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## Editorial

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## 1 Introduction

Private Sector Involvement (PSI) has been the trend in the 1990s, stimulated by the so-called Washington consensus and the Dublin principles. The Washington consensus was originally a list of ten reforms as a summary of what people in Washington thought Latin America ought to be undertaking as of 1989 (Williamson, 2002).<sup>1</sup> The Dublin principles were developed in 1992 during a UN Conference in that city and provide the arguments to consider water as an economic as well as a social good.<sup>2</sup> After more than a decade of experiences of PSI in the water sector, we can draw up the balance of the impact of PSI on the water sector.

Private sector involvement is defined as participation, ranging from complete private supply of water to complete public water supply with minimal PSI. The debate about PSI in the water and sanitation sector is often very politicised (Castro, 2003; UNRISD, 2004; Prasad, 2006).<sup>3</sup> The last reference emphasises that “after nearly a decade of experimentation with commercialisation and private sector participation in water systems around the world, the results are disappointing”, while others defend the achievements (Perrot and Chatelus, 2000). Others argue that water has become a commodity, while it should be a common good that should not be in the hands of the private sector (Prasad, 2006). The Dublin principles emphasise the economic nature of water and even if water is freely available, transporting and cleaning will still cost money. In this first contribution we focus on defining PSI more precisely and providing an overview of the different contributions to this issue of the *International Journal of Water*.

## 2 Four institutional arrangements

Nijkamp et al. (2002) stress that it is difficult to define an unambiguous balance between the task and competences of the public versus the private sector. To reconcile public and private sector interests new institutional arrangements with the private sector have developed and will be analysed in this issue.<sup>4</sup> Different institutional and economic arrangements have been introduced in the water sector to increase the effectiveness and efficiency of service providers, often public utilities. In the tradition of North (1991) and Hodgson (2006) institutions are important and may either be defined as the rules of the game (North), or more sophisticated as “the systems of established and embedded social rules that structure social interaction” (Hodgson).

Water and sanitation in developing countries are subject to structural adjustment at the national level, to reforms in the water sector and to different approaches to management at the utility level (Kettl, 1993). What we are looking at are the detailed arrangements that resulted after these sectoral and institutional reforms. Basically, we distinguish four such arrangements, where the completely publicly owned water utilities are the archetype, which may still need reforms. The four arrangements will be defined more precisely below, where we also introduce the contributions fitting under each of these headings:

- completely publicly owned water utilities with very little or no PSI
- PSI without participation in the investment risks
- different types of Public–Private Partnership (PPP) with participation in the investment risks
- completely private provision of water and sanitation.

Table 1 summarises the four types of institutional arrangement discussed. The element of risk sharing in investments will be taken as the defining characteristic to distinguish PPPs from other types of PSI (Nijkamp et al., 2002; Pongsiri, 2002). We will first introduce each arrangement, provide the theoretical and practical arguments for their introduction and show their importance and the conditions under which they seem to work. The theoretical underpinnings will be provided in more detail in the first paper of each of the four sections of this issue, each of which deals with one type of institutional arrangement.

**Table 1** Four types of institutional arrangement in the drinking water sector

<i>Completely publicly owned water utilities with no PSI</i>	<i>PSI without participation in the investment risks</i>	<i>PSI with participation in the investment risks (PPP)</i>	<i>Completely private provision of water and sanitation</i>
Theory discussed by Schwartz in ‘mimicking the private sector’	Theory discussed by Schouten and van Dijk in ‘PSI according to European water liberalisation scenarios	Theory discussed by van Dijk in ‘PPPs in basic service delivery: impact on the poor’	Theory discussed by van Dijk in ‘The role of small-scale private providers in water and sanitation’
Case included: Lusaka, the capital of Zambia	Cases included: urban and rural areas in Ghana and in Cartagena (Colombia)	Cases included: Buenos Aires (Argentina), Cochabamba (Bolivia), Indian cities and St Maarten (Antilles)	Cases included: Santiago de Chile (Chile) and non-state (small-scale) private water providers

### **3 Completely publicly owned water utilities with no PSI**

In about 95% of the countries in the world, water utilities are owned by the government, and PSI may be very limited. These public providers were often criticised for not being efficient and reforms were suggested at the water sector and the utility level (van Dijk and Schwartz, 2004).<sup>5</sup> Friend et al. (2006) note that all utility companies seek to reduce operating costs while trying to increase business flexibility. The challenge for publicly owned utilities is to improve their functioning by introducing certain reforms. One way of improving efficiency in publicly owned utilities that will be discussed is mimicking the private sector.

The arguments used to keep water utilities in the public sector are classical economic arguments. Water would be a public or quasi-public good (Schwartz, 2006) and it is not a commodity (Prasad, 2006). Alternatively, water is called a merit good and only the government can deal with all the positive and negative externalities linked to its use and re-use. All these arguments have been criticised in the literature (summarised in van Dijk, 2003). However, in The Netherlands, Parliament has accepted a law that does not allow the sale of shares of public water companies to private parties. Even so, many publicly owned utilities have begun to use private sector methods. In the second contribution in this special issue, Schwartz uses Zambia as a case to show how this works out. His paper deals with the theoretical background of the reforms and he analyses the effects of New Public Management (NPM) type reforms in the water sector. He notes that the design of institutional arrangements under which the (public) utility operates and the management practices of such utilities often appear to have been copied from the private sector. Schwartz also points to some inconsistencies in the NPM framework. The NPM implies organisational changes ranging from making the utility more autonomous to introducing a more market-oriented approach. In the reform process more emphasis may be put on outsourcing, and revenue collection will improve because of higher tariffs and more efforts. Overstaffing may be reduced and tariffs rationalised to improve cost recovery. The impact of reforms in the water sector can be measured by looking at whether cost recovery, affordability and access to safe water have improved.

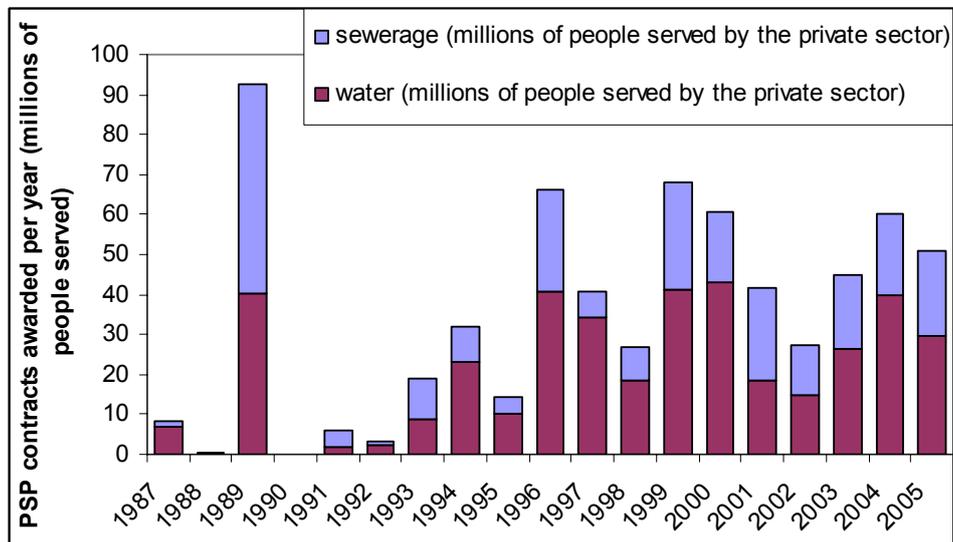
### **4 PSI without participation in the investment risks**

Usually, complete public ownership still means that anything between 10 and 50% of the activities are outsourced to the private sector, because the public utility does not do the billing and collection, operation and maintenance, strategic studies or studies for new infrastructure developments, etc. Schouten and van Dijk, in their paper 'Private sector involvement according to European water liberalisation scenarios', point out that PSI without participation in the investment risks is neither complete private water supply nor PPP, where all partners participate in the investment risks. Fernandez (2005) notes that contracting for services is the most pervasive form of PSI. PSI can take many forms ranging from public utilities with private sector management (Ghana; see the paper by Nyarko in this issue) to setting up franchising arrangements (van Ginniken et al., 2004). The paper by Schouten and van Dijk refers in particular to the following types of contract used in outsourcing (Hodge, 2000):<sup>6</sup>

- 1 Service contracts
- 2 Management contracts<sup>7</sup>
- 3 Leasing (affermage)<sup>8</sup>
- 4 Franchising.

There are certain risks in these different forms of PSI, but they are not investment risks. They are usually largely specified in the contract and distributed between the contractual parties. If the performance leaves something to be desired or the risks are becoming too big then the contract can be dissolved. That is not as easy in the case of a PPP, where investments are made and need to be recovered over a longer period.

**Figure 1** Contracts awarded with PSI per year (see online version for colours)



Source: Pinsent Masons (2006)

Different activities within the water and sanitation sector could be chosen for a PSI. Perrot and Chatelus (2000) mention the following examples in the water and sanitation sector: dams, pumping stations, piping networks, water purification plants, sewer systems and wastewater treatment plants. PSI in the drinking water sector started in the 1990s and the number is still increasing.

The increase of PSI in the water sector is traced by Pinsent Masons (2006)<sup>9</sup> (see Figure 1).<sup>10</sup> The data shows increasing PSI in the water sector since 1987, using variables such as population served by the private sector, frequency and average size of contract awards and number of projects with PSI (also distinguished by type). Hence, it can be concluded that liberalisation has had some impact on the global water sector.

There is variation not only in the methods and theoretical frameworks used to assess the impact of PSI, but also in the evidence concerning the positive effects of PSI in the water sector. Mathew (2003) finds no major differences in performance between

wastewater utilities that are publicly managed and those that are privately managed. However, in his study he finds that:

“over time the privately managed performed better and (the private operator) brought the level of services at the wastewater utility to the general performance level within the sector”.

He concludes that the private sector can improve the level of services where the public sector has done poorly in the past. Fernandez (2005) notes that the empirical research has focused too narrowly on efficiency or the quality of service, while neglecting other important outcomes, such as responsiveness to governmental requirements, legal compliance and customer satisfaction. However, the critics argue that increasing the number of connections and paying more attention to the poor is often neglected in the case of PSI in a Third World context.

Schouten and van Dijk argue in their paper ‘Private sector involvement according to European water liberalisation scenarios’ that PSI is the future in the water sector. This statement is based on a scenario study. The scenarios were prepared for the future development of the European water market. They range from a more explicit role for the government as a provider or as a regulator, to a situation where more would be outsourced.<sup>11</sup> Secondly, the study points to the existence of at least four water markets, where competition or quasi-competition can be introduced to improve the performance of these markets. After an overview of scenarios for the European water market the authors continue with a discussion about the necessary reforms concerning the water sector and utilities and what these options mean for PSI in developing countries.

The case study for Ghana illustrates very well the effects of PSI without participation in the investment risks. Nyarko’s case study in Ghana, in his paper ‘Private sector involvement in drinking water supply in Ghana’, is also interesting because the modernisation of the water sector took place in a context of decentralisation. In Ghana, PSI is different in the small towns and the large cities. Ghana is an example where, after a long delay, PSI has finally started in the large cities. A recently signed management contract with a foreign water company should lead to increased performance in urban drinking water.

The example of the successful affermage (a kind of lease arrangement) contract in Cartagena in Castro’s contribution (see below) is also a clear case of PSI, but it is not a PPP, given there is no investment risk. It is one of the successful cases which comes out clearly using the framework developed by Castro to analyse his cases.

## **5 PPPs with participation in the investment risks**

Promotion of PPPs has been tried in the developing countries for some time. Principles such as increased efficiency and step-up cost recovery were proposed to increase the investment in the water sector. More PSI through PPPs is taking place. A PPP concerns a partnership between the public sector and the private sector entity, whereby risks and responsibilities are shared for mutual benefits. If this definition is accepted, it is very important to be explicit about the risks (Lindfield, 1998). This implies identifying the risks; allocating them and finding out which risks can be insured. Sharing of risks between the public and private sector can happen in the water and sanitation sector

through three types of contract: concessions, joint venture and Build-Operate-Transfer (BOT; see Box 1).

The paper ‘PPP in basic service delivery: impact on the poor, examples from India’, by van Dijk, summarises the theory about the benefits of PPPs and the factors that tend to make them successful. There are famous cases of failure of PPPs in developed and developing countries. In developed countries the case of the termination of the contract of Atlanta is discussed in Friend et al. (2003). In developing countries the failures in the cases of Buenos Aires, Manila and Cochabamba are also well known (see Castro, 2003; Prasad, 2006). India is used to show how decentralisation and PPPs may help the poor. The more general question concerns the impact of these PPPs on urban basic service delivery and in particular on water services. The objective of this contribution is to review the evidence that the PPPs have contributed to urban poverty alleviation. Different Indian cases are used to gain insight in the factors determining the success of the PPP approach and its impact on the poor.

<b>Box 1</b>	Three types of PPP contract: concessions, joint venture and Build-Operate-Transfer (BOT)
<p>Concession: A public authority enters in a contract with a private firm so that the latter runs the water system, which is publicly owned. The private firm is able to charge costumers and make a profit out of this. Typically, in a concession contract, targets are set out to be met by the private firm, such as particular type of investment during a specific time span, or to increase coverage to a certain amount of households. The private firm is responsible to make the necessary investments in infrastructure. Doing so, the private firm is able to obtain its financing from various sources. Concessions are generally granted for a long-term, sometimes more than 30 years.</p> <p>Joint ventures: These are strategic alliances made between public and private entities to undertake projects together. Parties agree to create a new entity (often called a mixed capital entity) together by contributing equity and then sharing the revenues, expenses, and control of the entity.</p> <p>BOT contracts: These are legal agreements generally made to build new infrastructure for which the public sector does not have the necessary financing. These contracts are typically used to build reservoirs and treatment plants. Generally, after a specific period of time, ownership is transferred back to the public sector.</p>	

*Source:* Hall and Lobina, 2006

Castro takes up the difficult task to review two famous cases of PPP in the drinking water sector in Latin America, in his paper ‘Water services in Latin America: experiences with public–private partnerships’. In terms of the classification of this contribution these two are real PPPs, but both failed: the project in Buenos Aires, the capital of Argentina, and the one in Cochabamba (Bolivia), which was a failure from the beginning. Castro’s third case became a case of divestiture and success (Chile). He notes the importance of history, institutional factors and other factors. The judgement whether PSI was a success or a failure requires a lot of nuances as some of the Latin American cases show.

The next paper analyses the challenges of publicly owned water utilities with no or very little PSI. Schouten, Brdjanovic and van Dijk assess how a small island state can choose the best option in the process of PSI, and review in detail the decision process to involve or not to involve the private sector in water and sanitation supply through a PPP in one small Caribbean island, St Maarten in The Netherlands Antilles. They use nine criteria to make the choice. They show that a careful weighing process is necessary, taking the history into account, looking at the special institutional situation in a country

and involving the stakeholders, and even then there is no guarantee of success! This case implies that an existing public utility may be better placed to look after the modernisation and extension of the water and sanitation system than a new private firm. The authors then try to generalise their findings, emphasising the importance of a careful weighing exercise. They conclude that the history of the utility, institutional factors and participation of the stakeholders determine whether PSI is possible and can be successful.

## **6 Completely private provision of water and sanitation**

Privatisation in the sense of divestiture has had a limited impact on drinking water supply in Third World countries (UNDP, 2006). Completely private provision of water and sanitation can be by big (often international) water companies or by hundreds of individuals and small firms, which carry or otherwise supply water. Small-Scale Independent Providers (SSIPs) or Non-State Providers (NSP) are involved in providing drinking water and sanitation services in a large number of developing countries. In his contribution 'The role of small scale independent providers in water and sanitation operators', van Dijk describes the framework to explain the success of SSIPs in the water and sanitation sector. The contribution of the SSIPs is probably most important in terms of number of actors involved, in particular in the African and South Asian context. They are sometimes called water freelancers, laying pipes, drilling wells or trucking water to a slum. The challenge is allowing a more important role to SSIPs. The latter are good for 69% of the water supply and 95% of the sanitation solutions in Cotonou, the capital of Benin.

The important role of SSIPs in a number of African and Asian countries justifies attention to another type of PSI than divestiture of water companies. Divestiture has happened in Chile, England and Wales. The SSIPs are also private sector operators and are most active in countries with low coverage levels and ineffective public utilities. They are also important in remote areas. SSIPs are very diverse and often threatened by an extension of the coverage of formal suppliers. The challenge is to consider SSIPs and NSPs as complementary and to incorporate informality when formal supply of water services is not adequate (van Dijk, 2006).

van Dijk points to the importance of SSIPs (based on Kariuki and Schwartz, 2005). It is important to distinguish different types of SSIP and to analyse their contribution in a situation where many governments cannot supply drinking water and sanitary services. Then the issue how to improve efficiency will be raised by looking at the possibility in the case of sanitation to unbundle this activity, to use technological innovations and to bring in more competition. Some dilemmas are discussed related to the Millennium Development Goals (MDGs), reaching the poor and the role of the private sector in sanitation.

Sanitation is often called the next frontier, and the challenge is to develop a local water and sanitation sector related to the private sector. Sansom and Bos, in their paper 'Utility and non-state water service provision for the urban poor', argue that NSPs (another term for SSIP) already play a very important role and this needs to be recognised! They list positive policies and the possibility of providing incentives for NSP to take up their role as providers of water and sanitation after an analysis why the current public service provision is often substandard. They distinguish different types of NSP and show how the government could engage with them. Sansom and Bos finish with a

number of challenges to reach the poor in this case. The paper also illustrates what this would mean for the drinking water sector in different countries and what its impact on poverty would be.

## 7 Conclusions

PSI is part and parcel of a water sector reform process in developing countries. PSI often improves the functioning of utilities and may be a step towards more sustainable water supply systems. In this Special Issue we do not judge PSI on the basis of its effects on the price of drinking water or the change in the percentage of Unaccounted for Water (UfW) only. The evaluation literature would emphasise the effectiveness, efficiency and impact, but such an evaluation would be difficult to carry out for a large number of PSI projects.<sup>12</sup> We consider that the effects of PSI should be measured in broader terms. Countries are trying to introduce public sector reform policies to improve the functioning of their utilities, to move to a more sustainable water and sanitation system and to be better able to achieve the MDGs. An assessment would require a combination of criteria such as effectiveness, efficiency, impact and sustainability. However, we cannot measure each of them individually, or give a proper weight to these criteria. PSI came at the same time as decentralisation and new management models inspired by the NPM, and it is difficult to separate their effects on the functioning of water utilities.

Many different ways to involve the private sector exist, and historical, institutional and political factors are important to explain their success. In the final paper in this issue, Schwartz draws the conclusions and points to new types of partnership that are coming up (network governance) and may have better chances to be successful.

The discussion over PSI has changed during the last decade. Originally, the debate focused on whether utilities with PSI were more efficient or not. However, when different contractual forms became more important the functioning of contracts received more attention (Bakovic et al., 2003). Currently it seems the last P of the PPP gets more emphasis. What is the nature of partnership? Is there something like Water Operators Partnership that will do a better job, since the link is not a commercial one, but rather one of sharing experiences?

The spirit of the World Water Forum in Mexico was also to go beyond the old dichotomy of 'public versus private' forms of water supply (*Economist*, 11 November 2006). The discussion should not be about privatisation only. The alternative is to think in terms of partnerships. These may be between public and private partners, but also between different levels of government or between the public sector and NGOs. Currently, twinning between two, water utilities and water operator partnerships, which are more trust-based, are being promoted.<sup>13</sup>

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**Notes**

- 1 In the Washington consensus three different types of liberalisation (interest rates, trade and foreign direct investment), privatisation and deregulation are mentioned. In general the consensus refers to the need to liberalise and privatise.
- 2 The other Dublin principles imply that water is vital for life and that the role of gender and participation need to be taken into account.
- 3 Castro (2003) and Prasad (2006) try to assess whether PPPs are the best way to reduce poverty. The question is whether this was the objective, or whether we are rather trying to improve drinking water supply.
- 4 Institutional arrangement refers to a detailed arrangement of an existing institution to make it work better. In terms of institutional economics, an institutional arrangement is the result of a reform within an existing institution.
- 5 The report sketches the complexity of the reform process in developing countries, which has stimulated PSI in the water sector in developing countries.
- 6 Hodge (2000) also discusses the outsourcing decision and different types of outsourcing within the utility.
- 7 Management contracts are agreements where private firms are responsible for the management of the water services but they are not obliged to make any type of investment, therefore the risks for the private firm are minimal. The private firm is paid by the management service it provides. Typically these contracts are for short periods of time (between 1 and 5 years; Hall and Lobina, 2006).
- 8 Through a lease a private firm is responsible to operate the water distribution system that is actually in place and to maintain and renew its infrastructure when needed by its own investment. With this type of contract the public authority, and not the private firm, remains responsible for making new investments for the expansion of the network to connect more households to the water and sanitation system (Hall and Lobina, 2006).
- 9 The *Pinsent Masons Water Yearbook* is annually published by a London-based law firm.
- 10 Data collected by Marco Schouten. The use of the variable 'population served' does not allow distinction between the different levels of PSI.
- 11 Regulation establishes a relation with institutional economics (regulation can be considered as an institution) and with regulatory economics (studying the economic impact of regulation or deregulation; see Viscusi et al., 2000).
- 12 The inclusion of the equity criterion also means that the evaluation depends on whose perspective we evaluate. For the customer, consumer satisfaction is an important indicator, and for the operator a certain rate of return is crucial and the government may look at the increased number of connections or the reduced required subsidy.
- 13 UN-Habitat organised a special seminar on this topic during the Stockholm water week in 2007.