task of coordinating all actions of the junta that affect municipal property and interest. This representative has generally been effective in securing rights-of-way, coordinating street closures, and moving paperwork through the municipal system for the junta.

The General Assembly of water users, the highest level of authority under the junta model, meets annually to review the operations of the past year, the board's performance, and elect new board members. The General Assembly is essentially what makes this a community-based organization. It has the power to change laws, approve capital investment, and direct the general policies of the organization.

The board is the governing body of the junta and is elected by the General Assembly. It is composed of five members elected for two-year terms; half of the members are elected at each annual assembly. This mechanism tries to ensure that no single board completely controls the operations of the junta for more than a year, although re-election is permitted. One of the members is a municipal representative selected by the mayor. Two board members are controllers that oversee the financial management of the junta.

The junta model allows levels of responsiveness to consumers. At one level the consumer is ultimately responsible for how good the service he or she receives is. During board elections in the General Assembly of water users, consumers have the opportunity to select those best qualified to run the system. In reality, however, the level of participation in the assemblies is very low compared with the total number of connections/users (average attendance is 250 out of potentially 4,691 voters). Most consumers voice their complaints directly to the junta's professional management. The junta also has several contacts in each neighbourhood who provide the management with information on the state of the system. All complaints and damages are responded rapidly to minimize water loss, and repair teams are available 24 hours a day, for which they are paid overtime if needed as required by local labour laws.

The junta sustains and expands its operations based on the collection of fees from consumers for their connection to the system and their metered use of the potable water provided.

2.1.1 Relation with the public authority

In practical terms SENASA (National Environmental Sanitation Service) has had the following functions in relation to the juntas: Financing, oversight and quality control; regarding financing, the role is to provide loans to the juntas primarily through bilateral and multilateral institutions. In addition to the financial role, SENASA plays a major part in solving problems and conflicts that arise from the management or mismanagement of juntas. A SENASA representative may be present at annual General Assembly meetings; however, in practice this may not happen because of SENASA's lack of human and financial resources. SENASA may intervene in juntas that are grossly mismanaged and find some way to put these organizations back on track. The third area in which SENASA has intervened is in establishing the quality of potable water provided by juntas.

Nowadays, the possibility of turning the junta into a cooperative is being analysed. As a cooperative, all the property, infrastructure, and lines belong to the members (i.e., clients connected to the system).

Here it is possible to say this case demonstrates how a single-minded focus on financial self-sufficiency, community involvement, and quality services can achieve superior results.

2.2 Factors of success

- *Institutional and political:*
Community participation (especially during expansion) related to Independence from central government bureaucracy and minimal municipal government involvement. The junta model is an autonomous model that flourishes because of its large degree of community participation and minimal involvement of politicians and government officials. The municipality has only one government representative who helps coordinate activities within the district, and this person does not get involved in the day-to-day management of the system. The Itagua junta is particularly insulated from political involvement because of the large population it serves.
Professional management, metering of water use became prevalent in the system in 1982, computerized accounting and billing systems were also implemented. These improvements required professionals to run these systems and manage day-to-day affairs.
- *Economic:*
Focus on financial sustainability and recovering costs: Manipulation of funds and provision of service becomes more difficult when a large, financially and politically diverse population has oversight of the management of the junta and the legal mandate exists to rectify irregular situations. Direct oversight by the consumers ensures that their demands are met and costs minimized.
To be independent of central and local government requires sustainable financial management to ensure that water provision continues and is reliable.

2.3 Concrete Results

- ✓ The junta is managed efficiently. Unaccounted for water is minimal, and 100% of the connections are metered and read by seven billing agents employed by the junta.
- ✓ Itagua has been able to overcome the political and financial obstacles that have plagued Paraguay for years, and as a result has become one of the few urban centres in Paraguay with virtually complete potable water coverage. This has occurred through the innovative application of the community-based junta model of water provision to a medium-sized city rather than a small rural population.
- ✓ In 2000, the total population is estimated to be 55,000 and the population served with drinking water has increased up to 42%. According to the 1992 census, 51% of the population is urban; therefore, Itagua has 91% water coverage for its urban population.
- ✓ The services provided by the junta are presently limited to the provision of potable water. By 1999, 23,455 people were served from a total of five wells producing over 250 m³/hour. Having a repair crew of full-time employees of the junta on call 24 hours a day ensures continuity of services.

Prospects for replicability

The following factors should be considered for replication of the model in small towns:

- ✓ Availability of financing for capital investment at reasonable terms.
- ✓ *A core of interested and committed citizens willing to take leadership roles in establishing the junta. (Mobilisation participation)*
- ✓ *A municipal government willing to allow the junta to be autonomous, yet willing to participate actively and to coordinate local development plans. (Discussion, Cooperative participation: codesigning, codecision making)*
- ✓ A legislative framework that allows this model to be applied, albeit with appropriate regulatory oversight.
- ✓ *Continued and sustained efforts to involve the community at large in major decisions affecting the well-being of the company. Consumers must also be educated of their rights and their role in demanding quality service and transparency of operations. (Information, consultation, discussion, and co-operative participation: co-designing, co-decision-making, decision-making)*

After having a look to the table, it is necessary to highlight the importance of the participatory mechanisms in order to develop a successful water supply and sanitation service provision in developing countries.

3. Saguapac Co-Operative In Santa Cruz, Bolivia⁴¹

The Cooperativa de Servicios Públicos 'Santa Cruz' Ltda (SAGUAPAC) is the only co-operative utility in the world supplying water to a major city (provides an uninterrupted 24 hours a day supply of clean water to the 1,000,000 inhabitants of Santa Cruz, Bolivia) and that's the reason this case has been included in the present study.

Moreover, this case is a clear example of user's participation, because consultation, co-operation and mobilisation mechanisms are possible to be found.

3.1 Management and structure

The organisational structure of SAGUAPAC is based on a classical co-operative arrangement. Decision-making is decentralised to its 96,000 customers through nine water districts, "distritos de agua", in which the municipality is divided. Every two years, a district assembly is held in each water district, with two principal functions. First, it elects one-third of a six-member district council, "consejo de distrito", for a six-year term of office. Second, it elects three delegates to a biennial citywide general assembly. SAGUAPAC itself organises the election arrangements, through its own District Unit, and the elections themselves are supervised by the state regulatory agency for co-operatives, Instituto Nacional de Cooperativas (INALCO⁴²).

Each of the nine water districts has from 8 -11,000 members, who are potential voters⁴³. But the turnout in the biennial elections to the district council of water users is extremely low throughout the city. Voter

⁴¹ Information Based on the document: NICKSON, A "Organisational structure and performance in urban water supply: SAGUAPAC Co-operative in Santa Cruz; Bolivia" International Development Department. School of Public Policy. University of Birmingham.

⁴² This is the only government institution (political interference) that takes part within the co-operative organization

⁴³ In order to vote, customers must produce a water bill and identity card.

turnout in the most recent elections that were held over three evenings in June 1998 averaged only 200-300 per district, equivalent to a rate of only 2.5%. Turnout is especially low in those districts which already have universal water and sewerage connexions. Despite its commitment to the co-operative ideal of participation, which is repeated in its annual reports, the management of SAGUAPAC is surprisingly complacent about the lack of citizen involvement in elections and interprets the low turnout as tacit approval of the performance of the co-operative.

The biennial city-wide general assembly, comprising a total of 36 representatives (three delegates per district plus the presidents of the nine district councils), takes place within weeks of the district assemblies. It also has two principal functions. First, it elects three members to the nine member administrative board, "Consejo de Administración", of SAGUAPAC for a six-year term of office. Second, it elects two members to the six-person Supervisory Board, "Comité de Vigilancia", of SAGUAPAC that oversees the work of the administrative board, again for a six-year term of office.

The administrative board meets twice a month. It elects a leadership (president, vice-president, treasurer and secretary) who may serve a maximum of three consecutive two-year terms of office. The administrative board appoints the general manager of SAGUAPAC, who retains overall responsibility for personnel appointments within the co-operative. Four managers - responsible respectively for commercial, administration and finance, engineering and planning matters - report directly to the general manager. The main tasks of the administrative board are to approve tariff increases, investment plans and staff salary scales. Until 1997, members of the administrative board received no remuneration. They now receive a nominal attendance allowance of between \$300-400 per month to compensate them for the time spent on co-operative business. The supervisory board meets less frequently. Its main task is to appoint the external auditors of SAGUAPAC (currently Price Waterhouse) and to approve or not the auditors' report.

3.2 Factors of success

- *Institutional and Political*

The co-operative structure of SAGUAPAC is a major reason for its high performance. It shields management from undue political interference, especially with regard to personnel matters, tariff setting, and the awarding of contracts.

The co-operative structure also means that SAGUAPAC is not bogged down with legal delays in tendering procedures and the administration of external loan finance that bedevil those water companies belonging to the public sector. It is thus able to implement investment projects much faster and more efficiently than other water utilities.

The co-operative structure encourages a high degree of continuity and probity, both among elected officers and management. The electoral system at all levels (district council, general assembly delegates, administrative board and supervisory board) ensures continuity, both through the relatively long period office in each case (six years) and through the system of election by thirds. This electoral system also militates against corruption via the requirement that members of the district councils, administrative and supervisory boards may not be directly re-elected. They must wait for two years after the end of their six-year term of office before standing again for office.

The statutes of SAGUAPAC also encourage responsibility of elected officials. Administrative or supervisory board members face suspension if they fail to attend either three consecutive meetings or five meetings in one calendar year.

SAGUAPAC also displays an extraordinary degree of job stability within senior management, in sharp contrast to the situation in water utilities in the rest of Bolivia. The current general manager has held the post without interruption since 1983, and the four departmental managers have each held their posts between 12-14 years.

- *Economical:*
SAGUAPAC operates a tariff pricing structure that incorporates three forms of progressive cross-subsidation.
The efficiency of SAGUAPAC is also evident in its use of foreign loan finance for investment.

3.3 Concrete Results

The performance of UWS utilities may be measured according to three basic criteria: efficiency, equity and effectiveness. SAGUAPAC performs well on all three counts. The number of SAGUAPAC employees is very low at only 389 (August 1998) despite the fact that it does not contract out any of its operational and maintenance activities. Only major construction activities are contracted out.

Efficiency

The efficiency of UWS utilities may be measured in two ways - technical efficiency and financial efficiency. The following three indicators are used to measure the technical efficiency - the relationship between resource inputs and outputs - of UWS utilities:

- **Water losses**, expressed in the form of unaccounted for water (UFW). This indicator measures the difference between the volume of water delivered to the distribution system and the water sold, expressed as a percentage of net water production as delivered to the distribution system.
- **Staff productivity**, expressed as the number of staff per thousand water connections.
- **Meter performance**, expressed as the percentage of connections with meters in working order.

The following three indicators are used to measure the financial efficiency - the degree of success of a utility in achieving organisational targets at minimum cost - of UWS utilities:

- **Average tariff**, expressed in US\$ per cubic metre.
- **Personnel cost ratio**, which measures the ratio of total personnel costs to total operating costs, excluding depreciation, interest payments and debt-service payments.
- **Collection efficiency**, expressed in the form of total annual collections as a percentage of total annual billings.

On the above criteria of technical and financial efficiency, SAGUAPAC performs well in comparison with other Bolivian utilities as can be appreciated in Table 8

Table 8

Bolivian water utilities: Key indicators of efficiency, 1997

	SAGUAPAC (Santa Cruz)	SAMAPA (La Paz)	SEMAPA (Cochabamba)
Technical efficiency			
Unaccounted for water (UFW)	23%	33%	54%
Employees/1000 water connections	4.02	4.43	6.49
Metered connections	100%	98%	64%
Financial efficiency			
Average water tariff (\$/cu.m)	0.55	n/a	0.63

Personnel cost ratio	0.60	0.65	0.49
Collection efficiency	96%	111%	61%

Effectiveness

Water coverage	80%	84%	57%
Water availability	24 hours	n/a	n/a

In summary, three indicators display its operational efficiency: a relatively low level of water losses, a high level of staff productivity and universal metering. Its financial efficiency is displayed by a low average tariff, low personnel cost ratio and high collection efficiency.

By 1997 the service coverage of SAGUAPAC had reached 80%. A further 10% were connected to the dozen or so smaller co-operatives in the city, bringing the total coverage to 90% of the urban population. This is a considerable achievement in light of the phenomenal growth in population from 42,000 in 1950 to 1,000,000 in 1998

The fast-growing city of Santa Cruz consists of nine concentric rings. The coverage of SAGUAPAC is confined to the four or five inner-most rings, of traditional settlement. But the fastest population growth (6.4% p.a.) now occurs in the five outer rings where new migrants settle. Here the lack of coverage by SAGUAPAC has given birth to a range of smaller water co-operatives since the 1970s.

4. Urban Community Management in Lusaka, Zambia⁴⁴

Lusaka⁴⁵ houses 33 Peri-urban settlements and these have posed a great challenge as regards service delivery. Lusaka city council and other development partners have since adopted the community management approach.

This case has been included in the present study due to is an important example of co-operative - mobilization participaion in Africa. Very important lessons can be obtained from this case in order to replicate the model in other locations.

4.1 Management and Structure

After the change of Government in 1991, a National Steering Committee was established comprising of selected Council Directors, and chaired by the Ministry Of Local Government and Housing. The National Steering Committee was given the task of developing a number of initiatives **to promote and facilitate the process of community development**. One initiative was the development of an RDC constitution. This was later adopted by all Councils, and used as a model for further refinement by individual Residents Development Committee (RDC's)⁴⁶. Parallel to this was the establishment of a steering committee by CARE with membership from other NGO's and Lusaka City Council. The steering committee further developed the RDC constitution into the one that is presently being used in Lusaka. RDCs are legal entities registered under the Societies Act.

4.1.1 Roles and Responsibilities of Community Institutions (RDC)

⁴⁴ Information based on the document: LITUMELO, M (2001) "Challenges of urban community management in Lusaka". 27 WEDC Conference.

⁴⁵ Lusaka is the capital of Zambia and has a total of 1 800 000 habitants (14% of the national population). The peri urban zones have an average of 30000 habitants each one.

⁴⁶ development actors utilize a community development structure known as Residents Development Committee (RDC). Local authorities form these committees with assistance from existing local leaders and development agents. There are different models of RDC structures existing in different settlements.

See Annex 9: Arrangements of Regional Development Committee Structures

Initially, the roles of the RDC were to mobilize community members to participate through provision of labour; especially in water supply and solid waste water disposal, construction of schools, health facilities and road construction activities. Over time the committee has become the main management units as their responsibilities have been extended to perform the following:

Where water systems have been installed, they are responsible for planning, mobilizing resources for project implementation, mobilizing community members during implementation, fee collection, operation and maintenance and attending to all administrative requirements. In the water sector the RDCs are completely responsible.

The local authority has completely abrogated its responsibilities to the community actors.

The RDC members can belong to as many communities as they can, or cannot, handle e.g. become a community health worker, a party leader. This make it difficult for some leaders to concentrate on specific issues.

The RDC community Institution is composed of elected members with a 2 years term of office, making it difficult for them to be continuously responsible for development activities. Local authorities are not proactive enough to manage the activities in the absence of the RDCs.

Given the economic situation in the country, community members in urban centres can not afford to devote time to a non paying community service.

Sustainable Lusaka Programme is using the concept of community contracting in the community based solid waste management demonstration initiative.

There is a need for a forum where urban development approaches are discussed openly, in order for action to develop and approaches to be redefined. The consultation mechanism could be consolidated with the forum creation, because population would be able to communicate their views on intended proposals

In detail, it is possible to classify the responsibilities as follows:

ZDC Zone Development Committee

- Grassroots connection with residents - primary point for encouraging participation.
- Primary point of accountability of RDC structure to residents.
- Co-ordinate implementation of water project at zone level.
- Carry out appraisals and consult with zone residents to come up with future zone-level projects.
- Gather ideas with zone residents to take to the Forum of Zone Representatives for future compound level projects.

FZR Forum of Zone Representatives

- Make compound policy decisions.
- Receive reports from RDC and review progress of compound-wide projects, give input, and evaluate.
- Periodically hold meetings that are open to other residents who are not members of ZDC's, e.g. leaders from other CBO's such as churches, associations, etc.
- Compound-wide meeting of representatives to bring ideas from the grassroots, to make decisions on major projects to undertake in the future.

RDC Residents Development Committee

- Co-ordinating major compound projects on a day-to-day, week-to-week basis, and providing leadership to ZDC's in taking on development roles.
- Reporting to the Forum of Zone Representatives.
- Representing the compound with outside agencies.

4.2 Factors of success

- *Institutional and political.*

A regular flow of information, transparency and accountability gave a high degree of knowledge and confidence to the community of any actions taken by the RDC.

4.3 Concrete Results

- ✓ Communities now have access to a reliable source of clean water throughout the compound, which is managed by their own representatives.
- ✓ By 1998 the percentage of families paying the RDC had reached 61%. This clearly demonstrates that the RDC, the actual service provider, is able to manage the system and that households are willing to pay.

FINAL REMARK

According to the information provided, it is possible to say the civil society is more and more being involved in the development process through the different forms of users' participation in public water supply management in developing countries. So, it has been seen there exists communities where information, consultation, cooperative and mobilisation participation is a concrete reality.

The best practices analysed in this paper, represent the possibilities and the hopes of the thousands of people in the "South" who are still looking for their sustainable development. But, within this context, I am still wondering how these possibilities and hopes are being considered in the "North" inside the international cooperation field.

In my opinion, these cases are representative symbols of effective coordinate work between the civil society and the public authorities to manage the water service provision; but, in spite of their importance and success, these examples although recognised as valuable by the international community aren't yet totally promoted, still a long way to go remains to obtain the full 100% support for these models.

I say so, because at this moment, I think the cases analysed here are accepted as valid alternatives by the actors from the North; but, as said at the beginning of this paper, it is necessary not only to recognise them as "*best practices*" but also to extend the models' application in the South. To do so, many political and economical interests behind the water management system should be diminished and eliminated.

Thus, in order to achieve a sustainable access to water and sanitation for each human being and to involve them in an effective water supply management, three radical changes⁴⁷, especially in the North, are needed: 1) a change of mentality, 2) an improved and more efficient management of the water sector and hydraulic infrastructures and 3) an increase and more efficient use of financial resources.

1) The change of mentality implies an approach of rights and duties where:

- Water must be considered as a collective patrimony of humanity and ecosystems.
- The right of water as a basic element of life must be recognised and the local authorities and the States must guarantee this right. The international community has the obligation to support the States and local authorities that have not enough own resources to guarantee this right.

Within this context, it is important to remark that the approach of rights and duties should be the Millennium Development goals referential frame, instead of the one of water "commercialisation".

2) The improved and more efficient management of the water sector and hydraulic infrastructures should be encouraged by the international community through respecting the autonomy of the Governments and local authorities in their choice of reforms by sector; investing in research, exchange and capitalization⁴⁸ of innovative models to optimise the efficiency and the effectiveness of the public water utilities management and investing in the social and organisational components of the water projects.

3) The increase and more efficient use of financial resources implies to respect the 0.7%GNP commitment of solidarity for development made by the OECD countries; to review the debt of the

⁴⁷ See LAMBRECHT, Stef (2004): "Right to Water". Presentation in the World Forum (Barcelona). NGO Protos (Belgium)

⁴⁸ A good starting point is to create spaces to share knowledge where different social actors can participate and relevant solution can be adopted. Moreover, nowadays, there exist different literature sources and efforts concerning water urban problems within different management structures, so all these information should be canalised by the international cooperation to focus its policies and financial aid and to go forward than purely technical solutions.

developing countries and to initiate innovative mechanisms to directly support the local governments and the local communities, who are more and more in charge of the water distribution.

The population participation in public water undertaking implies a serious commitment by the international cooperation which should consider different possible alternatives respecting the public nature of water and the special characteristics of each population that is willing to be taken into account to be responsible for its own development within a context of good water management.

At this point, it is clear an international commitment is needed and expected, because -after all and over all- it is important to believe a CHANGE in the South, and specially in the North, IS POSSIBLE, to create an integral and sustainable development.

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ANNEXES

ANNEX 1

The proportion of urban population with access to "improved" water supply and sanitation

Region	Urban Population (millions)	% with "improved" provision	Number of people unserved (millions)	% of people unserved
Global				
Urban water supply	2862	95	157	5.5
Urban sanitation		83	481	16.8
Africa				
Urban water supply	295	86	40	13.6
Urban sanitation		80	59	20
Asia				
Urban water supply	1376	93	90	6.5
Urban sanitation		74	360	26
Latin America and the Caribbean				
Urban water supply	391	94	24	6.1
Urban sanitation		86	55	14
Oceania				
Urban water supply	23	98	0.4	1.7
Urban sanitation		99	0.2	0.9
Europe				
Urban water supply	534	100	2.4	0.4
Urban sanitation		99	6.1	1.15
North America				
Urban water supply	243	100	0	0
Urban sanitation		100	0	0

Source: WHO(World Health Organization) and UNICEF Joint Monitoring Programme, 2002. Updated in september 2002

ANNEX 2

Population projections for urban areas – 2000-2030

World Urbanisation Prospects: 1999 revision presents estimates and projections of the number of people living in rural and urban areas of the world between 1950 and 2030. Key findings of the report (which was not specifically Africa focussed) include:

- Growth will be particularly rapid in the urban areas of less developed countries, averaging 2.3% per year during 2000-2030, consistent with a doubling of populations within 30 years. In contrast the rural population of the less developed regions is expected to grow very slowly, at just 0.1% per year during the same time period. Rural – urban migration and the transformation of rural settlements into cities are important determinants of the high population growth expected in urban areas of the less developed countries.
- There are marked differences in the level and pace of urbanisation between major urban areas: Latin America and the Caribbean is highly urbanised, with 75% of its population already living in urban areas in 2000. Asia and Africa are considerably less urbanised, with 37% and 38% respectively of their populations living in urban areas. Being less urbanised, Africa and Asia are expected to experience rapid rates of urbanisation during 2000-2030. Consequently, by 2030, 55% and 53%, respectively of their inhabitants will be living in urban areas. At that time, 83% of the population of Latin America and the Caribbean will be urban.
- Small cities (of less than 1 million inhabitants) of less developed countries will account for 45% of the increase in the world's urban population growth.
- Large urban agglomerations do not necessarily experience fast population growths. In fact, some of the fastest growing cities have small populations and, as population size increases, the growth rates tends to decline (a few exceptional cases include Dhaka in Bangladesh, and Lagos in Nigeria).

ANNEX 3

Background on water in small towns⁴⁹

Small towns, large rural villages, peri-urban or auxiliary centres are among the terms used to describe African settlements of between 5,000 and 20,000 inhabitants.

The economy in these settlements is mostly informal and the sense of community is diminishing. The proportion of the African population living in centres of more than 5,000 inhabitants has risen from 13% in 1960 to 40% in 1990. It will reach 60% by 2020.

Supplying these centres with drinking water is a sizeable challenge. For example:

- Of 600 rural and peri-urban centres in Mali, with 2.5 million inhabitants, about 200 are currently supplied with water.
- In Burkina Faso, by the end of 1999, only 140 out of 800 peri-urban centres were supplied with water. The National Water and Sanitation Office (ONEA) operates water services in 30 small towns of about 10,000 inhabitants each.
- 330,000 Ugandans live in 45 small urban centres. Between now and 2010, the government has set targets for private connections to increase from 1,400 to 17,100 and for the volume of water distributed to increase from 0.3 to 3.8 million cubic metres.

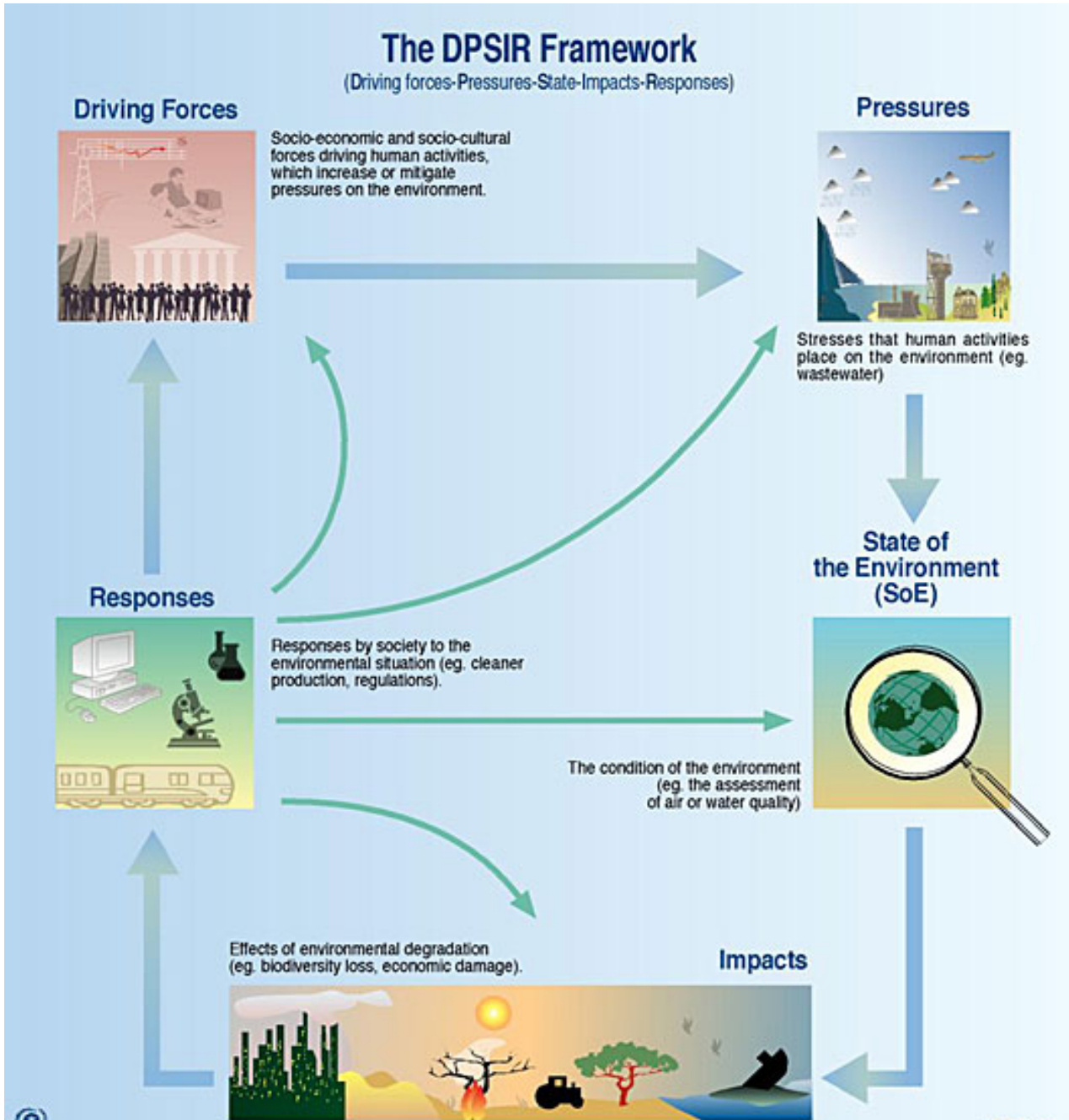
Drinking water supply in such places relies on a system midway between community management in villages and the commercial services of the urban world. The technology could be an improved source feeding a gravity-flow supply or a submerged electric pump in a well or borehole, powered by mains electricity, a generator or solar panels. Generally, there is a high demand for better water services in small towns and therefore this is a profitable activity even where users have access to free alternative sources (for example private or public wells or hand-pumps). In West Africa, the price of drinking water from such services varies from US\$0.15 to US\$0.65 per cubic metre. Demand varies widely. Depending on the type of service, the daily consumption per person varies from approximately 5 to 35 litres. This variation is explained by the fact that, for certain uses such as laundry or bathing, many households continue to use their traditional sources, which are free. The quantity used can also vary by a factor of three between the different agricultural seasons. Public tapstands supply a large part of the population, while others obtain household connections.

As a result of macroeconomic pressures during recent years, most African governments no longer commit themselves either to manage or to extend water supply systems. Community management by volunteer users cannot cope adequately in small towns with growing populations, as they do not generally have the knowledge to renew or extend their networks. Water supply systems for small towns are large enough to apply economies of scale, but too small and scattered for a conventional commercial water company to balance its operating costs. Hence there is a need to find new approaches and methods of managing these water services.

⁴⁹ See: Water and Sanitation Program-Africa Region (2002): "*Water Services in Small Towns in Africa*". World Bank.

ANNEX 4

The DPIR Framework: Driving forces-Pressures-State-Impacts-Responses

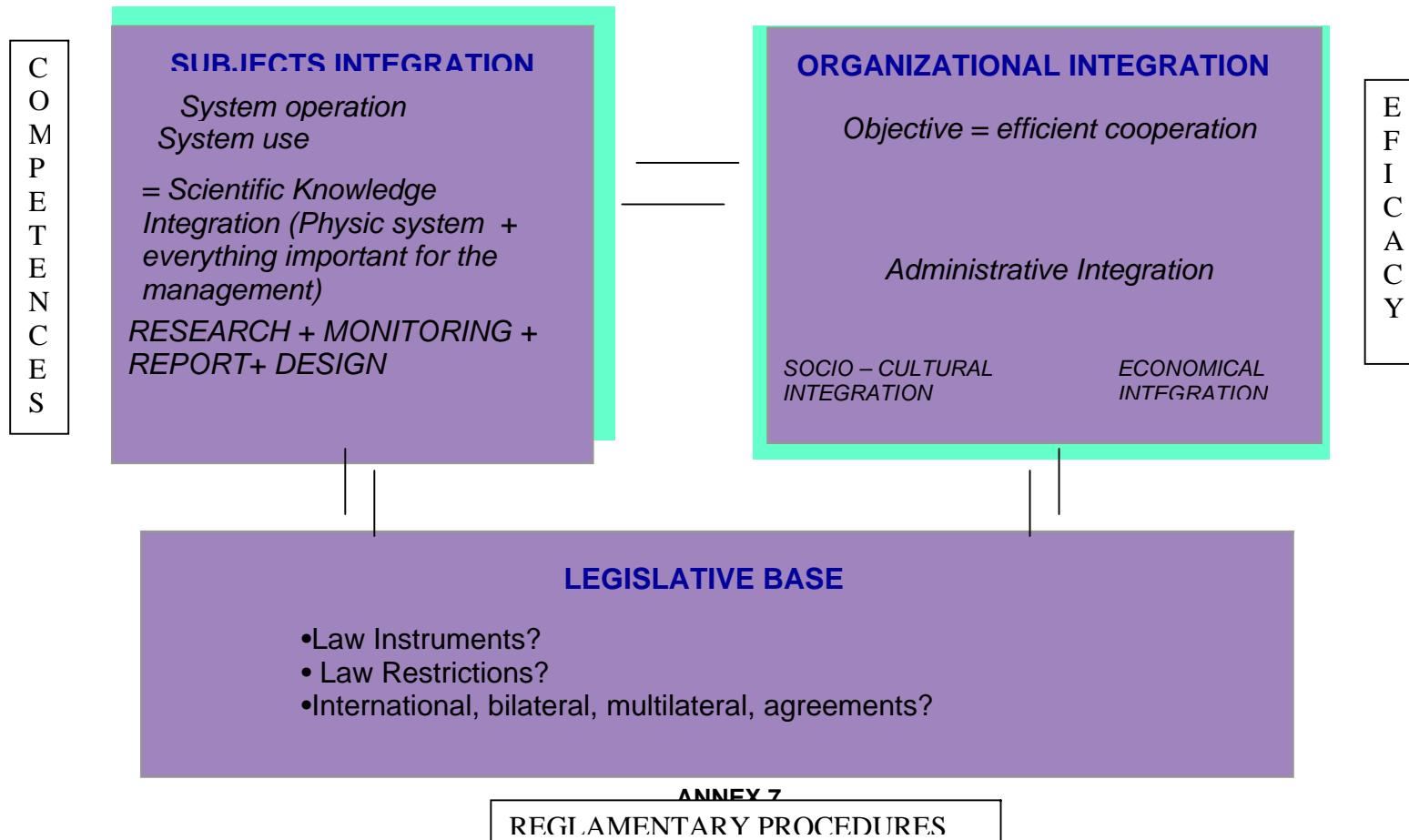


Source: www.unep.org/vitalwater/images

ANNEX 5

The Integrated Water Management Scheme

VISION



Forms of Participation in the Delivery of Urban Services and Infrastructure⁴⁸

Form	Characteristics	Objectives
Manipulation	The participation of the community is included for exploitative reasons Communities are included in the service delivery process without positive intention or meaningful end. There is no participatory decision-making. Initiatives manipulate communities to obtain agreement to interventions or human and financial resources.	Free labour Cost recovery Meeting donor conditions Political gain
Information Participation	Many projects masquerade as being participatory but municipalities only impart or communities provide information. Communities are given information about municipal intentions. The government body controls this information and decision-making is unlikely to be open to change. The process is not transparent, and the municipality is not accountable. And/or Communities share information with the municipality. There is no control over the way information is used and there is no feedback process.	Services in place and in use Minimising community resistance to proposed interventions Cost recovery
Consultation Participation	Form of participatory service delivery found in municipalities with positive intentions towards participation, some limited capacity building, but little institutionalisation of processes. Forums are established through which communities can communicate their views on intended proposals. Information and decision-making controlled by government but may be adapted to suit local requirements. Group formation promoted. Greater accountability.	Services in place and in use Minimising community resistance to proposed interventions. Ownership Sustainability Efficiency Cost Recovery Targeting of vulnerable groups for more equitable development.
Co-operation Participation	Stronger form of community decision-making normally promoted by municipality's after some capacity building or policy change (or may be	Community capacity building Ownership

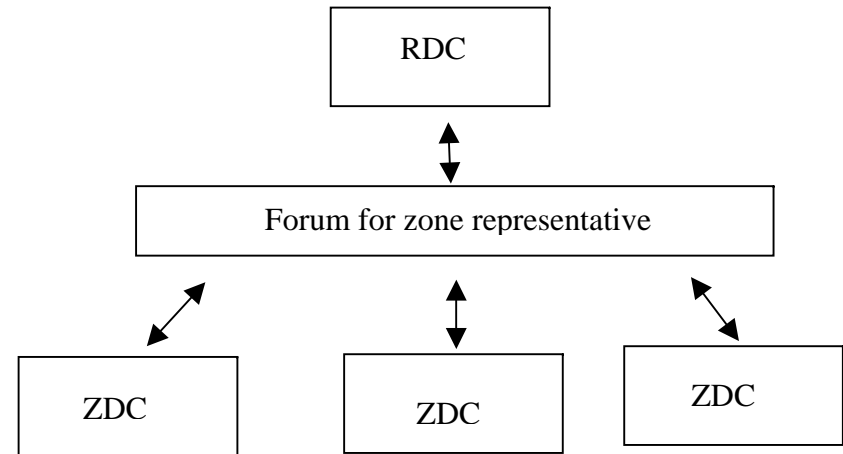
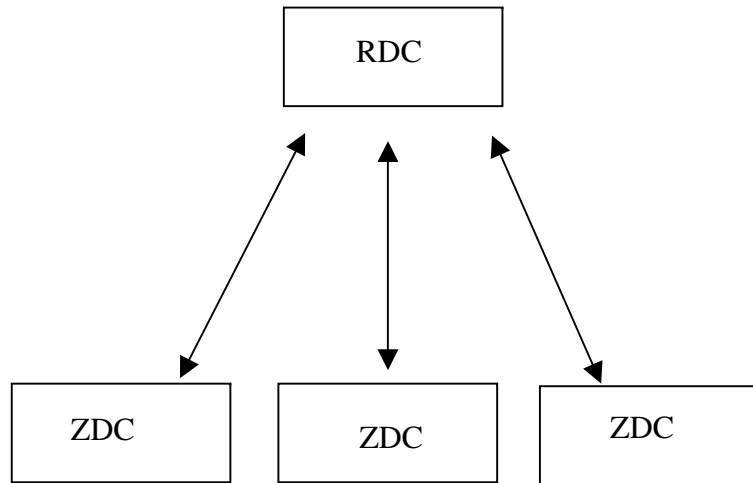
⁴⁸ See PLUMMER J. Op. Cit.

	<p>facilitated by NGOs).</p> <p>The municipality and the community co-operate in an alliance towards improved and demand-responsive service delivery.</p> <p>Communities are included in the process from an early stage.</p> <p>Generally more cognizant of the needs of women and other vulnerable groups.</p>	<p>Sustainability</p> <p>Efficiency</p> <p>Target vulnerable groups</p> <p>Cost sharing</p> <p>Possible objective is the empowerment of the community</p>
<p>Mobilisation</p> <p>Participation</p>	<p>Communities are in control of decision-making processes and municipalities enter into initiatives as required by the community.</p> <p>Municipalities respond to the efforts of communities, or facilitate communities to control their own initiatives.</p>	<p>Community empowerment</p> <p>Community manages service delivery</p> <p>Cost recovery</p>

ANNEX 9

Arrangements of regional development committee structures⁴⁹

ZDC : Zone Development Committee



⁴⁹ See LITUMELO, M . Op. Cit.

ANNEX 6

Designing Public Participation Process

A number of issues need to be addressed when designing **PP processes** at the projects level. The following information is an outline of the PP process from the perspective of the process manager⁴⁷

1. Initiation

The first step is the determination of the purpose of PP (lever, effects aimed for) by the various governments bodies involved. Already in this phase a process manager should be appointed.

2. Actor analysis

Identifying the different publics usually requires some form of “actor analysis” . This should include “gender analysis” to account for the role of women in water management. Actor analysis may consist of the following elements:

- An identification of the issues at stake –including intangibles and issues related to the informal economy –and their historical development.
- A preliminary analysis of the relevant physical system or systems (basin, sub-basin, irrigation system, etc and the use made of these systems.
- An analysis of the relevant institutional structure, including the responsible organisations, the management tools available and relevant standards.
- The identification of the various governmental and non-governmental actors.
- An assessment of the perceptions and resources of the different governmental and non-governmental actors, including their goals and interests, their perception of the relevant systems, their perceptions of each other, their information needs, the time and money they have available, their lever of education, their technical expertise and their communication skills.

Relevants actors may include the following:

- The different publics: individual citizens, companies, public interest and economic interest groups:
- Legislative bodies.
- Executives bodies: the cabinet, sectoral ministries, executive agencies.
- Different political parties, ethnic groups and regions.
- Individual politicians and civil servants.
- Government experts, commercial consultants and academics:

3. Developing the process design

Next, the process design must be developed. It should pay attention to the purpose of PP, the scope, the different publics, decision-making and policy research, the role of the different parties, the project organisation, the PP methods to be used. The process design should make it clear what the public can expect. The public should be involved in the development of the process design as public support for the PP process will be essential for its success.

4. Kick-off meeting

PP could start with a “kick-off meeting”. At such a meeting the proposed participatory process can be presented and discussed with the public. In addition, an initial discussion of the substantive issues can take place.

5. Implementation

The implementation of the process design should be flexible enough to cope with new and unforeseen developments. However, expectations that have been raised should be respected. Major changes require the agreement of everyone involved.

⁴⁷ See MOSTERT, E. Op. Cit:

6. Decision-making and feedback

Sooner or later a decision will have to be taken. Depending on the level of participation, the different publics may or may not be directly involved. In all cases their input should be taken seriously and they should receive feedback.

7. Evaluation

Participatory process should be completed with an external and an internal evaluation. External evaluators who are not involved in the process can identify points for improvement that internal evaluators may miss. However, the parties involved should also make their own evaluation in order to learn from the experiences gained.

ANNEX 8

Sewage figures in Porto Alegre

Sewer pumping stations	12
Houses (structures) linked to sewer sewage	100,419
Households linked to mixed sewage (wastewater % sewer)	74,918
Households connected to sewers	294,065
Households connected to mixed sewage	158,362
Percent of households linked to sewage (55% sewer, 29% mixed)	84%
Percent of households whose sewage is treated	27%

Source: Water in Porto Alegre, Brazil. A PSIRU and DMAE paper for WSSD Joburg August 2002