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Mixed Private-Public Ownership Companies “Empresa Mixta”

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Introduction

The importance of the water and sanitation sector is driving governments worldwide to seek innovative approaches to harnessing private sector management skills and investment capabilities. This review of the *empresa mixta* model was undertaken to better understand its structure, applicability and strength in mitigating risks in the water and sanitation sector. The last decade has provided many lessons on e*mpresas mixtas*, particularly in Latin America. *Empresa mixta* literally translates into ‘mixed company’ and is the popular term for joint ventures between the public and private sectors. Its application to the water sector originated in Spain and has more recently spread to Latin America, most notably Brazil, Colombia, Cuba and Mexico.

The first *empresa mixta* in the water sector was Aguas de Alicante S.A., founded in 1953 and today called Aguas Municipalazadas de Alicante, Empresa Mixta (AMAEM). The private partner, Aguas de Barcelona (AGBAR), later took its successful experience in Spain to Latin America. Experience has shown that the *empresa mixta* model can be a publicly more acceptable form of PPP since it allows the public sector to retain a certain level of control.

An *empresa mixta* operates like a share corporation in terms of governance and autonomy. In an *empresa mixta*, the public partner (e.g. a municipality) will create a new company and can retain the majority share while a private operator with the capacity to optimize the processes and improve customer service, or multiple private investors joined with the operator, hold the minority share – and vice versa. In addition, the private partner enters into a management contract with the public partner for day-to-day operations. Unlike a joint venture (JV) say in the manufacturing sector, the water and sanitation sector has specific features that complicate the provision and management of services. These include a natural monopoly and the high cost of entry and expansion. The *empresa mixta* model can help mitigate major risks by drawing on the strengths of both the public and private partners.

This paper presents the key features of *empresas mixtas* in the water sector, focusing on the model's strengths in mitigating risks, and draws relevant lessons from an example in Cartagena, Colombia.

Rationale and Legal basis

The significant operational and financial challenges of the water and sanitation sector provide the rationale for considering private participation. Where governments are struggling to meet current and future demand, there is potential for the private sector to contribute its managerial and technical expertise as well as its financial resources to improve services and expand coverage. The country's laws must allow for private sector participation, including ownership in the water sector, as a prerequisite. The by-laws of the joint venture define the respective percentages of public ownership and private ownership.

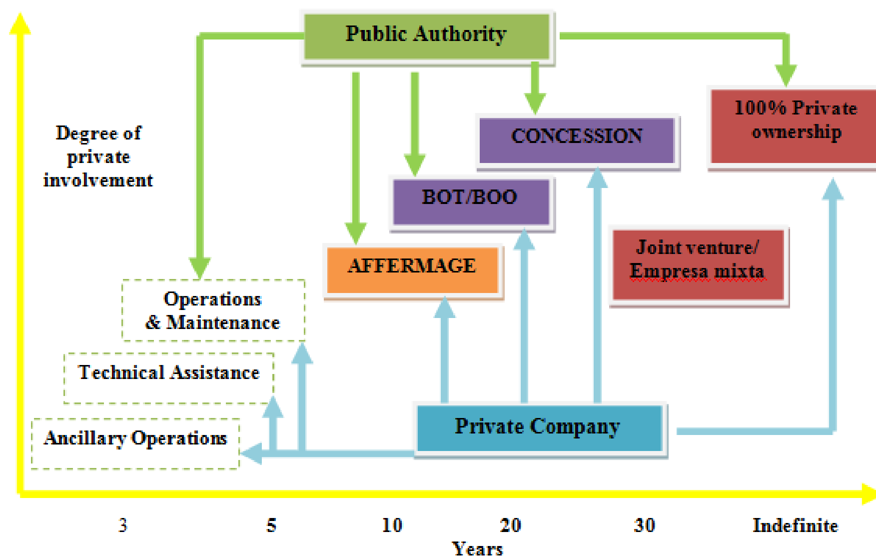
In an *empresa mixta,* the public partner is typically a municipality with the legal mandate to deliver water and sanitation services. Cuba, where services are centralized, is an exception and the public partner is the National Institute of National Resources. The public partner (*hereafter referred to as the municipality*) may be struggling with operational efficiency, low staff capacity or be unable to attract adequate investments. Faced with these challenges, municipality can create an *empresa mixta* and typically retains the majority share (e.g. 51%) although there are cases, like SANEANTINS in Brazil and Triple AAA Baranquilla in Colombia where the private sector has the majority share. The private shares may be held by a single investor or multiple investors. A unique feature of the *empresa mixta* is that the main private partner also enters into a management contract with the public partner for full control of day-to-day operations. This means that the private partner can be simultaneously operator and part-owner. In Spain, the duration of the management contracts within *empresas mixtas* have typically been 50 years and even up to 75 years. *Empresas mixtas* operate like any share corporation in terms of governance and autonomy. Profits are distributed to partners in proportion to their respective shares in the company.

Municipalities that have opted for a joint venture approach with an experienced private operator are usually looking to increase their professional capacity by tapping into the private partner's know-how (BNWP 2002). At the same time, the municipality is looking to divest responsibility for water service delivery to another party while still maintaining a certain level of control through its majority share in the company and full ownership of assets. However, the operator has the autonomy to make operating decisions. In Cartagena, the local government owns the infrastructure at all times. The operator nominates the General Manager who consults with the Board of Directors on priority issues. The specialized operator in Cartagena applies its experience and technology to service delivery and at the end of the concession returns the assets to the local government.

Nevertheless, municipalities thinking about introducing the private sector in order to improve the efficiency of utility operations have a menu of public-private partnership (PPP) options to choose from (see Figure 1), each with its own advantages and

disadvantages. Unlike a management contract, in an *empresa mixta* the contract duration is significantly longer (e.g. 50 years vs. 10 years). In an *empresa mixta* there is a greater share of risk between partners as compared to a BOT/BOO project or a management contract. The *empresa mixta's* combination of a longer contract duration and ownership stake as compared to other PPP models means that the private partner has a strategic sector view with a sustainable utility structure as the target. This vision goes far beyond the private partners' goal in a BOT/BOO project for example. Unlike a lease, in an *empresa mixta* the private partner can also own the existing/or new infrastructure relative to its shares in the company and is responsible for financing new investments from operational revenues. The investment responsibilities vary in different contexts and at different points in time but are subject to negotiation and defined in the operator's contract. The expectation for the operator to finance investments typically grows as the operational surplus grows. Usually, the investments to keep pace with city growth or expand coverage are the responsibility of the local government (asset-owner) with the *empresa mixta* focusing on maintenance and infrastructure rehabilitation.

Figure 1 A comparison of PPP models – time & degree of private involvement



Ownership, operations and oversight

As mentioned previously, the municipality typically holds the majority share of the *empresa mixta*. The company by-laws define (i) the percentage of public and private ownership shares, (ii) the amount of equity permitted and (iii) how new investments will be financed by the co-owners. The management contract for the private owner/operator specifies the operator's remuneration package, typically a percentage of the gross revenue. The municipality may also insist that the operator pays an annual 'lease fee' from revenues for the use of existing, fixed assets. A portion of each year's profit is distributed to the owners in proportion to their relative shares of ownership at the end of each fiscal year.

Figure 2 Key features of the *empresa mixta*

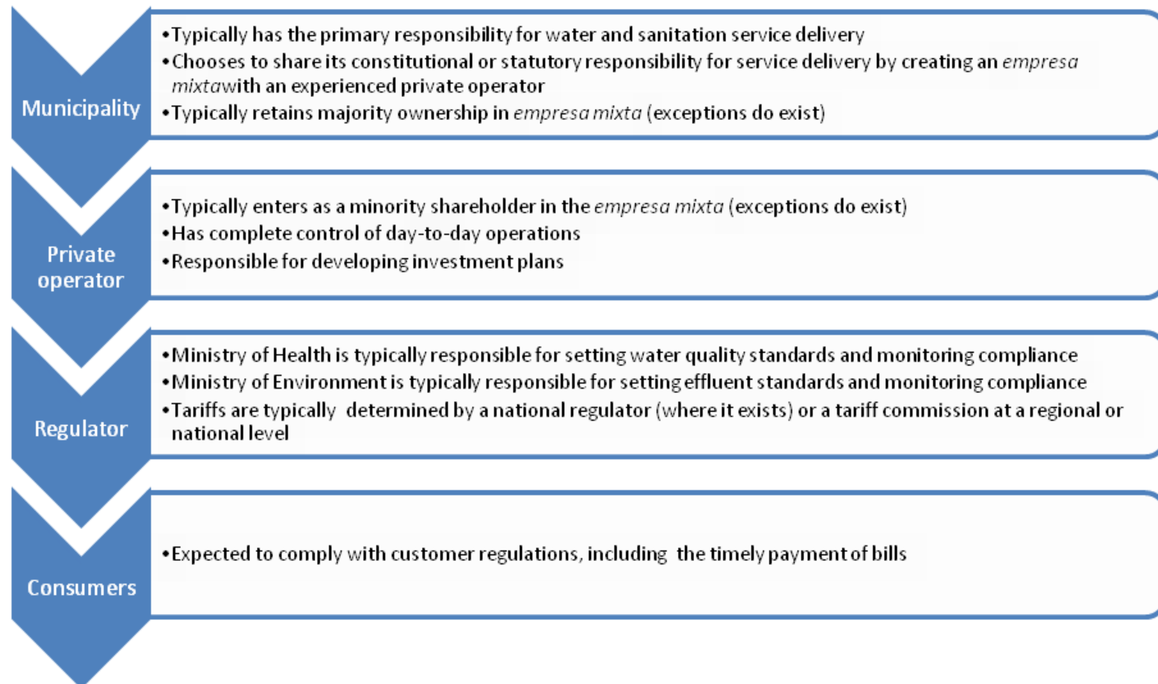
The management contract provides the private operator/owner with the mandate for full responsibility and autonomy on day-to-day operations. Unless there is a separate bulk water supplier, this typically includes water production, treatment, distribution and all customer-related services, including billing and collections.

Oversight of the *empresa mixta* occurs at two levels – (i) corporate governance and (ii) sector regulation. In terms of corporate governance, both the public and private owners are represented in a General Assembly of Shareholders (GAS). The GAS elects the company's Board of Directors. The private owner/operator may propose candidates for the General Manager's position. This is subject to approval by the Board who ultimately appoints the Manager. In terms of sector regulation, there are two separate considerations –(i) quality and economics, or *pricing*. Since quality is a health and environmental consideration, the Ministry of Health and/or the Ministry of Environment are typically responsible for regulating water quality. They do this by setting standards and monitoring and enforcing compliance of drinking water quality and the quality of effluent discharged into the environment.

Economic regulation concerns the tariff. The responsible body for determining tariffs varies from country to country, depending on whether or not a national sector regulator exists or if the responsibility lies with the municipality or a Price Commission. In Spain, the municipalities suggest and ultimately authorize tariffs under the general regulation of a national Price Commission. This model may be a conflict of interest since the municipality is also part owner of the joint venture, a monopoly company. In Colombia, the sector regulator, CRA, develops the tariff methodology and reviews and adjusts

tariffs. The *empresa mixta* must justify any tariff increase proposals and agree with the government on which investments the tariff is expected to cover.

Figure 3 Key stakeholder roles and responsibilities



Partnership arrangement, autonomy and accountability

The essence of the *empresa mixta* in terms of conceptual thinking and corporate governance is consistent. However, the inner workings of the relationship between partners vary from context to context. Some public partners may have the capacity to actively engage and others may be more of a 'sleeping partner'. However, the careful design of the *empresa mixta* helps to ensure that both the public and the private partners bring their strengths to the table. Both the private operator and politicians are interested in a well-running company that may positively influence their respective reputations. The *empresa mixta* model helps to ensure that the incentives are in place to motivate both public and private partners to achieve a sound financial return, operational efficiency and improved service delivery and coverage.

The *empresa mixta* enjoys full autonomy in its daily operations as outlined in its management contract with the municipality (BNWP 2002). This means that the private operator can make decisions related to staffing and outsourcing. The main lines of accountability in an *empresa mixta* are to the owners and to the regulators. In terms of accountability, the contracting municipality monitors the operator's performance. As with any share corporation, the *empresa mixta* is subject to external audits that help to protect creditors and investors and disseminate performance data to the larger public, including consumers and the media (BNWP 2002). The company also publishes annual reports that subject it to public scrutiny. Some governments may carry out a detailed and in-depth

control of these reports, in particular the parts related to the financial and technical matters.

Regulatory oversight

Empresas mixtas are regulated like any other service provider in the country. The rules and institutions that set, monitor, define and enforce standards and tariffs depend on the country context. They vary depending on the nature of the problems that need to be addressed as well as organizational structures and capacity (Castalia 2005). Environmental, safety, consumer protection, social and economic regulation are applied to varying degrees in different countries. In terms of economic regulation, some countries, including Colombia, have a national regulator that reviews and set tariffs. In other countries, such as Spain, the municipality sets tariffs through the municipality with approval of a Price Commission. In most cases, statutory quality regulation is exercised by the health authorities. In Colombia, the quality of drinking water is overseen by the National Superintendencia de Servicios Publicos Domiciliarios, a public body with the mandate to regulate public services delivery. In addition, the Comisión de Regulación de Agua y Saneamiento (CRA) in Colombia is charged with developing and enforcing regulations for the water and solid waste sectors.

Financing

Empresas mixtas may finance their investments through a combination of operating surplus, grants and long-term credit available from governments, international financial institutions (IFIs) or well-developed financial markets. Governments in Latin America often provide guarantees for credit from the markets or from IFIs. The upper limit of the private partner's financial exposure is defined by its paid-in equity, which is defined in the by-laws. Typically, the private equity is only a few million US dollars, which means that the *empresa mixta* is best suited for systems with low performance but also low investment needs. However, over time the company is expected to build up its operational surplus and support increasingly substantial investment programs. The *empresa mixta* is expected to use its funds to maintain and replace existing assets as well as finance new investments. The contractual implications are country and context specific, in particular with regard to defining this initially or keeping necessary flexibility over time.

The equity model of the *empresa mixta*, although generally more expensive than debt, can reduce the burden on the cash flow required to support debt service payments. This is especially important in a company's early development phase (Haarmeyer and Mody 2008). In addition, the long-term equity stake by the private operator/partner ensures that management does not have a short-term bias. As a result, the *empresa mixta's* cash flow growth can create capital appreciation by being invested back into the company.

Another advantage of the mixed-ownership model is access to different sources of finance. The public partner can provide the political influence to help access low-cost, public financing for the joint venture that would otherwise not be available to a private

operator. Conversely, the private partner may be able to help access market finance that the public partner's credit rating would otherwise not allow (at least not on favorable terms); and help to win the confidence of IFIs.

Risk analysis

To start with, government commitment and support to mitigate risks is vital to attracting or continuing to attract private participation in the water sector for all PPP models, including the *empresa mixta*. The private partner will need some degree of comfort that the risk of expropriation, regulatory interference (including unilateral changes in contracts), early termination and change of law are minimal (Haarmeyer and Mody 2008). These are risks that the private sector is not in a position to evaluate or shoulder. To mitigate these risks, the by-laws and the management contract will assign the rights and obligations of all parties and hopefully provide for fair and workable contract and tariff negotiation rules (Crampes and Estache 1996).

A key feature of the *empresa mixta* is the ability to draw on the strengths of both public and private partners to mitigate risks. Although the public and private owners' main objectives may differ to a certain degree, these are generally mitigated and negotiated because of the mutual interest in the company's long-term success.

The nature of the water sector means that there are more risks as compared to the power, telecommunications or transportation sectors. One of the risks intrinsic to the water sector is water availability, among others. Two other high-impact risks are related to cost recovery and political support – and the two are inextricably linked.

In term of *cost recovery*, there are two major issues to consider: (i) market risk and (ii) the tariff. Market risks in the water sector take the form of demand (*ability and willingness to pay*) risk and payment (*or credit*) risk (Haarmeyer and Mody 2008). In an *empresa mixta* the market risk is born mostly by the operator, who sells services directly to consumers. However, all owners, both public and private, have an incentive to reduce market risk. Events that affect market risk include changes in demand and payment of services. For example, consumers may be less willing to pay for sewerage services than water services. The public partner can help mitigate this risk by bundling the tariffs for water and sewerage. In general, the private partner can count on the public partner to help mitigate market risks by building the political support for treating water as an economic good and ensuring that public policy reflects this position. The public partner also has a stake in the company's success and can help promote a policy of payment for water and sewerage services and support a policy of disconnection for nonpayment. The operator's know-how is helpful in implementing strategies for efficient revenue collection and its revenue-linked remuneration is a strong incentive.

The public partner can also help navigate and influence government policy and lobby for a systematic and rational tariff structure. The partners will likely have to discuss in advance whether the operator will be expected to achieve full cost-recovery, including

investments, or only operational costs – or a phased approach (e.g. full cost recovery within 15 years). In addition, the tariff methodology should have the flexibility to account for uncertainties in the condition of assets and the unexpected investment needs that will need to be covered by the tariff.

Another risk is related to civil society's backing of an *empresa mixta* for water services delivery. Privatization of the water sector in Latin America has been particularly sensitive (Urrea and Camacho 2007). The *empresa mixta* approach can help to soften consumers' fears that water and sanitation supply will be completely handed over to the private sector. Politicians are acutely aware of this risk because it may lead to a loss of votes in the next election. However, experience in Latin America has shown that the design and bidding stages are not always transparent, possibly leading to greater problems with civil society down the road. Involving civil society upfront and sensitizing them on the issues may slow down the initial process but may also help mitigate larger obstacles down the road.

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Table 1 PPP models - a comparison of risk (Source: *Adapted from* Haadermeyer & Mody 2008)

	Empresa mixta	Management contract	Lease contract	BOT concession	Full utility concession	Asset sale
Time horizon	20-75 years	2-5 years	10 years	10-20 years	20-30 years	In perpetuity
Customer	Retail customers	Government	Retail customers	Single buyer/government	Retail customers	Retail customers
Cash flow profile	O&M fee paid directly from retail consumer (subject to market risk)	Fee paid by government	O&M fee paid directly from retail consumer (subject to market risk)	Post-construction purchase contract, typically with a government utility	Subject to market and regulatory risk	Subject to market and regulatory risk
Security interest		Not relevant	Right to part of cash flows generated by assets; no right to own or pledge assets	Right to part of cash flows generated by assets; usually no right to own or pledge assets	Right to part of cash flows generated by assets; usually no right to own or pledge assets	Ownership rights to pledge as security
Operations risk	High	Low	Medium	High	High	High
Regulatory risk	High	None	Medium	Low	High	Very high

Issues

The adoption of efficiency and sustainability as key objectives are likely to lead to the success of an *empresa mixta*. Autonomy in operations is another important success factor along with the assurance that the *empresa mixta* model is absolutely compatible with the country's legal framework. Otherwise, the *empresa mixta* may become an easy target for those with an incentive for the venture to fail.

There are a few other issues discussed below that may help contribute to the success of the *empresa mixta* model.

Design Phase – conceptual & contractual
Services to the poor are an important aspect of service delivery that should be addressed in the design stage. As demonstrated with the *empresa mixta* experience in Cartagena, Colombia (Nickson 2001), the private operator/owner is unlikely to focus on service improvements to the poor unless specified in the management contract. This is not unique to the *empresa mixta* model but is noteworthy to mention. The contract should define the service boundaries to include the low-income settlements and include targets for increasing coverage. Coverage targets usually benefit the poor since the nonpoor are typically already connected to the network. Improving service coverage requires strong coordination between the operator and the local government.

Award Phase
In an *empresa mixta*, competition to participate in the joint venture and operate the water and sanitation system through a management contract is supposed to take place through a competitive and public bid. However, experience in Latin America has shown that competition is actually quite weak and the evaluation and award criteria are not transparent. Once the *empresa* mixta has been established as a joint venture between the public partner and the private partner, all other private interest for management contracts virtually disappears for the duration of the contract – which can be up to 75 years in Spain and up to 26 years in Cartagena, Colombia (BNWP 2002).

Another issue during both the design and award stages can be a low level of transparency and involvement of civil society organizations. Experience in Latin America has shown that *empresa mixta* transactions have often been shrouded in secrecy with little input from consumers, raising suspicions as to the public and private partners' intentions.

Implementation & monitoring
Private sector participation through an *empresa mixta* may lead to significant benefits and improvements in the water sector. However, effective private participation requires that governments play a facilitation and regulatory role to create a reliable and hence low-risk contracting and operating environment (Haarmeyer and Mody 2008).

Another important issue to be aware of is the potential imbalance between public and private partners in an *empresa mixta.* The private partner is likely to take the lead on

decision-making unless the public partner has permanent, professional staff with the capacity to actively engage in the joint venture as an effective partner and supervise the management contract. In Cartagena, the mayor leads meetings for the joint venture but does not have a team that otherwise engages in ACUACAR matters. The municipality is in fact considered a 'sleeping partner' (Nickson 2001). The benefits of the *empresa mixta* model are maximized when both partners are able to play their role effectively.

Table 2 Examples of *empresas mixtas* in Latin America & the Caribbean

Country	Utility	City/ State	Year *empresa mixta* est.	Ownership shares		Main private partner	Duration of management contract
				Public	Private[1]		
Brazil	Companhia de Saneamento do Paraná (SANEPAR)	State of Paraná	NA	60%	40%	Grupo Dominó *(consists of Vivendi, Andrade Gutierrez, Opportunity Daleth & Copel*)	NA
Brazil	SANEANTINS	State of Tocantins	1989	23.4%	76.6	Empresa Sul-Americana de Montagem (EMSA)	NA
Brazil	SABESP	State of Sao Paulo	NA	50.3%	49.7%	Listed on the NYSE and BOVESPA	NA
Brazil	Aguas de Guariroba	Region of Campo Grande[2]	2000	9%	91%	Grupos Bertin and Equipav	30 years
Colombia	Aguas de Cartagena (ACUACAR)	City of Cartagena	1995	50%	50%	AGBAR	26 years
Colombia	AAA Baranquilla	City of Baranquilla	1996	35.1%	64.9%	Canal Isabel II	20 years
Colombia	ACUAVIVA	Palmira	1997	40%	60%	LYSA	15 years
Colombia	Metro Agua Santa Marta	Santa Marta	1989	13%	87%%	Canal Isabel II	NA
Cuba	Aguas de La Habana	City of Havana (partial)	2000	NA	NA	Interagua[3]	25 years
Cuba	Asociación Económica Internacional Aguas Varadero	City of Varadero	1994	NA	NA	AGBAR	23 years (renewed in 2001)
Mexico	Aguas de Saltillo (AGSAL)	Saltillo	2001	55%	45%	AGBAR	NA

Conclusion

[1] The private shares may include several investors, including a combination of international and national investors.
[2] Campo Grande is the state capital and name of the region within the State of Mato Grosso do Sul.
[3] Subsidiary of AGBAR

Overall, the experience with *empresas mixtas* in Latin America's water and sanitation sector appears to be positive. While not conclusive, there are emerging lessons and e*mpresas mixtas* have demonstrated their ability to improve operational efficiency in different countries under different types of regulatory regimes and contractual specificities. A weak public partner can lead to a power imbalance between partners in an *empresa mixta*. Services to the poor need deliberate attention in the design of the institutional arrangement and management contract.

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