

The real cost of basic service provision and its sharing – Lessons from three developing cities

Laure Criqui (IDDRI), Claude de Miras (IRD)

Note: This Issue Brief is derived from a research programme coordinated by Claude de Miras for the Institut de Recherche pour le Développement (IRD) and by IDDRI, drawing on the concept of long-term full cost for basic services. It is based on three case studies: one on the water sector in 52 urban centres in Niger in 2009; one in Vientiane (Laos) conducted by the Groupe de Recherche et d'Échanges Technologiques (GRET) in the context of technical assistance financed by the Agence Française de Développement (AFD) and the Syndicat des Eaux d'Île-de-France (SEDIF) from 2009 to 2012; and one with the Lyonnaise des Eaux de Casablanca (Morocco) in charge of water, sanitation and electricity, conducted by IRD between 2010 and 2012 (see References).

In the 1990s, a number of reforms supported by international donors liberalised basic service sectors such as water and energy, with the aim of improving service provision and utility performance. In the early 2000s, the principle that users should bear the cost of water through bills (the “water pays for water” doctrine) evolved towards that of sustainable cost recovery by the 3Ts (tariffs, taxes and transfers), sharing the burden of financing between users, taxpayers and the public authorities.

However, there are few empirical analyses of water service provision that explain specific financing arrangements or the formation and sharing of actual costs in the long term. Yet the distribution of service provision costs, and thus the equilibrium and sustainability of sector financing, depends on policy choices, local governance and its social acceptability. Utility performance and operating conditions also influence the components of these total actual costs. Analysing the formation and sharing of these costs therefore implies examining long-term dynamics and their territorial embeddedness (social, spatial and institutional).

Three empirical studies thus show that the processes involved in the formation and sharing of service costs are at least as important as the amounts of investment to be mobilised, that they evolve over time, and that uncertainty generates additional costs that are often ignored. If these elements are not taken into account, political-economic partnerships and equilibria for basic service provision will remain fragile and financially unsustainable.

KEY MESSAGES

- The principle of full cost recovery through tariffs is unrealistic: although progressive tariffs enable cross-subsidies between users and ensure service delivery, investments come from external pre-financing, which dilutes the burden of costs over time.
- Beyond the utility provider's public or private status and the investments to be mobilised, sector governance and provider's management procedures are crucial to ensuring sector efficiency, and even to identifying potential hidden resources.
- The institutional and social conditions of a territory and the informality of urbanisation and local governance generate additional costs which, if ignored, compromise the full, long-term equilibrium of financing.
- Empirical studies of the components of these costs would help to better anticipate real needs in the long term and to integrate territorial externalities into financing schemes.

This article has received financial support from the French government in the framework of the programme “Investissements d'avenir”, managed by ANR (the French National Research Agency) under the reference ANR-10-LABX-01.

Institut du développement durable
et des relations internationales
27, rue Saint-Guillaume
75337 Paris cedex 07 France

1. THE URBAN WATER SECTOR IN NIGER¹

Further to a reform of the water sector in 1996, Niger launched an investment programme with the support of donors to improve the technical and financial performance of the service. It created a public firm in charge of infrastructure and a private entity under a leasing agreement to operate the network. The distinction between operation by the lessee and infrastructure financing by donors helps to defer investment costs over time, removes the obligation to ensure full recovery through tariffs, and minimises risks for the lessee by prioritising the remuneration of service delivery over that of the public infrastructure.

Between 2001 and 2008, the initial goal of financial autonomy was far from being achieved: 57% of resources came from users (tariffs and connection fees), 41% from international grants and loans, and the rest from the lessee. Other than tax exemptions, the State does not contribute to investment and participates only as an intermediary, by on-lending concessional loans from donors to the public company. Cost distribution is based on cross-subsidisation: progressive tariffs shift the burden of costs to large consumers, and the application of a single tariff structure to the whole country means that the capital subsidises the small urban centres. Nonetheless, arrears from administrations, which were supposed to be major contributors, generated a shortfall.

Moreover, almost a third of investments are loans from donors; concessionality indeed helps to reduce their cost by 40% compared to market loans, but they are supposed to be repaid in due course by the State. Here, contractual arrangements and tariff choices illustrate policy decisions on risk sharing between actors and timeframes. First, tariffs are constrained by users' low ability to pay and the sector remains dependent on external support; second, financing investments is not the same as bearing the final costs. Nor does the initial financing plan guarantee a sustainable equilibrium making it possible to extend the network in order to keep pace with urbanisation.

1. Dupont, V. (2010). *Financement des services d'eau en milieu urbain au Niger* (Focales No. 4). Paris : Agence française de développement. <http://www.afd.fr/jahia/webdav/site/afd/shared/PUBLICATIONS/RECHERCHE/Scientifiques/Focales/04-Focales.pdf>.

2. THE VIENTIANE WATER COMPANY (LAOS)²

In 2000, an AFD programme was launched to support the public water operator in Vientiane. Although the network was progressively extended, the company had internal management difficulties that led to the implementation of a technical assistance project in 2009.

In Vientiane, a distinction is made between service delivery financed by tariffs, in other words users (50-60% of the cost), and infrastructure investments funded by international transfers (40-50%). The State's contribution, through fiscal mechanisms, is almost nil. This financing arrangement implies that even if each extension project is financially viable, the overall long-term financial equilibrium is based on the sector's dependence on international financing, and fails to take into account the maintenance of the whole network. The utility provider, financed by public capital and the tariff, has not developed any endogenous resources.

Although there was a national investment plan for water, its technical-economic approach and the lack of a policy strategy—in terms of solidarity and redistribution between users or of risk sharing between stakeholders—opens the door to unstable socio-political arrangements, which are detrimental to financial sustainability. The effects of formal and informal governance rules—local political economy, institutional inertia, socio-political alliances, clientelism and professional conservatism—undermine improvements in sector and utility provider performance. This case shows that beyond accounting balances between financing needs and the mobilisation of investments, institutional dynamics—the utility provider's internal functioning on the one hand and political priorities on the other—are paramount in strategic choices for the sector.

3. LA LYONNAISE DES EAUX DE CASABLANCA (MOROCCO)³

Since 1997, under a delegated management contract, the private company LYDEC has been responsible for the provision of water, sanitation

2. Leménager, M. & Naulet, F. (2015). *Financer les services essentiels des villes du Sud : quelle équation socio-politique? Partage du coût global de long terme du service d'eau de Vientiane (Laos)* (Études et travaux en ligne No. 44). Nogent-sur-Marne : Gret. http://www.gret.org/wp-content/uploads/Couv_doc_rassemblement%20C3%A9s.pdf.

3. De Miras, C., Iraki, A. & Toutain, O. (2012). *Capitalisation du Projet INDH-INMAE de LYDEC (Période 2005-2010)*. IRD, Iddri, Institut national d'aménagement et d'urbanisme.

and electricity in Casablanca. In 2005, this contract was amended to link it to the National Human Development Initiative in Morocco and to develop dedicated action on irregular settlements.

Fifty percent of the initial project was to be financed by tariffs, 25% by parastatal agencies and 25% by national and international transfers. But the elliptical nature of the contract, the virtual commitment of partners, tariff caps and the increase in objectives assigned to the concessionaire resulted in 2010 in a budget deficit of more than 55%. To fill this gap, LYDEC resorted to a development fund, drawing on first connection fees and aimed at financing infrastructure. This fluid financial arrangement helps to improve service provision, but this solution is only pre-financing and therefore defers the cost of investments to future revenues. The overall equilibrium is also based on cross-subsidies between services, since electricity distribution generates more revenue and thereby contributes to financing sanitation.

Above all, however, the study reveals that conducting field operations results in additional costs in the order of 25% relative to the ex ante financing plan. Administrative delays, underestimating needs, searching for financing and resizing operations all generate transaction and coordination costs for the provider. The informality of urbanisation, discontinuous urban sprawl and the lack of a regular street layout make operations difficult and call for negotiations with landowners. In the field, the provider created a social intermediation team to develop social intervention and client services for populations on the one hand, and to negotiate and propose institutional solutions to the public authorities on the other. The exogenous territorial conditions therefore increase the total actual cost of service provision, over and above contractual projections.

4. LESSONS FOR SUSTAINABLY FINANCING BASIC SERVICES

Although the mobilisation of additional resources and upfront investments is crucial, these studies show that cost distribution choices and underestimated management, transaction and operational costs are at least as important for the sustainable financing of these services.

“Others pay for water”: cross-subsidies and deferral of the burden of costs

Recovering the costs of water through a stabilised equilibrium within the sector seems unrealistic in these developing cities. First, tariffs are constrained by people’s low ability to pay, taxes by limited tax collection, and transfers by the

lack of public investment, giving international donors a predominant role. Second, policy choices and territorial conditions make these equilibria unstable and require constant adjustments to financial schemes.

More specifically, service delivery can be largely covered by tariffs, on the condition that the tariff and para-tariff structure enables cross-subsidies between territories, users and sectors. Infrastructure investments, on the other hand, remain high and depend on foreign support (official development assistance) or State support. Beyond the issue of dependence, these transfers hide the fact that loans—as concessional as they may be—or public-private partnerships are no more than a deferral of costs to future taxpayers or users. As a rule, the limited contribution of the public authorities is problematic, as the tax revenue they can draw from utilities may even prove positive in the long term.

Analysing the structure of costs in the long term and their distribution between State, users and donors confirms that national or international transfers are required for investments. In view of existing needs, urbanisation rates and public authority capacities in developing cities, the ex ante calculation of an ideal stable mix of the 3Ts is invalidated by urban changes. Adjustments between tariff categories and over time imply constantly altering the share of financing sources, which goes beyond financial engineering and requires social acceptance and political choices.

Endogenous factors: sources from good sector governance

Political will, social demand and donor influence are crucial to improving service provision, whether the utility provider is public or private. The network’s technical performance and the provider’s managerial efficiency depend on the political-administrative framework and the contractual forms of service delegation. Over and above a financial and accounting approach aligning investments and needs, arrangements between actors, the distribution of financial responsibilities and daily regulation enable good sector governance and therefore operational efficiency. On the contrary, transaction and negotiation costs in the case of poor governance have an invisible yet lasting effect on financing.

Moreover, rather than according to a general economic model of service provision, it appears that investments rely on a succession of isolated projects. Although each project is itself balanced, this fragmentation makes it impossible to cover either cross-cutting costs of overall network operation, negotiation costs linked to fundraising

or costs involved in the design of projects for particular urban conditions. Here, empirical analysis reveals associated costs that are not currently integrated into the 3T model. This lack of governance costs the provider, which finds itself both dependent and pivotal in stakeholder coordination.

Last, the effective management of resources actually available implies a reform of the utility provider aimed at technical and managerial performance. Although this effective management is often required when they come from external resources such as loans from donors or private investments, it is implemented to a lesser degree where domestic resources are concerned (State subsidies, tariff income, etc.). Thus, technical assistance for service providers as such, whatever the financing plan, is crucial to guaranteeing financial sustainability. But taking account of local political economies for capacity building action is nevertheless difficult to integrate and evaluate for donors.

Hidden costs and externalities: an enhanced estimation of full cost

Finally, the estimation and analysis of the long-term costs of basic service provision cannot be limited to studying financial needs as presented in plans and contracts. Indeed, the reality of urbanisation in developing cities imposes exogenous constraints for operations that invalidate projections and contractual commitments. The concept of full supply cost aims to include in the calculation opportunity and capital costs as well as social and environmental externalities. But this concept still disregards the difficulties of conducting works and the transaction costs these generate in uncertain urban and institutional environments.

These additional costs linked to irregular territorial and unstable institutional conditions, to a lack of coordination and information in areas of operation, to delays and policy changes concerning

missions and work programmes, are largely ignored. There is no provision for the actual costs of operation in the field in either contracts or financial plans, leaving no room for this type of uncertainty or adjustment. However, these additional costs are in fact borne within the structure, and further unbalance an economic model subject to the pressure of growing needs. The social embeddedness of urban services, the territorial conditions of their deployment and the institutional arrangements for their governance generate actual costs that are too often overlooked.

Revealing these additional costs would make it possible to provide for them in financing plans and to identify potential resources by improving the conditions of urban governance and local project management. Besides the necessary mobilisation of additional resources, controlling the hidden costs of provision is an avenue to be explored. Eventually, this would also help the public authorities and donors to more effectively tailor the schemes to provide basic services to reality, and to thereby ensure the sustainability and viability of their financing. ■

BIBLIOGRAPHY

Barbier, C., Giraud, P.N., Ruet, J. & Zérah, M-H. (2007) *L'accès aux services essentiels dans les pays en développement au cœur des politiques urbaines* (Analyses No. 4). Paris: IDDRI. <http://www.iddri.org/Publications/L-acces-aux-services-essentiels-dans-les-pays-en-developpement-au-coeur-des-politiques-urbaines>.

Blanc, A., & Botton, S. (2011). *Services d'eau et secteur privé dans les pays en développement* (Recherches No. 2). Paris: Agence Française de Développement. <http://www.ppiaf.org/sites/ppiaf.org/files/publication/Services-deau-et-secteur-privé-dans-les-pays-en-developpement.pdf>

OECD (2009). *Managing Water for All. An OECD perspective on pricing and financing*. Paris: OECD. <http://www.oecd.org/tad/sustainable-agriculture/44476961.pdf>