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# Pipe dreams

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The failure of the private sector to invest  
in water services in developing countries



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## **Pipe dreams**

The failure of the private sector to invest in water services in developing countries

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**By David Hall and Emanuele Lobina,  
Public Services International Research Unit**

### **About PSIRU**

PSIRU's research is centred around the maintenance of an extensive database on the economic, political, financial, social and technical experience with privatisation and restructuring of public services worldwide, and on the multinational companies involved. This core database is financed by Public Services International. PSIRU's research is published on its website, [www.psiru.org](http://www.psiru.org)

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### **About Public Services International**

Public Services International is the global federation of public service unions, covering 20 million workers in 650 unions across 150 countries. PSI's financial contribution towards this report is part of its ongoing global campaign on water.

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## Foreword

*"Young plants need rain, businesses need investment.  
Our old industries are like dry crops and privatisation brings the rain.  
When the harvest comes, there is plenty for everyone ...  
Investors are on the team, risking everything they own  
And betting that we can succeed."<sup>1</sup>*

These lyrics are taken from a 2001 pop song called Ubinafsishaji (meaning ‘privatisation’ in Kiswahili) which was produced by privatisation consultants Adam Smith International (ASI) and paid for with thousands of pounds of UK overseas aid money. Its aim was to persuade a sceptical Tanzanian population about the benefits of the donor-driven privatisation programme. As ASI explain on their website, this song describes “how the world is getting smaller, how we are all more dependent on one another, and how privatisation completes a three-way partnership of government regulation, private sector expertise and investment, and consumers reaping the benefits”.<sup>2</sup>

Providing investment; making available the funds needed to connect over a billion people to water and sanitation; doing what governments were either unwilling or unable to do. This was the promise of the private sector on which the last 15 years of donor policy has been based. And the seeming logic of the proposition, backed by the easy rhetoric of ‘competition and efficiency’ has proven attractive to donor parliaments, the media and the public. Likewise, for the poor, any promise of a connection in or near your home has to sound good when you are trekking miles for water or buying from expensive street vendors even if you instinctively baulk at the prospect of handing control of public services to foreign companies.

But we have all been sold a pipe dream. This report comprehensively demonstrates that water privatisation has failed to deliver even the investment promised, let alone sufficient investment to connect new communities in the kinds of numbers needed to tackle the global water crisis. For perhaps the first time, this report puts a figure on how few new connections resulting from private sector investment have been made in the parts of the world where the need is greatest. Collectively in sub-Saharan Africa, South Asia and East Asia (excluding China), only 600,000 new household connections have been made as a result of investment by

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private sector operators since 1997, extending access to around 3 million people.<sup>(i)</sup> One billion people in these regions are estimated to need connecting to a clean water supply between 2006 and 2015 in order to meet the Millennium Development Goal of *halving* the proportion of people without sustainable access to drinking water and basic sanitation: a rate of 270,000 people a day.<sup>3</sup> Over the last nine years, the private sector has connected just 900 people a day.

This figure is truly shocking. What makes this even worse is that, while international donors have promoted the role of the private sector as investors in the water sector, at the same time they have substantially cut their own investment in this area. These reductions were far greater than the actual investments made by the private sector. As a result, the net contribution of 15 years of privatisation has been to significantly reduce the funds available to poor countries for investment in water, by billions of dollars.

It is imperative that donors make up for lost time and reverse this trend. It is also vital that donors and governments are honest with people about the limits of water privatisation.

Their faith in the private sector has been wholly misplaced, and it is time they come clean with us about it and develop a new strategy for investing in public water systems to make good on their MDG promises.



Benedict Southworth  
Director  
World Development Movement



Hans Engelberts  
General Secretary  
Public Services International

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(i) Average household size is estimated to be 5.3 in Africa and 5.1 in Asia. Bongaarts, J. (2001). Household size and composition in the developing world. *Policy Research Division Working Paper no. 144*. New York: Population Council.

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# 1. Introduction

## 1.1 The MDGs and private sector investment

The UN Millennium Development Goals (MDGs) include a target for water and sanitation: to cut in half by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. There are also other MDGs and targets that indirectly concern safe water and adequate sanitation:

- Under Goal 3 (to promote gender equality and empowerment among women) there are two targets that depend on providing adequate sanitation and better access to an improved water source: 1) the ratio of girls to boys in education; and 2) the ratio of men to women in wage employment in the non-agricultural sector. Studies indicate that enrolment of girls in education rises with the provision of latrines in schools. And the improvement of safe water sources frees women from spending hours every day drawing and carrying water home.<sup>4</sup>
- Under Goal 4 (to reduce child mortality) there are two targets that depend on the provision of adequate sanitation and access to water sources: 1) reducing by two-thirds between 1990 and 2015, the under five mortality rate and 2) reducing by two-thirds between 1990 and 2015, infant mortality. Both will remain unmet unless water related disease is reduced.
- Under Goal 6 (combat HIV/AIDS, malaria and other diseases), achieving the target related to malaria and other diseases will be critically dependent on improvements in water supply and sanitation.

In order to meet  
the water MDGs,  
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It is estimated that in order to meet the water MDGs, an extra 1.6 billion people need to be connected to a water supply between 2006 and 2015, and an extra 2.1 billion people to sanitation.<sup>5</sup> Eighty per cent of those needing connections are in the regions of sub-Saharan Africa, South Asia, and East Asia and the Pacific (see Table 1).<sup>6</sup>

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**Table 1. Number of people to whom access must be extended by 2015 to meet the MDG target for water and sanitation<sup>7</sup>**

Region	Number of people to gain access to improved water supply (millions)			Number of people to gain access to improved sanitation (millions)		
	Urban	Rural	Total	Urban	Rural	Total
Sub-Saharan Africa	175	184	359	178	185	363
Middle-East and North Africa	104	30	134	105	34	140
South Asia	243	201	444	263	451	714
East Asia and Pacific	290	174	465	330	376	705
Latin America and Caribbean	121	20	141	132	29	161
Central and Eastern Europe	27	0	27	24	0	24
<b>Total</b>	<b>961</b>	<b>609</b>	<b>1,570</b>	<b>1,032</b>	<b>1,076</b>	<b>2,108</b>

There have been a wide variety of estimates of the investment needed to achieve this goal. For water, estimates range from US\$51 billion to US\$102 billion for water supply, and from US\$24 billion to US\$42 billion for sanitation,<sup>8</sup> but the actual costs will depend on decisions taken in each country on technology and other factors.

Historically, in both north and south, the public sector has operated the great majority of the world's water supply systems. Currently about 95 per cent of people with water supply are served by the public sector and the finance for investment in water and sanitation has been raised through traditional public finance mechanisms of public borrowing and taxation, as well as user charges.

But since 1990, against a background of global and national policies aimed at restricting public sector borrowing and expenditure, development banks and donors have been promoting the private sector as the solution to improving water and sanitation in developing countries. Multinational water companies have acquired numerous contracts to operate water supply services in developing countries. The private sector has been expected to improve efficiency and bring new, non-public, finance to meet the large requirements for investment (see Box 1). As Clare Short, speaking as UK Secretary of State for International Development, said in 2002: "Privatisation is the only way to get the investment that [poor] countries need in things like banking, tourism, telecommunications and services such as water under good regulatory arrangements."

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telecommunications and services such as water under good regulatory arrangements.”<sup>9</sup>

Clare Short’s successor as Secretary of State, Hilary Benn, said in February 2006, “Clearly there needs to be significantly increased public investment [in order to meet the MDGs] – making water and sanitation a priority of national plans in developing countries. There needs to be a recognition private sector investment may have a role too.”<sup>10</sup>

The private sector has been seen as a key mechanism for finding the finance necessary for achieving the MDGs. A committee chaired by former IMF Managing Director Michel Camdessus in 2003 outlined a set of policies for donors and development banks designed to encourage and support private sector investment in water in developing countries.<sup>11</sup> A central plank of the EU Water Initiative, developed at the same time, placed great emphasis on using aid to ‘leverage’ private sector investment.<sup>12</sup> Much of the case for reliance on the private sector has been based on general assumptions about the continued expansion of multinational water companies, or on theoretical arguments about private sector investment.

There is now a large body of experience over the last 15 years which can help provide empirical evidence on whether these arguments hold true. This report focuses on the evidence to assess whether the private sector has actually delivered additional investment that has helped move towards the MDG targets. On the basis of this evidence, it draws the conclusion that private finance has not, and is unlikely, to play an important role in delivering progress towards the water and sanitation MDG.

### **Box 1. The supposed advantages of privatisation**

*“Private sector participation is seen to increase efficiency and introduce new sources of finance but above all to require a new emphasis on proactive, performance oriented, commercial management that aims to match the demand of its customers with their willingness to pay realistic charges and tariffs”<sup>13</sup>*

Richard Franceys, Water Resource Occasional Paper for UK Department for International Development

*“Billions of dollars are needed [in order to provide clean water to the poor]. The public sector, civil society, and multilateral financial*

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*institutions do not have the funds to meet the investment needs, while also addressing health, education, HIV and the multitude of challenges facing developing countries. The private sector needs to be involved.”<sup>14</sup>*

Odin Knudsen, World Bank Environment Department

*“There are two arguments for privatization; the fiscal argument that privatization will relieve government of the burden of investment financing and the efficiency argument that performance will improve under private ownership. Economic theory attributes the efficiency gains to a variety of factors ... Much of the economic reasoning in favor of privatization rests on new public choice theories of government behaviour ... State-owned enterprises are also insulated from capital markets – they face ‘soft’ rather than hard budget constraints ... Markets are seen to exert a disciplining force on the managers of private firms. Capital markets punish under-performing firms by denying them loans or devaluating the value of their shares.”<sup>15</sup>*

Okke Braadbaart

*“Why do we need the private sector to be involved at all? Governments and government-controlled para-statals rarely deliver services cost-effectively for the reasons noted earlier. Nor can governments usually raise the finance needed to expand service provision. Involvement of the international water companies (on an appropriate basis) can serve to facilitate cost-effective delivery of services. It can also facilitate mobilising long-term finance. Participation on a risk sharing basis of the international water companies enhances the confidence of the providers of finance that investment programmes will be implemented efficiently.”<sup>16</sup>*

Cambridge Economic Policy Associates

This report does not directly address the argument that privatisation makes water services more efficient. However, there is a growing body of evidence that the private sector is no more efficient than the public sector.<sup>(i)</sup>

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(i) This subject is addressed by PSIRU's briefing “The relative efficiency of public and private sector water” which is available at: <http://www.psiru.org/reports/2005-10-W-effic.doc>

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For instance, the International Monetary Fund (IMF) concludes: “It cannot be taken for granted that PPPs [Public-Private Partnerships] are more efficient than public investment and government supply of services ... Much of the case for PPPs rests on the relative efficiency of the private sector. While there is an extensive literature on this subject, the theory is ambiguous and the empirical evidence is mixed.”<sup>17</sup>

**Research for the World Bank says that studies on water utilities in Asia, “show that efficiency is not significantly different in private companies than in public ones”.**

Research for the World Bank Economic Review says that studies on water utilities in Asia, “show that efficiency is not significantly different in private companies than in public ones”.<sup>18</sup>

This evidence points strongly to the conclusion that there is no systematic intrinsic advantage to private sector operation in terms of efficiency. Equally, there is no evidence to assume that a public sector operator is intrinsically less efficient and effective.

### **1.2 Private contracts and investment finance**

This report follows the general practice of using the term privatisation to cover all situations in which a private company is given responsibility for operating the water system. Donors and the private companies themselves prefer to avoid the term privatisation, except for sale of assets, and use instead the phrase Private Sector Participation (PSP) or Public Private Partnership (PPP).

Whatever the terminology, it is important to note that there are a number of different types of contract for privatised water services, which have very different implications for investment in the extension of water supply and sanitation. It is also important to discuss the sources of finance used by the private sector, in order to understand the differences and similarities between public and private finance for water.

#### **1.2.1 Types of contracts: Concessions, leases and management**

Water supply is usually privatised through contracts between public authorities and private companies to operate water supply services. There are three main types of contract, which have different implications for investment, in particular investment in extending the network to households which have been previously unconnected.

**Concession** contracts give a private company a licence to run the water system and charge customers to make a profit. The private company is responsible for all investments, including building new pipes and sewers

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to connect households who are not so far connected. This does not have to be the company's own share capital. The private company can use money from various sources, including the surplus on the operations, bank loans, and grants. Concession contracts may set out targets to be met by the company, for example to invest a certain amount during the first five years (as was done in Buenos Aires, Argentina), or to connect a target number of households who do not have water supply (as was done in La Paz, Bolivia). Concessions typically last for 20 or 30 years, but may sometimes be as long as 95 years.

**Leases** are contracts under which the company is responsible for running the distribution system, and for making the investments necessary to repair and renew the existing assets, but the public authority remains responsible for new investment. The private company is not responsible for the investment in extensions to connect households who were previously unconnected. Leases are also known by their French name of *affermage* contracts.

**Management** contracts make the private company responsible for managing the water service, but not for making any of the investment, or even, usually, employing the workforce. A typical management contract involves a few senior managers from the private company being assigned to run the water company for a period of between one and five years. These contracts are risk-free for the private sector and do not involve any investment by the private company.

The type of contract is therefore in itself very important in assessing whether a privatisation has delivered any investment from the private sector. Management contracts will never involve such investment. Lease contracts involve private investment in renewing the network, but not in extending the system. Extensions are crucial for achieving the MDGs of reducing the number of people without a clean water supply. Therefore, only concession contracts bring private investment to extend the system.

**Only concession contracts bring private investment to extend the system.**

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**Table 2. Investment responsibilities under concession, lease and management contracts**

	<i>New investment in the system</i>	<i>Repair and renewal of existing system</i>
Concession	Yes	Yes
Lease	No	Yes
Management	No	No

One other form of water privatisation is the sale of the complete system through a public share offering, as was done in England and Wales in 1989, as a result of which the entire network becomes private property. This English privatisation technique has never been used anywhere else in the world, although some concessions may also result in the private company owning a varying proportion of the system. Some aspects of the English system are considered in Section 3.3.

Finally, much private activity now takes the form of Build-Operate-Transfer (BOT) contracts to construct treatment plants and reservoirs. BOT contracts do not concern the distribution system itself, and so do not involve any new investment in extensions of the system to people who were previously unconnected. They are therefore not included in the survey of investment in water distribution in developing countries, although they do involve private investment in new dams and treatment plants, and have been used in a number of cases in developing countries. BOTs do have an indirect impact on the finances of water distribution systems, and this impact is considered separately in Section 3.2.

### 1.2.2 Sources of finance

Ultimately, all investment is paid for by people, either through charges for the use of water, or through taxes of some kind. The choices are: when (now or the future); how (user charges or taxes); and who (extent of cross subsidisation, national or international). In the short term, the investment costs can be paid by savers, either through loans or private equity investment in company shares, who then get repaid by users or taxpayers later.

The question of ‘who pays’ raises important issues of redistribution. If users pay for everything, through full cost recovery, then richer citizens living outside the area will contribute nothing. Cross-subsidies by

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charging steeper tariffs for example, can only shift money between users. So any wider support has to be channelled through the taxation system, either within the country, or from industrialised country taxpayers through donor governments.

**Privatised water operations use mainly the same sources of finance as the public sector.**

Privatised water operations use mainly the same sources of finance as the public sector: the surplus made by the water operation, aid from national or foreign governments, development bank loans, and commercial bank loans and bonds. Table 3 shows a simple categorisation of these sources.

The only form of finance uniquely available to the private sector is equity finance from private shareholders. Finance from donors, development banks, commercial bank loans, bonds and operating surplus is in principle equally available to public sector operators. It is not true that only the private sector uses 'private finance'.

**Table 3. Sources of finance for investment: National, international and private**

Source of funds	Domestic	Domestic source	International	International source	Private only?
Internal resources	Surplus of undertaking	Users	–	–	No
State aid	Government, national funds	Tax	Donors and aid agencies	Tax	No
Development banks	National development banks	Savers, tax	World/regional development banks	Savers, tax	No
Bank loans	Domestic banks	Savers	International banks	Savers	No
Bonds	Domestic bonds	Savers	International bonds	Savers	No
Shareholder equity	Local private company	Savers	Multinational company	Savers	Yes

### 1.3 Considering the evidence

Section 2 consists of a comprehensive study of sub-Saharan Africa, South Asia, and East Asia, examining the available evidence on actual investment in extensions to water distribution services by private companies under various forms of water privatisation. These regions are home to 80 per cent of the people who are in need of new connections to

meet the MDG targets (see Table 1) and thus form the focus of this research. Latin America has been a major focus for private sector activity in water and sanitation services, and a section examines the evidence on investment by the biggest private operation, in Buenos Aires. Private sector activity in the Caribbean, Europe, Central Asia, North Africa and the Middle East, where the number requiring access to clean water and sanitation are comparatively low, are not covered.

The following section looks at a number of related issues concerning private investment in water, which are relevant to assessing their actual and potential contribution to the MDGs. These include:

- The geographical distribution of private sector involvement in water supply in developing countries
- The relationship between private sector activity and investment by development banks and donors
- Private sector investment in water and wastewater treatment plants
- Behaviour of private investors under regulation in the UK.

The final section reviews the arguments advanced for water privatisation as a vehicle for investment in extending water connections, draws general conclusions, and offers policy conclusions for donors.

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## 2. Review of actual investment in sub-Saharan Africa, South Asia and East Asia

### 2.1 Sources of data

The evidence in this section is taken from a number of sources: PSIRU's own database on private sector water contracts, which has global coverage of operating contracts, with some data on performance and investment outcomes; a number of recent reports and case studies of particular contracts; and the World Bank's database on Private Participation in Infrastructure (PPI).

The PPI database is commonly used as an authoritative source by itself, and in particular is used to generate greatly overstated estimates of investment by the private sector. The PPI database has a number of omissions, some inaccuracies, and some built-in limitations:

- The PPI's figures for investment are not of actual investment, they are the forecasts of investment expected during the lifetime of the project, made by the private company when it starts the contract. For concessions, the figure may be large, but it is only the forecast, not the actual investment. The PPI never changes the predicted figure to reflect reality. Also, in cases where the concession covers other sectors, such as energy, it is not possible to separate investment in water. However, the PPI database does reflect the fact that management and lease contracts normally involve no investment, and so the figure in this column for such contracts is normally zero, or very close to it.
- It includes in its list of projects many BOT contracts which involve investment in reservoirs or treatment plants financed by the private sector, none of which, however, extend the number of households connected to the system. They improve supply for whoever is already connected, but may actually have negative effects on investment in extending distribution systems to connect new households (see Section 3.2).
- The PPI database also includes a set of figures on 'Investment in government assets'. This figure represents the money that the private company has paid to the government as the price for being awarded the contract, or, more rarely, the price paid by the company to buy

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part of the system. These payments however are just extra government income, which can be used by a government for any purpose; they are rarely ‘tied’ to being used for investment in the water sector. So they indicate only an increase in government revenue. In assessing actual investments in the water sector ‘investment in government asset’ figures should be ignored.

The following review therefore uses data from outside the PPI on actual investments and new connections made. This data also supplements and where necessary corrects the data from the PPI.

### 2.2 Sub-Saharan Africa

*“Given the difficulties faced by water PSP contracts around the world (and Sub-Saharan Africa is no exception), the private sector may be willing (in some cases) to manage water sector operations but is likely to lack any appetite for financing new works and coverage expansion. This means that, in the short to medium term at least, the bulk of water sector financing will come from tariff revenues and public sector financing, either from Governments or from donors.”<sup>19</sup>*

A report on private participation in water in sub-Saharan Africa for the German Development Cooperation

#### 2.2.1 Overview

Sub-Saharan Africa includes a quarter of all the people who need connections to meet the MDGs. Table 4 sets out all the different types of private water contracts which have operated in various countries in the region since 1990.

The evidence on investments under the specific contracts shows that:

- There are very few concessions, the only form of contract under which the private company invests in new extensions to the system, and all of them have experienced significant shortfalls compared with the original investment programme
- The contracts most widely used as examples of successes, such as Senegal or Côte d'Ivoire, are lease contracts, under which the investment in new extensions is carried out by the public authority, not by the private company

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- Of the concession and lease contracts, 80 per cent have been terminated or are the subject of major disputes between the public authorities and the operator over investment levels.

### **2.2.2 Concessions**

Only five concessions for water services have been implemented in sub-Saharan Africa. Three of these covered water and electricity in Cape Verde, Gabon and Mali.<sup>(i)</sup> The only two concessions for water and sanitation services alone are both in South Africa: the concessions at Dolphin Coast and Nelspruit.

In each case, the concession has failed to deliver the promised level of investment. The two South African concessions have cut their investment plans; by 60 per cent at Dolphin Coast, and by a complete halt to all investments in Nelspruit since 2001.<sup>20</sup> Mali has terminated the concession and renationalised electricity and water services, and Cape Verde is threatening to do the same, in both cases on the grounds of failure to make the necessary investments.

#### **Cape Verde**

In 1999, Cape Verde, a former Portuguese colony, sold a 51 per cent stake in the state electricity and water utility, Electra, to a consortium of Electricite de Portugal and Aguas de Portugal, both state-owned Portuguese companies, supported by a World Bank loan of US\$22 million.<sup>21</sup> According to the World Bank the total investment promised was over US\$147 million, with no indication of how much was for electricity and how much for water. In September 2005 the Cape Verde government threatened to renationalise the company after accusing Electra of not making the investments as agreed under the contract.<sup>22</sup>

#### **Gabon**

Gabon, a former French colony, sold 51 per cent of the state water and electricity company SEEG, to French multinational Veolia, in 1997, in a privatisation designed by the World Bank's private sector division, the International Finance Corporation (IFC). Veolia paid FCFA7.6 billion (US\$13.7 million), and the company's initial investments were assisted by funds from Agence France de Developpement.<sup>23</sup> Between 1997 and 2001, the privatised SEEG investment in water amounted to about

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(i) These contracts are often omitted or ignored in discussion of water privatisation in Africa, despite the fact that they are three of only five concession contracts in sub-Saharan Africa, and thus appear to significantly increase the volume of private investment.

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**Table 4. Private water contracts in sub-Saharan Africa**

Type	Status	Level of investment in new connections	Country	Company	Location	MNC involved
Concession and partial sale	Distressed	Shortfall from promised	Cape Verde	Electra	Nationwide	EdP
Concession	Distressed	Shortfall from promised	Gabon	SEEG	Five towns including Libreville	Veolia
Concession and partial sale	Terminated	Shortfall from promised	Mali	EDM	Bamako	Saur
Concession	Distressed	Shortfall from promised	South Africa	Siza Water	Dolphin Coast	Saur
Concession	Distressed	Shortfall from promised	South Africa	GNUC	Nelspruit	Biwater
Lease	Terminated	0	Central African Republic	SODECA	Bangui	Saur
Lease	Ongoing	0	Côte d'Ivoire	SODECI	Eight towns including Abidjan	Saur
Lease	Terminated	0	Gambia	SOGEA	Nationwide	Veolia
Lease	Ended	0	Guinea	SEEG	Conakry	Saur (& EDF)
Lease	Ongoing	0	Niger	SNE	Nationwide	Veolia
Lease	Ongoing	0	Senegal	SDE	Dakar	Saur
Lease	Distressed	0	South Africa	WSSA	Queenstown	Suez
Lease	Distressed	0	South Africa	WSSA	Sutterheim	Suez
Lease	Terminated	0	South Africa	WSSA	Nkunkobe	Suez
Lease	Terminated	0	Tanzania	City Water	Dar es Salaam	Biwater, Gauff
Management	Ongoing	0	Burkina Faso		Ougadougou	Veolia
Management	Terminated	0	Chad	STEE	Nationwide	Veolia
Management	Distressed	0	Mozambique	Aguas de Mozambique	Five towns including Maputo	Saur, Aguas de Portugal
Management	Distressed	0	Rwanda	Electrogaz	Rwanda	Lahmeyer
Management	Distressed	0	Sao Tome and Principe	Empresa de Agua e Eletricidade Suez	Johannesburg Water	Sinezigie
Management	Distressed	0	South Africa	Johannesburg Water	Johannesburg	Suez
Management	Ended	0	Uganda	NWSC	Kampala	Suez

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FCFA16 billion (equivalent to US\$22 million),<sup>24</sup> and the numbers connected to water rose from 57,000 to 90,000, out of an urban population of 788,000.<sup>25</sup> According to the IFC, “From the time of its privatization until present [2005] SEEG financed all of its investments with equity and cash flow from operations only.”

However, by 2004, there were major problems with electricity and water supply in the capital Libreville, with the company’s underinvestment being blamed for failure to connect new homes, long interruptions in supply and poor water quality.<sup>26</sup> In December 2004 Gabon suffered its first ever outbreak of typhoid, with 50 cases in Oyem, a town of 35,000 people, following repeated breakdowns of the local water supply system.

Julien Meye, a doctor at the endemic diseases service in Libreville, stated that, “This is the first typhoid fever alert in the region and in Gabon.”<sup>27</sup> Meye reported that the epidemic had broken out after several months of disruption to the supply of drinking water in Oyem. The people of Oyem complained of systematic water and electricity cuts in October 2004, and some of the villages in the surrounding area had not had water for several months. The deputy mayor, Emmanuel Obame Ondo, blamed the privatisation of water supply services for the breakdown in distribution, saying the country’s water and electricity utility, SEEG, had failed to extend water pipes to newly built areas.<sup>28</sup>

**In February 2005 the government of Gabon accused SEEG of “not wanting to invest in the short, the medium or the long term”.**

In February 2005 the government of Gabon accused SEEG of “not wanting to invest in the short, the medium or the long term to renew plant for the production, transport and distribution of water”.<sup>29</sup> A new five year investment plan was announced in November 2005, when the IFC agreed to invest €25million (US\$32 million) in SEEG. Africa Energy Intelligence reported that, “In addition, the IFC will extend a guarantee to SEEG ... to enable it to borrow €35 million (US\$45 million) from a consortium of local banks that are ready to help finance its investments in the country over the coming five years.”<sup>30</sup> Thus, the new investment programme of SEEG is being financed by an international public sector bank, and the savings of the residents of Gabon.

### **Mali**

In the former French colony of Mali, a 20-year concession for electricity and water was awarded in 2000 to a company majority-owned by the French utility Saur. According to a study for the German Development Agency, the main objective of the contract was “to significantly expand

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access” and to improve technical and financial performance. However, Saur “was unable to raise long-term finance to fund its investment obligations and a series of tariff cuts … compromised its ability to do so. As a result, the concessionaire slowed down investments considerably”.<sup>31</sup> The government became increasingly critical of, “the failure of the company to deliver on the essentials of extending water and electricity provision. Promised new pumping and generation facilities, it says, were not delivered.”<sup>32</sup>

In December 2005 the company was effectively renationalised, apparently without compensation. World Markets Analysis reported that, “The Malian government has repossessed the majority share in the country’s electricity and water provider from French group Saur International, in effect renationalising the body after a long row centring on accusations that the overseas partners had failed to fulfil contractual obligations on new facilities and pricing.”<sup>33</sup>

### ***South Africa, Dolphin Coast***

In 1999, Saur were awarded a 30-year contract to provide water supplies and purification services to the South African resort of Dolphin Coast, through a joint venture company Siza Water, which included local partners. At first described by two British academics as a “model private contract”,<sup>34</sup> in 2001 the company hit financial problems, because housing development had fallen far short of projections and so the company’s income was lower than expected.

Siza Water refused to make its contractual payments to the municipality, and successfully demanded a renegotiation of the contract. The revised contract cut Siza’s investment commitment over five years from R25 million (US\$4 million) to R10 million (US\$1.6 million). The annual concession fee to be paid to the municipality was halved, and prices were increased by 19 per cent for connected households, and by 80 per cent for users of standpipes. The municipality has subsequently been absorbed into the Ilembe District Municipality, which covers a population of 560,000.

According to a recent report, “Siza is obliged to make investments in maintaining and upgrading services while the municipality is only investing in extending services.”<sup>35</sup> Households not paying their bills have been cut off, and despite South African national government policy, since 2001, to give each family 6,000 litres of free water before service charges

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apply, those using standpipes are not being given any free water, and all connected households have to pay a monthly connection fee.<sup>36</sup> Following the contractual changes, Siza remained unprofitable, but Saur is reportedly obtaining a 21 per cent return on its investment, because of the fixed management fee that Siza pays to Saur each year.<sup>37</sup>

The result is that the company has made little or no investment in new connections. Indeed, a report to UK DFID in 2005 claimed that: “In poorer areas of Dolphin Coast there has been a reduction in service levels with disconnections of house water pipes, as a result of the higher water tariffs.”<sup>38</sup>

### ***South Africa, Nelspruit***

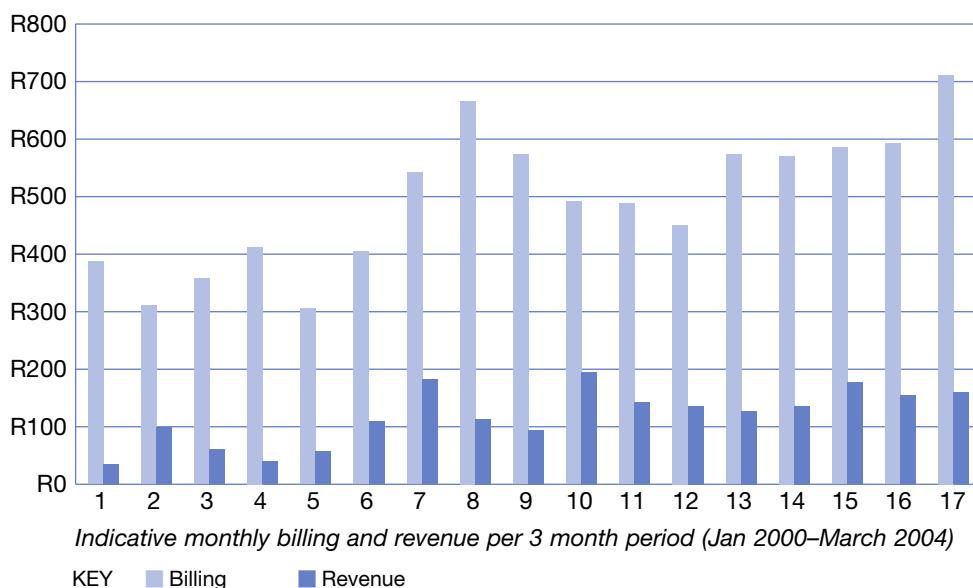
A concession contract was awarded from November 1999 to UK company, Biwater, operating through Metsi a Sechaba, its joint venture with a local black empowerment group. The concession company was later renamed Greater Nelspruit Utility Company (GNUC), and then renamed again as Silulumanzi. GNUC envisaged an 18 per cent return on its investment over the lifetime of the 30-year concession.<sup>39</sup> The main argument used for the concession was the need to attract private finance, and the contract specified that 25 per cent of the finance must come from GNUC’s own equity. However, Biwater had great difficulty in raising capital. In July 2000, nearly two-thirds of the total finance (R195 million/ US\$32 million) for the project was finally obtained in the form of a R125 million (US\$21 million) loan from the state-owned Development Bank of South Africa.<sup>40</sup>

The plans still depended heavily on generating a surplus through increased water charges, based on metering of households and full cost recovery. Many households could not afford the new tariffs, which were much higher than the previous system of flat rate payments for all municipal services. A 2005 report for the Centre on Regulation and Competition stated that, “Payment levels were considerably lower than GNUC expected in the townships ... Cost recovery in the townships was 38% in July 2001 and this fell to 27% by December 2001.”<sup>41</sup>

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**Figure 1. Difference between water bills and actual payments in Kanyamazane township, Nelspruit<sup>42</sup>**



The company attempted to strictly enforce the paying of bills. “After warnings, water was cut off, but restored if payment (or part payment) was made. Persistent non-payment led to the removal of pipe work. Around 6,000 newly installed meters were removed from the townships.” Disconnections for non-payment continued even during the cholera epidemic of 2000.<sup>43</sup> A non-payment campaign was started by local consumers, and in 2003, the council and the company started to use legal action to force payment by seizure and auctioning of the homes of people leading the boycott. However, they were forced to stop after a community outcry and negative media publicity.<sup>44</sup> At the same time, the company threatened to pull out altogether unless it received financial assistance from the municipality.<sup>45</sup> In response, the company now receives an extra portion of the municipality’s ‘equitable share’ (funding from central government), and reduced bills for electricity, rent and monitoring of the concession.<sup>46</sup>

Investment in Nelspruit never developed as promised. In August 2001, GNUC halted all capital spending, freezing projects worth up to R100 million (US\$17 million). As a result overall access to services in terms of infrastructure has not improved since 2001.<sup>47</sup> A company manager was quoted as saying: “What is the point of pumping money in while we are not sure of cost recovery? ... These projects can resume when payment

**Investment in Nelspruit never developed as promised. In August 2001, GNUC halted all capital spending, freezing projects worth up to R100 million.**

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for service picks up".<sup>48</sup> The company claims that it had made R27 million (US\$4.5 million) investment by the end of 2001, including 91km of new pipes, and 7,000 new meters, but just 5,000 new household connections (replacing standpipes, at Mgwenya).<sup>49</sup> Since the company also removed 6,000 meters and effectively disconnected the households concerned, the net number of households actually connected to the water system may have fallen slightly. The company also refers to "a new sewage treatment works ... constructed at Matsulu", but this was financed by aid from Portugal, constructed by the South African government, and formally opened in September 1999, two months before the private concession started.<sup>50</sup>

### 2.2.3 Leases

Lease contracts do not normally require or expect the private company to invest in new connections or pipework. Two of the African private water contracts often referred to as success stories, Senegal and Côte d'Ivoire, are lease contracts. But, as the example of Senegal shows, when connections are increased under a lease, they are financed through the public, not the private, sector.

#### Senegal

In 1996, the former French colony of Senegal awarded a 10-year lease contract to French multinational Saur. As usual under a lease contract, capital investment is funded by the public asset-holding company SONES, while funding of maintenance, including network and connection renewals and purchase of electromechanical equipment, is the responsibility of private operator SDE. This is reflected in the relative financial commitment. Public resources and donor finance across the 10 years of the contract totals US\$230 million, including US\$100 million provided as an International Development Association Credit by the World Bank, and a commercial loan to SONES of US\$21.4 million. In contrast, the finance to be provided by the private company SDE is about US\$20 million over the same period.<sup>51</sup>

The Senegal contract is frequently quoted as a success story, with a substantial increase in the number of connections, from 241,671 in 1996 to 327,501 in 2001, an increase of over 35 per cent. However, these new connections were not financed by or through the private company SDE, but largely through the public authority SONES. Figure 2 shows that the great leap in new connections came from 1999, when a new injection of public finance, including the World Bank loan, was provided through

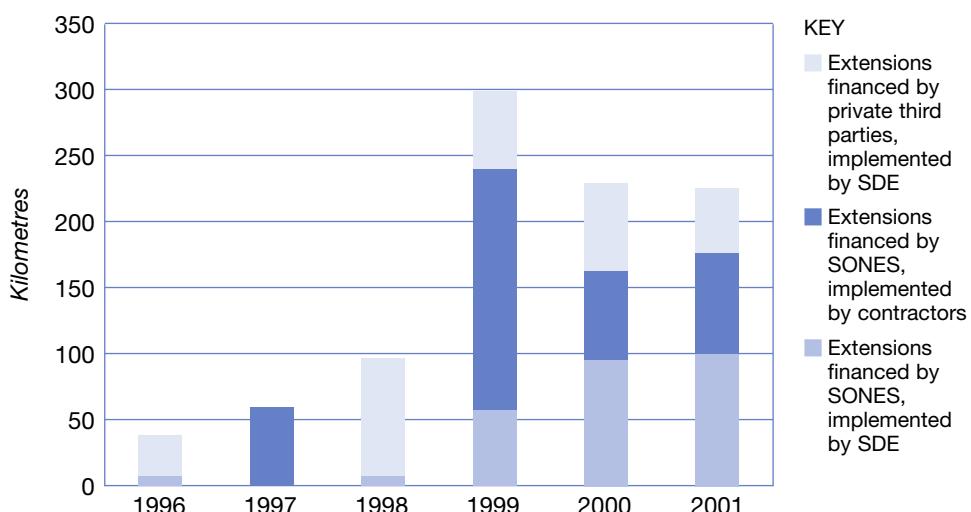
**As the example of Senegal shows, when connections are increased under a lease, they are financed through the public, not the private, sector.**

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SONES. The private company SDE has actually reduced the number of households connected, as a result of adopting a stricter disconnection policy with households who did not pay their bills. About 12 per cent of physical connections in Dakar are now not in use, and even more outside the capital.<sup>52</sup>

**Figure 2. Extensions to water supply in Senegal and public and private finance<sup>53</sup>**



### **South Africa**

Three lease contracts were signed with Suez subsidiaries under the apartheid government in South Africa in 1992.<sup>(i)</sup> The contract in Nkonkobe (formerly Fort Beaufort) was terminated by a court ruling in 2001 that the contract was invalid.<sup>54</sup>

The Queenstown contract was extended after the ending of apartheid. The only new services provided over the last few years have been in new low-income housing developments, as the pre-existing residential areas had connections before the start of the lease contract. The services for the low-income housing are funded through government subsidies.<sup>55</sup>

(i) These are wrongly categorised as management contracts in the PPI database.

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The contract at Stutterheim, signed in 1993, led to disputes between the municipality and the company over who was responsible for repairs to a major water main damaged by floods in 2000. The dispute arose because the company claimed the repairs were new capital investment, and so outside their remit under the lease contract, whereas the municipality claimed the repairs were part of the companies responsibility for operations and maintenance.

Privatisation in Stutterheim allowed the company to ‘cherry-pick’ the profitable white and coloured areas, which already received dependable water supplies, while much of the official Stutterheim township (Mlungisi) remained unserved and the unofficial neighbouring townships (Cenyu, Kubusie, Cenyulands) almost entirely outside the network.<sup>56</sup>

### ***The Gambia***

The Gambia awarded a 10-year lease contract to a Veolia subsidiary in 1993, but terminated it in 1995, alleging poor performance and contractual omissions including failure to produce accounts and financial reports. A report for the World Bank says there was “a high degree of uncertainty regarding the precise scope of maintenance and investment responsibilities”.<sup>57</sup> The World Bank report further states that the contract was “generally considered a failure”.<sup>58</sup> The increases in connections and reductions in unaccounted-for-water were due not to the lease contract but to the implementation of a donor funded project by the public authorities.<sup>59</sup>

### ***Guinea***

French utilities Saur and Veolia operated a lease contract in the former French colony of Guinea from 1989, which ended in 2000. Connections had increased but not by as much as expected, and there were disputes between the state company which owned the system, and the private operator, over the division of responsibilities for investment.<sup>60</sup> The water and electricity multinationals claimed compensation and a settlement was eventually reached in 2005.<sup>61</sup>

### ***Niger***

The lease contract in the former French colony of Niger, given to French multinational Veolia, has also been the subject of disputes. The government continues to make investments in extensions, using development bank loans. However, according to the Africa Research Bulletin: “For many Nigers, the Socie’te’ d’Exploitation des Eaux du

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Niger (SEEN), a subsidiary of Vivendi Water, is no better at running things than the defunct Socie'te' Nationale des Eaux (SNE). The disappointment is all the more acute because the water shortages are coinciding with a third increase in drinking water rates, following those of 1999 and 2001. Before privatisation of SNE, according to some consumer organisations, drinking water was not only cheaper but more readily available. Thus, in spite of major investment planned (CFAF51.5 billion, US\$71 million) under the sectoral water programme, there is much scepticism about the wisdom of SNE's privatisation.<sup>62</sup>

### **Côte d'Ivoire**

The former French colony of Côte d'Ivoire's contract with French company Saur has been in place since 1960, the longest of any such private contract. It is often offered as a success story, but the government and public authorities remain responsible for investment in extensions. The private company does not finance the provision of new connections.

### **Tanzania**

In the former British colony of Tanzania, a lease contract was awarded in Dar-es-Salaam in 2003, following donor conditions.<sup>63</sup> The contract was awarded to a joint-venture called City Water Services, comprising British company Biwater working alongside German and Tanzanian partners. In May 2005, the Tanzanian government announced the termination of the lease contract, on the grounds of City Water's poor performance, and it created a new public sector company to take over the operations.<sup>64</sup> One of the reasons cited by the Tanzanian government at the time of the cancellation of the contract was the failure of City Water to meet its full investment commitments of US\$8.5 million in the first two years.<sup>65</sup> It was said that this funding was to mostly cover removable assets.<sup>66</sup> The rest of the project to rehabilitate the network was to be funded through substantial loans totalling US\$143 million from the World Bank, the African Development Bank, and the European Investment Bank, plus a further US\$12.5 million from DAWASA, the public water and sewerage authority.<sup>67</sup>

#### **2.2.4 Management contracts**

Management contracts never deliver private investment. The only claim that could be made in respect of these contracts is that they may encourage investment as a result of confidence in the private sector management. Part of this effect, however, is simply a reflection of donor conditions. When development banks withhold money unless a country

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privatises the management of a water service, finance necessarily only becomes available after some form of privatisation.

This was the case in the former French colony of Burkina Faso, where the public water authority in the capital Ougadougou, ONEA, was known for being a technically efficient company, with a leakage rate of 15 per cent (a rate much lower than London or Paris), although it has a low level of connection and coverage. Donors nevertheless forced Burkina Faso to accept a management contract with French utility Veolia, as a condition of funding for a new reservoir.<sup>68</sup>

Elsewhere the management performance has been unimpressive. The former French colony Chad gave a management contract to French company Veolia to run its national water utility, STEE, in 2000. A cholera epidemic broke out in 2004 in Moundou, the Chadian business capital, as a result of which at least nine people died. According to the Panafrican News Agency: “the disease broke out after the city experienced water problems for several days. Inhabitants who could not find clean drinking water, consumed polluted water from the Logone River which carries industrial effluents. According to officials of the Chadian Water and Electricity Company (STEE), residents may have to wait for weeks before they can get clean drinking water again. ‘The water pump has broken down. We urge residents to avoid drinking water from the river and wells,’ an STEE official said.”<sup>69</sup> Originally, the management contract was seen as a stepping stone to further private sector participation (a lease or concession contract) but was in fact terminated by mutual agreement in 2005.<sup>70</sup>

In Rwanda, the management of the water and electricity utility, Electrogaz, has been contracted to the German company Lahmeyer since February 2004.<sup>71</sup> In the capital, Kigali, there was an outbreak of cholera, in December 2005 and January 2006, in which at least 17 people died, as a result of using contaminated water from the Nyabarongo River. Electrogaz was said to be “expediting repairs on the water pipes”.<sup>72</sup> In April 2004 Lahmeyer was found guilty of corruption in the Lesotho Highlands Water project,<sup>73</sup> but has not been excluded from contracts linked to World Bank loans. In January 2006 Lahmeyer won another management contract for Jirama, the water utility of Madagascar.<sup>74</sup>

Suez has a management contract in Johannesburg. While the local water authority is satisfied with the performance of Suez, there have been bitter

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protests at the policies of cutoffs introduced under the company's regime.<sup>75</sup>

In Mozambique, Saur began a management contract in 1999. It was immediately faced with a crisis after the severe floods of 2000, when Saur first advocated bankruptcy and then left the consortium.<sup>76</sup>

In Uganda, a management contract with Suez between 2002–2004 was not renewed, and the water company now emphasises its use of local rather than international management.<sup>77</sup>

### 2.3 South Asia

A survey of the private sector investment in water distribution in South Asia can be completed very briefly.

In the entire region, including India, Pakistan, Bangladesh, and Sri Lanka, there has not been a single concession or lease contract for the private sector operation of water or sanitation services. Even the World Bank's PPI database lists only three BOT projects in water treatment.

**In a region with 1.5 billion people, 23 per cent of the world's population, no investments have been made by private operators of water services in extending the water distribution systems.**

In a region with 1.5 billion people, 23 per cent of the world's population, no investments have been made by private operators of water services in extending the water distribution systems.

The zero private investment in South Asia is a dramatic illustration of how corporate decisions on where to operate are based on commercial judgments which may bear no relation to the relative needs of populations.

### 2.4 East Asia

There have been a total of 15 privatisation contracts for water distribution in East Asia. In addition there have been over 30 other contracts for various forms of bulk water supply and treatment plants, including many in Malaysia, which are discussed in Section 3.2. Of the 15 operating contracts, six have been in China, one in Malaysia, three in Indonesia, and five in the Philippines. Only two of the Philippine concessions, those in Manila, cover residential areas. Outside China, there are thus a total of only six concessions for water distribution to residential areas, four of which are in Jakarta and Manila. Of these six, one has been terminated, and three have experienced serious problems. There is little information available on the progress of the concessions in China in respect of numbers connected, and so there is no detailed review of these contracts.

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**Table 5. Water distribution contracts in East Asia**

Type	Status	Country	Area	Company	MNC
Concession	Ongoing	China	Macao	Macao Water	Suez
Concession	Ongoing	China	Sanya	Ondeо (Sanya)	Suez
Concession	Ongoing	China	Tanzhou	Ondeо (Tanzhou)	Suez
Concession	Ongoing	China	Shanghai	Waterworks Pudong Co. Ltd	Veolia
Concession	Ongoing	China	Shenzhen	Water Group	Veolia
Concession	Ongoing	China	Zunyi		Veolia
Concession	Distressed	Indonesia	Batam Bay	Biwater	Biwater
Concession	Distressed	Indonesia	Jakarta	Palya	Suez
Concession	Distressed	Indonesia	Jakarta	TPJ	Thames
Concession	Terminated	Malaysia	Kelantan	Kelantan Waters	Thames
Concession	Ongoing	Philippines	Bonifacio	Vivendi Water	Veolia
Concession	Ongoing	Philippines	Clarke	CWC	Veolia
Concession	Distressed	Philippines	Manila	Manila Water	United Utilities
Concession	Ongoing	Philippines	Subic Bay	Subic Water	Biwater
Concession	Distressed	Philippines	Manila	Maynilad Water	Suez

### **Malaysia**

Malaysia has introduced a number of complex water privatisations, many of which involve Malaysian companies, but the great majority so far have been in bulk water supply, not in the operation of water distribution services. The one distribution concession awarded to a multinational company went to Thames Water in 1995, which was awarded a 25-year contract for water distribution in the state of Kelantan worth R\$1 billion (US\$390 million).

By 1998, Kelantan Waters had debts in excess of R\$100 million (US\$26 million); consumers were forced to deal with low water pressure, supply disruptions and unhygienic water supply; and the federal government had to step in with a R\$600 million (US\$156 million) soft loan. In 1999, the Kelantan state government renationalised Thames Water's 70 per cent stake in Kelantan Waters for R\$50 million (US\$13 million). Though profitable, Kelantan has one of the lowest rates of water connections, with only 57.5 per cent receiving piped water to their homes; and non-revenue water stood at 40 per cent in 2003, above the national average of 37 per cent.<sup>78</sup>

**The Philippines**

Three of the concessions in the Philippines have been in predominantly industrial development zones. Veolia has two 25-year concessions: in the Fort Bonifacio new business district, outside Manila; and the Clark duty-free enterprise zone, a 4,400 hectare site on a former US Air Force base.

Biwater's concession in the Philippines is at Subic Bay, another business zone developed on the site of a former USA naval base. Its subsidiary, Subic Water, has failed to meet the projected targets in capital expenditures<sup>(i)</sup> and a reduction of the 44 per cent non-revenue water.<sup>79</sup> Subic Water records huge financial losses, due in large part to exorbitant foreign consultant's fees<sup>(ii)</sup> and a so-called "technology transfer" fee which critics allege is for overpriced second hand booster pumps imported from abroad which are no longer functioning well.<sup>80</sup> In 2001, the regulatory body recommended a cap on consultants' fees and waiver of payment of technology transfer fees. It also ordered Subic Water's owners to infuse additional cash equity. Given the water utility's losses, however, this option seems unlikely, and any new investment will have to come from tariff increases.<sup>81</sup>

The Philippine capital Manila was divided between two different concessions in 1997, one run by Manila Water, a joint venture between International Water and a local company, Ayala. In 2003 one of the multinationals involved in International Water, Bechtel, sold its shares, and the World Bank took an equity stake in Manila water through its IFC division: in 2005 Manila Water was floated on the Philippines stock exchange. The other concession was run by Maynilad Water, a joint venture between Suez and another local group, Benpres. Maynilad encountered major financial problems, and in 2001 stopped paying the contractually required concession fees to the public authority. By the end of 2003 this had resulted in an extra US\$240m of debt being shifted from Maynilad onto the public authority. In effect, part of the investment programme was maintained by shifting this financial burden onto the public sector.<sup>82</sup> By January 2006 Benpres and Suez had sold 84 per cent of Maynilad to the Philippine government, effectively renationalising the company.

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(i) In a 2001 report, the regulatory body noted Subic Water's failure to meet the projected targets laid out in the franchise agreement; after four years of operation, capital expenditures reached only 31 per cent of the projected capital expenditure of P913.9 million.

(ii) A 2001 report of the regulatory body noted the high fees paid to consultants; these management services fees are based on a services agreement between Subic Water and Cascal. Based on the agreement, Subic Water needs to pay Cascal an average of P19.7 million a year. This includes direct consultants fees, about P6 million; indirect consultants fees, P2.56 million; and technology transfer fees, about P11.14 million.

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The concessions included ambitious investment plans and targets for 100 per cent coverage. According to the public authority, the MWSS, the number of connections increased from 815,000 in 1997 to 1,082,000 in 2003, an increase of 267,000 new connections. The level of coverage rose from 67 per cent to 87 per cent.<sup>83</sup>

### ***Indonesia, Jakarta***

Water supply in Jakarta, Indonesia is operated under two 25-year concessions, which were awarded without any competitive tendering by the regime of the former dictator Suharto in 1997. The concessions each cover approximately one half of the city, and are held by subsidiary companies of Thames Water (Thames PAM Jaya – TPJ) and Suez (PAM Lyonnaise Jaya – Palya), in which cronies of Suharto were originally given a stake.

Following the overthrow of the dictatorship and the currency crisis of 1998, both concessions went through a period of financial stress and political uncertainty. By 2001, the operators had increased the total number of connections from 429,000 to 620,000, instead of the originally projected figure of 711,000, thus failing to meet the target by about one-third.<sup>84</sup> The operators were failing on other targets as well.<sup>85</sup> Thames and Suez explain their failure to achieve targets on connections by pointing to the higher costs resulting from currency devaluation, but a city auditor highlighted the excessively high operating costs, including unnecessary rent expenses and high expatriate salaries.<sup>86</sup>

The contracts were renegotiated in 2001, which also set revised, much lower, targets for achievement. The new targets were set to reflect actual performance – and the companies have since managed to keep pace with these new lower connection targets. According to the companies and the regulator, the number of connections increased to 709,000 at the end of 2005; a total increase of 280,000 connections.<sup>87</sup> After eight years, this figure is still slightly below the original target for 2001 – it has in effect taken the companies twice as long to reach this level as originally forecast. The companies continue to have problems achieving the revised targets. Unaccounted for water, the indicator used for leakage, has even risen again in both concessions to over 50 per cent, one of the worst figures in Asia.<sup>88</sup>

The companies' performance also needs to be evaluated against the improvements which could have been made in the same period without

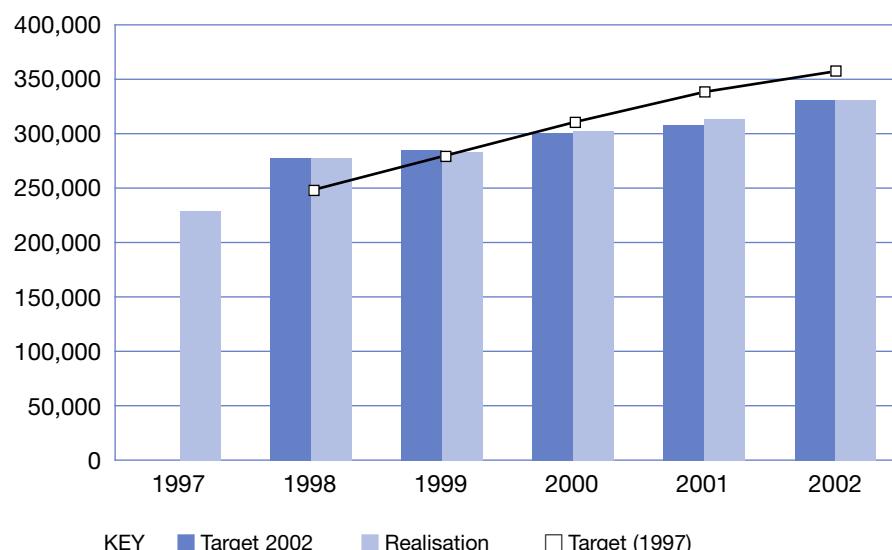
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privatisation, which may have been better. One researcher states: "PAM Jaya officials admit that public operation should have been able to attain the targets even better than the private company's performance".<sup>89</sup>

According to employees, the coverage data may also be exaggerated because the companies ignore existing connections: "On many occasions, the private companies have simply installed new pipes above functioning, older pipes but count the new pipes as an addition to the coverage level."<sup>90</sup>

**Figure 3. Numbers of new connections in Jakarta: Original target, revised target, and actual<sup>91</sup>**



The contracts in Jakarta have almost totally protected the companies from risk. Under the renegotiated agreement, the private water companies are paid a 'water charge' by the water authority, Pam Jaya, in accordance with a formula which covers all the companies' costs, including investment, and guarantees a 22 per cent rate of return on capital.<sup>92</sup> There is no financial penalty for non-achievement of the targets (except billing).<sup>93</sup> Thus the company itself carries no risk (except of non-payment by Pam Jaya), and their returns are effectively guaranteed by the government, through Pam Jaya. Payments by consumers are fixed by a separate 'water tariff', which rose much less than the water charges up to 2002, because the required increases were considered unaffordable; the deficit was borne by Pam Jaya.<sup>94</sup> Since 2004, tariffs have been increased

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automatically every six months, which ensures that Pam Jaya can finance their payment of the guaranteed charges to the companies.<sup>95</sup>

The companies have now re-arranged their financing of the investment so that they are using money from the savings of Indonesian investors themselves. Palya, the Suez company, had borrowed money in US dollars to pay for the investments, which meant that money from foreign investors was being used. But in 2005 the company repaid these loans, worth US\$56 million, by issuing bonds worth an equivalent amount in Indonesia.<sup>96</sup> In effect, foreign money was being repaid and the financing of investments now comes entirely from Indonesian sources, either through Palya's new bond, or through the tariffs charged to users which in turn pay for the companies' operations, investment and profit.

### 2.5 Latin America

Latin America includes a number of middle income countries, and contains a relatively small proportion of the population who need to be connected to water in order to achieve the MDGs (9 per cent). The region has nevertheless been the target of most of the investment by the water multinationals because of its relative profitability. Many of these concessions are now terminated or in crisis, either as a result of popular opposition, and/or economic crisis. Because the region is much less important for the MDGs than Africa and Asia, we are not including a comprehensive survey of Latin American water privatisations.<sup>(i)</sup>

However, an unusual amount of information is available about the investment performance of the flagship of these privatisations, the 1992 concession of a large part of Buenos Aires to Aguas Argentinas, a joint venture involving a number of multinationals, headed by Suez. This information, from a study by two Argentinian economists, shows the private company continually renegotiated investment commitments downwards and still failed to meet the revised, lower, targets.

#### 2.5.1 Buenos Aires, Argentina

The Aguas Argentinas water supply and sanitation concession in Buenos Aires, Argentina, covering 10 million people, started in May 1993. In September 2005 its private shareholders decided to terminate the 30-year contract, due to failure to reach an agreement with the government on the revision of tariffs following the Argentine financial crisis of December

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(i) A detailed review of water in Latin America and North America will be published at [www.psiru.org](http://www.psiru.org) in March 2006.

2001. The Aguas Argentinas concession, which has been promoted as a flagship privatisation, was marred with problems including downward revision of the committed investment, failure to deliver on the investment programme and upward renegotiation of tariffs, long before the economic crisis which caused the massive devaluation of the local currency.

Eight months after starting operations, the Suez-led operating company Aguas Argentinas, requested an “extraordinary review” of tariffs due to unexpected operational losses. Despite tariff increases approved in June 1994, 45 per cent of projected investments were not implemented in the first three years of the concession, for a total of Peso/US\$300 million. The concession agreement was then renegotiated from February to September 1997 and substantially altered so that little remained of the initial covenant. Not only were new charges introduced and tariffs adjusted, but completion of the first five-year plan was also delayed from April to December 1998, with Aguas Argentinas enjoying eight additional months to implement the projected investments, and “various investments originally agreed upon” were either cancelled or delayed.<sup>97</sup>

A study by research centre FLACSO has estimated that from May 1993 to December 1998, Aguas Argentinas failed to realise 57.9 per cent of the originally agreed investments for a total of US\$746.4 million (see Table 6).

**Table 6. Investment under-performance by Aguas Argentinas,  
1993–1998<sup>98</sup>** (Peso/dollar figures at supply values)

	1993	1994	1995	1996	1997	1998*	Total
Investments committed in original bid (Peso/\$ million)	101.5	210.52	302.91	362.36	229.10	83.07	1289.46
Investments realised (Peso/\$ million)	40.93	144.55	132.17	100.49	109.52	15.41	543.07
Under-performance (Peso/\$ million)	-60.57	-65.97	-170.74	-261.87	-119.58	-67.66	-746.39
Under-performance as a percentage of investments committed	59.8	31.3	56.4	72.3	52.2	81.5	57.9

\* Corresponding period: May–December 1998.

Table 7 shows that, from May 1993 to December 1998, Aguas Argentinas achieved only 53.7 per cent of originally agreed investments in the

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expansion of the water supply network, leaving a shortfall of 46.3 per cent. Of the originally agreed investments in the expansion of the sewerage network, the company met less than half of its commitments (43.2 per cent) and failed to deliver 56.8 per cent. Even after several renegotiations of the investment targets, Aguas Argentinas continued to fail to deliver on their commitments. They failed to realise 39 per cent of projected investments in the expansion of the water supply network and 59.7 per cent of projected investments in the expansion of the sewerage network.<sup>99</sup>

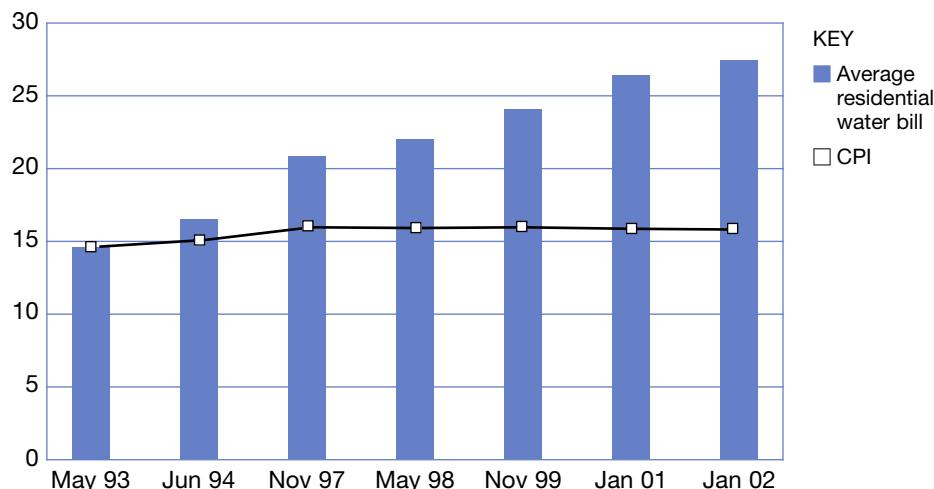
**Table 7. Projected and actual population connected to water and sewerage services in Buenos Aires by new extensions to the system, May 1993 – December 1998<sup>100</sup>**

Connection targets	Water (thousands)	Sewerage (thousands)
According to original bid	1,709	924
Tariff renegotiation	1,764	925
Full renegotiation	1,504	809
<i>Actual connections constructed</i>		
I. Works by AASA	631	112
II. OPCT*	286	287
III. Regularisation of illegal users	172	152
Real expansion of the network (I + II)	917	399
<i>Degree of effective compliance</i> (Excluding regularisation of illegal users)	(percentage)	(percentage)
With respect to the original bid	53.7	43.2
With respect to targets after tariff renegotiation	52.0	43.1
With respect to targets after full renegotiation	61.0	40.3

\* OPCT: Works on account of a third party paid by the users.

Figure 4 shows the change in average water bills in Buenos Aires from May 1993 to January 2002, as opposed to the variation in Argentine inflation over the same period. Average household bills increased from Peso/US\$ 14.56 to Peso/US\$27.40, that is to say increased by 88.2 per cent in nominal terms as opposed to a 7.3 per cent increase in the Consumer Price Index. It should be noted that for most of the period considered the Argentine Peso maintained its parity with the US\$, as the Argentine currency was devalued on 6 January 2002.<sup>101</sup>

**Figure 4. Change in the average residential water bill in Buenos Aires**  
(in Peso's/Dollars)



This is significant. It is clear that the Suez concession in Buenos Aires was already experiencing significant difficulties before the devaluation of the peso in 2002. Notably, Aguas Argentinas was already missing even its reduced investment commitments whilst at the same time, water rates were increasing at a rate significantly faster than other prices.

### **2.6 Summary: Only 600,000 connected in 15 years**

The actual contribution of private sector investment in extending water services in developing countries is extremely low.

In all of sub-Saharan Africa, South Asia, and East Asia (excluding China), we estimate that 600,000 new connections to households have been made as a result of investment by private sector operators in the last 15 years, extending access to around 3 million people.<sup>(i)</sup>

The vast majority of this figure arises from new connections in Manila and Jakarta, and the connections reported in Gabon. An allowance of 15,000 has been made for possible new connections in Cape Verde, Mali, Dolphin Coast and Kelantan.

**In all of sub-Saharan Africa, South Asia, and East Asia (excluding China), we estimate that 600,000 new connections to households have been made as a result of investment by private sector operators in the last 15 years.**

(i) Average household size is estimated to be 5.3 in Africa and 5.1 in Asia. Bongaarts, J. (2001). Household size and composition in the developing world. *Policy Research Division Working Paper* no. 144. New York: Population Council.

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In sub-Saharan Africa, many more extensions have been made in countries with and without private operators, but none of them have been financed by a private operating company. They have all been financed by public authorities using public finance mechanisms. The data summarised in this section represents the upper limit of what can be claimed to have been financed through the private sector.

These figures should be offset by the number of households who have lost a connection to water because of non-payment and private operators' strict disconnection policies. In Nelspruit and Dolphin Coast disconnections may have exceeded new connections, and in Jakarta there is evidence that some 'new' households may already have been disconnected.

These figures still exaggerate the extent to which northern private capital has been responsible for these connections. Half of Jakarta has now been refinanced by using Indonesian savings to repay northern lenders, and half of Manila has been effectively renationalised, with a similar effect. Public finance from donors is also playing a significant role in Jakarta, Manila and Gabon, so an estimate of the number of households connected through northern shareholders' money should be even smaller, at about 250,000.

It should also be noted that even in those concessions where new connections have been delivered the private companies have required state support: the refinancing of Gabon with the aid of the IFC; the renationalisation of Maynilad Water in Manila; and the guaranteed returns, protection from revenue risk, and use of diplomatic pressure in Jakarta.

**Even this tiny handful of concession contracts ... have failed to deliver the investment and extensions promised when the contracts were originally set up.**

Finally, it should be noted that even this tiny handful of concession contracts, the only ones with any claim to successful extension of services at all, have failed to deliver the investment and extensions promised when the contracts were originally set up. In all cases, the original contractual commitments have been renegotiated downward to reduce the burden on the private sector. In all cases, the concessions also notably failed to reduce leakage, another problem which was expected to be dealt with by private investment.

This study has not covered the whole world, but has about three-quarters of the people needing connections under the MDGs. The inclusion of the six Chinese concessions could increase the number of connections in all

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of Asia. However, the extent to which this has been financed by northern capital may be small. Veolia and Suez are keen to use finance from local savings rather than their own money. The inclusion of the Middle-East and North Africa would be unlikely to yield many more connections, outside the one major concession in the region, in Casablanca, Morocco. The considerable private presence in Central and Eastern Europe – mainly in the Czech Republic and Hungary, states which are now part of the EU – has not made a significant contribution to the MDGs because coverage was very high in these countries before privatisation.

Only in Latin America can the private sector be said to have contributed significantly to the extension of water connections – and research has demonstrated that these achievements were no better than the public sector. One research paper states of Latin America: “while connections appear to have generally increased following privatization, the increases appear to be about the same as in cities that retained public ownership of their water systems”.<sup>102</sup>

**Table 8. Estimated total new water connections financed by private operators in Sub-Saharan Africa and Asia (excluding China)**

	Region	Total number of new connections to households financed by private operator 1990-2005
Gabon	Africa	33,000
Nelspruit, South Africa	Africa	5,000
Jakarta, Indonesia	Asia	280,000
Manila, Philippines	Asia	267,000
Rest of sub-Saharan Africa and East Asia (excl. China)		15,000
South Asia	Asia	0
<b>Total</b>	<b>Sub-Saharan Africa and Asia (excl. China)</b>	<b>600,000</b>

Sources: See text in Section 2.

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### 3. Other issues and evidence

The review in the previous section focussed on the extent of direct investment by the private companies in connecting new households to clean water networks. The impact of the private companies can be assessed from other aspects of their behaviour. This section looks at:

- The geographical pattern of private company activity and the limitations for the MDGs
- Private investments in water treatment BOTs, and the problems created for water distributors
- Under-investment by private water companies in England and Wales
- The depressing effect of expectations of private investment on World Bank and donor spending.

**The private sector's net effect on investment towards the MDGs appears to be substantially negative.**

The private sector's net effect on investment towards the MDGs appears to be substantially negative. The reduction in donor and development bank investments, in particular, are estimated as far greater than the actual contributions made by private investment itself.

#### 3.1 Investment location

The pattern of private sector investment is determined by judgments of the prospect of commercial returns. As a result, it does not reliably match the needs of the population for meeting the MDGs. There are three ways in which this can be observed:

- Uneven pattern of investment between regions
- Concentration on cities and avoidance of rural areas
- Uneven pattern of level and type of investment over time.

Even the investment promised by the private sector, including BOTs for bulk water supply and treatment plants, has not been evenly spread across regions. It has been heavily concentrated in Latin America and East Asia, with only 1 per cent of the total investment promised for sub-Saharan Africa and South Asia. This is significant for the MDGs, as nearly half of the world's population needing connection to an adequate water supply live in these two regions.

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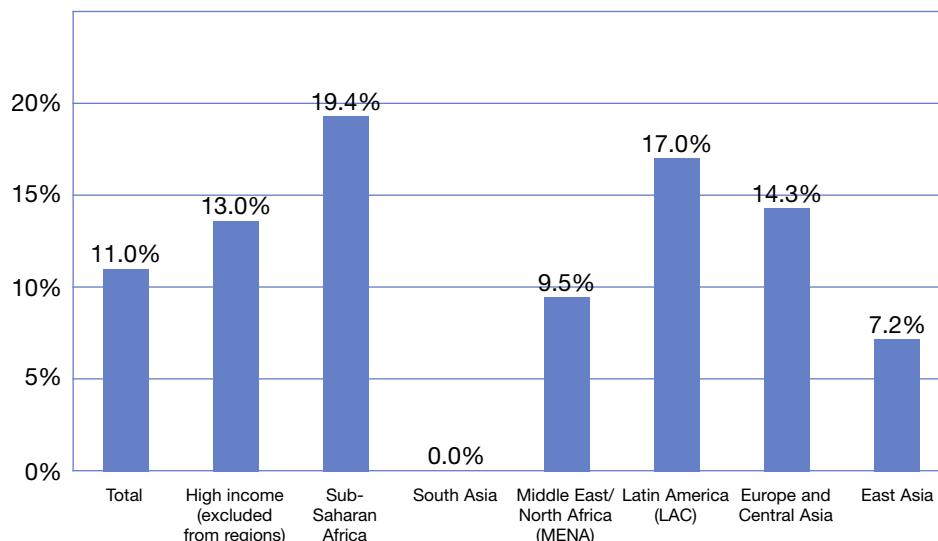
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**Table 9. Total private investment promised in water in developing countries by region, 1990–2002<sup>103</sup>**

Region	Private investment promised in water and sanitation (US\$ billion)	Percentage of total
East Asia and Pacific	17.0	39.0
Europe and Central Asia	3.5	8.0
Latin America and the Caribbean	21.3	48.9
Middle East and North Africa	1.3	3.0
South Asia	0.2	0.5
Sub-Saharan Africa	0.2	0.5
<b>Total</b>	<b>43.6</b>	<b>100.0</b>

In cities with populations of over one million people a similar selective pattern emerges. In South Asia not one major city is operated by a private company, and in East Asia, the private sector operates water distribution in only two cities outside China. Both of these, Jakarta and Manila, are commercial failures. The figures for Africa look much higher, reflecting the presence of private operators in former French colonies, but none of these contracts covering cities of more than one million people are concessions. In high income countries, there are private operators in about one city in seven.

**Figure 5. Percentage of cities with a population over one million with water services operated by private companies by region<sup>104</sup>**



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Private companies also avoid almost entirely rural areas, where about 40 per cent of those needing connections live. Indeed, the restructuring of water systems to create separate commercially viable urban units, as in Ghana, may actually reduce the available investment for rural areas. Such restructuring reduces the potential for cross-subsidisation where richer, urban consumers pay more to create a surplus that can be reinvested for the benefit of poorer, rural areas.

Finally, the companies vary their investment practices over time, according to perceived risks and local conditions. Even a high level of investment for a few years cannot be relied upon as an indicator of future patterns of investment (see Table 10).

**Table 10. Annual average private investment planned in water projects in developing countries<sup>105</sup>**

	1995–2000 US\$ billion	2001–2004 US\$ billion
Water distribution	3.6	1.1
BOT treatment plants	0.6	0.8

### 3.2 Investments in dams and treatment plants (BOTs)

*“BOOT contracts are not good for the client. They are, however, superb for the contractor. The contractor gets four sources of profit: construction, financial engineering, equity dividend and management contract.”<sup>106</sup>*

Adrian White, owner of UK water company Biwater

Build-Operate-Transfer (BOT) contracts have been used in a number of countries as a way of financing the construction of new reservoirs, water treatment plants, and sewage treatment plants. If government spending or borrowing is constrained by IMF or World Bank conditions or government policy, there is an incentive to use the private sector to invest in construction, and then repay the company over 30 years, as this delays the time when the cost of the investment appears as public expenditure. The principle is similar to Private Finance Initiative schemes used in the UK and elsewhere.

The typical structure of a BOT contract is that a private company invests the money to build the reservoir or treatment plant, with a return on capital secured by a long-term 20 to 30 year take-or-pay contract. Under

these agreements, the water authority promises to buy the water produced by the reservoir or plant at a price which repays, with profit, the money invested in the plant, and also covers the operating costs, which are relatively very small. Such agreements are normally guaranteed by national governments; if the municipal water distribution authority does not pay for any reason, the government promises to do so. On the strength of this guarantee of government payments, the companies can borrow money for the construction costs at low rates of interest.

BOT contracts can produce significant investment by the private sector in treatment plants or reservoirs, because the private sector has a real incentive to finish the plant so that payments can begin. These contracts have become relatively more important; since 2000 they represent over 40 per cent of planned private investment in water projects in developing countries, and 40 per cent of the BOT investment was in China. However, BOT contracts do not provide investment in the distribution system itself, and so do not extend water supply to new users, although they clearly increase the capacity of the system to provide water to consumers.

Examination of actual cases of BOTs in developing countries suggests that these contracts may actually create extra demands on the finances of a water distribution authority, and so reduce the money available to the distribution authorities for other purposes. There are two key factors which tend to produce this result. Firstly, the terms of the original contract are absolutely crucial in determining the level of payments for 30 years. As a result, the companies have a large incentive to engage in corruption or misrepresentation in order to increase their chances of winning a contract on favourable terms, for example by exaggerating forecasts of demand for water.

Secondly, the take-or-pay agreement, underpinned by government guarantee, limits the risk taken by companies, but means that the BOT contract must be paid before the water distribution authority can use its income for any other purpose, such as investing in extending the system to the poor. The take-or-pay agreement imposes financial demands on the water authorities and the public, even if the price of the water turns out to be unaffordable, and even if the extra water supplied turns out to be unnecessary.

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### **Turkey, Yuvacik Dam**

The Yuvacik Dam near Izmit in Turkey was constructed by Thames Water. The contract stated that the water would be purchased over 15 years at an agreed price. However, both industrial users and neighbouring municipalities have refused to buy water from the plant as it is too expensive. However, under the terms of the contract, the purchase of water was guaranteed by the Turkish Government, which has thus paid over the odds for water which is too expensive for its intended customers.<sup>107</sup>

The Turkish Court of Accounts, the national public audit body, took the position that the Yuvacik plant had cost far more than necessary, double the amount envisaged, and alleged that treasury officials had known, before the guarantee was given, that due to the high price there was a possibility the water could not be sold. An investigation of possible corruption was set up. It reported in November 2003, recommending the investigation for corruption of nine former ministers and the former mayor of Izmit.<sup>108</sup>

### **China, Chengdu**

Veolia's water BOT near Chengdu, China, has produced similar problems since it started operating in 2002.<sup>109</sup> The contract requires the municipal water operator, which already has supplies of 900,000m<sup>3</sup> per day, to buy 400,000m<sup>3</sup> per day on a take-or-pay basis. However, the present daily requirement of Chengdu is only about 1 million m<sup>3</sup> per day, so the city is left to purchase an unrequired 300,000m<sup>3</sup>. An Asian Development Bank survey comments that the contract is causing concern: "Demand has been overestimated. This clearly shows that governments take a risk with take or pay BOTs."<sup>110</sup>

### **India, Sonia Vihar**

In Sonia Vihar, near Delhi, Suez has won a BOT contract for a water treatment plant. The Times of India reports that, "the amount [Suez] will get as fee for treating the water will be much in excess of what the DJB [Delhi Jal Board] will charge the consumers", indicating that the public sector will have to pick up the difference.<sup>111</sup>

### **Malaysia, Kuala Lumpur**

In Kuala Lumpur three companies have 20-25 year concession agreements to sell treated water to the public water authority (PUAS) at a set price, which then distributes this water to consumers. While the

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private companies made annual profits in 2001 from their water businesses that ranged from US\$10 million to US\$47 million, PUAS has faced annual deficits of around US\$100 million. PUAS now wants the price of the bulk water from the private BOTs reduced, which could mean the government bailing out the accumulated debts of PUAS, and water prices rising sharply.<sup>112</sup>

### **Government guarantees**

The use of extensive government guarantees can be observed which protect companies from a wider range of risks. A 27-year BOT contract to build and operate the Rio Chillon water treatment plant near Lima, Peru, which was won by two Italian companies, was backed by a formal guarantee from the Peruvian government.<sup>113</sup> The company issued bonds on the Peruvian pension funds market, with bond repayments linked to the US dollar under government guarantee, as was the tariff payable for the supply of treated water.<sup>114</sup>

Thames Water abandoned its Da Chang BOT treatment plant after the Chinese government declared that the municipal guarantee of a 16 per cent profit was invalid. The plant had been operating for nine years, but the reaction of Thames to the loss of the guarantee implies that the price charged under the formula was bound to fall sharply once the guarantee was removed.<sup>115</sup>

### **Terminated BOTs**

Elsewhere, the BOTs themselves have been terminated, though the terms of compensation remain the subject of dispute. In Vietnam, the Thu Duc treatment plant in Ho Chi Minh City began operating in 1999. Under the contract, it sold water to the city water utility at 20 cents per cubic metre, although the price charged by the utility to consumers was only 11 cents. The balance had to be subsidised by the city council. In February 2003 Suez abandoned the contract, reportedly because of disputes over its interpretation.<sup>116</sup> The bulk water supply contract of Shenyang Public Utility also ended in 2002 because demand was lower than forecast and the public water authority could not afford to pay. A BOT contract in Bogota, Colombia, was terminated after the city council calculated that the project was charging ten times too much, and that it was worth paying US\$80 million to buy out the contract.<sup>117</sup>

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**Table 11. Observed problems in 11 major BOTs<sup>118</sup>**

Country	Project	Companies	Problems for water distributor	Public guarantees	Status
China	Chengdu	Veolia	X	X	Distressed/disputed
China	Da Chang (Shanghai)	Thames Water, Bovis	X	X	Terminated
China	Shenyang	Suez	X	X	Terminated
China	Xian	Berlinwasser (Veolia/Thames)		X	Terminated
India	Bangalore	Biwater	X	X	Cancelled
India	Sonia Vihar (Delhi)	Suez	X	X	Distressed/disputed
Vietnam	Thu Duc (HCM City)	Suez, Pilecon	X	X	Terminated
Malaysia	Selangor	Puncak Niaga	X	X	
Thailand	Pathum Thani	Thames/Bovis, Karnchang	X	X	
Turkey	Yuvacik (Izmit)	Thames	X	X	Distressed/disputed
Zimbabwe	10 dams plan	Biwater	X		Cancelled

### 3.3 Investment shortfalls in England and Wales

Investment shortfalls by private water companies can also be observed in high income countries, including the UK. The UK regulatory system, under the Office of the Water Regulator (OFWAT) is usually held up as a model example of an effective system of regulation, which should be expected to keep companies to their investment promises. Even under this system, however, the investments of the private companies fall well short of their official targets.

Under the unique system in England and Wales, the private companies own the complete system, are responsible for all investment, and are expected to charge users enough to pay for the investments and to generate a profitable return on their investment. They are subject to regulation by OFWAT, which allows them to increase prices over a five-year period, on the basis of investment programmes which the companies and the regulator agree are expected during those five years.

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However, the actual investment made by the companies has been significantly less than their forecasts. In the latest five year period, 2000–2005, capital expenditure was 9 per cent lower than the assumptions made when the price limits were fixed at the start of the period (£17.7 billion, compared with the £19.4 billion assumed).

**Table 12. Investment shortfalls by private water companies in England and Wales 2000–2005<sup>119</sup>**

	Assumed total volume of investment activity 2000-01 to 2004-05 £ million	Actual total volume of investment activity 2000-01 to 2004-05 £ million	Five year difference from 2000-01 to 2004-05 £ million	Five year difference as a percentage of total volume of investment activity %
<i>Water and sewerage services</i>				
Anglian	1,511	1,334	-177	-12
Dwr Cymru	1,322	1,194	-138	-10
Northumbrian	1,059	1,003	-55	-5
Severn Trent	2,268	1,914	-354	-16
South West	902	801	-100	-11
Southern	1,133	1,145	12	1
Thames	2,417	2,484	67	3
United Utilities	3,308	3,000	-308	-9
Wessex	936	794	-142	-15
Yorkshire	1,789	1,553	-237	-13
<b>Total</b>	<b>16,655</b>	<b>15,223</b>	<b>-1,432</b>	<b>-9</b>
<i>Water only companies</i>				
Bournemouth and West Hampshire	60	49	-11	-19
Bristol	117	107	-10	-8
Cambridge	16	18	2	15
Dee Valley	31	30	-1	-5
Folkestone	31	29	-2	-7
Mid Kent	111	106	-5	-5
Portsmouth	55	41	-14	-26
South East	211	180	-31	-15
South Staffordshire	104	103	-1	-1
Sutton and East Surrey	97	90	-7	-7
Tendring Hundred	15	15	0	-3
Three Valleys	261	275	-6	-2
<b>Total</b>	<b>1,129</b>	<b>1,042</b>	<b>-87</b>	<b>-8</b>
<b>Industry Total</b>	<b>17,784</b>	<b>16,265</b>	<b>-1,519</b>	<b>-9</b>

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Exactly the same pattern occurred in the previous five-year period, 1995–2000, in which investment was 10 per cent lower than assumed when prices were set (£18.4 billion compared with £20.3 billion), although the prices increased as expected.<sup>120</sup>

The companies present this under-expenditure as being due to efficiency savings. However, it may also reflect ‘gaming’, the process whereby the companies have an incentive to exaggerate forecast expenditure in order to be allowed higher price increases. The companies then spend less than forecast, but still increase their prices, as a way of increasing their profit margins.

### 3.4 Effect on public investment and aid

The expectation of private sector investment has not only failed to deliver what was claimed. Coupled with IMF demands for reductions in state spending and borrowing, and policies of development banks and donors to insist on attracting private finance, it has also had the effect of reducing public sector and donor investment in infrastructure, including water.

Many countries chose to cut investment to meet targets for lower public spending and borrowing, often set as conditions by the IMF, in the expectation that the private sector would replace such investment. But even when investment has increased, it has not compensated for public sector cuts. In India public investment in infrastructure fell from 4 per cent of GDP in 1990 to 3 per cent of GDP in 1998. Private sector investment in infrastructure rose only from 1.4 per cent of GDP to 1.6 per cent. There was an overall loss of investment. The World Bank and other donors also cut their expenditure with the expectation that the private sector would take over. The total invested by all the development banks and donors in infrastructure fell by one-third between 1996 and 2002.<sup>121</sup>

This effect may have been increased by the reaction of donors to a country which rejects a privatisation condition. When the World Bank, or a donor country, insists that it will only provide a loan for a water service on condition that it is privatised, but that country resists privatisation, then public finance for investment is cut. One example of this process is Guinea, where the country did not renew a lease contract in 1999. According to Africa Energy Intelligence, “disagreement between the two French groups and Guinea’s government has resulted in a freeze on investment in the sector and Guinea can’t count on cash injections by the

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World Bank or IMF, either, because they have suspended funding for the country, setting the sell-off of EDG and SDG as a condition of further assistance".<sup>122</sup>

The World Bank itself, according to its infrastructure review paper in 2003 cut its infrastructure investment lending by 50 per cent between 1993 and 2002, from about US\$9.5 billion to US\$4.8 billion.<sup>123</sup> The report notes that the reasons for this include: "a lack of clarity on the roles of the private and public sector in infrastructure service provision and under-investment in country-level infrastructure diagnostic work". It noted that, contrary to the World Bank's expectations, private sector investment, in all infrastructure, not only water, also declined by over 50 per cent between 1997 and 2002, and concluded that "the recent decreases in private sector interest in infrastructure show that reliance on the private sector alone will not be sufficient to guarantee a scaling-up of infrastructure service provision".<sup>124</sup>

The same effect can be seen in the donor policies of the EU, which in 2002 set up a new EU Water Initiative, and proposed a new EU Water Facility, to support the MDGs. By the end of 2005 a review by WaterAid and Tearfund concluded that, "Not a single extra person has received safe water or sanitation through the Initiative. Separate but linked efforts to increase funding for water and sanitation through the EUWF have similarly failed". The review also identified that one key reason why these initiatives had failed was because of an "ideological bias to private finance", seeing the main function of aid as 'leveraging' private finance.<sup>125</sup>

**"Ultimately, many of the adjustments in public financing and ODA largely reflect the fact that the expectations of private sector participation in the financing of infrastructure needs were overoptimistic."**

A World Bank paper offers the conclusion that this collapse in aid was "largely" due to unrealistic expectations of the private sector: "Ultimately, many of the adjustments in public financing and ODA largely reflect the fact that the expectations of private sector participation in the financing of infrastructure needs were overoptimistic."<sup>126</sup>

**Table 13. Reductions in infrastructure investment by development banks and donors<sup>127</sup>**

	1996 (US\$ billions)	2002 (US\$ billions)	Percentage fall	Annual loss (US\$ billion)
Development banks	18	16	-11%	2
Donors	15	8	-47%	7
<b>Total</b>	<b>33</b>	<b>24</b>	<b>-27%</b>	<b>9</b>

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The net contribution of 15 years of privatisation has thus been to significantly reduce the funds available to poor countries for investment in water. While it is impossible to be exact about this figure and to disaggregate water and sanitation spending from overall infrastructure expenditure, it is likely that the accumulated figure for donor funds ‘missing’ from the water and sanitation sector runs into billions.

### 3.5 Summary of the evidence

The pattern of activity by private water companies reflects their commercial judgments of where profits can be secured, and do not reflect the distribution of needs between regions, between urban and rural, or the need for long-term consistency. Large sections of the developing world which are crucial for meeting the MDGs have been ignored by private companies, notably South Asia.

The private sector’s need for guarantees to secure their profitability imposes additional long-term demands on the public and governments in developing countries. Even private investments in bulk water supply BOTs create further stress on the development of water distribution systems.

Underinvestment by private water companies is also a feature of their behaviour in a high-income country like the UK, which suggests it is a systematic feature of the private sector’s behaviour.

The focus on private sector development has contributed to a reduction in the level of aid and development finance from donors which is far greater than the actual investments made by the private sector. The net contribution of 15 years of privatisation has thus been to significantly reduce the finance available to developing countries for investment in water. It is likely that the accumulated figure for donor funds ‘missing’ from the water and sanitation sector runs into billions.

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## 4. Conclusion

A number of general conclusions can be drawn from this evidence:

- Most private contracts, notably lease and management contracts, involve no investment by the private company in extensions to unconnected households
- Concession contracts do involve investment by private companies to extend the network; however, the investment commitments agreed when these contracts are created are invariably revised, abandoned or missed
- In most privatisation contracts, public finance and/or guarantees, from governments or development banks, are of central importance in delivering actual investment on the ground, particularly in connecting poor households
- Private water companies do not bring new sources and volumes of investment finance – they rely heavily on the same sources as are available to the public sector.

This evidence debunks one of the most important myths concerning water privatisation, namely that private finance will play an important role in delivering progress towards the water and sanitation MDG. On the contrary, it has not done so up to now, and is unlikely to do so in the future.

**it is clear that the emphasis on the private sector over the past 15 years has had a negative impact on progress towards the water and sanitation MDG**

Instead, as this report has shown, it is clear that the emphasis on the private sector over the past 15 years has had a negative impact on progress towards the water and sanitation MDG with major implications for communities of poor people around the world.

In South Asia, no investments have been made by private water operators to extend water distribution systems. Meanwhile, in sub-Saharan Africa, 80 per cent of the major water privatisation contracts have been terminated or are the subject of major disputes between the public authorities and the operator over investment levels. Overall, in sub-Saharan Africa, South Asia and East Asia (excluding China), 600,000 new household connections have been made as a result of investment by

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private sector operators since 1997,<sup>(i)</sup> extending access to around 3 million people.<sup>(ii)</sup> Over the last nine years, the private sector has connected just 900 people a day. This is in contrast with the 1.3 billion people in those regions who it is estimated need a connection to a clean water supply between 2006-2015 in order to meet the water MDG.

Misplaced expectations on the private sector have led to a massive reduction in the level of aid and development finance from donors to the water sector which has far outweighed the actual investments made by private companies. The net contribution of 15 years of privatisation has thus been to significantly reduce the funds available to poor countries for investment in water. While it is impossible to be exact about this figure and to disaggregate water and sanitation spend from overall infrastructure expenditure, it is likely that the accumulated figure for donor funds ‘missing’ from the water and sanitation sector runs into billions.

Furthermore, putting private companies in the driving seat in recent years has allowed them to set the agenda in terms of prioritising the continents, regions and cities where investment in the water sector should go. Because of their need to make a profit, companies and donor-funded investment have not concentrated on the areas of greatest need such as: the poorest countries; cities where the poorest people live; and rural areas. In fact, sub-Saharan Africa and South Asia collectively have been the focus of only one per cent of total promised private sector water investment.

Finally, in order to meet their profit needs, private companies have resorted to tactics in developing countries which are no longer acceptable in the UK such as pre-pay meters, massive price rises and disconnections for failure to pay.

Even where contracts have produced significant investment by the private sector in terms of increasing the supply of water, this can create extra demands on the finances of a water distribution authority. BOT schemes which bring private finance to the construction of water supply and treatment systems, do not extend water supply to new users and actually risk diverting public funding away from improving distribution. A number of public water distribution authorities have found themselves paying

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(i) The year the Manila concession began.

(ii) Average household size is estimated to be 5.3 in Africa and 5.1 in Asia. Bongaarts, J. (2001). Household size and composition in the developing world. *Policy Research Division Working Paper* no. 144. New York: Population Council.

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substantially over the odds for clean water which is surplus to requirements, as a result of BOTs.

When the evidence presented in this report – that the private sector will not provide the investment needed – is added to existing evidence that the private sector is no more efficient than the public sector at providing water and sanitation, the argument for privatisation collapses. Yet for the last 15 years donors and private companies alike have continued to peddle the water privatisation myth while the poor have consistently failed to benefit.

**In 2006, the global water crisis is still with us and the challenge of achieving the MDG remains. It is time for a fundamentally different approach to improving water and sanitation for the poor.**

In 2006, the global water crisis is still with us and the challenge of achieving the MDG remains. It is time for a fundamentally different approach to improving water and sanitation for the poor.

Ultimately, all investment is paid for by the public – people – as opposed to corporations, mostly through a combination of user charges for the service itself and general taxation. The problem with the massive expansion of connections that is needed to achieve the MDGs is that the poor cannot afford to foot the bill. While many poor families are willing and able to pay something for their water supplies the huge cost of the infrastructure is prohibitive.

The real debate is therefore not about a choice between public or private finance, as we know that private finance is to all intents and purposes non-existent, but about how to structure direct charges in a way that benefits the poor and how to mobilise public finances to plug the gaps and invest in the massive expansion that is required.

Evidence from successful publicly-controlled water utilities demonstrates that through techniques and processes such as free water supply for the poorest, participatory budgeting, progressive tariff structures and cross-subsidy, reducing leakage rates and improving efficiency, and receiving help from international NGOs (or any combination of these), it is possible to make public systems work.<sup>128</sup>

However, the massive investment required to expand networks means that government support, in one form or another – taxation, government loans and bonds, international aid and preferential loans – will still be required. In the poorest countries this support will invariably come from international donors. This makes the policies of donor governments and

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institutions towards financing water and sanitation critical and makes the current dearth of political and financial support for public water a threat to its future.

Our recommendations for donors are as follows:

- Donors and governments must stop perpetuating the myth that the private sector will deliver new connections to meet the water MDG. They must urgently review their emphasis on promoting water privatisation through the use of economic policy conditions. In 2005, the UK government took the important step of committing to stop using economic policy conditions like privatisation in its bilateral aid programme. Nonetheless, the World Bank and the other donor governments continue to attach such policy conditions; the UK continues to be a leading funder of multilateral support for privatisation through World Bank funds such as the Public Private Infrastructure Advisory Facility; and the UK, as witnessed most recently in Sierra Leone, continues to fund water privatisation processes that emerge from such international donor pressure.
- Donors and governments should reverse the downward trend of financing water and sanitation and urgently make up for the past decade of underinvestment. In 2005, the UK announced a doubling of water and sanitation spending in sub-Saharan Africa by 2007-08. This is welcome but a relative ‘drop in the ocean’ compared to what is ultimately required. Significantly more donor funds are needed, but it is important that this money is spent wisely.
- This report reinforces the importance of public finance in paying for investments in water. Historically, throughout the north and the south, actual extensions and development of water systems have been based on public finance. Donors and governments must recognise this and use the financing system that really works in terms of extending access to water and sanitation to those without. This could include creating mechanisms for issuing investment bonds to finance the development of water systems, processes for attracting international savings to invest in such bonds, and support for stronger and more redistributive systems of taxation in developing countries, and even internationally.
- More research and analysis is needed to explore public finance and how we can extract the most value out of public finance in order to speed up progress towards the MDG. However, there is no doubt that

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the emphasis will need to be on supporting public sector reforms of poor-performing utilities which will ultimately enable them to deliver the infrastructure programmes that are required.

- We must learn from and disseminate the good practice that is already available. There are a range of innovative municipal water utilities and community schemes operating around the world which are successfully extending access to those without. However, it remains the case that while there are many multilateral funding mechanisms that support the private sector's involvement in infrastructure, we are not aware of any donor-supported funding mechanisms which are aimed at enabling southern public sector utilities to learn from each other and to swap best practice via public-public partnerships.

The idea that private companies will find the money to deliver water and sanitation to the world's poor is a pipe dream that has led to 15 years of bad policy resulting in continuing suffering and hardship. It is time for donor governments to wake up and start putting their political and financial support into the kind of workable approaches mentioned above if there is to be any hope of making good on their Millennium Development Goal promises.

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Cover picture: A water pipe bypasses unconnected slum housing in Jakarta, Indonesia. A woman uses the dirty waterway below instead.