Sharing the Experience on Regulation in the Water Sector

(SOWAS - Sub-Saharan Africa)

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH

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The working group for Regulation and PSP was established during the 9th Meeting of the “GTZ Sector Network Water and Waste in Africa South of the Sahara (SOWAS)”, which took place in Namibia in 2003. Thereafter, two meetings organized by the working group took place in Kenya. Zambia was responsible for coordination and invited colleagues from Uganda, Kenya and Tanzania where regulation is a key issue in ongoing German supported projects. It was decided that the first output of the working group should be a document based on experience in regulation in the water sector.

So far, the following members participated: Jochen Rudolph (Uganda), Susanne Mauve (Uganda), Ralf Wegener (Kenya), Oswald Chanda (Zambia, Director of the Regulator), Roland Werchota (Zambia), Dirk Schäfer (Zambia), Marita Konstanczak (Zambia). Additional contributions were received from Johannes Schneider (University of Vienna) and Marek Wallenfels (GTZ Eschborn).1 Information distributed at the Berlin Summer School 2003 on private participation in infrastructure was taken into consideration.

Objective and requirements of the paper:

In the context of GTZ knowledge management, the output of the working group shall serve our partners and GTZ personnel as an introduction to regulation. This document reflects the discussions and the individual opinions on regulation expressed by the members of the working group.

Hence, the paper fulfills the following requirements:

- It is an easy to read, brief and interesting paper for those involved in regulation, (not simply a list of keywords).
- The focus is on actual experience and not on additional studies on regulation. Nevertheless, a short introduction reflecting textbook knowledge is given.
- Instead of searching for a compromise and a commonly accepted formulation, sufficient room was given on different opinions regarding certain topics or approaches. This is to underline that there is no blueprint for the “right approach” of regulation.
- Although the paper can support the development of a GTZ product on regulation it should not be seen as an attempt to elaborate on such a product description.
- The paper should also serve as background information for other relevant products within GTZ knowledge management.

Although participants in the working group mainly exchanged their experience from countries where they are presently working, a number of examples have been drawn from other countries in Africa and other continents in order to give a broader picture on regulation in WSS.

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1 Infrastructure Regulation*, GTZ Working Paper No. 10
In a perfect, competitive market the participant is not supposed to influence market prices by his behaviour and newcomers to the market do not face barriers to entry. Consequently, market powers are then equally distributed among all participants in order to produce an optimal outcome for the society, thus balancing commercial and social interests.

However, reality shows that in the water sector, market mechanism if left unregulated, would not lead to the right balance between social and commercial goals due to several factors. Water Supply and Sanitation (WSS) Service Provision is regarded as a “Natural Monopoly”, which is the case whenever one supplier can serve the relevant market at lower cost than several suppliers. This and the fact that investors cannot leave the market with the assets provided during their engagement gives the participants in the market a particularly strong power. As a result, market mechanisms will lead to a sub-optimal social outcome and therefore, regulatory interventions are needed.

Regulation can be seen as the rules authorities apply to influence consumers and service providers to ensure certain behaviour.

Nevertheless, it should not be expected that regulation could rectify all deviation from the right balance between commercial and social goals because the players in the market hold different levels of power, influence and information. Additionally, there is no perfect cooperation and coordination among them and there is also the influence from the environment.

The scope of regulation depends on the key variables chosen as being relevant for the sector e.g. quantities, prices, rate of return, quality, access to services etc.

Several approaches of regulation are usually discussed, these depending on which key concerns are put into the forefront, such as financial viability, increased private sector participation (PSP) etc. None of these approaches can claim to provide a comprehensive regulatory regime, however, they could be seen as elements or tools for certain issues of regulation (e.g. benchmarking - serves to use comparative competition, rate of return - to determine the tariff level and contract arrangements in order to cover risks and describe engagements). Therefore, it is misleading to quality each of the following as alternatives of regulation.

- Regulation through control of the “rate of return” in order to ensure that the income generated on the capital provided exceeds the current based interest rate (but is lower than the monopoly rent). This approach is particularly relevant when capital is provided. However, utilities regulated by a rate of return tend to over-invest.

- The “cost plus regulation” approach aims to ensure that the utilities can cover costs and obtain an acceptable profit but lacks incentives to achieve a cost efficient production. Additionally, it is difficult to receive sufficient information from providers and there is ample room for manipulation.

- The “price cap” regulation assumes that a given service level can be maintained if tariffs are adjusted according to inflation and constant productivity gains can be taken care of by reducing the tariff adjustments by a certain factor (factor X). Under this regulation, utilities tend to under-investment, which affects the long-term viability of the system.
• With the engagement of the private sector “regulation by contract” became an option. Generally, these contracts agree on performance indicators and are signed between the provider and government institutions.

As a contract arrangement only covers one utility, regulatory functions covering the entire sector are not taken care of. Additionally, contracts are never complete and cannot care for all issues arising in a dynamic surrounding. Consequently, regular re-negotiations are necessary, which serve foremost, the strongest and best-informed party.

• In the absence of market competition, “regulation by benchmarks” creates virtual or comparative competition. The performance of utilities should be compared to the best performing in the country, in the region or internationally. This regulatory tool is particularly effective if results are widely publicised among politicians and the public. Nevertheless, it requires a very high level of information in order to make providers operating in different environments and under different conditions comparable.

As previously indicated regulation is much broader than all of these approaches if it is expected to balance commercial and social interests and contribute to solve major problems such as insufficient access to services in the sector.

The present paper elaborates on regulation of WSS in urban and peri-urban areas in Sub-Saharan Africa.
2.1 Basic conditions and current status

In 2000 the World Health Organisation estimated that nearly 40% of Africans or over 300 million, mostly poor people living in rural, peri-urban and urban areas, do not have access to safe water supply and adequate sanitation facilities. The present situation of our partner countries is determined by stagnant or limited economical development, high population growth, high poverty levels, poor living conditions for the majority of the population etc. Insufficient human capacity and experience leads to weak individual and institutional output, characterised by poor quality and malfunctioning of organisations.

 Particularly in countries where governments were previously largely involved in WSS the sector is suffering from a lack of professional personnel with the right management skills. The transformation in the sector from administration culture in public institutions to a private sector oriented management culture is laborious and time consuming. Even then newly formed providers operating under a new favourable legal and institutional framework are struggling to solve inherited problems such as high staff levels, huge unaccounted for water, poor collection efficiency, high debt level, insufficient liquidity, poor service level, insufficient transparency, poor information system etc.

Employees in ministries are often under-paid and poorly motivated. This and poor management skills combined with notoriously under-funded budgets makes ministries and government institutions on local level hardly effective. Public sector restructuring programs also aim to change this situation by creating leaner structures with fewer personnel and by outsourcing operations of WSS which are not necessarily regarded as key functions of government institutions.

2.2 Reform processes in the WSS sector

Reforms in the water sector (WSS and water resource management) in our partner countries are often triggered by deteriorating WSS service provision for the connected consumers. The unacceptable situation for the unconnected poor has long been ignored in most countries because the unserved poor have none or limited means to pressurise or express their concerns. Nonetheless, during the recent sector reforms the living conditions of the poor are becoming an increasing concern, although, often the main focus remains on the improvement of the service provision for connected customers as a first step.

Resistance during the reform process, comes foremost, from better off and well-organised consumers, who are often used to subsidised prices and continued service even when they fail
to pay the water bills. Experience shows that the poor never reach this level of organisation and power. The shift to cost recovery and a higher level of performance of providers, means, in general tariff increases, particularly for the bigger consumers and a lower tolerance of non-payment and illegal connections. Nevertheless, consumers perceive the correct billing of services, which has not been done in the past, as a tariff hike (implicit price increase).

At the same time a more efficient collection, billing according to consumption and tariff increases for better-off consumers create the financial means to focus more on better services for the poor.

Consequently, subsidisation shifts from the middle class consumers to the poor, who in the past paid much more for water than all other consumer groups.

Unfortunately, sector reforms do not necessarily lead to better cooperation and coordination between government institutions and other players. They also do not automatically contribute to better donor coordination or to diffuse donor competition. Inefficient allocation of funds and insufficient sustainability of service provision also fuelled by donor support and overarching interests of donor agencies are, therefore, a remaining threat.

Clarification of responsibilities between institutions, separation of key functions (such as policy making, regulation and service provision) and an increased stakeholder participation will forcibly lead to a more complex institutional landscape and the need of a more challenging level of consultations and cooperation than in the past. Therefore, it cannot be expected that a sector reform will automatically lead to a situation where things are functioning more smoothly than before if the players are not aware of the need for increasing cooperation and consultation. These elements are crucial to activate the high potential of a new institutional and legal framework.

2.3 Poverty reduction as a key concern of reform processes

Since the declaration of the Millennium Development Goals and the outcome of the Johannesburg summit on sustainable development, bilateral and multilateral support is increasingly streamlined towards poverty reduction. In the context of water sector reforms, the aim to alleviate poverty means to reduce the share of population which has no access to adequate WSS services. Therefore, a consistent strategy to reach the poor must be an integral part of all support from donors and NGOs to regulation, commercialisation and PSP in the water sector.

It must be underlined that improvement of services to the poor in peri-urban areas provides a very big leverage to halve the proportion of the population with no adequate access to WSS services by 2015. Unfortunately, neither politicians nor some donors, do not yet pay enough attention to these areas.

Equally, often unsuccessful approaches are adopted. For instance, as many case studies prove, the population in peri-urban areas is not homogeneous, which in general makes community run WSS systems hardly efficient and sustainable.
The domestic rate for piped water in Uganda is 660 UGSh per m³, whereas poor people buy a jerry can of 20 l at a public stand post at a price ranging from 50 to 100 UGSh. This amounts to 2500 to 5000 UGSh per m³ (an equivalent of 2,50 US$). Consequently, the poor pay 4 to 8 times more than the connected consumers.

The actual rate for one jerry can of water at a public stand post in Kenya is around 7 KES (or 350 KES per m³) compared to approximately 22 KES per m³ (an equivalent of 0,3 US$) of piped water in most urban residential areas. The poor pay 16 times more than the well off consumer with a household connection.

In Lusaka, Zambia the social tariff at public stand posts (Waterkiosks) is 500 ZMK (0,10 US$) per m³. In those peri-urban areas in Lusaka where the population has no direct access to water supplied by the water company, people sometimes pay up to 50 ZMK per jerry can of 20 l collected from a private water revendor. In George Compound people even charge 50 ZMK for a jerry can of water drawn from a shallow well on their plot when no water from public outlets is available and therefore demand up to 2500 ZMK per m³ of unsafe, non treated water or 5 times the price charged by Lusaka Water and Sewerage Company.

Before water supply was restored in Mandevu, Lusaka, private revendors used to charge 250 ZMK for a jerry can of water, which they delivered to the doorstep, summing up to 12,500 ZMK or 25 times the official price charged from the water company. There is nothing wrong when mobile re-vendors add profit to the sales of water but it should become a serious concern when the poor have no other options such as direct access to a public outlet where clean water is sold at a social tariff.

The engagement of the private sector does not necessarily solve the insufficient service provision in these areas on an acceptable scale because service provision for the poor is thereby often re-delegated to the inefficient public institutions or left to the community. This breaches the core element of water sector reforms, namely to delegate WSS service provision to professional providers. It also separates systems, physically or operationally, for the wealthier consumers from those of the poor and, therefore, makes it almost impossible to cross-subsidise within the sector in order to offer social prices for the poor.

As a rule of thumb, no household should spend more than 4-5% of its income on WSS. Given the low income levels, it is impossible to finance and maintain individual house connections for all consumers.

The MDG can only be achieved if low cost systems, like kiosk systems, managed by professional providers with the right level of community participation in the set-up stage and for the protection of the installation are increasingly promulgated on a large scale.

Combining commercial interests with social goals is feasible and must be the overarching concern of regulation

As it is difficult to attract international private operators for small and medium towns, several types of operators/utilities will emerge and ensure service provision in most of the partner countries. However, the number of international private operators is very limited and therefore the competition for the market distorted. This gives them substantial power to dictate conditions. This problem can only be solved long term by creating easier access for other, smaller and hopefully increasingly local private operators.
The clustering of service areas of different characteristics (small and large towns) may offer, within certain limits, professional management for less lucrative areas. Nevertheless, these clusters have to be composed in such a way that competitive bidding is still feasible.

In the industrialised world, WSS services are due to higher living standards relatively affordable and, consequently, in general, of much less importance to the individual and public than in our partner countries. Without doubt in Africa, water and sanitation is a much more prominent topic.

For the majority of the population, it is still a central and unsolved issue to the creation of decent living conditions. For that reason the probability of (undue) political interventions is considerably higher in the developing world.

Since the situation in our partner countries is so much different to the industrialised world, it should be accepted that the scope of regulation and the way regulation is organised has to be different as well. Otherwise regulation will not be effective. There should be no room for dogmatic approaches.

In Africa, regulation must not only concentrate on rectifying market failure (economic aspect of regulation) as it is common practice in the industrialised world but must contribute to solve the huge problems in the sector. Particularly, due to a lack of efficient social redistribution systems, it must also find reasonable ways to improve substantially and on a large scale the service provision for the poor (social aspect of regulation) - in an environment where up to 70% of the population live at or under the poverty line. Additionally, when regulatory regimes are designed and put in place the generally poor performance of centralised and decentralised government structures has to be taken into account. As conditions in the developing world are so different than in the industrialised countries, it is not difficult to accept that the functions for regulation and the role of regulatory agencies will be different.
In many developing countries regulation and PSP in the water sector was hardly an issue a decade ago. What has changed?

Large scale privatisation of infrastructure industries started in the 1980s in the UK after consumers were more and more dissatisfied with service and price levels of publicly run operations. It was expected that with more competition, transparency and the right set of incentives the efficiency of the sector could be raised significantly. In addition huge investments were needed to upgrade and expand existing systems – a task that governments, keen on lowering budget deficits, were not willing to pay anymore. This discussion was always connected to the issues of decentralisation and devolution of political power.

In the 1990s the discussion has expanded to other parts of the industrialised and consequently to the developing world, where the creation of para-statal organisations around the 1970s did not lead to the expected increase in efficiency and effectiveness. At that time the intention was to increase the control by the central state over vital services and to offer free service provision. This resulted in a larger control by politicians and administration of the operation and in undue discretionary interventions.

Obviously, since the situation in the developing countries is so much more different to that in the UK, restructuring efforts with the sale of assets and attracting huge amounts of private capital are not an option for the developing world.

But, as in the UK, in most developing countries, some of the same cornerstones form the new approach. One is the separation of policy making, regulation, as well as, asset management and operation.

Discussions should less concentrate on principles or blueprints but focus on the feasibility and effectiveness of approaches in the respective partner country

But, as in the UK, in most developing countries, some of the same cornerstones form the new approach. One is the separation of policy making, regulation, as well as, asset management and operation. Others are the increasing financing of service provision by the consumers, the devolution of service provision to professionals and the move to bring service provision as close as possible to the consumers. As most network industries are natural monopolies, the separation of service provision from policy and the devolution to commercially oriented providers implies the need for regulation. The involvement of professional providers (both local and internationally operating companies) needs an equally professional regulator as negotiation partner.

For the parties involved the “rules of the game” have changed fundamentally:

- Politicians (and their administration) have to accept that project implementation and operation is carried out by professionals - private sector or at least commercialised utilities.

- Politicians have to refrain from intervention and regulation should be carried out by an independent but accountable third party.

- Local governments have to accept that WSS are not a cash cow anymore that they can milk whenever revenues come in.

- Consumers have to accept that services have an economic value and services have to be paid for on time and according to consumption.
• Providers have to change from administrative to management culture.
• Development partners should move from isolated project approach to seek alignment with national sector policies.
• The national parties have to develop negotiation skills and acceptance of international business culture when dealing with providers.
• The national agencies have to build up an adequate information system in order to be able to negotiate.

Today reform processes aim at creating institutions and organisations autonomous from ministries/government administrations and their decentralised institutions. Equally, to promote corporatised entities and PSP to take over functions formerly exercised by government.

In Sub-Saharan Africa the approach to sector reforms is concentrating on commercialisation/corporatisation (publicly owned enterprise, which should act in the same way as private companies) and the different forms of PSP whereby concession contracts as well as private ownership are not likely to be introduced on a significant scale in the years to come.

Next to the establishment of a new institutional framework a new legal framework serves to clarify roles, functions and powers. Additionally, it aims to reduce risks in the market.

As applies to all activities carried out within the German cooperation, the support to regulation has to take into consideration the specific constraints and potential of our partner countries. Therefore, principles and concepts for regulation cannot be transferred without critical scrutiny if the right balance between commercial and social goals in our partner countries should be reached.

In general, the agency responsible for regulation should be able to set rules and standards, to influence and monitor the market and the behaviour of the participants, as well as, to enforce rules whenever necessary. Considering the specific problems in Africa the agency ensuring regulation should also be used to provide advisory services to government institution (on central and local level), help to shield off undue political interference in the sector and bridge existing information imbalances.
As much as it is important to focus on key issues and on the MDG it is necessary to work towards achievable targets within a given frame.

**Cost recovery / allocation efficiency:** Adequate service provision can only be sustainable when cost recovery is achieved. Tariffs have to reflect the economic value of service provision and will be perceived as fair if billing is affected according to consumption (metering of consumption). Cost recovery and the fulfilment of social aims can be achieved if cross subsidisation is taking place. A tariff structure with rising block tariffs is an appropriate approach.

Service level for the poor / demand oriented approach: In most of the countries in Sub-Saharan Africa the poor cannot sustain a household connection for water and sewerage. Additionally, there are not enough financial resources available to finance such a number of connections, which would need to include very expensive upgrading measures for the entire system (extraction, treatment and network) due to a significant increase of individual and overall consumption. For water supply such generalised high service level is presently not in reach for the poor (considering ability and willingness to pay). For sanitation a service level linked to an extensive network for the poor will be out of reach for many decades to come. Consequently, regulation has to help promote affordable and properly managed low cost technology such as Kiosks and environmentally sound onsite sanitation.

For urban water supply cost recovery was achieved in Uganda under NWSC in 2002/2003 and in Burkina Faso under ONEA between 1994 – 1999.

**Productivity efficiency:** With increasing focus on commercial viability and particularly, corporatisation and PSP, the costs of WSS service provision can be minimised.

**MDG:** In an environment were 30-75% of the population are living in poverty and the consumption level of water by the poor is often less than 5 litres a day the Millennium Development Goals for the Water Sector and the Johannesburg declaration concerning sanitation must be the major guideline for service provision. Therefore, all key players in the partner countries and the developing partners must strictly align their contribution to the achievement of these goals.

In bigger towns concentrating on peri-urban areas will be most effective and, therefore, yield most of the benefits, as population density is high and living conditions are very poor.

**Pro-poor tariff policy:**

Access to water and sanitation services implies that the poor can consume clean drinking water and use sound sanitation installations at social/affordable prices. Consequently, the poor need to have a choice to access public outlets for water where prices are controlled and not wholly depend on mobile revendors or private non-controlled outlets. Additionally, they have to be supported to build ecologically sound onsite sanitation installations.

Additionally, it is crucial that the subsidised price for the poor is controlled. Under such conditions the poor can consume a bare minimum to guaranty acceptable living conditions. Where the poor can sustain a yard tap or household connection subsidised lifeline consumption is needed.
Include service obligations for the poor in licenses and contracts: In order to ensure that commercialisation and PSP do not sideline the pressing concerns for the poor licenses and contract arrangements should include service obligation for the poor in what ever form it is appropriate.

Regulatory tools and standard setting with special focus on the poor: Regulation has to ensure that the concerns of the poor are always taken care of. Standard setting is not excluded from such concerns. E.g. installations for the poor have to fulfil the requirements adequate for the environment and, therefore, have to be designed vandalism proof. The information system in the sector also has to include the WSS situation in poorly or non-served areas.

Professional advice to national and local government: The regulating agency with its core functions can over time acquire a significant level of knowledge and information about the sector. This information advantage combined with good qualified professional staff e.g. in the case of an autonomous regulator makes the regulatory agency a very useful institution to advise government and all other stakeholders. The regulatory agency should also play a role in ensuring that the WSS is part of the poverty reduction strategy aiming at:

- economic growth and structural transformation, which means promotion of commercialisation/ PSP.
- increasing the ability of the poor to raise their incomes, which means access to water for income generating activities such as food processing, restaurants, services and manufacturing.
- enhancing the quality of life for the poor, which means promotion of onsite sanitation which fulfils environmental criteria etc.

Attract private capital: Although experience shows that under the present situation in Sub-Saharan Africa the generation of an adequate rate of return is very unlikely to happen in medium terms it should not mean that this concern is disregarded.

Depending on alternative sources, consumption at public outlets varies from 2 to 15 l per person per day

Avoid over-investment: Not only private operators providing capital have a tendency to over-invest (return on capital). Also owners and operators of the systems tend to invest in assets, which are not the best option in the interest of lowering costs of production in the medium and long term (luxurious office buildings, luxurious cars etc.). Also development agencies with their contribution are not entirely focused on the issue of economy of investments (unnecessary upgrading or size of design of systems, overestimation of consumption, unjustified choice of service level for the service provision to the poor to justify projects, etc.). Over-investment will lead to unjustified tariffs or hamper cost recovery. Consequently, regulation needs to oversee investments.
Affordable Systems for the poor

It is a myth to believe that the majority of the poor can be served with (even subsidised) household connections for water and sanitation within medium terms. Efforts to achieve this have led to a high number of abandoned connections and in consequence to over investment for the upgrading of the main system (e.g. Benin in the 90s or currently Burkina Faso). One of the results is that the level of cost recovery is degrading.

Appropriate technology for water supply

Public outlets have a number of advantages (benefit from economy of scale, easy cross subsidising and good water quality if linked to the main network, low investment costs etc.) and can reach an acceptable service level if managed by professionals. With the engagement of a private water vendor linked by contract to the professional operator of the entire system water kiosks make, in comparison to other public outlet systems these advantages sustainable. Not only can the service level be more easily ensured, but social tariffs can also be offered and controlled without hampering cost recovery of the total system. Additionally, the viability of the kiosk can be enforced if the kiosk vendor sells other goods. Kiosks are equally an ideal structure to sensitisise the population e.g. on HIV/AIDS as there are no other comparable infrastructures in peri-urban areas which are frequently accessed by the majority of the population. Nevertheless, it is also important to ensure adequate community participation during the phase of establishment, choice of placement (sufficient number of customers) and to make the design vandalism proof.

Example Burkina Faso

By the end of the 90s 36 % of the production in Ouagadougou had been sold at 450 kiosks, which served 50 % (0,5 Mio) of the population. Collection rate was at 99,5 % and customers lived at an average distance of 200 m from the kiosk. For a m³ 0,25 US$ was charged including the share of the vendor. Average waiting time for the customer was 15 minutes. 71% of the customers directly accessed the kiosk and 29 % were served by mobile revendors. The average consumption was 22 l per day and person and households accessing the kiosks directly spent 2,7% of their income on water. Most of the customers were highly satisfied with the service level offered by the water kiosks. In the next step of improvement of living conditions they opted rather for electricity than a water connection in order to introduce TV and a fridge into the household. Simultaneously to the enlargement of the kiosk system (from 1990 to 1998 the number of kiosks had increased from 183 to 450 and the water sold from 1,5 to 4,3 Mio m³ per year) a very successful latrinisation program was implemented. Within 4,5 years onsite-sanitation was rehabilitated, upgraded or newly constructed in 25 % of the plots in town without outside financing.
5.1 Objectives of regulation

The overarching concern of regulation is to improve living conditions by improving WSS services. Thereby the following objectives are crucial:

- Production efficiency leading to minimized costs of service provision.
- Allocation efficiency, whereby prices for WSS service provision have to reflect costs.
- Sustainability through cost recovery/adequate return on capital.
- Fairness - meaning access to services for all including the poor, one regulatory regime for all providers and realistic efficiency gains demanded by the regulator.

5.2 Scope of regulation

The scope of regulation which should be covered can be clustered in the following way:

**Economic aspects of regulation**

- Supervision and influencing market structure of water and sanitation suppliers, because there is a limit of economy of scale when predominant market positions are reached, and facilitating entry of new providers.
- Customer protection from undue behaviour of WSS providers, such as, non-performing investments, political empire building, purchasing at exaggerated prices, which inflicts unjustified costs (ring fencing to avoid illegal transfer of profits).
- Promotion of comparative competition through benchmarking / yardsticks etc.
- Setting of price and quality (e.g. minimum standards for water quality etc.)
- Protection of infrastructure for future generations – oversee/ regulate investments
- Providing incentives for improved efficiency

**Social aspects** of regulation including services for the poor through improved access and affordable tariffs

**Environmental, health and safety aspects** of regulation

**Sector wide information system** and reporting to politicians and the public

**Advising government institutions** on water related issues

**Protecting providers** from undue political interference

The scope of regulation can vary from one country to another depending on the way regulation is carried out and the institutions involved. The capacity of institutions is also crucial, as e.g. an autonomous regulator attracting good qualified personnel can cover a larger scope of functions than a ministry department. At the same time it is important to make sure that the regulatory institutions stay focused and do not assume too many non-core responsibilities.
**Great Britain - OFWAT:**
The duties are seen to ensure that:
- The function of a water and sewerage company is carried out properly according to legislation. This includes the promotion of economy and efficiency with price setting and comparative performance.
- Companies are able to finance their functions (with a reasonable rate of return).
- Protect customers by avoiding discrimination, protect rural customers and limiting charges. This includes quality of services and consideration of benefits and savings achieved by the providers during tariff setting, as well as, disputing regulation.
- Promote efficient use of water by customers.
- Facilitate competition between suppliers and potential suppliers, ensuring a framework where competition can develop.

Other duties comprise:
- Monitoring the industry, such as, performance but also misuse of monopoly positions.
- Enforce licences.

OFWAT works closely with the Environmental Agency and the Secretaries of State concerning relevant standards such as water quality.

**Western Australia – Office of Water Regulation:**
The mission of the Office of Water Regulation is to be achieved by:
- Promoting efficiency and competitiveness.
- Develop policies and standards.
- Conciliating disputes between customers and providers.
- Ensuring a planned approach for future provision of services.
- Issuing licences to providers that they meet relevant standards.
- Advising the Minister on policy issues relevant to the reform and performance of the industry.
- Encouraging users (farmers) to develop their water supply in order to become self-sufficient.

The Office of Water Regulation co-operates with the Water and River Commission, Health Department and Department of Environmental Protection.

**Zambia - NWASCO:**
The water supply and sanitation act from 1997 gives the following duties to NWASCO:
- Advise Government institutions on water and sanitation matters, including local authorities and commercially viable institutional arrangements (e.g. ensure separation of policy making and service provision).
- Licence utilities and other service providers (e.g. overseeing the structure of the market).
- Develop guidelines for the provision of services, establishing of utilities, technical and financial management of utilities and setting of tariffs (e.g. influence behaviour of providers, improved efficiency of providers, ensure social tariffs for the poor).
- Establish and enforce standards on services quality, management of utilities and design, construction, operation and maintenance of facilities.
- Advise utilities and other service providers on handling customer complaints.
- Disseminate information to consumers (use tools like comparative competition).
- Monitor performance of utilities and other service providers.
- Establish a fund to assist (commercially viable) utilities established by local authorities (particularly concerning the service provision to the poor – social aspects).

NWASCO cooperates with the MoHealth and the Environmental Council on matters of drinking water and effluent quality.
6.1 Who should be regulated?

All types of providers of WSS are participants in an imperfect market and hold a natural monopoly. Each of them has to provide services at an agreed quality and in a sustainable manner but has particular strengths and weaknesses. 

Regardless of their institutional set-up all providers have to be regulated

Hence regulation has to ensure that weaknesses do not lead to insufficient service provision and strengths of the providers are used for market development and not for gaining a predominant position.

Table 1: Strengths and weaknesses of different types of providers

<table>
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<tr>
<th>Type of provider</th>
<th>strengths/advantages</th>
<th>weaknesses/disadvantages</th>
</tr>
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<tbody>
<tr>
<td>Central government institutions</td>
<td>Government is providing limited subsidies. Open for social issues in WSS.</td>
<td>Administrative management culture, low performance (incentives), insufficient service level, the risk of low water quality, low cost recovery.</td>
</tr>
<tr>
<td>Decentralised government institutions (counsel etc.)</td>
<td>Closer to the consumers. Open for social issues in WSS.</td>
<td>Regarding WSS systems as cash-cow. Hardly attract qualified personnel, insufficient service level and low water quality due to low cost recovery, insufficient investment and insufficient customer service.</td>
</tr>
<tr>
<td>Statutory bodies (authorities)</td>
<td>Possibility of great autonomy. Open for social issues in WSS.</td>
<td>Risk for civil service management culture still present and weak position to fight of undue political interference.</td>
</tr>
<tr>
<td>Commercial utilities (publicly owned, privately operated)</td>
<td>Increased financial viability. Open for social concerns.</td>
<td>Reduced but still present risk of undue political interference. Often limited professional capacity to manage big towns.</td>
</tr>
<tr>
<td>PSP (different contract arrangements)</td>
<td>Professional management, good potential for efficiency gains.</td>
<td>Private sector capital for investment in Africa seems to be limited. Frequent renegotiations. Limited social concerns.</td>
</tr>
<tr>
<td>Private owner and operator – mines, sugar companies etc. for own employees</td>
<td>Offer services as fringe benefits and acceptable service level, financing is secured.</td>
<td>Generally externals have very limited access, limited service areas. During privatisation of industries difficulties to outsource service provision as principles of operation change drastically.</td>
</tr>
<tr>
<td>Community owned and operated systems</td>
<td>Strong social orientation.</td>
<td>Lack of professionals, low service level (particularly water quality), weak sustainability particularly in medium and big towns.</td>
</tr>
<tr>
<td>NGO operated systems</td>
<td>Strong social orientation.</td>
<td>Limited sustainability.</td>
</tr>
</tbody>
</table>
6.2 Who can take over regulatory functions?

Government has the responsibility to ensure that the right balance between commercial and social goals in the sector is obtained as far as possible. Hence it has the obligation to ensure that regulation is carried out either through:

- government departments or ministries (ministerial model, dedicated unit within ministry)
- autonomous public regulator with advisory powers
- autonomous public regulator with decision making powers
- industry associations or user groups (self-regulation)
- operators and asset holding authorities (regulation by contract)
- any combination of the above options

As long as all parties involved understand that their contributions have to serve foremost interests to achieve the right balance between social and commercial aims, regulatory functions can theoretically be carried out by any organisation/institution. Unfortunately, as experience proves behaviour and interests of individuals and organisations do not automatically ensure that social and economic goals are balanced and consumers are protected.

Regulation contributing to the right level of checks and balances

As already lined out, it is widely accepted today that the functions of policymaking, regulation and service provision and asset management are separated from each other in order to avoid conflicts of interest. This ensures that the institutions or organisation for each of these functions can pursue clear objectives and can be more easily held accountable for their performance. On the other hand there can be no clean-cut solutions expected because common concerns and issues exist. For instance regulatory agencies approving/ proposing tariffs and tariff structures actively participate in sector policy making. On the other side a regulator needs support from ministries/ politicians to implement the sector policy.

This separation of functions implies that ministry departments and operators should not carry out key regulatory functions. Nevertheless, a certain overlap can serve to make the system work less costly and in the interest of the public. Contract arrangements where a ministry department takes over the role of monitoring could be seen as a less time consuming solution leading to a certain level of improvement (e.g. Ivory Coast). However, insufficient separation of policy making and regulation does little to solve problems of service provision to the poor. Although a regulator cannot substitute for a missing pro-poor policy it can create transparency and mobilise the public.

Cooperation becomes even more crucial if regulatory functions are spread across various institutions within the sector as the probability of conflicts among them will increase.

With the separation of functions a closer cooperation between the institutions holding the different functions of WSS is crucial

To a certain extent autonomous regulation can overcome/ heal government failure, although one has to acknowledge that no regulatory system works in complete isolation from the political institutions of the respective country. There is a concern that regulatory institutions may expand their functions too far, become too expensive/ inefficient and must therefore be controlled (accountability and checks and balances).

Another concern is that the interest of the public and government to protect national concerns and local markets leads sometimes to unrealistic expectations mounting into unfeasible condition setting. This makes the market unattractive for both local and international companies. There is a need to balance these interests of the public and of government, to regulate the water and sanitation sector accordingly and to ensure that the market becomes attractive for professional local and international service providers.
Table 2: Different institutional set-ups for regulation

<table>
<thead>
<tr>
<th>Institutional Set-up</th>
<th>Pro</th>
<th>Con</th>
</tr>
</thead>
<tbody>
<tr>
<td>No dedicated single regulatory institution but several institutions carry out regulatory functions</td>
<td>Distribution of functions according to existing capacity. Fast implementation possible.</td>
<td>Difficult to manage, needs high degree of cooperation and coordination. Distribution of functions according to existing structures and constraints might not be in line with long-term vision and comprehensive system. Almost impossible to put a full-fledged regulatory regime in place.</td>
</tr>
<tr>
<td>Regulatory agency is created, however it is not covering all regulatory functions</td>
<td>Allows for lean regulator, allows for utilisation of additional capacity within the sector.</td>
<td>Regulator is “tailored” to specific needs which increases the risk that he may not be effective.</td>
</tr>
<tr>
<td>Regulatory functions are concentrated within one single dedicated institution</td>
<td>Homogenous and comprehensive regulatory system.</td>
<td>Need for an effective control system</td>
</tr>
<tr>
<td>Multi-sector regulation</td>
<td>Economies can be realised across sectors. Advantage of resource sharing. Tentatively it is easier to assure autonomy from sector institutions. Procedures and arguments can be utilised across various sectors and in cooperation with different government institutions/ ministries.</td>
<td>Slow in setting up, “waiting for the slowest sector”. Water and sanitation issues may not get the right priority in comparison to other sectors. Relationships and coordination with government institutions/ ministries is very complex.</td>
</tr>
<tr>
<td>Single-sector regulation</td>
<td>Can concentrate on the issues in the water sector. Can be set up faster because the process is less complex concentrating on one single sector. Simplified cooperation with Ministries.</td>
<td>Threat of regulatory capture by sector ministry, unless autonomy is sufficiently assured through legislation.</td>
</tr>
</tbody>
</table>

Self-regulation

Today the idea of self-regulation for services of vital importance for people can be regarded as outdated. The risk in self-regulation is that smaller systems managed by users or municipalities will accept a lower and often unacceptable quality of service and achieve an insufficient sustainability level. Bigger providers as rationally acting market players follow primarily economical goals.

There is also a fundamental risk of monopoly abuse caused by asymmetric information. If big providers hold solely detailed information on cost structure for instance, regulation balancing interests will not happen. This might be the reason why Germany has recently opted to end self-regulation in the electricity sector and to establish an independent regulator.
Adhering to the principle of separating service provision – regulation – policy making, taking into consideration that ministries in developing countries can hardly attract professionals and the need for good regulation with a coherent concept indicates that an autonomous regulator combined with corporatisation and PSP offers the best potential to achieve major and sustainable improvements in the WSS.

**Regulation by contract or benchmarking**

Often the option of “regulation by contract” or “regulation by benchmarking” are considered to be substitutes for a complete regulatory system. However, this comparison is a misunderstanding since no contract can be enforced outside a legal and institutional framework and cannot cover the entire scope of regulation. Therefore, contract arrangements (“regulation by contract”) or benchmarking (“regulation by benchmarking”) should be seen as instruments within a regulatory system.

Regulation has to contribute solving problems in the sector. For that reason regulatory design must focus on the entire sector and not on certain providers or specific contract arrangements. This means e.g. that the autonomy of a regulatory agency should not depend on a single contract arrangement for PSP.

According to World Bank data of an evaluation of approximately 2500 contracts about 43% of all leasing and concession contracts in infrastructure are renegotiated, most of them within the first 4 years. This indicates that renegotiation is the norm rather than the exception. The data also shows that the probability of renegotiations was less than 30% when a regulatory body was in existence while it reached more than 60% where no regulatory body was in place.

The probability of renegotiation was about 40% when the regulatory framework was imbedded in the PSP contract. With the regulatory framework imbedded in the law however it was only 17%. This clearly indicates that a comprehensive regulatory approach is the better choice than regulation by contract.

Regarding the approach of tariff calculation and risk sharing, the evaluation shows that 19% of all contracts using a “rate of return” had to be renegotiated while the probability of renegotiation increased to 76% under “price cap” regulation. Obviously the pressure for improved efficiency is higher under price cap regulation than under rate of return.

In the WSS sector 66% of all renegotiations were initiated by the private operator.

Source: Antonio Estache: Contract design issues, October 2003
6.3 Arbitration as key element of good regulatory practice

As arrangements can never be perfect in their conceptions and abuses of power and behaviour occur, a provision for arbitration is crucial for the stability of the system. Properly designed arbitration will reduce the risks for the main players such as providers, regulator and policy making institutions.

It must be ensured that arbitration is carried out with sufficient professional knowledge and authority, as well as, with objectivity.

Procedures of arbitration have to be simple and affordable.

One possibility is arbitration through international agencies. However, costs of international arbitration are generally very high and difficult to be supported by the water and sanitation sector. It is important that under PSP contracts a provision of how costs of arbitration are born is catered for. In order to make arbitration workable and credible the costs have to be in an acceptable order in relation to the value of dispute, the sector turnover, the profit of the provider and the budget of the regulator.

Arbitration can also be arranged for on national level. Options include competition commission, Ministry of Water, arbitration court etc. Nevertheless, two major concerns have to be taken into consideration. The providers, particularly international operators, will generally associate a high risk to such arbitration and it will be difficult in many cases to ensure an adequate level of professional competence at the arbitrator body. This kind of arbitration is certainly cheaper than international arbitration.

In the interest of all parties involved it is important that arbitration procedures are carried out within an acceptable timeframe of e.g. six months. The regulator for instance in the case of tariff adjustment or the provider e.g. in the case of carrying out investment programs can have an interest of prolonged arbitration procedures. Consequently, it is important to define maximum periods for the different steps in arbitration.

Dispute arrangements for concession contracts in the Philippines:

As early as 1974 a regulator for WSS services, LWUA was established. 20 years later, with the signing of two concession contracts another regulator, the Regulatory Office exclusively for these contracts was established in Manila (Today only one of these contracts is remaining). Minor disputes occurring within the PSP arrangement in Manila are dealt with by local arbitrators. Major disputes, according to the contract, have to be forwarded to the ICC, International Chamber of Commerce in Paris for arbitration. In these cases ICC establishes a panel of three members for which each party selects one member and ICC selects the chairman.

The private operator and the Regulatory Office went for arbitration to the ICC to solve a dispute on tariffs. The costs of this single case of arbitration amounted to US$ 1 Mio and each of the parties had to bear 50 % because the arbitrators settled for a compromise. While the provider could incorporate these costs into the tariffs because no relevant provision was incorporated into the concession contract, the regulator had to pay his share of 500.000 US$ from the budget. It is understandable that after this experience the regulator would not demand for arbitration again.

If a provider in Zambia is not satisfied with a decision of the regulator arbitration procedure starts with the first instance at the Minister of Energy and Water Development, as the Ministry of Local Government and Housing is responsible to oversee WSS service provision in the country. Thereafter, if the provider or the regulator does not accept the decision of the Minister, the next instances are the High Court and then the Supreme Court. Both courts can establish arbitrationary commissions in order to ensure consultation of professional competence.
6.4 Who regulates the regulator?

In order to ensure that regulators fulfil their role and are efficient and effective, a control system has to make sure that the agency is accountable. At the same time the control has to be policy neutral and professional. The best way to do this is to involve stakeholders and professionals with balanced representation in assessing or overseeing the agency. Over-regulation can best be prevented if abuse of regulatory discretion is curbed, as it risks appearing.

This should not mean that little or no authority should be given to the regulators or that authority should be curbed later on as much as possible. If the regulatory agency, often the only professional body in the developing world with the necessary competence on national level in the sector, does not have authority, regulation will not help to solve the huge problems for the population and particularly the poor. But it must be ensured that the agencies are regularly made aware of the boundaries of their legal authority by a carefully balanced composed control body, which can develop a neutral view.

Regulatory agencies must operate within the legal framework, follow sector policy and document contribution to obtain the relevant objectives.

Furthermore, efficiency of regulatory agencies (costs and size) and avoidance of capture have to be part of the control. Mechanisms and set-up of control structures are closely linked to the institutional set-up of the regulator and the structure of the sector.

Table 3: Control structures for regulators

<table>
<thead>
<tr>
<th>Control Organ of Regulator</th>
<th>Control Structure</th>
<th>Pro</th>
<th>Con</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single person appointed regulator who appoints his/ her management team</td>
<td>Reporting to Presidency, Parliament etc.</td>
<td>Simple, cheap and time-bound.</td>
<td>Weak stakeholder involvement and risk of lack of professional control, possibility of arbitrary recruitment, risk of discontinuity and capture.</td>
</tr>
<tr>
<td>Regulator is subjected to regular review by commission</td>
<td>E.g. Parliamentary commission.</td>
<td>Ensures that regulator remains with its actions within the spirit of legislation and provides strong authority.</td>
<td>Time consuming rules review and possible problems with professional knowledge.</td>
</tr>
<tr>
<td>Management of regulator is reporting to a board</td>
<td>Board reporting to parliament, Members selected by stakeholder institutions and appointed by Minister.</td>
<td>Participation of main stakeholders, rapid review possible through sub-committees.</td>
<td>Procedures to appoint board members can be time consuming and may lead to situations where the regulator has to function without a board.</td>
</tr>
<tr>
<td>No specific regulator but regulatory function performed by existing bodies</td>
<td>In-line control within different institutions.</td>
<td>Reduced costs of regulation.</td>
<td>Extensive coordination needed, high risk of capture of agencies with regulatory functions and insufficient professional capacity, no full fledged regulatory regime, brings limited overview over the sector.</td>
</tr>
</tbody>
</table>

Considering the costs of regulation and the difficulties to find qualified staff it seems to be most appropriate to situate a regulatory body on national level. Nonetheless, the regulatory body has to be present on the ground if the regulatory regime shall be effective.
6.5 Autonomy of the regulator

The autonomy of a regulating agency can be assessed by the following indicators:

Selection of members for the controlling body (e.g. board). This should be done by the represented institutions whereby not only government institutions but also other stakeholders (consumer association, private sector etc.) should be represented. The appointment through a high official like the minister would add authority to the members. Additionally, the members should only be appointed for a limited period.

Selection of personnel - Recruitment from the labour market rather than through government institutions is essential, particularly reinforced through a transparent selection process.

Market oriented salary system and conditions of service improve autonomy and curb the risks of corruption and bribery.

Funding – in order to curb the risk of political influence a regulatory body should not be funded through government institutions. An appropriate alternative is the funding by fees a collected from the providers through a tariff surcharge.

Reporting – The separation of service provision – regulation – policy making is only respected if the regulatory body is not forced to report to a line ministry or an institution involved in service provision.

Effectiveness of regulation and justification of costs of regulation must be seriously questioned if the regulator has no enforcement power.

In Zambia it has been decided that Ministry of Local Government and Housing is responsible to channel funds for investments to the providers and to supervise the Municipalities to ensure WSS service provision (through commercial utilities or PSP). Therefore, and in order to follow the principle of separating key functions, the regulator is reporting to Government through the Ministry of Energy and Water Development.

The regulatory agency in Zambia is composed of a board and a management carrying out regulatory functions. With a board composed of 16 stakeholders (50% government institutions and 50% private sector and other agencies) overseeing the professionals carrying out regulation a clear line of separation between control and management of regulation has been drawn. Additionally, the representation of a large number of stakeholders ensures that the risk of capture is kept at a minimum and a high level of transparency is secured. The high level of autonomy of the regulator NWASCO was demonstrated in 2002, when a few months before general election tariff increases of up to 100% were approved. Nevertheless, maintaining a board of 16, controlling the management of regulation is costly and time consuming for nomination.

In the Philippines the regulator for Manila (Regulatory Office), established during the negotiations of two concession contracts, is obliged to report to the board also overseeing the asset holding company. Consequently, the interests for service provision (asset management) are not effectively separated from the functions of regulation. Additionally, the PSP contract obliges the regulator to remove senior staff if requested by the private provider and the asset holding board. These factors limit the autonomy and the functioning of the regulator to a questionable extent.
Following chapter 5 “Objective and scope of regulation” a regulator can best implement sector policy by ensuring the following key functions and applying the following tools:

Table 4: Key regulatory functions and tools

<table>
<thead>
<tr>
<th>Function</th>
<th>Tool</th>
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</thead>
<tbody>
<tr>
<td>Develop a long term vision on how to implement sector policy in the interest of the public.</td>
<td>Vision and strategy document based on the sector policy elaborated by political decision makers (ministries etc.).</td>
</tr>
<tr>
<td>Advise decision makers as key government institutions equipped with professionals and a good information system.</td>
<td>Working papers for implementation and updating of sector policy.</td>
</tr>
<tr>
<td>Establish and maintain the core regulatory system.</td>
<td>Description of system and principles (document).</td>
</tr>
<tr>
<td>Develop and maintain a sector wide overview.</td>
<td>Sector wide information system, guidelines on harmonisation of information, auditing of providers through external auditors, guidelines on reporting.</td>
</tr>
<tr>
<td>Inform stakeholders and public.</td>
<td>Information system, Sector report, media policy and work plan, conferences and workshops with stakeholders, brochures.</td>
</tr>
<tr>
<td>Promoting competition for the market (access).</td>
<td>Orientation or guidelines for bidding process and selection of providers; participation in control system.</td>
</tr>
<tr>
<td>Oversee merger of providers (avoid pre-dominant market position – but there is a maximum which a market can sustain).</td>
<td>Advise authorities on national and local level as well as relevant institutions (anti-trust commissions etc.) on institutional arrangements, participation in relevant committees.</td>
</tr>
<tr>
<td>Create comparative competition in the market.</td>
<td>Benchmarking, comparative report.</td>
</tr>
<tr>
<td>Ensure consumer protection (also for future generations).</td>
<td>Guidelines e.g. on Service Level, tariff policy (structure and level), investment requirements for access etc. Establishment of sub-structure to follow up consumer complaints, on-site inspection.</td>
</tr>
<tr>
<td>Protect investors (public and private) from arbitrary political action.</td>
<td>Guidelines on good corporate governance etc.</td>
</tr>
<tr>
<td>Promote the improvement of service provision for the poor</td>
<td>Tariff policy and tariff negotiations, licensing, guideline or orientation on service provision to the poor, provision to the poor as key elements of contract arrangements.</td>
</tr>
<tr>
<td>Promote the improvement of sector performance and control costs (service level and efficiency).</td>
<td>Award for best performance, incentives such as management bonus (performance contracts), realistic penalties, on-site inspection, guidelines on business plan, financial and investment projections, training on tools such as guidelines for providers and shareholders, promotion of outsourcing of services by providers, ring fencing to control undue profit.</td>
</tr>
<tr>
<td>Approve tariffs.</td>
<td>Tariff negotiation, guidelines on tariff application.</td>
</tr>
<tr>
<td>Set standards</td>
<td>Guidelines e.g. on asset valuation, on-site inspection, water quality, consumer complaints etc., report on compliances.</td>
</tr>
<tr>
<td>Participate in coordination and cooperation with other key players in the sector</td>
<td>Representation in decision making committees, formalisation of exchange of information.</td>
</tr>
</tbody>
</table>
8.1 Costs of regulation

As the dominating costs for regulation are linked to personnel and administration (between 60 and 70% of overall costs) overstaffing has to be avoided. This concern has to be taken care of right from the beginning, when the institutional/organisational study for the regulatory agency is carried out. Additionally, the costs of setting up a regulatory agency as well as bridging the financial gap during the first years of operation if a regulator is financed through fees has to be taken care of already in the planning phase.

Cost of setting up a regulatory agency

In order to ensure that a regulatory agency can be established in such a way that an acceptable level of operation can be achieved within the first 6 to 12 months sufficient funds for the start-up phase have to be provided. Next to normal costs of operation these funds have to cover mainly the following expenditures:

- Procurement of office space and if necessary its refurbishment
- Transport equipment
- Office equipment
- Work place requirements
- Recruitment of staff
- Initial training/induction and advisory services for employees and control structure

In the case of NWASCO, Zambia the cost for the start-up phase were:

- Purchase of office building (440 m², with 15 offices, documentary, 2 large meeting rooms, reception, kitchen and sanitary installations) and parking facilities of 170,000 USD.
- Refurbishment of the office building of 100,000 USD, including network for PCs, security installations, outside arrangements like parking, gardening etc.
- Purchase and refurbishing of 3 containers as storage space 13,000 USD.
- 6 cars (3 cars 4x4) for a value of 120,000 USD
- Office equipment like furniture, fixed workshop/presentation equipment, kitchen, telephone installation etc. for 16,000 USD
- 17 PC-workplaces for staff and advisors, documentary etc., server, lap tops, television, video, beamer, overhead projector etc. for 55,000 USD

When established in the year 2000 the purchase value of NWASCO’s assets (including land, buildings, motor vehicles etc.) was about 400,000 US$.

8.2 Costs of operation

Figures based on international experience for cost of operation range from 0.5% in multi-sector regulation (Canada) to 1 to 2% in single-sector regulation (percentages based on the sector turnover).
Zambia’s overall population is about 10 Mio of which approx. 40-45 % live in urban areas. About 70 % of the urban population live in peri-urban areas.

In Zambia the National Water Supply and Sanitation Council (NWASCO) regulates a water sector comprising of 10 commercialised providers and an additional 36 water schemes run by the Local Authorities and some private companies (as fringe benefits for their employees only).

NWASCO has a lean management structure consisting of thirteen personnel, seven of whom are professionals and six support staff. The lean structure has been designed to promote effectiveness and to cut down costs. NWASCO’s expenditures are covered by a fee collected from the providers (1% of their turnover), during the first years of operation complemented by a government grant. The billed fees from water providers in 2002 amounted to approx. 204.000 US$, the collected fees were at 156.000 US$ (collection rate 76%).

The overall expenditure of NWASCO in 2002 was about 275.000 US$, with personnel (45%) and administration costs (17%) representing the biggest shares.

8.3 Benefits of regulation

Opening the market with provisions of commercialisation and PSP needs the introduction of regulation. This must be seen as a package in order to reach sustainability of the new system. Nevertheless, the costs of regulation must be covered by the benefits.

Benefits expected from regulation include:

- Improved access for the poor/ improved living conditions (physical access at social prices)
- Increased investment efficiency
- Improved operation and maintenance efficiency
- Improved sustainability, cost recovery
- Improved human resource capacity
- Development of commercial and competitive service providers

- Better services for customers (quality and quantity such as increasing service hours, increased water quality, better attention to customer concerns).
• Reduction of risks, increased capital mobilisation
• Reduced strain on environment
• Increased sector information

According to an OECD study the economy-wide gains from regulatory reforms in five sectors (electricity, roads, airlines, telecommunications and distribution) in eight industrialised countries (France, Germany, Japan, Netherlands, Spain, Sweden, United Kingdom and United States) are estimated to range from 0.9% to 5.6% of GDP.


8.4 View of the providers

Generally speaking, all providers expect regulation to be predictable, transparent and contribute to stability. International operators tend to prefer contracts. Commercialised water utilities in public hands prefer a regulatory regime with tools like guidelines and smaller operators tend to prefer regulatory institutions with full-fledged regulation as they hope to benefit from the support a regulator can then offer.

Larger (international) operators may find it easier to cope with regulatory uncertainty than smaller (local) companies but generally speaking operators are interested in equal and fair treatment.

All providers are interested in clear and fast arbitration and a clear definition of functions for the institutions they are dealing with.

In Zambia, the establishment of the regulator and its Water Watch Groups (WWG) led to a situation where the providers followed up customer complaints much more seriously than in the past. For instance, Lusaka Water and Sewerage Company after several unpleasant incidences established a new desk for customer complaints reporting directly to senior staff. This shortened the time of response and opened the way to new options in resolving disputes with customers. Through regulation increased pressure helped to build awareness at the provider and finally led to the decision of Lusaka Water and Sewerage Company.
9.1 Legal backing and power

In order to realize the potential of a new institutional structure the relevant agencies need to have a certain power of enforcement. If the enforcement powers are too restricted the costs of the new set-up will unlikely match the benefits on the ground. This also applies to regulatory agencies, otherwise regulatory efforts will not be taken seriously enough by providers and politicians to the disadvantage of the public.

When opting for a regulatory regime it is very important to provide for it in the legislation, or else regulation will operate without a legal base.

9.2 The necessary steps

The following steps are crucial for setting-up a regulatory agency:

- Obtain consensus on policy level regarding distribution of tasks between relevant sector institutions.
- Formulate clear arbitration procedures (providers/ regulator/other ministerial institutions).
- Ensure appropriate control mechanism for regulation (Board, sub-committees, financial audits).
- Carry out organisational study with clearly outlined reporting structure for regulation.
- Prepare start-up phase for regulator (start-up funding, establishment of board, elaboration of service conditions, recruitment of staff, procurement of offices and material).
- Conduct induction workshop for the board or other control body and new personnel.
- Issuing of interim licenses based on interim business plan of providers.
- Approval of interim tariffs.
- Develop and implement finance mechanism and collection system to cover costs of regulation.
- Design of reporting mechanism and public relation strategy.
- Develop basic regulatory tools such as:
  Guidelines on e.g.:
  - Procedures for licensing of providers
  - Minimum service level
  - Service provision in peri-urban areas
  - Complaint resolution
  - Business planning
  - Harmonisation of accounting
  - Application for tariff adjustments
  - Reporting by providers
  - Corporate Governance
  Inspection program
  Information system

In its first three years of operation NWASCO in Zambia issued the following guidelines and handouts:

- Minimum Service Level
- Tariff Adjustment
- Corporate Governance for Commercial Utilities
- Business Planning
- Financial Projections
- Annual Reporting
- Harmonisation of Accounting in order to make information comparable
- Investment Planning
- Water Supply for Peri-Urban Areas
- Water Quality
- Human Resource Management Strategy
- Handout

Additionally, the regulator organised repetitive training to make providers understand the content of the documents. At the same time NWASCO used the feedback from these training sessions to verify their applicability.
Examples for organisational structure from Kenya and Zambia

Zambia: 13 employees (additional 2 external advisors)

Kenya: 16 employees
9.3 Substructure of regulatory agencies

For two reasons it is crucial that a regulatory agency in developing countries has a lean organisational structure. Firstly, because of budget constraints, which are generally linked to erratic provision of funds through governments or to a limited turnover of the WSS sector if the regulator is financed through fees. Secondly, overstaffing and a complex structure make it difficult to ensure effective regulation. Nevertheless, effective regulation also needs the presence of the regulatory agency on the ground.

This should be achieved by staff or consultants of the regulator verifying the behaviour and activities of providers in the service areas and receiving customer concerns, which are not satisfactorily dealt with by the providers. In the industrialised world regulatory agencies often can afford to put in place a professional sub-structure to carry out these functions. In the developing countries other less costly means have to be found.

The seven Water Services Boards covering the whole country, which are responsible for the effective and efficient service provision in Kenya, have to handle consumer complaints and support the national regulator with data. Donors’ support can help to set up civil society bodies to represent WSS consumer’s interests. These bodies shall both educate poor consumers (especially in rural areas and urban informal settlements) on their WSS rights and responsibilities and lobby to the responsible Water Services Provider, the respective Water Services Board and the National Regulator on consumers’ views. Complaints of the different actors may also be handled by a Water Appeals Board.

In order to keep costs at a minimum and to be present on the ground the regulator in Zambia established in 2001 a Water Watch Group (WWG) in Lusaka. The purpose is to deal with customer complaints, which cannot be solved directly between the water company and the consumer. The WWG is composed of volunteers recruited among NGOs, pensioners, students etc. and supported by the regulator through training, coverage of the main operational costs and provision of sensitising materials. After two years of positive experience it is expected that new WWGs will soon be established in other towns where providers maintain their head offices.
Rules and penalties can curb undesirable behaviour of providers. Nevertheless, command/control strategies do not have a sufficient effect on efforts to improve efficiency of providers and service delivery. Incentives aiming directly at managers are more likely to generate efficiency improvements and promote increased coverage for the poor. Both are major problems to be solved in Africa.

Incentives by raising shareholder earnings do not directly benefit management and therefore have little effect on productivity or coverage because it is not the shareholders who manage the company or hold the right control of day-to-day management. Additionally, incentives for shareholders, if they should make a difference, must be significant and consequently are very expensive. They simply cannot be matched by an increase of productivity and will only lead to higher tariffs without an adequate advantage or return for consumers.

The incentive approach also recognises the fact that decision-making in an enterprise is a complex process which cannot be closely monitored by the regulator or by the shareholders. In any case, it is not up to the shareholders and certainly not to the regulator to intervene into day-to-day management decisions. Therefore, an incentive plan targeting the key players at the providers will have to be planned in advance with the management of the provider. Nevertheless, the regulator and management cannot ignore the interests of the shareholders and consequently, have to verify the feasibility of a bonus system with the shareholders in advance.

Rewards should include bonuses for key position holders at the utilities. Image boosting measures conducted by the provider and the regulatory agency can complete the reward system. Significant bonuses for management like 2-3 month salaries per year and carefully selected image boosting measures through the media will cost a fraction compared to an increase of the rate of return.

An incentive plan for providers should be workable and therefore, must have a simple design. It should include the key managers on the different managerial levels. Gain sharing plans including all employees are less likely to work because it is difficult or impossible to set targets directly linked to company objectives for many groups of employees. Additionally, it puts a lot of strain on the managerial culture which we observe in our partner countries.

Regulation through incentive plans targeting the managers will not only help to make them focus on objectives they can directly influence, but also ensure to clarify what a regulator expects from the utility and what the regulatory agency will do in response. Consequently, a regulatory regime including management incentives will reduce uncertainty in regulation because standards for good management will be set beforehand and applied uniformly. Such incentives can complement other tools such as the review of specific expenditures or management audits. Both depend on the quality of in-house information, which is often difficult to obtain.

An appropriate time to put an incentive plan in place with bonus levels and disbursement modalities during tariff negotiations where targets and a monitoring system can be agreed upon. Also the activities linked to image boosting should be included in the agreement.

A plan adopted in advance will reduce ad-hoc decision-making by the regulator and enhance the regulator’s image of fairness and predictability.

It cannot be emphasised enough that an incentive plan must also include service provision to the urban poor, particularly in the peri-urban areas, which can easily be reached by the main network. A commercialised or private operator can thereby improve its image, which should be seen as important contribution to the sustainability of the arrangements.
The support for the establishment of a regulator has to start timely enough and should be considered and planned for during the sector reform process. Considering the fact that a start-up period of approximately six months is needed, support should already be available during this period.

External support must concentrate, in the beginning, on the way regulation will be carried out. An organisational study can also help to clarify institutional details not captured beforehand in the legislation or institutional set-up. Additionally, during the start-up phase financial support for office space, recruitment process, workplace equipment, transport facilities etc. might be needed.

It should be expected that national government covers the shortfall on financing the regulators operational costs within the first years until the regulator collects enough fees to support its expenditures.

Taking into consideration the limited experience on regulation in the water sector in Africa the most important field of support is the elaboration and the implementation of the regulatory regime. This can be done through short-term consultants or long-term advisors (technical assistance). As experience shows, a combination of both is the ideal set-up because long-term advisors can ensure that short-term consultancies are optimised by integrating their contributions into a comprehensive concept. Additionally, long-term advisers can better contribute to capacity-building by helping to use a combination of different instruments cost efficiently such as training, study tours, exchange of experience, short-term consultancy etc.

Furthermore, German Technical Cooperation (GTZ) has gained extensive experience in water sector reforms in Africa (some including regulation) in countries like Namibia, Kenya, Tanzania, Zambia, Uganda, Burkina Faso etc. Therefore, GTZ can offer a comprehensive approach embedded in a reform process at reasonable costs.

As the number of competent consultants and training institutes for regulation in the water sector is quite limited worldwide, their costs are significant in comparison to the impact when carried out as isolated measures.

Long-term advisors can also facilitate the reform by supporting the inevitable consensus building process between the main stakeholders, which is crucial in the first years of the existence of a regulator. Especially the “losers” of reform with veto-powers have to be taken on board.