Shifting Governance Models in Urban Water and Sanitation

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International financial institutions and academics advocated two types of institutional reforms of urban water and sanitation systems over the last twenty years. First of all, reform advocates called for the decentralization of water and sanitation services from the national level to the state or municipal level. Second, reform proposals suggested that countries should alter the governance structure of water and sanitation so as to isolate management from interference by elected officials. Reform advocates argued that both reforms would give service providers stronger incentives to manage services more efficiently and to prioritize important investments that yielded health benefits in the long term, such as improvements in network coverage and service quality.

Many countries throughout the developing world implemented one or both of these institutional reforms. Preliminary evidence regarding experiences with decentralization and reforms formally isolating service provision from politics suggest these changes in governance structures in the sector have not served as a panacea for service problems. This paper will argue that this disjuncture between the promises and actual experiences of institutional reforms can be traced to three factors. First, there is a basic incompatibility between the diagnoses of the "incentives problems" that could be correct through reforms: in the first case, exposure to democratic pressures would improve management, while in the second case electoral pressures were understood to impede effective utilities management. Second, rather than clarifying responsibility, decentralization has in many cases yielded complex systems of "shared governance" that make it difficult for citizens to understand who is responsible for service provision. Third, institutional reforms designed to isolate service providers from electoral politics have often increased politicization, especially when a broad set of additional, outside actors—such as international NGOs and arbitration bodies—become involved in the everyday politics of the sector.

During the ISI (Import Substitution) era, many developing countries tended to manage water and sanitation systems through national bureaucracies. ¹ In periods during which governments had good access to finance, national bureaucracies were able to make impressive headway in extending water and sanitation networks as populations urbanized. Table 1, for instance, documents the impressive expansion in coverage achieved by national bureaucracies in Latin America. While this model of infrastructure management yielded impressive early gains, several problems emerged by the 1970s and 1980s. First, national bureaucracies that made decisions regarding infrastructure planning in a centralized fashion tended to focus on new infrastructure rather than system maintenance and commercial management. It was difficult politically to raise tariffs in line with inflation, especially given the high rates of inflation that in many cases emerged under the ISI model. As tariff revenues became increasingly insufficient to cover expenses, national agencies funded the majority of system costs out of general tax revenues rather than customer rates. This model of infrastructure finance became difficult to sustain when governments'

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¹ Foster (2005) describes the institutional setting for service provision in six Latin American countries prior to 1990.

access to finance decreased in the wake of the 1980s debt crisis and the subsequent sudden stop in lending to developing countries. The politicians and hydraulic engineers that managed these national bureaucracies also tended to steer funds towards large engineering works, an emphasis that spurred important advances in system coverage but which tended to neglect the more mundane but extremely important tasks of commercial management and system maintenance. This combination of factors led in many cases to a vicious cycle that Savedoff and Spiller (1999) termed a "low level equilibrium," characterized by low tariffs, low consumer expectations regarding service quality, and low consumer willingness to pay -which in turn detracted from funds that might have been reinvested in water systems. Turning to cross-sectional data on system coverage from the 1990s in Table 2, we can see that many developing countries still possessed large coverage gaps prior to the wave of institutional reforms, particularly with respect to sanitation. Although comparative data is sparse and difficult to interpret, case evidence suggests that cross-national data collection efforts tend to overstate existing levels of access and that service quality problems continue to plague even the most extensive systems in the developing world due to the "low level equilibrium."2

Policymakers in international financial institutions and academics came to attribute the problems plaguing water and sanitation systems to two "incentive problems." Utilizing a critique applied many public policy areas, analysts argued that systems were managed at too far a distance from the citizens who consumed their services. Advocates of decentralization argued that services administered at the local level would be more responsive to local conditions than centralized administration in two senses: managers would have better information about service needs and would be held more accountable to local populations.³ Second, reform advocates argued that systems needed to be shielded from the direct influence of elected officials, either through the delegation of services to ring-fenced special purpose agencies or "contracting out" to private service providers. Proponents of institutional reforms stressed that firms isolated from the electoral and patronage concerns of officials would be better able to enforce payment and levy sufficient tariff revenue to finance system maintenance and expansion, policies that would be politically unpopular in the short run but offer major health benefits in the long run.⁴ These proposals were consistent with a broader set of critiques and proposals for improving governance and service provision in developing countries supposedly plagued by "rent-seeking" through privatization, trade liberalization, foreign direct investment, etc.⁵

² See Habitat (2001: 122-4) regarding inaccuracies in the standard cross-national data sources on service access and problems with service continuity and water quality in areas with coverage.

³ See Treisman (2007) for a review of the leading normative arguments for decentralization.

⁴ More sophisticated analyses stressed that utilities privatization was more likely to succeed when local institutional environments provided checks and balances on the activities of different branches of government, thereby interfering with the ability of politicians to influence the activities of formally independent regulatory agencies (Levy and Spiller 1994), or when a relatively independent judiciary could ensure the enforcement of regulatory policies included directly in contracts.

⁵ See Williamson (1990) for a description of the Washington Consensus reform program.

Experiences with Decentralization

During the 1980s and 1990s, a large number of developing countries decentralized the administration of urban water and sanitation systems. World Bank data suggests that this trend was particularly strong in Africa, Latin America, Eurasia, and the Asia-Pacific region (Table 3). While international financial institutions promoted this shift through general and sector-specific lending programs, national politicians tended to promote decentralization when it was consistent with domestic political incentives. These domestic political incentives often bore scant resemblance to the normative arguments for decentralization espoused by reform advocates in Washington and Paris (seat of the OECD). Case studies suggest that the prime motivation for decentralization in many developing countries was fiscal: reforms that transferred funding and management responsibilities to states or municipalities helped alleviate national level budget deficits.⁶

The nascent literature on local government management of urban water and sanitation systems in the developing world suggests that decentralization has done little to improve accountability problems in the sector and help systems escape from their "low level equilibrium." The political incentives to keep tariffs low and refrain from punishing customers for nonpayment of bills are, if anything, stronger at the local level in democracies because local governments are in charge of fewer services and therefore utilities policy is likely to be a salient issue to voters. Pressures to devote firm revenues to patronage employment and politically profitable infrastructure like new household connections rather than basic maintenance have also been at least as strong at the local level as at the national level. The disincentives to levy and collect tariffs that cover the cost of providing services and the incentives to devote resources to uses that yield short-term political payoffs, tend to reinforce the "low level equilibrium" that characterized services prior to decentralization. The "accountability" achieved is one that focuses on short-term, rather than long-term consumer interests.

Decentralization also fails to provide sufficient incentives for accountability to local consumers when national and intermediate tiers of government retain important financial and regulatory roles following decentralization. Because of the absence of municipal bond markets in most developing countries, local systems remain dependent upon higher tiers of government for the financing of key pieces of infrastructure, such as aqueducts and treatment plants. The presence of shared responsibility makes it difficult for voters to attribute blame or credit to the right political actors; state governments rather than municipal utilities, for instance, may be to blame for low water pressure because they did not transfer promised funds destined for local system upgrades. Yet the municipal utility remains the clear public face of service when problems arise. Needless to say, such systems of "shared governance" can also involve important coordination problems. All in all, it appears

⁶ The Argentine and Mexican cases provide excellent examples of this motivation.

⁷Ordoqui Urcelay (2007: 8-9) examines how a lack of funds from the federal governments handicapped provincial services providers in Argentina following decentralization in the early 1980s.

that decentralization has not proven sufficient to help providers escape from the "low level equilibrium."

Experiences with Institutional Reforms To Shield Providers from Politics During the last two decades, many governments undertook a parallel set of institutional reforms in the sector designed to shield service provision from electoral pressures and patronage politics. Reformers argued that allowing services to be managed directly by government departments or ministries meant that services would be trapped in the aforementioned "low level equilibrium" or "clientelist model of water provision" with tariff setting and investment priorities influenced by short-term political pressures rather than long-term investment needs (Foster 2005, 1-2). In addition, elected officials can raid utility budgets and staff providers with patronage appointees when these politicians exercise direct control over water providers. Publications and lending programs launched by international financial institutions during the 1990s outlined a set of institutional reforms in the sector that would, it was hoped, insulate utility managers from political pressures and thereby allow managers to secure the resources necessary to maintain and improve systems and run daily operations in a fashion consistent with long-term objectives, such as improving service coverage and quality.

Some of the proposed measures to isolate utilities from political pressures could be undertaken under the rubric of governmental reform. Roughly speaking, we can envision institutional arrangements for urban water system management as a continuum that runs from systems that are managed directly by governments by a ministry or department—sometimes without a separate budget—to services administered by legally-independent entities, sometimes even incorporated under private law. Table 4 outlines some common system arrangements along this continuum. The different institutional arrangements for service provision located along this continuum vary in terms of levels of formal independence from the elected head of government. At the more "independent" end of the spectrum, managers of utilities would—according to the logic of reform proponents—exercise tighter control over revenue sources and be able to focus on system priorities rather than other political priorities, with the assumption that this would allow utility directors to devote more resources to basic maintenance and network expansion to keep pace with urban growth, as well as employ technical rather than political criteria when appointing personnel. Independence would also allow service providers to implement a series of controversial policies designed to help them to cover both operational costs and investment through tariff revenue. Measures would include efforts to enforce bill payment (such as service cut-offs and late fees) and water metering.

International financial institutions and academic analysts promoted a more dramatic variant of these institutional reforms during the 1990s in the context of the Washington Consensus reform package. As Table 5 suggests, these reforms involved "contracting out" for the management of and/or investment in urban water and sanitation systems. While some contracts only delegated short-term responsibility for the management of commercial aspects of service provision, more substantial shifts occurred under concession contracts (long-term contracts for both

management and investment in state-owned systems) and divestitures (sales of equity in public utilities that own network infrastructure to private investors). Although the motivations of the politicians who granted contracts was typically financial—i.e., privatization served as a means of funding long overdue investments in basic infrastructure in the wake of the 1980s debt crisis—reform advocates in international institutions tended to focus on the potential efficiency gains and increased revenue streams that could be funneled into investment once system management was isolated from politics.⁸ Under the model promulgated by international financial institutions, these contracts were to be monitored by new regulatory agencies, officially charged with ensuring that both firms and governments met their contractual obligations (Foster 2005).

While economists and reformers based in Washington D.C. hypothesized that these institutional changes would isolate service provision from politics, existing case studies suggest that opposite has occurred in many cases: formally independent utilities in weak institutional environments remain subject to informal political pressures not to adopt efficiency measures and improve collections. The "independent" regulatory agencies set up to monitor private sector providers have proven no less immune to political (and, at times, corporate) pressures. The problem, of course, is that *de jure* independence is not the same *de facto* independence. If elected officials (or autocrats, for that matter) appoint the directors of independent utilities—and can violate rules regarding the length of appointee tenures with impunity, or determine how directors might advance through bureaucratic career ladders—then formal independence does not ensure operational independence. Similarly, if "independent agencies" are heavily dependent upon subsidies for operations and/or the construction of basic infrastructure, real independence is also likely to be limited.9

Meanwhile, the sorts of cost recovery measures introduced by both public and private providers following the introduction of new institutional arrangements tended to increase the salience of and level of political controversy in the water and sanitation sector. Incensed by the "user pays" principle underlying many institutional reforms, international NGOs as well as local groups rushed to attack corporate and government efforts designed to ensure that local utilities cover their costs with tariff revenue. Cost recovery measures have, understandably, elicited stronger attention and controversy when private firms manage services, as corporate profits are, in the eyes of many organizations, inconsistent with arguments that citizens have a basic right to clean drinking water. In the case of private sector provision, threats to sue their government partners in international tribunals if governments violate contract provisions have in many cases further politicized local politics in the sector.

⁸ Idelovitch and Ringsklog (1995) is an example of the types of policy documents the World Bank used to advocate private sector participation in the water and sanitation sector.

⁹ Another important trend has been the establishment of regulatory agencies to monitor the performance of and tariff setting by state providers. Often, these regulators operate at different tiers of government than providers. See Foster (2005) on the Latin American case.

One result of the unexpected heightening (rather than dampening) of political controversy in the sector has been that uptake of governance reforms and cost recovery policies has been uneven. First, efforts to reform local service provision through institutionally separating public sector providers from local government have in many cases stalled or only been attempted at a superficial level. In addition, early privatization failures in a small number of cities have made "contracting out" less politically viable in much of the developing world. In the wake of high profile backlashes against privatization, many governments have instead opted for a range of hybrid "public-private partnerships" that include less visible roles for private capital. SABESP, the water and sanitation provider for the São Paulo metropolitan area, serves as a case in point: the state company has listed itself on the New York Stock exchange and sold 49% of its shares as a means of raising capital, thereby ensuring management is subjected to market pressures to manage efficiently. The public sector, however, still maintains majority control and remains the public face of the company. Hybrid arrangements have also emerged in the wake of economic crises. For example, Argentine provincial governments and East Asian governments renegotiated the original terms of their concession contracts with private providers following economic crises. The new contracts transferred infrastructure responsibilities to the state and enacted state subsidies in exchange for lower tariffs, thereby muddying what had once been a clear assignment of investment and service responsibilities to the private sector.

In summary, institutional reform initiatives in the water and sanitation sector in developing countries promised to correct incentive problems that trapped service providers in a "low level equilibrium." Decentralization was meant to force service providers to be more accountable to the populations they served, while institutional changes designed to insulate service provision from electoral politics would allow service providers to enact policies that forced consumers to shoulder short-term costs in order to finance health benefits in the medium- to long-run. Twenty years after the beginning of these twin reform programs, it is clear that reforms have not had the effects that analysts predicted. Rather than improve accountability, decentralizing reforms have created complex systems of "shared governance" that make it difficult for voters to discern who is responsible for system improvements or underperformance. Efforts to insulate service provision from electoral politics have done anything but that: formally independent providers are if anything more visible in the public eye, while additional actors such as consumer organizations and NGOS have entered the political fray.

Table 1: Urban Service Delivery in Selected Latin American Countries, 1960-1990

| Country | Water | | | Sewerage | | |
|----------|-------|------|------|----------|--|--|
| | 1960 | 1990 | 1960 | 1990 | | |
| Chile | 74% | 100% | 60% | 100% | | |
| Colombia | 79% | 87% | 61% | 84% | | |
| Mexico | 68% | 94% | 70% | 85% | | |
| Peru | 47% | 68% | 30% | 76% | | |

Source: Gilbert, Alan (1998: 105).

Table 2: Access to Improved Sources of Water and Sanitation, 1990

| | Percentage with improved water source, 1990 | Percentage urban population with improved water source, 1990 | Percentage with improved sanitation, 1990 | Percentage urban population with improved sanitation, 1990 |
|---|---|--|---|---|
| High Income | 99.2% | 99.7% | 99.5% | 99.9% |
| Country Average Upper Middle Income Country | 86% | 95.4% | 75.6% | 86% |
| Average Lower Middle Income Country | 70.8% | 93.3% | 39.3% | 62% |
| Average Low Income Country Average | 53.9% | 86.3% | 25% | 48% |

Source: World Development Indicators (2009), drawing on World Health Organization and United Nations Children's Fund figures.

 Table 3: Responsibility for Urban Water and Sanitation Systems in 2008

| Region | Primary Administrative and Sai | Percentage of Countries with Local Management (Full or Partial) | |
|-------------------|--|--|-------|
| | Local or Intermediate Tier of Government | National Government | |
| Africa | Algeria, Benin, Cameroon, Egypt, | | 100% |
| | Gabon, Ghana, Guinea, | | |
| | Cote de'Ivoire, Kenya, | | |
| | Madagascar, Mali, | | |
| | Morocco, Mozambique, Niger, Nigeria, Senegal, | | |
| | South Africa, Togo, | | |
| | Tunisia, Uganda, | | |
| A . D .C | Zambia | | 4000/ |
| Asia-Pacific | Australia, China, India, Indonesia, Japan, | | 100% |
| | Malaysia, New Zealand, | | |
| | Pakistan, Philippines, | | |
| | Korea, Thailand, | | |
| F | Vietnam | | 1000/ |
| Eurasia | Armenia, Azerbaijan, Belarus, Georgia, | | 100% |
| | Kazakhstan, Kyrgyz | | |
| | Republic, Moldova, | | |
| | Russia, Tajikistan, | | |
| | Turkmenistan, | | |
| Latin America | Ukraine, Uzbekistan Argentina (Shared | Costa Rica, El Salvador, | 83% |
| Eutili militarieu | with states), Bolivia, | Panama | 0370 |
| | Brazil, Chile | | |
| | (Intermediate level), | | |
| | Colombia, Dominican Republic, Ecuador, | | |
| | Guatemala, Honduras, | | |
| | Mexico, Nicaragua | | |
| | (Shared with other | | |
| | tiers), Paraguay | | |
| | (Shared with other tiers), Peru, Uruguay, | | |
| | Venezuela | | |
| Middle East and | No data | | |
| Western Asia | | | |
| North America | Canada, United States | | 100% |

Source: United Cities and Local Governments (2008: 37, 67, 113, 191, 243) For Asia-Pacific, Eurasia, "Water Supply" For Africa, Asia-Pacific, Latin America, and North America refers to municipal/local responsibilities. For Eurasia, refers to local and intermediate levels of government.

Table 4: Institutional Formats for Governmental Service Provision

| Less insulated from electoral pressure ← → More insulated from electoral pressure | | | | |
|---|--|---|--|---|
| Government department without own revenue stream | Government department with own revenue stream and | Special purpose district or government with separate revenue | Independent state company incorporated under public law | Independent state company incorporated under private law |
| and without separate budget | budget | stream and budget | | |

Note: This continuum of course does not account for role of elected officials in appointing the directors of water and sanitation agencies or companies. Appointment procedures and the extent to which they are respected will, of course, also affect the degree of insulation from electoral pressures.

Table 5: Institutional Formats for Private Sector Service Provision

| | Less delegation | on ← → M | fore delegation | |
|-------------------------|-----------------|-------------------------|--|--------------|
| Management contracts | Lease Contracts | Concession Contracts | BOT (Build, operate, transfer) contracts for entire systems | Divestitures |

Note: This continuum does not account for the number and strength of powers granted to regulatory agencies. Some national and local enabling laws provide for stronger roles for regulators than others.

Works Cited

Foster, Vivien. 2005. "Ten Years of Water Service Reform in Latin America: Toward an Anglo-French Model." Water Supply and Sanitation Sector Board Discussion Paper Series. Paper No. 3. January 2005.

Gilbert, Alan. 1998. The Latin American City. Nottingham: Russell Press. Revised edition.

Habitat (2001). *Cities in a Globalizing World: Global Report on Human Settlements*. London: Earthscan.

Idelovitch, Emanuel and Klas Ringskog. 1995. *Private Sector Participation in Water Supply and Sanitation in Latin America*. Washington, D.C.: The World Bank.

Levy, Brian and Pablo Spiller. 1994. "The Institutional Foundations of Regulatory Commitment: A Comparative Analysis of the Telecommunications Sector." *The Journal of Law, Economics, & Organization*. 10(2): 201-246.

Ordoqui Urcelay, María Begoña. 2007. "Servicios de Agua Potable y Alcantarillado en la Ciudad de Buenos Aires, Argentina: Factores Determinantes de la Sustenabilidad y el Desempeño. Santiago, Chile: CEPAL – GTZ, Serie Recursos Naturales y Infraestructura 126, May 2007.

Savedoff, William and Pablo Spiller. 1999. *Spilled Water: Institutional Commitment in the Provision of Water Services.* Washington, D.C.: Inter-American Development Bank.

Treisman, Daniel. 2007. *The Architecture of Government: Rethinking Political Decentralization*. New York: Cambridge University Press.

United Cities and Local Governments. 2009. *Decentralization and Local Democracy in the World.* Barcelona: World Bank and United Cities and Local Governments.

Williamson, John. 1990. "What Washington Means by Policy Reform." From Williamson, John ed. *Latin American Adjustment: How Much Has Happened.* Washington, D.C.: Institute for International Economics.