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Water Regulation: Regulation by Contract with a Separate Regulator (Hybrid): Water taps

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This section discusses the following:

Summary

Under the hybrid model, regulation by contract is combined with supervision by an independent regulator. Typically, tariffs agreed upon by the parties to the contract need to be approved by the regulator. This combined approach has been used for public utilities (as in Colombia and Kenya) and private WSPs (as in Colombia and Niger).

In Colombia and Kenya, as in the Philippines, the large urban water providers are disparate from the small-scale rural providers and community-based system, although urbanization is slower. As shown in the case studies, Kenya has a central economic regulator responsible for publicly owned asset holders and service providers. The regulator establishes a tariff-setting methodology, approves tariffs agreed upon by the local public asset holders and the service providers, and provides standardized terms and conditions, while the asset holders monitor performance of the service providers through a contract. The standard service agreements are flexible, allowing for different levels of service, depending on the size of the water system or provider. While service has improved significantly since reform of the Kenyan water sector in 2002, enforcement of asset holders' investment obligations and of service provision standards by the regulator has, in practice, been limited. Furthermore, limited capacity and lack of accountability at the more local level have been cause for concern. Following constitutional changes in Kenya, current sector reforms aim to give some responsibility to counties, but whether such reforms will address these limitations is not yet clear.

In Colombia, water service provision is decentralized to the municipal level, but for the public service providers, regulatory functions are divided among three central agencies that have ensured local resources and capacity are sufficient to implement this approach effectively. In some cases, municipal utilities have been transformed into public stock companies that allow for private sector participation. Water supply services are still mainly provided by communal boards in rural and peri-urban areas, with the private sector mainly engaged in larger urban areas. Where a concession or *affermage* (lease) contract exists between the municipality and a private company, the general practice is to set service standards and tariffs in the contract, to be monitored and enforced by the municipality (that is, regulation by contract). The contract has to be consistent, however, with the service standards and tariff-setting methodology determined at the national level by the central bodies.

Table summarizes the advantages and disadvantages of the hybrid model.

Table Advantages and Disadvantages

Regulation by Contract Plus a Separate Regulator

Advantages

Disadvantages

Central agency or agencies with clear functions, powers, and mandates	Risk that central agency will be centrally run and focused on larger providers (but could be offset by performance contracts)
Maintains flexibility in the actual regulatory arrangement while achieving some standardization and consistency	
Possibility of creating greater accountability of public service providers at local level and developing flexible approaches through performance contracts	Risk that local government will not monitor sufficiently (but regional offices of regulator)
Shown to be appropriate for both private and public entities	
Potential for amalgamation and combination of services	

Examples

A number of countries have developed hybrid models of regulation that involve elements of each of the systems set out in the previous two appendices. Some countries, including Senegal and Guinea, have established holding companies for water assets that are responsible for ownership, planning, and sometimes financing of infrastructure assets, as well as for regulating the private operator through a contract. Although fully owned by the state, these holding companies are given a certain degree of autonomy by the responsible line ministry and can be exempted from civil service salary rules to enhance management capacity. As will be illustrated below, Kenya has a mechanism for regulating public utilities which consists partly of centralized regulation through statute and licenses and partly of regulation by contract at the asset-holder level. In Colombia, functions are separated between the agencies that set the tariff-setting methodology and the standards to be met and those that ensure compliance. In cases where a utility has entered into a public-private partnership (PPP) contract with the private sector, the utility usually monitors compliance through regulation by contract, whereas where the public sector is providing the service, monitoring is carried out by a government agency (whether at the central or local level).

Colombia

The Colombian water sector is one of the more successful examples of water sector decentralization. The urban water sector is completely decentralized, with municipal governments responsible for supply within their geographical jurisdictions.

Regulatory Framework

Traditionally, public utilities in Colombia provided water supply and sanitation at the municipal level. Municipal utilities were transformed into public stock companies under the 1994 Public Utilities Law, which allowed and encouraged private sector participation in the water sector. While most rural and peri-urban areas are served by public utilities, some municipalities have entered into contracts with the private sector, and a number of relatively successful examples of private sector participation exist in both smaller and larger towns (see below).

Colombia is a civil law jurisdiction, so the typical contracts between the municipalities and private operators are similar to those in France (see appendix B). There is also a mixed ownership model (*empresa mixta*), which is a form of joint venture between the public and private companies. It is established under a lease agreement between the municipality and the joint venture company, as well as an agreement to establish the joint venture company.

Economic Regulation

With private sector participation, the general practice is to set service standards and tariffs in the contract that are to be monitored and enforced by the municipality, but the tariffs must follow the methodology set by La Comisión de Regulación de Agua Potable y Saneamiento Básico (CRA, see below). Performance and service standards are required to meet the minimum standards set by CRA and the Ministry of Economic Development.

With respect to publicly operated utilities, several national agencies have distinct functions:

- *La Comisión de Regulación de Agua Potable y Saneamiento Básico (CRA)* is the national economic regulator. A special administrative unit attached to the Ministry of Economic Development, it has four key functions: regulation of natural monopolies and economic competition, tariff regulation, regulation of service quality, and regulation of company management. While not a separate legal entity, CRA has technical and administrative independence and an independent asset base (World Bank and PPIAF 2006). It determines criteria for efficient service provision and establishes a tariff-setting methodology for both private and public operations.
- *The Ministry of Economic Development* sets service standards.
- *The Public Service Superintendent* monitors performance by the public service providers and checks that they are following the tariff-setting rules. It has powers to enforce against noncompliance. It typically leaves monitoring and compliance of private contracts to the municipalities, although it acts as a dispute resolution body for most contracts between municipalities and the private sector.

This separation of regulatory powers is deliberate, as Colombian administrative tradition requires that a single body should not be responsible for both making and enforcing rules.

The terrain of Colombia is difficult, and a number of areas are remote; nevertheless, the central agencies are all quite extensively represented at a local level, which allows them to monitor performance effectively and provide support to the municipalities.

Two examples of private sector participation in the water sector are provided by Cartagena and Bogota. Cartagena has an *empresa mixta* project. The municipality, an international private operator, and local private shareholders joined to form Aquas de Cartagena and are delivering water services under a twenty-six-year lease contract. The performance-based management fee is linked to revenues, which creates an incentive to improve billing and collections, as well as to reduce leaks and extend services. As a result, by 2005, 99 percent of the population of Cartagena had access to water supply and 95 percent to sewerage. Over 80 percent of the new connections were installed in poor neighborhoods. Continuous water supply and almost universal metering were achieved. The tariff structure for the project involves a system of cross-subsidies based on the 1991 national constitution. It divides customers into six categories, with the top two categories subsidizing the lowest three and the remaining one paying cost-recovery tariffs. There is also a subsidy to support social investments. The tariffs are required to cover operation and maintenance costs, including remuneration of the operator, as well as portions of the loan co-financing and loan servicing. Some donor financing has helped with the cost of investments.

In Bogota, increased funding provided by the government and the World Bank has enabled Empresa de Agua y Alcantarillado de Bogotá to invest extensively in infrastructure, to hire three private firms under five contracts to provide customer services, including billing and collection, and to operate and maintain small-diameter water networks. In 2003 it signed a twenty-year build-operate-transfer contract for rehabilitation and maintenance of one of its water treatment plants and established a sophisticated planning department and modern management information systems (World Bank 2006a).

The system in Colombia has a number of interesting elements the GoP could look at in developing a regulatory framework. These include the capacity at the local level of the national agencies to monitor public utilities and the differences in approach to regulating the public and private service providers (by contract), along with a centralized methodology for tariff and standard setting.

Table Advantages and Disadvantages of the Columbian Model

Advantages

- Local monitoring with national oversight
- Clear standard setting role of national government
- Policy setting and oversight roles distinct
- Clear oversight bodies for both public and private bodies
- Use of private sector participation is increasing and seems to be successful – public bodies have good capacity to monitor

Disadvantages

- Potential interface risks between multiple regulators
- As there are separate agencies, risk that regulations are not uniform for public and private utilities
- Use of private sector participation is limited.

Kenya

In the 1990s, the Kenyan water sector faced a number of challenges that spurred reform, including environmental degradation, lack of coherent policy and law, inadequate financing, poor governance, weak capacity at the local and community levels, and a weak regulatory environment for abstraction of water. The Water Act of 2002 introduced a number of reforms based on several principles:

- Separation of policymaking function from day-to-day administration, implementation, and regulation
- Decentralization, under which significant decision-making and operational functions were transferred to the regional level, asset development functions to the water service boards, and responsibility for water resources management to the Water Resources Management Authority, catchment area advisory committees, communities, and other actors
- Clarity of mandate
- No responsibility without authority
- Transparency and good governance with regard to sector budget allocation, fund use, and reporting
- Inclusion of stakeholders and users in advisory and decision-making capacities

In total, eighteen water sector institutions were created, including the following:

- *The Ministry of Water and Irrigation* became responsible for legislation, policy formulation, sector coordination and guidance, and monitoring and evaluation.
- *The Water Resources Management Authority (WRMA, within the Ministry of Water and Irrigation)* is responsible for regulation of water resources, including water allocation, source protection and conservation, water quality management and pollution control, and international waters. Within the regional framework of WRMA, *catchment area advisory committees* advise on such matters as water resources conservation, use, and apportionment and grant adjustment, and cancellation or variation of water permits, among others. The establishment and operation of water resources users associations as forums for conflict resolution and cooperative management of water resources in catchment areas are encouraged and facilitated.
- *The Water Services Regulatory Board (WASREB)* is responsible for regulation of water and sewerage services provision. Among its functions are issuing licenses, setting service standards and guidelines for tariffs and prices, and providing mechanisms for handling complaints.
- *Water services boards (WSBs)* are licensed by WASREB to be responsible for the efficient and economical provision of water and sewerage services within their respective areas of jurisdiction. While eight WSBs have been officially announced and established to cover the entire country, direct provision of water and sewerage services is undertaken by *WSPs* who are agents of WSBs (except where WASREB is satisfied that the procurement of such agents is not possible or that provision of services by them is not practicable). The WSPs may be community groups, NGOs, autonomous entities established by local authorities, or private sector entities. They have a service provision agreement with the WSB, the recommended form of which is provided by WASREB (see below).

- *Water resources users associations* are involved in the decision-making process to identify and register water use. They collaborate in water allocation and catchment management and assist in water monitoring and information gathering, and they participate in conflict resolution and cooperative management of water resources.
- *The Water Services Trust Fund* helps finance the provision of adequate water services to areas without them. Trustees appointed and holding office under a trust deed prepared by the minister manage the fund.
- *The Water Appeals Board* arbitrates matters involving water and sanitation services, determining the outcomes of appeals and disputes. Its judgment is final provided that, on a matter of law, an appeal may be made to the High Court.
- *The National Water Conservation and Pipeline Corporation* is responsible for the development of bulk water supply and for medium and large dams.
- *The Kenya Water Institute* is responsible for training and research.
- *The National Irrigation Board* develops irrigation infrastructure (supporting an ongoing reform process within the irrigation subsector).

As a part of a wider public sector reform, performance contracts were introduced between the government and the management of the respective agencies. The arrangement is supposed to guarantee that the top-level managers of the governmental agencies are accountable for the results. A new appraisal system was also introduced to measure and evaluate performance and to encourage achievement of the planned results.

Provision of Water Services

Water and sewerage services are the responsibility of seven WSBs, each with a specified catchment area. WSBs are asset holders, and they delegate responsibility for water provision to the WSPs through water service provision agreements.

Among WSPs working in rural areas are community groups, NGOs, or autonomous entities. In urban areas, the WSPs are mostly utilities owned by local authorities and established as commercialized, publicly owned companies. In other areas, community-managed projects are to be transformed into formally recognized WSPs. Despite some improvement in the quality of their services, WSPs are greatly undercapitalized. Some efforts are underway to try to get them operating along commercial lines and assist them in drawing on commercial financing sources (WASREB and WSP 2011). The government has established a Water Services Trust Fund to help finance the provision of adequate water services in the areas without them.

Economic Regulation

WASREB is the national water regulator. It determines formulas and mechanisms for tariff setting and approves tariffs agreed upon by the WSBs and the WSPs; it is also responsible for setting service standards. The regulatory structure is a hybrid, in that much of the performance monitoring takes place at the local level under the service provision agreement between the WSB and the WSP (regulation by contract). WASREB has also developed model forms of service provision agreements (SPA) for WSPs, which fall into three categories related to the size of the areas being served. Disputes between the parties are taken up by WASREB and the Water Appeals Board.

Some modest improvements have been achieved in the sector, but drinking water quality still needs to be significantly better, and urban sanitation is seriously lacking. These deficiencies can be partly attributed to a lack of coordination among the different stakeholders in the water sector. A new constitution introduced in Kenya in 2010 created counties (a new level of local government above the municipality), and a number of essential services will be provided by them. These may include some of the functions of the water service boards. What impact this will have on the regulatory functions within the country is currently unclear.

The Kenyan experience provides a number of lessons and ideas for water regulation in the Philippines, which has some of the same problems that the Kenyan water sector reforms aimed to resolve. As in Kenya, the sector in the Philippines is fragmented, with the larger urban areas served by large WSPs and the water systems in rural areas mostly community run.

Table C.1 summarizes the advantages and disadvantages of the Kenyan model of economic regulation of the water sector.

Table Advantages and Disadvantages of the Kenyan Model

Advantages

Local monitoring with national oversight

Standardized national tariff-setting methodology, strong leadership, and independence

Standardized performance standards, with different levels depending on size of system

Standardized agreements

Significant improvements in sanitation not stimulated by model in face of persisting low coverage

Disadvantages

Little monitoring of performance takes place, as resources.

Resistance to charging an economic tariff persists; approves tariffs as agreed to by WSB and WSP, is limited.

WSPs are responsible for service provision but not to raise finance. The Kenyan model looked to encourage but so far little actual leverage of private financing; performance is dependent on WSBs funding improvements in infrastructure—WSP therefore has limited control over improvements.

Use of private sector participation is limited.

Capacity at the local level to enforce and monitor

^aSee [Financing Urban Water Services in Kenya : Utility Shadow Credit Ratings](#).

As with the other case studies, it is clear the system needs to adapt to changes and challenges, and the model that was created by legislation in 2002 is not yet optimal. The system allows for flexibility in terms of standards and tariff setting.

[1]See Castro and Janssens (2011).

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