

## Q & A with Federico Martins, Key Player in the Aggregation of Water Supply and Sanitation Utilities in Mozambique

**In 1998, in a quest to reverse the degradation of services in rapidly growing urbanized settlements, Mozambique introduced reforms to the urban water supply subsector. In 2009, the reforms were extended to the urban sanitation subsector.** In particular, the water and sanitation reforms were centered around the separation of functions in service delivery through the following key activities: (a) creating a water supply funding arm (Fundo de Investimento e Património do Abastecimento de Água, or FIPAG) with the role of assets holder, (b) opening the subsector for private participation through utility leases and management contracts, (c) creating a water supply regulatory council (Conselho de Regulação do Abastecimento de Água, or CRA), and (d) finally, leaving the policy and strategic leadership in the hands of the government. This new setup was designated the *delegated management framework* (DMF). FIPAG played a prominent role in the DMF, progressively absorbing the big cities' water utilities.

The incorporation process started with the Maputo metropolitan area on a lease-affermage contract to an international consortium led initially by a French company, Saur International, and later by a Portuguese company, Águas de Portugal, after Saur left the joint venture. That lease contract was tied to another management contract to four major towns across the country that lacked the commercial appeal to attract the private sector for their direct management.

In a way, this grouping or tying up of contracts represented the first form of water utility aggregation in Mozambique beyond the regional aggregation that always existed in water supply for the cities of Maputo, Matola, and Boane in southern Mozambique (in that case, aggregation was unavoidable because of the location of the water production facility). The primary driver for the new form of utility aggregation under FIPAG was the need to adopt a commercially oriented management practice in these utilities, to promote financial and economic efficiency, and to make the utilities eligible for international private and donor funding. In the FIPAG aggregated model, smaller utilities that would not otherwise meet the criteria for funding would be able to access funding through a larger basket, thus creating a form of cross-subsidization. Being part of the FIPAG group also had technical and managerial capacity-building benefits.

### **About the Delegated Management Framework**

The DMF is praised for its high impact and because it skyrocketed the coverage of water supply in urban areas to nearly double the original figure in the first 10 years after its inception. FIPAG was the main player in this regard, navigating through the political arena of

uncertainties and distrust that always come with reforms. By 2009, the FIPAG group of systems had increased from 5 to 21 utilities aggregated in a regional management model. In this Q and A, a representative of FIPAG's top management reflects on the company's experiences in the years following the implementation of the DFM.

### **About the Interviewee:**

Mr. Frederico Martins (FM) is a chemical engineer and also holds an MBA degree. He has over 45 years of professional experience in the field of water supply and sanitation engineering. He has managed a water treatment manufacturing company, acted as CEO of Maputo Utility, served as a consultant in a large engineering firm for 9 years, and joined FIPAG in 2001 serving in various capacities, such as Operations Manager; Corporate Projects Manager and Planning and Business Development Manager. Since 2013, he has served as a project manager for institutional development and capacity building of the Mozambican Administration of Infrastructure for Water Supply and Sanitation. He played a central role in decision making related to the aggregation of water supply and sanitation utilities in Mozambique.



**Question: In your own words, how would you recap the highlights of the Mozambican WSS utility aggregation timeline?**

**Federico Martins:** When Mozambique became independent in 1975, the water supply and electricity services were provided by municipalities through water and electricity utilities (Serviços Municipalizados de Água e Electricidade, Maputo, Mozambique, or SMAE). The sanitation services (drainage and sewerage systems) were under the responsibility of municipalities.

In 1977, the nationwide electricity corporation (Electricidade de Moçambique) was established; until 1981, the corporation was also in charge of water supply in the main towns and villages.

In the early 1980s, the government decided to create state-owned companies to supply water in the main cities. In the other areas, municipalities and district administrations continued to manage the water utilities.

For more than 30 years, there was no public investment in the rehabilitation or upgrade of infrastructures. The institutional setup for urban water supply was weak, and several organizations (such as municipalities, parastatal companies, and railway corporations) managed water utilities. In addition, the country lacked qualified personnel and suffered from poor management, both of which contributed to degradation of services.

To improve the situation, in 1998 the Mozambican government created mechanisms by which the private sector could participate in the management of the main cities' public water supply. The delegated management framework was established. Asset management, operations, and regulation functions were separated. FIPAG was established for the asset management and investment program, and CRA for regulation and tariff matters. This environment created space for the private sector to manage water utilities.

In 2009, the delegated management framework was extended to secondary towns. For water supply, 130 villages were added. Urban sanitation was extended to 151 towns and villages. The asset management board for the administration of water and sanitation (Administração de Infraestruturas de Água e Saneamento, or AIAS) was created with a mandate to develop an investment program and to promote public and private sector participation for water supply and sanitation in the aforementioned towns.

Mozambique has no experience with service aggregation for sanitation services. So, in my opinion, from 2000 onward, the aggregation of drinking water supply services in urban areas is contextualized within the scope of the delegated management framework.

Having been involved in several phases of development of the institutional water supply setup, I believe in the approach and the steps as they were implemented. They are contributing to the improvement of the drinking water supply in Mozambique and to fulfillment of the Sustainable Development Objectives.

However, the urban development plans under the responsibility of municipalities were left behind during the institutional setup. Also, it is very important to have an adequate network expansion for new settlements in the main cities as a tool for investment programs and infrastructure development.

**Q: Was the process voluntary, incentivized, or mandatory?**

**Federico Martins:** In 1998, FIPAG started with eight-year management contracts with a private operator in four water utilities in the cities of Beira, Quelimane, Nampula, and Pemba. Also, there was a 15-year lease contract for Maputo (the capital of Mozambique).

When the management contracts ended, FIPAG launched a tender for the four cities. That tender was not successful because only one private company was interested in the contract. So the government decided to postpone the delegation of water supply services to the private sector, and FIPAG took responsibility for managing the water utilities in the four cities.

Over time, FIPAG expanded its investment program and operations to other cities. At present, 21 cities are under the mandate of FIPAG. FIPAG decentralized the operations in three regional directorates and water utilities in each municipality.

AIAS started its activities in 2009. Starting in 2013, it has gradually established management contracts with operators for provision of water supply in secondary towns. Currently, 26 out of 130 towns have established management contracts with AIAS.

Because the public water utilities are not able to cover the water supply demand, private operators that invested in infrastructure are providing water to people living in peri-urban areas of the main cities. Such operators cover approximately 10 percent of the population served in Maputo. The government is in the process of regulating this activity.

In my opinion, the aggregation of water supply utilities in Mozambique still needs to move forward. The following steps are required:

1. Consolidate the delegated management to allow greater participation of the private sector
2. Build the capacity of the public sector, which will involve training through managing investment programs (water and sanitation) and monitoring and evaluation of services.
3. Mobilize investments for rehabilitation and expansion of services.
4. Promote business opportunities and train national operators for the provision of water supply and sanitation services.
5. Create incentives (tax, access to credit) for greater involvement of the private sector.

**Q: What were the main reasons some people were opposed to aggregation?**

**Federico Martins:** In general, any change causes some resistance before people full understand the reasons. At the outset, we did not have experience with private operators managing public utilities.

Some of the key actors we had to convince about the approach were the politicians and the municipalities. At the beginning of the delegated management process, the municipalities

were concerned that they would lose their influence in the water affairs within their territories.

The employees of water utilities were unsure about their positions in the organization when the private operators entered the picture. Some segments of the population were concerned with water tariff increases because they were not aware of the roles of the regulator, the municipalities, and the operators.

I remember the resistance from the municipality of Tete when the parastatal water utility (Águas de Tete, EE) was integrated into FIPAG in 2008. It took a few years to convince the local authorities about the role and mandate of FIPAG. With the implementation of the investment program, adequate management of the utility, expansion of the network, and improvement of the level of services, the municipality of Tete was finally convinced of the benefits of the service aggregation.

**Q: Compare efficiency before and after aggregation.**

**Federico Martins:** In 2000, the water utilities were in poor condition, with low coverage (less than 30 percent), inadequate levels of services, a high rate (48 to 53 percent) of nonrevenue water (NRW), and few supply hours (less than 10 hours), among other management problems. According to CRA,<sup>1</sup> the water supply coverage in urban areas was 32 percent.

Because of the institutional reforms, the implementation of the investment program of approximately USD 500 million, and the management delegation process, the performance and efficiency of water utilities have been improved in the cities under the FIPAG mandate.<sup>2</sup>

For example, in 2004 (before integration), one of the southern water utilities in the city of Xai-Xai was performing poorly. According to FIPAG, approximately 3,300 house connections, supplying 28 percent of the city's inhabitants, had an intermittent supply (eight hours per day) and a high rate of NRW (> 45 percent). In the assessment of water utilities, CRA reported that in 2013, Aguas de Xai-Xai had the following performance: 100 percent water supply coverage, 24 hours/day water distribution, and a 14 percent rate of NRW. These figures show the improvement of the level of services.

**Q: Compare the utility's financial state before and after aggregation.**

**Federico Martins:** Before aggregation, most utilities did not have resources to cover the operation and maintenance (O&M) costs. The water tariffs remained static for more than 10

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<sup>1</sup> Conselho de Regulação de Águas (CRA), *Relatório Retrospectivo 2009–2014* (Maputo: CRA, June 2015).

<sup>2</sup> Fundo de Investimento e Património do Abastecimento de Água (FIPAG), *Apoio Institucional e Orçamental ao FIPAG, Proposta Técnica e Financeira* (Maputo: FIPAG, 2010).

years. No investments were made in infrastructure. With the implementation of delegated management, tariffs have been updated more frequently. The water utilities in major cities have been more sustainable, and revenues cover the O&M costs. Currently, Maputo is doing the debt service of the investment program funded by the World Bank.

Other examples are from the southern utilities of Xai-Xai, Chókwe, Inhambane, and Maxixe. For all these utilities, the financial performance has improved between 2009 and 2014. The utilities' billing and collection rates moved from 80 percent to 96 percent, and the financial coverage ratios (O&M) are in the order of 0.9 in Maxixe and 1.1 to 1.3 in the other towns.

However, in secondary towns the reality is quite different. The water supply systems are degraded and unsustainable, and the situation is critical (owing to a lack of human and financial resources).

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**Editor's Note:**

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