

ISSN 2056-4856 (Print)

ISSN 2056-4864 (Online)

# **WATERLAT-GOBACIT NETWORK WORKING PAPERS**

**Thematic Area Series — SATCUASPE TA3**

**Urban Water Cycle and Essential Public Services**



**Working Paper Vol. 3, N° 5**

**Old water in new waterskins: critical analyses of the new wave of privatization policies**

**Newcastle upon Tyne and Greenwich, December 2016**

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

Cover picture: Carrying water for domestic consumption, Rio de Janeiro Metropolitan Area, Brazil, 2014. DESAFIO, Project, Federal University of Rio de Janeiro (UFRJ) Research Team.

Source: [WATERLAT-GOBACIT Flickr collection](#) (Attribution-NonCommercial Creative Commons)

Back cover picture: Public water tap, Tripoli, Lebanon, March 2012

Source: [WATERLAT-GOBACIT Flickr collection](#) (Attribution-NonCommercial Creative Commons)

**ISSN 2056-4856 (Print)**  
**ISSN 2056-4864 (Online)**

# **WATERLAT-GOBACIT NETWORK WORKING PAPERS**

## **Thematic Area Series SATCUASPE TA3 Urban Water Cycle and Essential Public Services**

**Working Paper Vol. 3 N° 5**

**Old water in new waterskins: critical analyses of the new  
wave of privatization policies**

**José Esteban Castro (Editor)**

**Newcastle upon Tyne and Greenwich, December 2016**

## **WATERLAT-GOBACIT Network Editorial Commission**

José Esteban Castro, Newcastle University, United Kingdom, Commission Coordinator  
Alex Ricardo Caldera Ortega, University of Guanajuato, Campus Leon, Leon,  
Guanajuato, Mexico, Student Prize Coordinator  
Paúl Cisneros, Institute for Higher National Studies (IAEN), Ecuador  
Luis Henrique Cunha, Federal University of Campina Grande (UFCG), Brazil, Student  
Prize Co-coordinator  
Javier Gonzaga Valencia Hernández, University of Caldas, Colombia  
Leó Heller, Federal University of Minas Gerais, Brazil  
Gustavo Kohan, National University of General Sarmiento (UNGS), Argentina  
Alex Latta, Wilfrid Laurier University, Canada  
Elma Montaña, National Council for Scientific and Technical Research (CONICET)  
Argentina  
Leandro del Moral Ituarte, University of Seville, Spain  
Cidoval Morais de Sousa, State University of Paraíba, Brazil  
Jesús Raúl Navarro García, School of Hispanic-American Studies, Higher Council of  
Scientific Research (CSIC), Seville, Spain  
Alice Poma, Study Group on Social Actors, Representations and Political Practices,  
School of Hispanic-American Studies, United Kingdom, Higher Council of Scientific  
Research (CSIC), Seville, Spain.  
Antonio Rodriguez Sanchez, Jose Luis Maria Mora Institute, Mexico City, Mexico,  
Coordinator of the Student Prize Series  
Erik Swyngedouw, Manchester University, United Kingdom  
María Luisa Torregrosa, Latin American Faculty of Social Sciences (FLACSO),  
Mexico  
Norma Valencio, University of Sao Paulo, Brazil

---

### **WATERLAT-GOBACIT Working Papers General Editor:**

Jose Esteban Castro  
Emeritus Professor,  
Newcastle University  
Newcastle upon Tyne,  
United Kingdom  
E-mail: [esteban.castro@ncl.ac.uk](mailto:esteban.castro@ncl.ac.uk)

---

**Thematic Area Series SATCUASPE TA3**  
**Urban Water Cycle**  
**and Essential Public Services**

Jose Esteban Castro (Editor)

**Keywords**

Privatization, water services, finance, financialization, corruption, corporate water businesses, public-private partnerships

---

**Corresponding Editor:**

Jose Esteban Castro

Emeritus Professor,  
Newcastle University  
Newcastle upon Tyne,  
United Kingdom  
E-mail: [esteban.castro@ncl.ac.uk](mailto:esteban.castro@ncl.ac.uk)

---

**Corresponding authors:**

For comments or queries about the individual articles included in this Working Paper, contact the relevant authors. Their email addresses are provided in each of the articles.

---

**The WATERLAT-GOBACIT Network Working Papers are evaluated in general terms and are work in progress. Therefore, the contents may be updated during the elaboration process. For any comments or queries regarding the contents of this Working Paper, please contact the Corresponding Editor.**

---

## Table of Contents

	<b>Page</b>
Presentation of the Thematic Area and the Working Paper	1
List of Acronyms	3
List of Tables	4
List of Charts	6
<b>Article 1</b>	
Financing water and sanitation: public realities	7
David Hall and Emanuele Lobina Public Services International Research Unit (PSIRU) University of Greenwich	
<b>Article 2</b>	
Conflicts, companies, human rights, and water. A critical review of local corporate practices and global corporate initiatives	38
David Hall and Emanuele Lobina Public Services International Research Unit (PSIRU) University of Greenwich	
<b>Article 3</b>	
Corruption and public services	78
David Hall Public Services International Research Unit (PSIRU) University of Greenwich	

## **Presentation of the Thematic Area and the Working Paper**

This Working Paper is part of the activities of the WATERLAT-GOBACIT Network's Thematic Area 3 (TA3), the Urban Water Cycle and Essential Public Services (<http://waterlat.org/thematic-areas/ta3/>). TA3 brings together academics, students, professionals working in the public sector, practitioners from Non Governmental Organizations, activists and members of civil society groups, and representatives of communities and users of public services, among others. The remit of this TA is broad, as the name suggests, but it has a strong focus on the political ecology of urban water, with emphasis on the politics of essential water services. Key issues addressed within this framework have been the neoliberalization of water services, social struggles against privatization and mercantilization of these services, the politics of public policy and management in the sector, water inequality and injustice in urban areas, and the contradictions and conflicts surrounding the status of water and water services as a public good, as a common good, as a commodity, as a citizenship right, and more recently, as a human right.

This Working Paper is the product of cooperation activities between the WATERLAT-GOBACIT Network and the Public Services International (PSI) (<http://waterlat.org/projects/cooperation-agreement-with-the-psi/>). It is composed of three articles focused on critical aspects of the new wave of privatization policies implemented worldwide, broadly speaking, since the start of the 21<sup>st</sup> Century. Two of the papers are based on special reports prepared by the authors for debate at the 6<sup>th</sup> World Water Forum, that took place in Marseille, France, on 12-17 March 2012. The third is also based on a report previously published in 2012. The three original reports were published by the Public Services International Research Unit at the University of Greenwich, United Kingdom (<http://www.psiru.org>), where our authors are based.

The first article, by David Hall and Emanuele Lobina, examines the crucial issue of funding needs and “realities”, in relation to water and sanitation services. It exposes the myth that the private sector has been or could be the main source of funding for the universalization and long-term maintenance of these essential services, and demonstrates that historically all countries have relied fundamentally on public funding to achieve their goals in this sector. The authors discuss the contrasting aspects of the arguments defended by “orthodox” approaches, such as those supported by the International Financial Institutions, donor agencies, and other actors that promote different forms of privatization, and models based on public-sector provision and funding.

In Article 2, the same authors explore the conflicts emerging from the privatization policies promoted worldwide, focusing on the roles of local and global private corporations. The article explores a range of conflicts arising globally around the control of water resources by private corporations, and the roles and strategies of international financial and development institutions and other global actors, including their roles in monopolizing the production of knowledge about the planet's water resources. It examines the contradictions between these activities and the declaration of

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

the Human Right to Water by the United Nations General Assembly in 2010, and discusses the possibilities of local communities in maintaining control over water sources in their confrontations with powerful corporate actors and their allies.

Finally, Article 3 by David Hall looks at the controversial topic of corruption in public services, which is normally presented in the mainstream literature as a public-sector problem, which often demonizes public sector institutions as part of the strategies taken by these actors to promote privatization of essential services and other activities. The author examines a wide range of corruption cases and dismantles the arguments that cast corruption as being an inherently public-sector problem and promote privatization as a strategy to introduce “transparency” and “accountability”. The article demonstrates the existence of large-scale private corruption resulting from privatization processes, often shielded from public scrutiny by the authorities that should protect the interest of users and citizens. The author examines the pros and cons of different institutional approaches that have been introduced to tackle corruption in public services, and proposes several strategies to democratize this aspect of public service administration.

The materials presented in the three articles have significant relevance, in the face of the new aggressive wave of privatization policies that is being implemented worldwide. The articles present evidence-based discussions of the topics, contributing to rebalance a debate that is systematically biased in favour of the orthodox neoliberal policies promoted by international organizations and national governments. Given the relevance of these texts, we decided to include them in our Working Papers Series. We wish our readers a fruitful experience.

José Esteban Castro  
General Editor

Newcastle upon Tyne and Buenos Aires, December 2016

## List of Acronyms

AFD	Agence Française de Développement
AFRODAD	African Forum and Network on Debt and Development
ASA	Advertising Standards Authority
ATTAC	Association pour la Taxation des Transactions financières et pour l'Action Citoyenne
BIJ	Bureau of Investigative Journalism
CBK	Central Bank of Kenya
CIPS	Chartered Institute of Purchasing and Supply
COSATU	Congress of South African Trade Unions
ENS	Environment News Service
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
GNI	Gross National Income
IFC	International Financial Corporation, World Bank Group
IGEL	Initiative for Global Environmental Leadership
IMF	International Monetary Fund
ICT	Information and communications technology
IIED	International Institute for Environment and Development
JMP	Joint Monitoring Programme WHO-UNICEF
MDGs	Millennium Development Goals
MoD	Ministry of Defense, United Kingdom
ODA	Official development assistance
OFWAT	Office of Water Services, United Kingdom
OECD	Organisation for Economic Co-operation and Development
OAU	Organization of African Unity
PIL	Public Interest Litigation
PPP	Public-private Partnership
PSIRU	Public Services International Research Unit
REI	Red de Expertos Iberoamericanos en Fiscalización
SAMWU	South African Municipal Workers' Union
SFO	Serious Fraud Office
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
UNGA	United Nations General Assembly
WBCSD	World Business Council for Sustainable Development
WEF	World Economic Forum
WHO	World Health Organisation
WRG	Water Resources Group
WRI	World Resources Institute
WSP	Water and Sanitation Programme, World Bank
WWDR	UN's World Water Development Report
WWF	World Wild Fund

## List of Tables

### Article N° 1

- |             |   |
|-------------|---|
| Table N° 1  | Finance for drinking water and sewerage services in France 2006   |
| Table N° 2  | Financial flows to water and sanitation in sub-Saharan Africa<br>US\$ billions per year   |
| Table N° 3  | Financing of water and sanitation investment, India, 2007-2012  |
| Table N° 4  | Public spending as % of GDP in sub-Saharan Africa 2006-2012   |
| Table N° 5  | Aid by OECD donor countries – water, 2005-2010 (US\$ millions)  |
| Table N° 6  | Costs of meeting MDGs plus urban sewerage connections   |
| Table N° 7  | Cost per life-years saved as % of GDP per capita, selected African<br>countries (full household connections water and sewerage) |
| Table No 8  | Required levels of spending on water infrastructure, % of GDP   |
| Table N° 9  | Costs of meeting MDGs in 10 years with household water and sanitation<br>connections  |
| Table N° 10 | Level of aid needed for household water and sewerage connections to<br>cover countries with annual costs of over 1% of GDP      |
| Table N° 11 | Household piped water connections and MDGs: developing regions  |
| Table N° 12 | Cost of water and sanitation investment as % of GDP, OECD   |
| Table N° 13 | Cost of household connections as % of GDP   |

### Article N° 2

- |            |  |
|------------|--|
| Table N° 1 | Investing in ‘land grabs’: states and companies, food and fuel |
| Table N° 2 | Food and drinks companies with largest water consumption 2006  |
| Table N° 3 | Groundwater impact of three Coca-Cola bottling plants in India |

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

Table N° 4 Corporate membership of WEF Water Resources Group

Table N° 5 Potential markets for suppliers of fertilisers, irrigation technology etc. 2010-2030 (an undistorted rendering of McKinsey's exhibit 37) (US\$ millions)

Article N° 3

Table No 1 Multinationals charged in USA with international corruption: largest settlements (US\$)

Table N° 2 Multinationals from OECD countries recently barred or sanctioned by the World Bank

## List of Charts

### Article N° 1

- Chart A Public spending on infrastructure in Africa as % of GDP
- Chart B Non-OECD aid to Africa, 2006
- Chart C Population gaining piped household connections or ‘improved’ sources 1990-2008
- Chart D Two models: donor/private/improved vs. National/public/household connections

### Article N° 2

- Chart A Transboundary water: cooperation not conflict
- Chart B Business view of risks: from civil society, government and physical water
- Chart C The water cycle
- Chart D Water
- Chart E Different uses of water
- Chart F Water availability in different regions
- Chart G Water stress
- Chart H Differential impact of climate change

### Article N° 3

- Chart A Interfaces of corruption
- Chart B Networks of corrupt exchanges

## ARTICLE 1

### **Financing water and sanitation: public realities**

David Hall,<sup>1</sup> and Emanuele Lobina, Public Services International Research Unit (PSIRU) University of Greenwich

An earlier version of this paper was published by PSIRU as a report for the 6th World Water Forum that took place in Marseille, France, in March 2012

#### **Summary**

The orthodox model for financing water and sanitation treats the state in developing countries as being unable to finance investment. It promotes instead the primacy of commercial direct financing, with cost recovery from consumers supported by targeted aid. It also emphasises ‘improved’ connections, rather than household connections. The paper argues that all these positions conflict with empirical evidence.

This does not reflect the historical experience of high income countries. The great majority of investment in water and sanitation services in Europe, North America and Japan, has been carried out by the public sector using public finance raised through taxation. Even in France the extension of the system was carried out by and through municipalities, not through private operators. Central governments have also played a key role in financing investment in water systems, and in managing water resources and floods.

The advantages of public finance are that the state pays lower interest than the private sector, it avoids that poorer ‘consumers’ cannot afford to pay full costs, and the major benefits of universal water and sanitation connections are public health, not private gains.

The orthodox approach has failed to generate significant amounts of private investment in developing countries. In Africa, the most important source of finance is the public sector in middle income countries, and donor aid in low income countries: the private sector contribution is close to zero. In India, the private sector contribution is also close to zero, with national, state and local governments financing nearly all the investment.

The economic crisis has not affected the prospects for public finance, because of continued economic growth in developing countries, and in increased aid from southern countries. The negative impact on private companies is not significant because of its tiny role.

---

<sup>1</sup> E-mail: halldj@gmail.com.

The costs of providing full water and sewerage household connections are not unaffordable. The benefits in terms of lives saved are very high, and there is a clear positive economic gain even for poorest countries. For the great majority of countries, meeting the Millennium Development Goals (MDGs) by such household connections could be achieved by a 10-year investment programme costing less than 1% of GDP per year, and would deliver significant socio-economic benefits.

Countries are in fact acting in accordance with this reality, and investing close to the amounts necessary for such targets. In the last 20 years, two-thirds of the advances in water systems in developing countries consist of household connections, rather than ‘improved sources’. More than 1.2 billion people have received household water connections in that time, the equivalent of the combined populations of all OECD countries - Europe, North America, Japan and Korea together. And overall, the investment by countries has more than achieved the MDGs for water.

The framework used by donors and international institutions is now sharply different from the reality of water and sanitation services in developing countries. The two models – the World Bank/donor model, and the national model - have conflicting positions on four key aspects – source of finance, type of operator, ‘improved’ source or household connection, and leading role of donors or countries. The national model is in reality driving developments in the sector, and also reflects a new southern view on development.

## **Introduction**

For the last 20 years, the orthodox paradigm for financing water and sanitation in developing countries has treated the state as having inadequate capacity to either finance or operate water and sanitation services. It has instead promoted the primacy of private direct financing of investment, and the market model, with pricing mechanisms providing incentives and signals for investments, supported by targeted aid designed to ‘leverage’ the maximum amount of commercial investment. In recent years, it has become apparent that these approaches have not succeeded in generating a flow of investment adequate to meet developmental needs.

This paper examines whether this paradigm is both empirically and conceptually flawed. It presents empirical evidence on the historical relative use of public and private finance for investment in water and sanitation systems in developed countries, evidence on the relative use of public and private finance and aid in developing countries, and evidence on the likely impact of the economic crisis. It presents an analysis of the affordability of investment in water and sanitation systems for developing countries, and specifically investment in household connections.

In conclusion, it discusses the gap between the official paradigm and observed reality of water and sanitation systems, and identifies two models – the World Bank/donor model, and the national model - with conflicting positions on four key aspects – source of finance, type of operator, ‘improved’ source or household connection,

and leading role of donors or countries. The national model is in reality driving developments in the sector, and also reflects a new southern view on development.

### **Water finance in high income countries**

The great majority of investment in water and sanitation services in high income countries has been carried out by the public sector using public finance raised through taxation, or loans raised on the security of this flow of taxation.

During the 19th century, water utilities were created or taken over by municipalities in nearly all European countries, including the UK. This was linked to the growth of municipal socialism (or ‘gas and water socialism’), which drove the development of local public services in Europe. This ideology saw the public sector as a mechanism to fulfil a set of economic and political objectives - economic development, public health and improvement of social conditions for the urban poor. The municipalities developed financial mechanisms superior to the private sector, including borrowing long-term money from local savers, at low interest rates because of the security of their flow of income from taxes (Juuti and Katko, 2005; Barraque, 2007).

If anything, the process of municipalisation was even more rapid in the USA than in Europe: by 1897, 82% of the largest cities were served by municipal operations. Municipalisation was seen as a way to overcome the systemic inefficiencies of the private contractors: “During the 19th century, the previously private systems came under public ownership and public provision because of the inefficiency, costs and corruption connected to them.... Democratically elected city councils bought existing utilities and transport systems and set up new ones of their own. This resulted in more effective control, higher employment, and greater benefits to the local people. Councils also gained the right to borrow money to invest in the development of their own systems” (Foss-Mollan, 2001; Melosi, 2000).

In some countries, water charges continue to be collected through property taxes rather than metered payments - in the UK the majority of households continue to pay annual charges based on the value of their property, rather than metered consumption of water. Water services in the UK were provided by municipalities until 1974 and then by state-owned regional authorities until 1989. Virtually 100% connection of urban population had been achieved well before that date: the privatised water companies of England have, historically, contributed little to the extension of urban water supply systems in England or Wales (still less in Scotland and Northern Ireland, where the systems remain public).

In France, almost uniquely, the private companies have survived from the 19th century and evolved in the process. During the 19th century when the dominant system was private concessions, there was very little growth in connections to the network. The municipalities found it was not legally possible to force concession companies to extend the network as public policy required, and therefore introduced municipal companies (“régies”) as the vehicle for investment and operation. Virtually all the growth in extension of the network took place under this form during the first 70 years of the 20th

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

century. This included major extensions in rural areas following the Second World War, paid for by the urban population, a massive cross-subsidy only possible as an act of public policy. From the 1970s, delegation to the private sector grew again to become the dominant mode, but this time typically under “affermage” lease contracts, under which responsibility for investments remained with the municipalities. Thus even in France the extension of the system was carried out by and through municipalities, not through private operators.

Despite the dominant role of municipalities, central governments have played a significant role in financing water systems. This has sometimes involved paying directly for the water supply service, so that there is virtually no role for charges (Ireland); distributing some part of central tax revenue to support local authority spending on water and other services (Canada); providing cheap loan finance for local authorities to use for capital investment (USA); or collecting part of water charges centrally and redistributing it to authorities which need to invest (France). In Europe, the EU itself plays a major role in public financing of water systems in poorer states through the cohesion and solidarity funds, and through low interest loans from its public sector development instrument, the European Investment Bank.

In many cases, user charges still include what are effectively ear-marked or hypothecated taxes rather than charges related to consumption, even under largely privatised systems. The charges levied by the private water companies in England and Wales are still based on a single annual payment based on the value of the property (as specified in a tax base which is now obsolete for local government purposes). In Hungary, despite privatisation of water in most major cities, tax revenues of central government continue to be the main source for financing investment in infrastructure. In France, “funding for water services is still overwhelmingly public, and private funding accounts for only 12% of the investment” (Pezon, 2009 p.198). While it remains possible for people to hypothesise or imagine that such private water companies might be vehicles for investment to extend water systems, there is no historical record of this happening – not even in France or the UK.

Table N° 1. Finance for drinking water and sewerage services in France 2006

	€ millions	Percentage
Private agents	576	12
Local authorities – service budget	2370	49.4
Local authorities – general budget	141	2.9
Water agencies	1161	24.0
Départements	367	7.6
State	121	2.5
Regions	64	1.3
TOTAL all sources	4800	100

Source: Pezon (2009).

In Europe, the use of taxation to finance water infrastructure is now institutionalised at European level through the EU cohesion funds. The EU collects about €20 in taxes from every person in the EU each year to support investment in water and sanitation through these funds, and they remain an important source of finance for investments in central and eastern Europe, as they were in southern Europe during the 1980s and 1990s, where the impact was substantial: in Portugal, for example, the population connected to piped water supply rose from 61% in 1989 to 95% in 1999 (Hall and Lobina, 2008a).

Public finance played the same central role in developing water and sanitation systems in Japan, and in North America. Investment in large-scale capture and storage of water, and flood management, is also carried out overwhelmingly by public investment. Japan's flood management programme continues to attract €9 billion investment from public funds each year. These infrastructure projects have also been key elements in nation-building and economic development: "The United States has invested trillions of dollars in hydraulic infrastructure. While these investments have been recognized as crucial to promoting growth, many of the largest federal investments in US history were made to curb the destructive effects of water, particularly in response to devastating floods. The nation's founders saw investments in water development as a way to bring the nation together". Indeed, the USA uses part of its military, the US Army Corps of Engineers, to carry out and manage much of this investment (Grey and Sadoff, 2007).

The history of water and sanitation in Toronto, Canada, illustrates a typical developmental path. In the early 1870s the growing city suffered from cholera and typhoid due to inadequate sanitation, and the city council, despite an economic recession, not only municipalised the water service, it installed new sewers and made sewerage connections compulsory, for public health reasons, whether householders asked for it or not, financed by the municipality. The benefits were immense: "This unprecedented power... led to tremendous sewer development in the 1880's.....The effects of the typhoid fever epidemic were greatly reduced by the presence of a complete, clean sewage system. At the beginning of the 20th century, most of the streets in the city had been serviced and the operational costs were met through direct taxation" (Pharasi and Kennedy, 2002). The same approach was then taken up across the province of Ontario, where public water systems grew rapidly by the turn of the century. The Public Health Act 1912 enshrined the Toronto principles of public finance and compulsory connection, by giving the provincial board of health the right not only to decide when a water or sewerage system was necessary "in the interest of the public health", but also to require local councils to finance it (Benidickson, 2001). The water and sanitation system of Toronto has continued to be publicly run and financed. As a proportion of the household incomes of Toronto, there is a long-term downward trend, after the peaks in expenditure which were temporarily necessary to construct a comprehensive network (Pharasi and Kennedy, 2002).

General economic advantage of public finance

There are clear economic reasons why public spending has been the preferred method of financing water infrastructure, which are demonstrated in Massarutto's analysis of the Italian water sector (Massarutto, et. al., 2008).

Firstly, the state can finance construction directly from tax revenues, in which case the cost of capital is zero; if it chooses to borrow, as a way of shifting some costs onto future taxpayers, it can do so more cheaply than the private sector, because of the superior security of tax revenues. Private investors not only have to pay higher interest rates, but also face the risk of being unable to secure long-term returns on sunk investments.

Capital costs represent 75% or more of total costs, and so the lower cost of public finance is decisive. The difference in the capital cost between public and private is as large as the total operational cost, in Massarutto's study of Italy. It is therefore impossible for the private sector to offset higher capital costs by comparative savings in operational efficiency (and the cumulative evidence of numerous studies is that the private sector does not, in any case, have any systematic advantage in terms of operating efficiency).<sup>2</sup>

Massarutto's paper also shows a second reason why public finance is needed. Household payments for a service based on full cost recovery by private investors, would represent 3.8-5.0% of income for low income households, even in relatively rich regions of a high income country such as Italy. A true consumer market would result in far less than 100% coverage, and commercial operators would not offer to provide service to customers whose ability to pay a high fixed cost is unreliable.

A third reason is pointed out by Günther and Fink (2010): the health benefits of water and sewerage connections are social rather than private, and so the willingness of individual consumers to spend on these services will be below the socially optimal level. For the social benefit to be realised, connection must be compulsory, not optional – as illustrated by the case of Toronto (above).

**Financing water and sanitation services in developing countries**

Since 1990, the central model promoted by the World Bank and other international agencies has been of the private water company investing, developing and operating water and sanitation services in middle and low income countries. It is now generally agreed that this experiment has failed to generate significant amounts of private investment, and that there has been almost universal public resistance to private companies. A World Bank research paper in 2006, reviewing actual private investment in infrastructure in developing countries between 1983 and 2004, concluded:

PPI [private participation in infrastructure] has disappointed - playing a far less significant role in financing infrastructure in cities than was hoped for, and which

---

<sup>2</sup> There is a large literature on this subject, covering other infrastructure sectors as well as water.

might be expected given the attention it has received and continues to receive in strategies to mobilize financing for infrastructure (Clarke Annez, 2006; Marin, 2009; Hall et. al., 2005; Gassner et. al., 2009).

### Financing water and sanitation infrastructure in Africa

The World Bank-AFD 2010 report on ‘Africa’s Infrastructure’ provides data on the relative contribution of different sources of finance to the provision of water and sanitation services. These sources are: public sector, aid from OECD countries (ODA), aid from non-OECD countries (such as China), and the private sector (PPI, or private participation in infrastructure). Data is based on averages for the years 2001-2006 (World Bank-AFD, 2010).

All operational expenditure is financed through the public sector. For capital expenditure alone, aid is more important than public spending. Aid from OECD countries, at about \$1.23 billion per year, is about 15% greater than the public sector finance. Aid from non-OECD countries, such as China, is much smaller. The overall totals show that about 80% of all finance (excluding household spending, see below) comes through the public sector.

In low income countries, the contribution of aid to capital investment is about three times as great as the public sector. The public sector is more important in middle income countries, and most of all in resource rich countries, where its contribution is three times greater than aid. In all countries, the contribution of non-OECD aid is smaller than either OECD aid or the public sector, though it is many times larger than the contribution of the private sector. It is relatively largest in resource rich countries, reflecting the preference of southern donors for focussing aid on these countries. **In all groups of countries, and in sub-Saharan Africa as a whole, the private sector contribution is close to zero.**

The table includes an additional figure of \$2.13 billion per year of ‘household self-finance’. This represents a very rough estimate of spending by private households on sanitation, derived from household survey data. It is very doubtful whether private spending on household toilets should be classified as infrastructure spending, and household spending is a different category from corporate investment. It is probable that the figure is included in order to boost the apparent contribution of the ‘private’ sector, and it is certainly highly misleading to combine it with the PPI data, as one of the figures in the report does.<sup>3</sup>

---

<sup>3</sup> See World Bank/AFD, 2010: 329: “No reliable data exist on sanitation expenditures because individual households undertake so much of the expense. However, recent investment can be estimated from household surveys”. These estimates of household spending are shown separately in table 16.6. However, in table 0.4 of the report, this estimate is combined with the \$0.01billion attributable to PPI, under the generic heading ‘private’. In figure 2.1, this combined figure is presented in bar-charts as attributable to ‘private participation in infrastructure’, which is an error.

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

Table N° 2. Financial flows to water and sanitation in sub-Saharan Africa  
 USD \$billions per year

Country category	O&M		Capital expenditure					Total
	Public sector	Public sector	ODA	Non-OECD financiers	Private sector (PPI)	Household self-finance	Total capex	
Sub-Saharan Africa	3.06	1.06	1.23	0.16	0.01	2.13	4.58	7.64
Low-income fragile	0.13	0.03	0.11	0.02	0.00	0.16	0.32	0.45
Low-income non-fragile	0.30	0.25	0.78	0.05	0.00	0.45	1.54	1.83
Middle income	2.17	0.15	0.10	0.01	0.00	0.21	0.47	2.64
Resource rich	0.15	0.72	0.24	0.08	0.01	0.52	1.57	1.72

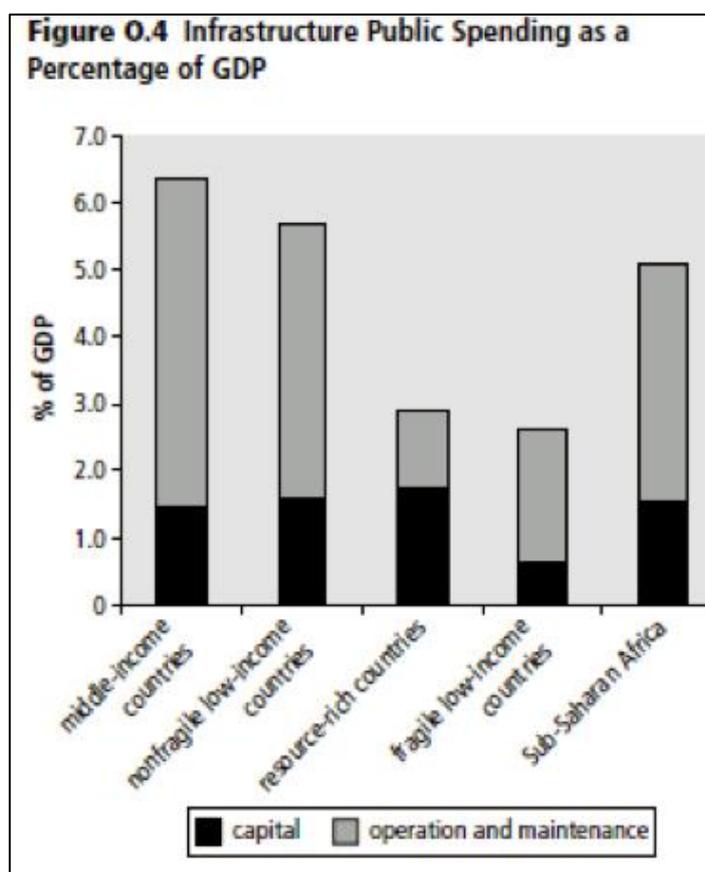
Source: World Bank-AFD, 2010, Table 16.6

The report also covers other sectors, including energy, transport and communications. Three general findings were that finance is predominantly African, not external; public, not private (except in telecoms); and through central government, not local.

Overall, it noted that in general “spending on infrastructure in Africa is higher than previously thought, amounting to \$45 billion per year”. Most of it is paid for by Africans: “two-thirds of this overall spending is domestically sourced: \$30 billion of annual spending is financed by the African taxpayer and infrastructure user, and a further \$15 billion is from external sources”. Thus external aid and FDI supplement, rather than dominate investment. It also notes that “The public sector remains the dominant source of finance for water, energy, and transport in all but the fragile states”. **The private sector makes no significant contribution to infrastructure investment in Africa except in telecoms** (World Bank-AFD, 2010: 8).

It further notes that “Public investment is largely tax financed and executed through central government budgets, whereas the operating and maintenance expenditure is largely financed from user charges and executed through state owned enterprises.” (World Bank/AFD 2010 p.8) Thus the key channels of public finance are through central government and the public sector – in contrast to the model at the centre of the OECD/World Bank approach, which focuses on municipal finance and private sector operators.

Chart A. Public spending on infrastructure in Africa as % of GDP



Source: World Bank/AFD, 2010.

### Investment in Asia

There is no comparable recent international study on financing of infrastructure in South Asia. Another World Bank study in 2006 estimated that investments in infrastructure in South Asia were about 12% financed by the private sector and 88% by the public sector. This was estimated by valuing changes in infrastructure stocks, and netting out the portion that was financed by the private sector, giving estimates of around US\$24.4 billion per year in public investment and US\$3.2 billion in private investment (Chatterton and Puerto, 2006). But data from India shows that this estimate certainly overstates the role of the private sector.

There is a wealth of information on the financing of infrastructure investment in India, in the reports of the Indian Planning Commission. This provides a breakdown by sector – electricity, roads, telecoms etc. – and by the source of financing, under three headings: central government, state government and private sector. The private sector is the greatest source of investment finance in telecoms (82%), and also a large proportion

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

of investment in electricity (44%), but in roads and rail its contribution is very small (16% and 4% respectively). In water supply and sanitation, there has been investment of over USD \$22 billion in the 5-year period 2007-2012- however, the contribution of the private sector is only 0.4%.

Table N° 3. Financing of water and sanitation investment, India, 2007-2012  
 Currency converted at R50=\$1

	<b>R crore</b>	<b>US\$ million</b>	<b>% of total investment</b>	<b>% of GDP</b>
Water Supply & Sanitation	111689	22338	100	0.41%
<i>Of which:</i>				
Central government	43235	8647	38.7	
State governments	67971	13594	60.9	
Private sector	484	97	0.4	

Source: Government of India, 2007: 55-56.

Difference from usual estimates

This distribution differs from that generally used in global discussions of water finance. These typically assume a much larger role for the private sector – local and international: for example, a recent article estimated that globally, local and international private companies were delivering 25% of investment in water and sanitation in developing countries in 2005 (Jimenez and Perez-Foguet, 2009). But it is consistent with the history of investment in water.

Before the promotion of the private sector began in the 1990s, public sector investment in developing countries used to be at a much higher level. During the 1990s this dropped sharply: in Latin America, public sector investment in infrastructure dropped from 3% of GDP to 0.8%. A World Bank study concluded that the promotion of privatisation was itself a causal factor: “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.” Moreover, private sector investments were heavily skewed away from the areas of greatest need – Africa and South Asia – and in sectors other than water: the bulk of private investment went to energy and telecoms in Latin America, East Asia and Eastern Europe (Briceño-Garmendia et. al., 2004).

## **The effects of the crisis**

### Economic crisis, fiscal stimulus, economic growth and aid

The crisis has done much less damage to African economies than it has to northern countries. The region as a whole did not even experience a contraction in 2009, when GDP growth overall was 2%; the IMF forecasts that in 2010 there will be growth of 4.7%, and in 2011 growth of 6% in GDP.

This is partly due to the use of fiscal stimulus packages, which included increased plans for public infrastructure spending, and have been strongly praised by the IFIs: “stimulus packages have been managed successfully without major impact on debt, and have increased the scale of public investment in infrastructure and the credibility of public spending on infrastructure” (IMF, 2010). There is no pressure from the World Bank or the IMF to make cuts to reduce these deficits, unlike the situation in Europe. The World Bank’s Global Economic Prospects 2010 says: “The need to unwind stimulus measures among developing countries is generally less pressing; because both fiscal deficits and debt-to-GDP ratios are much lower” (World Bank, 2010: 5-6).

This is despite the fact that the stimulus packages were large: public spending plans were increased by 5% of GDP above the average level of the 2003-2007 period, with higher levels of spending on health and education in low income countries, even in 2009 (IMF, 2010a).

African governments are also confidently planning to finance their deficits by borrowing, including issuing bonds. Both Kenya and Tanzania plan to issue €500 million in bonds, Uganda plans a similar issue aimed at national rather than international investors. This policy is supported by a longer-term trend since 2000 for developing country governments being able to borrow money more cheaply, compared with rich countries. According to an IMF study, the spreads and effective interest rates paid by these governments has fallen in the last decade, so the cost of borrowing is lower (IMF, 2010:b).

Public spending as a percentage of GDP has increased across Africa as a whole, and remains above pre-crisis levels. The IMF forecasts GDP growth of 6% in 2012, so the actual volume of public spending will be significantly higher – about 10% higher in 2011 than in 2008, in real terms (IMF, 2011).

Table N° 4. Public spending as % of GDP in sub-Saharan Africa 2006-2012

	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Africa	24.8	26.6	27.8	29.8	30.3	29.2	28.4

Source: IMF, 2011.

# WATERLAT-GOBACIT Network Working Papers

## Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and Essential Public Services – Vol. 3, N° 5

Castro, José Esteban (Ed.)

### Aid trends: OECD and non-OECD

The trend in aid spending by OECD donors depends on the outcome of policy decisions on public spending cuts as part of the austerity policies being adopted. In the water sector, OECD figures show a rise in commitments of ODA for water in 2009, but a sharp drop in 2010, to levels below those of 2008. Given the political pressure for austerity policies, and the fact that developing countries are growing much faster than OECD countries, it is certain that aid from OECD countries will decline as a proportion of GDP of recipient countries.

Table N° 5. Aid by OECD donor countries – water, 2005-2010 (US\$ millions)

	2005	2006	2007	2008	2009	2010
ODA commitments	4567.41	3958.85	4412.24	5817.91	6513.57	5249.65

Source : OECD, 2010b.<sup>4</sup>

Non-OECD aid is concentrated on countries with natural resources. Thus the main beneficiaries of Chinese infrastructure finance to the sub-region are Nigeria (34 per cent), Angola (20 per cent), Ethiopia (10 per cent) and Sudan (8 per cent). China's aid is focussed on infrastructure, although water is a relatively small element: "about 54 per cent of China's support to Africa over the period 2002–2007 was in infrastructure and public works. It is estimated that Chinese infrastructure finance commitments rose from \$470 million in 2001 to \$4.5 billion in 2007. With regard to sectoral distribution, 33 per cent of Chinese infrastructure finance to sub-Saharan Africa over the period 2001–2007 went to electricity, 33 per cent to transport, 17 per cent to ICT, 14 per cent to general projects and 2 per cent to water" (Lum et al., 2009, cited in UNCTAD, 2010). Thus China's aid to water in Africa is around \$90 million per annum. This confirms the findings of the Africa infrastructure review: **Chinese aid to water in Africa is eight times greater than the contribution of the world's private sector.**

An UNCTAD report does not expect the crisis to necessarily have a negative effect on aid from non-OECD countries: "For example, since the onset of the crisis, China has stepped up rather than reduced its economic engagement in African countries. In particular, it has promised to increase support to Africa. Brazil, India and the Republic of Korea have also signalled their intention to provide more support to the region in the coming years. Although the financial and economic crisis poses challenges for Africa–South cooperation, it also presents opportunities for Africa and could have a positive effect on Southern support to the region through two channels. First, to the extent that it has reduced growth prospects, it may create an incentive for Southern partners to pay more attention to the effectiveness of their support and so maximize its development

<sup>4</sup> Query generated at <http://stats.oecd.org/qwids/#?x=1&y=6&f=3:40,4:1,5:4,2:1,7:1&q=3:51,40+4:1+5:4+2:1+7:1+1:2+6:2005,2006,2007,2008,2009,2010>.

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

impact in the region. Second, the crisis could also increase Southern solidarity and the need to enhance economic and development cooperation as a mechanism for weathering the impact of the global slowdown in developing countries” (UNCTAD, 2010).

Chart B. Non-OECD aid to Africa, 2006

Country	\$ millions
South Korea	47.8
Turkey	24.9
Arab countries	290.2
China	2300
India	11.3
Brazil	96.1
Total	2770.3

Source: UNCTAD, 2010, Table 6.

### Costs and affordability

#### Costs and benefits

The starting point for any question of affordability is costs. The table below shows the most recent comprehensive costings published by the World Health Organisation (WHO) for developing countries. The table shows that the cost of full household connections is roughly double the cost of basic ‘improved’ connections. Using the costs for full household connections, the table shows that all developing countries could achieve MDG levels of coverage using full household connections for both water and sewerage for a cost of \$35 billion per year over 10 years.

Table N° 6. Costs of meeting MDGs plus urban sewerage connections

Urban and rural. US\$ billion, 2005 prices	Total costs to achieve MDG targets	Average annual cost over 10 years
	Water and sanitation	Water and sanitation
<b>WHO base case: low-cost improvements</b>		
<i>Costs of new coverage inc O&amp;M</i>	184	18
Extra cost of household connections: \$bn.	143	15
<i>Total costs of new coverage inc O&amp;M</i>	327	33
Extra cost of PSIRU urban sewerage target	22	2
<i>Total costs of coverage inc O&amp;M</i>	349	35

Source: WHO 2008, PSIRU calculations.

### **WATERLAT-GOBACIT Research Network**

5th Floor Claremont Bridge Building, NE1 7RU Newcastle upon Tyne, United Kingdom

E-mail: [waterlat@ncl.ac.uk](mailto:waterlat@ncl.ac.uk) – Web page: [www.waterlat.org](http://www.waterlat.org)

The relative health benefits of household connections has been confirmed by a number of studies. A study of the installation of household sewerage connections in the city of Salvador, Brazil found a 20% fall in child morbidity.<sup>5</sup> Studies by Günther and Fink found that household water connections reduced episodes of diarrhoea twice as much as a shared pipe, and household toilets by three times as much as shared public facilities. This translates into big differences in mortality rates: household water connections and flush toilets lead to an average mortality reduction of 25 deaths per 1000 live births, whereas ‘improved’ water and sanitation technology (such as public water pumps and ventilated improved pit latrines) only lowers child mortality by 8 deaths per 1000. The effect of household connections is also longer lasting, because the technology is more durable. This impact of full household connections would by itself achieve 41% of the improvement in child mortality needed to meet the MDG for child mortality rates (Günther and Fink, 2010, 2011).

Purely in economic terms, these benefits are larger than the costs of the investments. Günther and Fink calculate each year of life saved by water and sewerage connections costs less than the economic output per person per year for the great majority of developing countries (as measured by GDP per capita). They also found that full household connections are more cost-effective than just ‘improved’ sanitation because of the long-lasting nature of the infrastructure and its effects (Günther and Fink, 2011). In this sense, countries cannot afford not to make these investments - a country which does not do so would be worse off overall. The WSP now estimates that in India the health and economic damage of inadequate sanitation is equivalent to 6.4% of GDP, six times the estimated cost of dealing with it. The WSP adds that making this investment: “will also result in a huge economic benefit in terms of a large sanitation market” (Costain, 2010).

---

<sup>5</sup> For this and other references see Hall and Lobina 2008b: 11.

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

Table N° 7. Cost per life-years saved as % of GDP per capita, selected African countries (full household connections water and sewerage.)

Country	Cost per life year saved as % of GDP per capita	Country	Cost per life year saved as % of GDP per capita
Benin	0.722	Malawi	0.827
Burkina Faso	0.380	Mali	0.528
Cameroon	0.273	Mozambique	0.359
Chad	0.205	Namibia	0.310
Congo, Rep.	0.299	Niger	0.675
Gabon	0.150	Nigeria	0.228
Ghana	0.843	Senegal	0.283
Guinea	0.205	Swaziland	0.116
Kenya	0.605	Tanzania	1.125
Lesotho	0.644	Uganda	0.753
Liberia	2.898	Zambia	0.283
Madagascar	2.164	Zimbabwe	0.855
<b>Average = 0.655</b>			

Source: Günther and Fink, 2011, Table 10.

Most of these benefits come in the form of externalities, however, and realised over a longer time period, so that they are not enjoyed by the investor, but by society and the economy in general. A 2009 private sector report on global water economics by McKinsey analyses investment requirements in the water sector, and identifies agricultural schemes and industrial efficiency schemes as areas where there may be sufficient short-term returns for private investment. Water supply to households is in a different category:

[...] in many cases the measures with long payback periods—many of them supply infrastructure—are also the most capital intensive ones. This likely indicates that those measures will not attract private sector capital, requiring the financial burden to fall fully on the public sector (McKinsey & Co., 2009: 98).

Some commercial investment and activities may also have detrimental effects on overall welfare. For example, manufacturers of commercial drinks may invest in promotions which effectively encourage the purchase of sweetened drinks rather than plain water and thus have a damaging effect on public health. Coca-Cola has been reprimanded for this in the UK, where it showed a television advertisement with the slogan ‘for people who don’t like water’. The advertising standards authority upheld

**WATERLAT-GOBACIT Research Network**

5th Floor Claremont Bridge Building, NE1 7RU Newcastle upon Tyne, United Kingdom

E-mail: [waterlat@ncl.ac.uk](mailto:waterlat@ncl.ac.uk) – Web page: [www.waterlat.org](http://www.waterlat.org)

complaints: “the overriding theme of the ad was the characters rejection of water... we concluded that the ad was irresponsible and could discourage good dietary practice” (ASA, 2008). Commercial bottled water is an economically inefficient and environmentally harmful way of distributing water. The inefficient form of transport makes it far more expensive per litre to consumers, as well as generating plastic waste and consuming large amounts of energy in its production. In a number of cities, including Paris, public authorities are actively trying to discourage the use of bottled water, even to the point of experimenting with providing sparkling water through public drinking fountains (The Guardian, 2010). Consumers can thus have more to spend on other products.

#### Affordable economic resources

The next level of affordability is to assess what the implications are in terms of the resources available in the whole economy, usually measured by GDP. This is a constraint, which at the extreme means that programmes of investment whose annual costs exceed 100% of GDP cannot be carried out, whatever the cost-benefit ratios. The real constraints are far below this point, but for poor countries the constraints are worse, because a given investment programme represents a larger share of GDP. So the next step is to calculate what the costs are as a proportion of GDP. It does not matter, for these purposes, whether the necessary investment is financed by consumer spending, government spending or corporate spending (or even aid) – all of this is part of GDP. This issue is important, because the majority of official and donor publications on water assert or assume that the level of investment – especially in household water and sewerage connections – is unaffordable. The UN’s World Water Development Report (WWDR) is typical. It argues that the option of full household connections to sewers and water supply cannot and will not be financed, because the cost of achieving these gains is “above income levels in developing countries” (UN, 2006: 419).

The tables below shows two recent sets of estimates for the costs of water and sanitation investments. The first was part of an OECD project estimating investment needs in infrastructure sectors, based on collecting a range of country level estimates of actual investments (Cashman and Ashley, 2008). The second was a PSIRU report on sewerage, examining the costs, benefits and affordability of household connections to sewerage systems (Hall and Lobina, 2008b). The OECD was mainly concerned with the “enormous implications in terms of the ability of service providers for their business models and in raising the necessary finances”, while the PSIRU paper was focussed on the macro-economic feasibility of financing household connections over a 10 year programme for all developing countries, based on household connections required, WHO cost estimates, and actual GDP.

Both studies arrived at similar estimates of the proportion of GDP required. They are very close for low income countries, where the OECD range is between 0.71% and 6.30% of GDP, and the PSIRU estimates range from 0.64% to 6.29%. For middle income

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

countries the PSIRU range is lower: 0.11% to 0.89%, compared with the OECD range of 0.54% to 2.60% (Table 8).

The PSIRU estimates provide specific figures at country level, covering the great majority of developing countries. The second table shows the estimated costs for full household connections in countries containing nearly 90% of the population identified by the MDGs, if developed rapidly in a 10-year programme. The costs are less than 1% of GDP per annum for 13 of these countries; and less than 0.5% in 8 of these (Table 9). In only two countries – DR Congo and Ethiopia – do the costs exceed 1.5% of GDP.

Table N° 8. Required levels of spending on water infrastructure, % of GDP

	OECD range	PSIRU range
Low income countries	0.71% - 6.30%	0.64% - 6.29%
Middle income countries	0.54% - 2.60%	0.11% - 0.89%
High income countries	0.35% - 1.20%	-

Sources: Cashman and Ashley 2008; Hall and Lobina 2008.

Table N° 9. Costs of meeting MDGs in 10 years with household water and sanitation connections

2006 GDP and prices; annual cost = total cost/10, assuming 10 year programme, no borrowing.

L=lower income, ML=lower middle income, MU=upper middle income

	Income group	Annual cost \$m.	Annual cost as %GDP
China	ML	7878	0.30
India	L	5764	0.64
Indonesia	ML	2291	0.73
Brazil	ML	1881	0.21
Nigeria	L	1364	1.48
Philippines	ML	1069	0.89
Pakistan	L	1000	0.82
Bangladesh	L	855	1.22
Iran	ML	790	0.38
Congo DR	L	485	6.29
			as % of global GDP
All developing countries		34900	0.08%

Source: Hall and Lobina, 2008b.

The affordability of this can be assessed using various criteria. Judged in the context of economic growth, it is a relatively small proportion of annual expected growth rates, and so does not even require cutbacks in existing consumer or public spending. As noted above, sub-Saharan African countries are expected to grow at a rate of 4% per annum or more, even after the economic crisis; Latin American countries at a similar rate; and Asian countries at around 7% per annum. China, India and Brazil are already achieving growth rates of nearly 10% in 2010. The cost of completing household connections for water and sewerage in 10 years can thus be met by using less than a quarter of annual growth, in nearly all countries. This still leaves ample room for investment in other infrastructure such as electricity, as well as continued growth of consumer spending.

Judged against the history of national investment in infrastructure, it is not an unreasonable level. The average level of public investment in developing countries as a whole on all infrastructure has varied between 7% and 10% of Gross National Income (GNI) over the last 35 years, and is generally considered to be too low. Spending less than 1% on new investment in water and sanitation is not therefore an excessive burden (Roy, et. al., 2006).

For India, the data from the Indian Planning Commission shows that over the period 2007-2012, actual investment in water and sanitation infrastructure has averaged 0.41% of GDP. Investment in all infrastructure in India has averaged 7.5% of GDP during that period, with the public sector financing nearly two-thirds of that, nearly 5% of GDP (Government of India, 2007: 6-7). There is evidence from national budgets that China and Brazil are already making the necessary levels of investment (Hall and Lobina, 2008b). In terms of actual practice, it is clear from the latest JMP report that many countries are in fact already investing the necessary amount to achieve full household connections (see next section). As the review of investment sources makes clear, this investment is being funded from public finance, not private capital.

The requisite levels are thus not only affordable, they are affordable for the great majority of countries *out of national economic resources alone, without need for government borrowing, and even if there were no assistance from donors at all.*

There remains a clear role for aid in those few countries where the costs exceed 1% of GDP per annum. The table shows what would be needed if aid is focussed so that it covers costs in countries where the investment needed exceeds 1% of GDP, then the annual total aid required would be around \$2.2 billion per annum. This is less than half current aid on water and sanitation, and the equivalent of only about \$6.50 per person per annum in high income countries (Table 9) (Hall and Lobina, 2008b).

Table N° 10. Level of aid needed for household water and sewerage connections to cover countries with annual costs of over 1% of GDP

Country	Annual cost as %GDP	Aid needed to cover spending >1% of GDP (\$m.)
Nigeria	1.48	440
Bangladesh	1.22	156
Congo DR	6.29	408
Sudan	1.18	53
Ethiopia	2.37	177
Other developing countries	>1.0	1002
TOTAL for all developing countries		2236

Source: Hall and Lobina, 2008b.

### Connections, not improvements

The Millennium Development Goals (MDG) set targets for water and sanitation in developing countries, to be achieved by 2015. Remarkably, the MDG for drinking water has already been achieved, 5 years ahead of target. By 2010, only 11% of the world's population were using 'unimproved' water sources, compared with the MDG target of less than 12%.

Although the MDGs were expressed only in terms of 'improved' sources, it is also clear that developing countries themselves are mainly seeking and achieving household connections. In the last 20 years, two-thirds of the advances in water systems in developing countries consisted of new household connections, rather than 'improved sources'. Between 1990 and 2010, a period of 20 years, more than 1.26 billion people worldwide gained access to a piped connection on the premises, equivalent to the combined populations of all OECD countries, including all of Europe, North America, Japan and Korea. This is an astonishing achievement in such a short period. Developing countries have also provided 'improved' sanitation for an extra 1.6 billion people, covering 56% of the population in all. This falls short of the MDG target of 75%, and there is no data on household sewerage connections as opposed to "improved" (JMP, 2012).<sup>6</sup>

<sup>6</sup> This result means that people have gained access to some kind of improved water source at an annual rate of nearly 100 million per year. This compares with the slightly higher annual rate of 110 million per year in the international decade of water in the 1980s, which involved only the public sector and governments, and was generally derided as a failure by the World Bank and others (according to Cashman and Ashley, 2008).

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

Table N° 11. Household piped water connections and MDGs: developing regions

Year	Population with household piped connection		Population with 'improved' water source		Population with 'improved' sanitation	
	%	Millions	%	Millions	%	Millions
1990	32	1,324	70	2,896	36	1,489
2010	46	2,589	86	4,840	56	3,152
Change (nos)		1,265		1,944		1,662
Change %		96		67		112

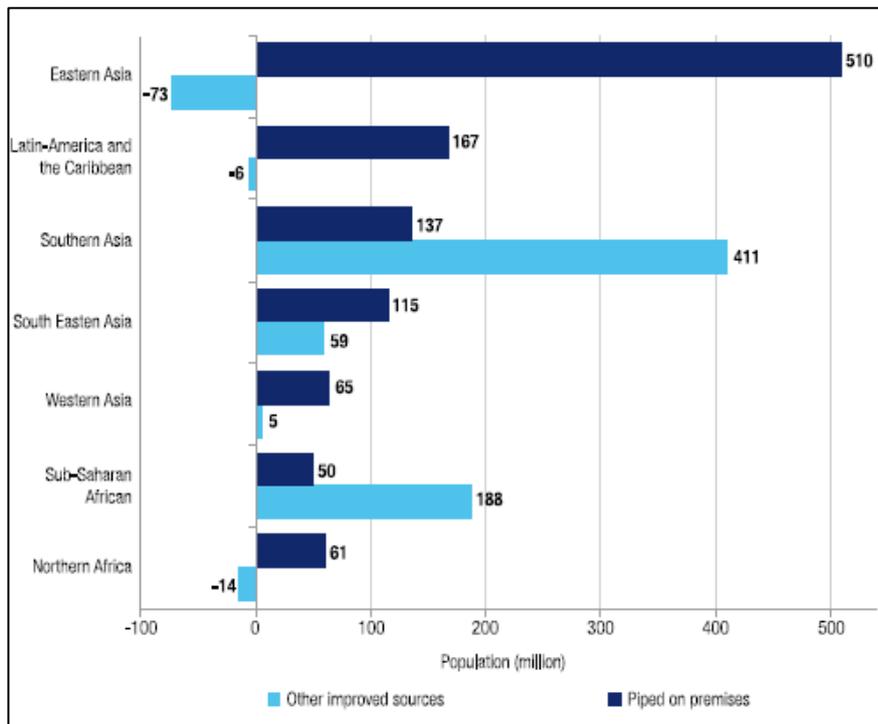
Source: JMP, 2012.

There are regional differences. In Eastern Asia (overwhelmingly China), Latin America, West Asia and North Africa progress was exclusively the result of increases in piped water connections on premises, while the number of people with an 'improved' source actually declined by 93 million (Chart D). In these regions, the percentage of the entire population with piped household water connections is already close to the level of 92% in high income countries. The corresponding connection rate is 70% in China and 83-86% in Latin America, West Asia and North Africa. The level of piped household water connections in Latin America, at 86%, is virtually identical to that of Canada, at 87%: Brazil (92%), and Chile (93%) are doing better than Canada.

There is also a predictable difference between urban and rural areas. Overall, 73% of the urban population of developing countries now gets piped water from a household connection, compared with 24% of rural inhabitants. In this too there is a regional disparity: in Sub-Saharan Africa, 34% of urban population have piped connections, compared with only 5% of the rural population (JMP, 2010, 2012).

Various factors may explain the regional differences, most obviously the lower level of GDP per capita in South Asia and sub-Saharan Africa. This suggests that affordability at the national level is a constraint. It also suggests that the activities of donors and development banks have, at the very least, failed to improve the position of poorer countries in these regions, and that this may be due to the inappropriateness of the financing model they have advocated over the previous 20 years.

Chart C. Population gaining piped household connections or ‘improved’ sources 1990-2008



Source: JMP, 2010.

## Discussion and conclusions

### Divergence from reality

The preceding sections have set out recent evidence on the sources of finance for investment, the implications of the crisis for future finance, the affordability of MDG targets and household connections, and the actual trends in access and household connections. This evidence shows a different picture from that presented by reports from the major international institutions. Investment is taking place – but financed by national public finance, not private investors, nor mainly by aid. The impact of and response to the crisis is likely to reinforce this pattern, with national tax revenues able to grow along with southern economies, while northern aid and corporate investment is threatened. The cost of MDG targets is affordable for the great majority of developing countries, as long as this is done through taxation not user charges. The MDGs are in fact being met, at least in water, and mainly through household connections, not ‘improved’ sources.

This reality contrasts sharply with the view presented by the great majority of official international donor publications. For example, the 2010 OECD paper on

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

‘innovative financing mechanisms’ asserts that: ‘the water and sanitation sector is seriously under-financed in many countries, leading to the deterioration and potential collapse of the infrastructure’ (OECD, 2010c). But as the latest JMP report makes clear, the MDGs for water will be met, and with a much higher level of household connections than envisaged by the MDGs themselves. The infrastructure, far from collapsing, is being extended faster and on a larger scale than envisaged by international recommendations.

The OECD paper follows this wildly incorrect statement with the advice that ‘in the long-run, structural reforms are needed to improve the sector’s revenue generation potential so as to fill the financing gap. In the short to medium term, access to repayable finance (such as loans, bonds and equity) will be critical so as to bridge the financing gap... innovation is required so as to increase the attractiveness of the sector to providers of repayable finance, particularly those bringing private sector funds’ (OECD, 2010c). But there is not a great financing gap: infrastructure is being built – by national governments, using public finance. Growth rates mean that adequate economic resources will be available to build more, using public finance, and there is a definable ‘gap’ in the poorest countries which could be filled by aid – but not, certainly, by private capital in search of an attractive return. History confirms that very little investment in water and sanitation has ever been financed this way. The OECD advice is therefore dangerously misleading. The OECD paper goes on to admit that ‘public financing has come back to the fore as a significant source of investment’, but even then offers the policy advice that ‘it will be important to evaluate how public financing can be used in an optimal manner so as to leverage repayable finance from the market’ (OECD, 2010c).

The calculations set out above on affordability challenge the common donor view that developing countries are economically unable to develop the service themselves without aid and FDI from the north. For example, the World Water Development Report 2006 claimed that “In many nations, at least in the next five to ten years, it will not be possible for the provision deficiencies in most urban areas to be addressed by the conventional model of a (public or private) water utility extending piped water supplies and sewers to individual households” (UN, 2006: 419). This has turned out to be wrong: the JMP evidence shows not only the scale and pace of new investments, but also that household connections are central. The WWDR also made the Malthusian claim that: “population growth and burgeoning water demand have convinced most policymakers that the cost of water system development will increasingly have to be met by users” (UN, 2006: 419), but these policy-makers were wrong: even in Africa, nearly all the investment in the water sector is being financed from taxation, either national or indirectly via aid. Even in Kampala, Uganda, where the water service is run as a commercial venture and is held up as a model, the company relies on government finance from tax revenues for any new investment.<sup>7</sup>

The framework used by donors and international institutions is now sharply different from the reality of water and sanitation services in developing countries. The key features of this divergence are set out diagrammatically in chart D. While the development of water and sanitation services is actually based on public finance, the

---

<sup>7</sup> William Murhaiwe, CEO of NWSC Uganda, speaking at the World Water Forum Istanbul, March 2009.

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

World Bank/donor model continues to focus repeatedly on private investment and a role for private finance. The overwhelming majority of operators are public sector, while the donors focus on operating and pricing techniques for private, or commercialised, companies. Household connections to piped water and sewerage are considered too expensive, while developing countries use them as the main way forward. Finally, the World Bank/donor model sees policy as led by international donors, whilst in practice many national governments are developing their own policies as independent countries – reflecting the reality that they are also providing the great majority of the finance, as well as a more fundamentally democratic approach.

Chart D. Two models: donor/private/improved vs. National/public/household connections

	<b>WORLD BANK/DONOR MODEL</b>	<b>NATIONAL MODEL</b>
<b>Finance</b>	Private + aid	Public + aid
<b>Operation</b>	Private	Public
<b>Access type</b>	Improved	Household connection
<b>Leading role</b>	Donors, banks, companies	National governments
<b>Location focus</b>	Rural	Urban

A national framework

This national framework corresponds with a new – or revived – view of the role of the state in development. It is already very clear in Latin American countries, India, China and other Asian countries, where the role of the state in investing in infrastructure is explicitly recognised as a central element in development and economic growth. It is now also being articulated in Africa, by leading politicians and officials, in terms which include an explicit rejection of the role of donors and the role of the market, in favour of a restored strong role for the state. Two examples of this are worth quoting.

President Museveni of Uganda articulated an emphasis on national decisions, public finance, and relegation of the role of donors, in a speech to the meeting of the Organization of African Unity (OAU) in July 2010:

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

Our countries will not have the necessary money without adequate tax collections... One cause of failure to develop infrastructure in Uganda was depending on foreign borrowing or grants. The foreign lending Agencies either do not know or do not care to find out the magnitude of needs Africa has. .... During the time I have been in Government, I have discovered that depending on external funding for infrastructure development (grants and loans) is very dangerous. .... The money begged for or borrowed from outside is too little, very unreliable and too slow in coming to be able to help us in dealing with infrastructure.<sup>8</sup>

Louis Kasekende, Chief Economist of the African Development Bank Group, made a deeper presentation of the issues at a conference in August 2009:

...the crisis should be grasped as a turning point in the development path of developing countries, particularly here in Africa. In order to overcome the continent's structural constraints and reduce its external dependence, it is necessary to reconsider the role of the state. The market only works through incremental changes and small steps. However, developing countries need to stimulate investments by socializing risk, in order to achieve long-term structural transformation.... macroeconomic policies across the developing world during the last several decades have been strongly influenced by the recommendations of the international finance institutions and bilateral aid donors who, in turn, were heavily influenced by the neoclassical school..... As argued by several scholars, the reforms based on this approach have largely failed to develop the private sector as the driving force for development. I thus want to table for your consideration the need for a marked change in the approach to macroeconomic policies across the developing world and for one that recognizes that government has a vital role to play in restructuring the economy and in creating the conditions for a 'take-off' into sustained growth..... Since economic development is about societal transformation, and not simply a technical economic problem to be left to economists, then governments must also act to ensure that the costs and benefits of adjustment are distributed in an equitable and socially acceptable manner.<sup>9</sup>

---

<sup>8</sup> Speech By H.E. Yoweri Kaguta Museveni President of the Republic of Uganda At the Opening of The African Union Summit Theme: Maternal, Infant and Child Health and Development in Africa 25th July 2010 Commonwealth Resort, Munyonyo, Kampala  
<http://www.mediacentre.go.ug/details.php?catId=6&item=946>.

<sup>9</sup> Extracts from "Public Policy and Economic Development in Africa" Speech by Mr Louis Kasekende, Chief Economist, African Development Bank Group, 65th Congress of the International Institute of Public Finance August 13, 2009, Cape Town, South Africa [www.iipf.org/speeches/Kasekende\\_2009.pdf](http://www.iipf.org/speeches/Kasekende_2009.pdf).

Policy conclusions

Finally, some policy conclusions may be drawn for both developing countries and donors. Developing countries should continue to plan for development of household water and sewerage connections. The important financial issue is to ensure that sufficient taxes are raised to finance the programme. Attempts to finance it through user charges recovering costs, or attempts to involve the private sector in investment, are likely to be expensive irrelevances that will slow down achievements. Countries such as Indonesia and Philippines need to develop major public infrastructure spending programmes.

Donors should stop encouraging countries to try to finance development of sewerage systems through cost recovery from users, and stop encouraging countries to believe that the private sector will make any significant contribution to investment in sanitation. They should instead help countries to build the taxation capacity needed to finance this investment, and focus aid on the countries in greatest need of assistance, in particular African countries, led by the Democratic Republic of Congo.

## References

[All the weblinks listed below were consulted in 2012].

ASA – Advertising Standards Authority (2008), Adjudication on Coca-Cola, Great Britain, 8 October 2008. [http://www.asa.org.uk/Complaints-and-ASA-action/Adjudications/2008/10/Coca\\_Cola-Great-Britain/TF\\_ADJ\\_45117.aspx](http://www.asa.org.uk/Complaints-and-ASA-action/Adjudications/2008/10/Coca_Cola-Great-Britain/TF_ADJ_45117.aspx).

Barraqué, Bernard (2007) “Small Communes, Centralisation, and Delegation to Private Companies: The French Experience”, *Journal of Comparative Social Welfare*, 23:2, 121-130.

Benidickson, Jamie (2001), *The Development of Water Supply and Sewage Infrastructure in Ontario, 1880-1990s: Legal and Institutional Aspects of Public Health and Environmental History. A Background Paper for the Walkerton Inquiry*. Ottawa: University of Ottawa. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.603.4978&rep=rep1&type=pdf>.

Briceño-Garmendia C., Antonio Estache, Nemat Shafik (2004). *Infrastructure Services in Developing Countries: Access, Quality, Costs and Policy Reform*. INFVP World Bank Policy Research Working Paper 3468, December 2004.

Cashman, Adrian, and Richard Ashley, (2008) “Costing the long-term demand for water sector infrastructure”, *Foresight*, (10)3, pp. 9-26. <http://dx.doi.org/10.1108/14636680810883099>.

Chatterton I., and Olga Susana Puerto (2006), “Estimation of infrastructure investment needs in the South Asia region”, [http://www1.fidic.org/resources/representation/statistics/invest-needs-asia-Inf\\_Investment\\_Needs\\_IC\\_version4.pdf](http://www1.fidic.org/resources/representation/statistics/invest-needs-asia-Inf_Investment_Needs_IC_version4.pdf).

Clarke Annez P. (2006), *Urban Infrastructure Finance From Private Operators: What Have We Learned From Recent Experience?*, World Bank Policy Research Working Paper 4045, November 2006 <http://go.worldbank.org/N7HA8M3E20>.

Costain C. (2010), *The Economics of Sanitation Initiative (ESI), India Impact Study Summary of Findings*.

Foss-Mollan K. (2001), *Hard Water: Politics and Water Supply in Milwaukee, 1870-1995*. Purdue University Press.

Gassner K., Alexander Popov, and Nataliya Pushak (2009). “Does private sector participation improve performance in electricity and water distribution?”, *PPIAF Trends*

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

and Policy Options No. 6. p.49  
[http://www.ppiaf.org/documents/trends\\_and\\_policy/PSP\\_water\\_electricity.pdf](http://www.ppiaf.org/documents/trends_and_policy/PSP_water_electricity.pdf).

Government of India (2007), Report of the Steering Committee on Urban Development for Eleventh Five Year Plan (2007-2012), New Delhi.  
[http://planningcommission.nic.in/aboutus/committee/strgrp11/str11\\_hud1.pdf](http://planningcommission.nic.in/aboutus/committee/strgrp11/str11_hud1.pdf).

Grey D., and C. W. Sadoff (2007), “Sink or Swim? Water security for growth and development”, Water Policy 9, pp. 545–571 <http://doi:10.2166/wp.2007.021>.

Günther I. and Fink G. (2011), “Water and Sanitation to Reduce Child Mortality The Impact and Cost of Water and Sanitation Infrastructure”, World Bank Policy Research Working Paper, No. 5618 [http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2011/03/30/000158349\\_20110330154747/Rendered/PDF/WPS5618.pdf](http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2011/03/30/000158349_20110330154747/Rendered/PDF/WPS5618.pdf).

Günter I and Fink G. (2010), “Water, Sanitation and Children's Health: Evidence from 172 DHS Surveys”, WPS5275 Policy Research Working Paper No 5275, [http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2010/04/19/000158349\\_20100419124219/Rendered/INDEX/WPS5275.txt](http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2010/04/19/000158349_20100419124219/Rendered/INDEX/WPS5275.txt).

Hall D., and E. Lobina (2008a), “Water in Europe”, PSIRU [www.psir.org/reports/2008-01-W-EU.doc](http://www.psir.org/reports/2008-01-W-EU.doc).

Hall D., and E. Lobina (2008b), “Sewerage Works”, PSIRU <http://www.psir.org/reports/2008-03-W-sewers.pdf>.

Hall D., and E. Lobina (2006), “Pipe Dreams”, PSIRU <http://www.psir.org/reports/2006-03-W-investment.pdf>.

Hall D., E. Lobina, and R. de la Motte (2005), “Public Resistance to privatisation in Water and Electricity”, Development in Practice, (5)3-4, pp. 286-316.  
<http://www.psir.org/reports/2005-06-W-E-resist.pdf>.

International Monetary Fund (IMF) (2008), World Economic Outlook Update, 2008 <http://www.imf.org/external/pubs/ft/weo/2008/update/03/index.htm>.

IMF (2010a), Sub-Saharan Africa Back to High Growth. IMF Regional Economic Outlook, <http://www.imf.org/external/pubs/ft/reo/2010/AFR/eng/sreo0410ch2.pdf>.

IMF (2010b), World Economic Outlook: Rebalancing Growth, <http://www.imf.org/external/pubs/ft/weo/2010/01/index.htm>.

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

IMF (2011), Regional Economic Outlook, Sub-Saharan Africa 2011.  
<http://www.imf.org/external/pubs/ft/reo/2011/afr/eng/sreo0411.pdf>.

Jimenez A. and Perez-Foguet A. (2009), “International Investments in the Water Sector”,  
International Journal of Water Resources Development, (25)1, pp. 1-14,  
<http://www.tandfonline.com/doi/abs/10.1080/07900620802573759>.

JMP - World Health Organization (WHO) - United Nations Children's Fund (UNICEF),  
Joint Monitoring Programme for Water Supply and Sanitation (JMP) (2010), Progress on  
Sanitation and Drinking-water: 2010 Update WHO/UNICEF, <http://www.wssinfo.org/>.

Marin P. (2009), “Public-Private Partnerships For Urban Water Utilities: A Review Of  
Experiences in Developing Countries”, World Bank/PPIAF  
[http://siteresources.worldbank.org/EXTWAT/Resources/4602122-  
1213366294492/5106220-1234469721549/3.5\\_Water\\_PPP2.pdf](http://siteresources.worldbank.org/EXTWAT/Resources/4602122-1213366294492/5106220-1234469721549/3.5_Water_PPP2.pdf).

Massarutto, A., V. Paccagnan, and E. Linares (2008), “Private management and public  
finance in the Italian water industry: A marriage of convenience?”, Water Resources  
Research, 44, W12425, doi:10.1029/2007WR006443.  
<http://www.agu.org/journals/ABS/2008/2007WR006443.shtml>.

McKinsey & Co., (2009), Charting Our Water Future - Economic Frameworks to Inform  
Decision-making.  
[http://www.mckinsey.com/App\\_Media/Reports/Water/Charting\\_Our\\_Water\\_Future\\_Fu  
ll\\_Report\\_001.pdf](http://www.mckinsey.com/App_Media/Reports/Water/Charting_Our_Water_Future_Full_Report_001.pdf).

Melosi, M.V. (2000), The Sanitary City. Urban Infrastructure in America from the  
Colonial Times to the Present. The John Hopkins University Press.

OECD - Organisation for Economic Co-operation and Development (2010a), African  
Economic Outlook 2010, <http://www.africaneconomicoutlook.org/en/data-statistics/>.

OECD (2010b), DAC Statistics, <http://www.oecd.org/dac/stats/data>.

OECD (2010c), Innovative Financing Mechanisms for the Water Sector  
[http://www.oecd-ilibrary.org/environment/innovative-financing-mechanisms-for-the-  
water-sector\\_9789264083660-em](http://www.oecd-ilibrary.org/environment/innovative-financing-mechanisms-for-the-water-sector_9789264083660-em).

Petri S. Juuti, and Tapio S. Katko (eds) (2005), Water, Time and European Cities: History  
Matters for the Futures. <http://www.watertime.net/Docs/WP3/WTEC.pdf>.

Pezon, Christelle (2009), “Decentralization and delegation of water and sanitation  
services in France”, in José Esteban Castro and Léo Heller (eds.), Water and Sanitation  
Services: Public Policy and Management, London: Earthscan, pp. 190-217.

---

**WATERLAT-GOBACIT Research Network**

5th Floor Claremont Bridge Building, NE1 7RU Newcastle upon Tyne, United Kingdom

E-mail: [waterlat@ncl.ac.uk](mailto:waterlat@ncl.ac.uk) – Web page: [www.waterlat.org](http://www.waterlat.org)

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

Pharasi S., and C.A. Kennedy (2002), “Reflections on the Financial History of Toronto’s Urban Water Infrastructure”, Department of Civil Engineering, University of Toronto, Ontario, Canada Congrès Annuel de la Société Canadienne de Génie Civil, Annual Conference of the Canadian Society for Civil Engineering Montréal, Québec, Canada 5-8 juin 2002 / June 5-8, 2002  
<http://pedago.cegepoutaouais.qc.ca/media/0260309/0378334/SCGC-BON/Documents/GE062-PHARASI-Kennedy.pdf>.

Rathin, Roy, Antoine Heuty, Emmanuel Letouzé (2006), Fiscal Space for Public Investment: - Towards A Human Development Approach. UNDP.

The Guardian (2010), “Eau la la! Parisians get free fizzy water from a park fountain”, 21 September 2010, <http://www.guardian.co.uk/world/2010/sep/21/paris-park-fizzy-water-tap>.

UN – United Nations (2006). Water – a shared responsibility. The UN World Water Development Report 2. <http://www.unesco.org/water/wwap/wwdr2/index.shtml>.

UNCTAD - United Nations Conference on Trade and Development (2008), World Investment Report, [http://www.unctad.org/en/docs/wir2008\\_en.pdf](http://www.unctad.org/en/docs/wir2008_en.pdf).

UNCTAD (2010), South-South Cooperation: Africa and the New Forms of Development Partnership, UNCTAD Economic Development in Africa Report 2010 <http://www.unctad.org/Templates/WebFlyer.asp?intItemID=5491&lang=1>.

World Bank (2010), Global Economic Prospects 2010, <http://siteresources.worldbank.org/INTGEP2010/Resources/FullReport-GEPSummer2010.pdf>.

World Bank/AFD (2010), Africa’s Infrastructure 2010 [http://www.infrastructureafrica.org/aicd/system/files/AIATT\\_Consolidated\\_smaller.pdf](http://www.infrastructureafrica.org/aicd/system/files/AIATT_Consolidated_smaller.pdf)  
A range of material based on this is at <http://go.worldbank.org/NGTDDHDB0>.

**Annexe: Costs as percentage of GDP: details of OECD and PSIRU estimates**

Table N° 12. Cost of water and sanitation investment as % of GDP, OECD

<b>Table 1</b> Current levels of required annual expenditure on water infrastructure		
<i>Relative income</i>	<i>Percentage of GDP needing to be spent on water and sanitation</i>	<i>Remarks</i>
High	0.35 to 1.20	Based on a lower bound (Italy) and upper bound (France), including figures from Austria, Belgium, Denmark, Finland, Germany, The Netherlands, Portugal, UK and the US
Middle	0.54 to 2.60	Based on a lower bound (Slovakia) and upper bound (Georgia), including figures from Armenia, Azerbaijan, Belarus, Brazil, China, Hungary, Kazakhstan, Poland, Russia, Turkmenistan, and Ukraine
Low	0.71 to 6.30	Based on a lower bound (India), upper bound (Uzbekistan), including Moldova, Kyrgyzstan and Tajikistan

Source: Cashman and Ashley, 2008.

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

Table N° 13. Cost of household connections as % of GDP

Country	Income group	% of GDP required for household connections	Country	Income group	% of GDP required for household connections
Afghanistan	L	1.82	Malaysia	MU	0.21
Angola	ML	0.66	Mali	L	1.44
Argentina	MU	0.2	Morocco	ML	0.25
Bangladesh	L	1.22	Mozambique	L	2.34
Benin	L	1.68	Myanmar	L	
Bolivia	ML	0.9	Nepal	L	1.3
Brazil	ML	0.21	Nicaragua	L	0.95
Burkina Faso	L	1.05	Niger	L	1.39
Cambodia	L	0.94	Nigeria	L	1.48
Chad	L	1.36	Pakistan	L	0.82
China	ML	0.3	Paraguay	ML	0.77
Congo	L	1.17	Peru	ML	0.19
Congo DR	L	6.29	Philippines	ML	0.89
Côte d'Ivoire	L	1.1	Rwanda	L	1.7
Cuba	L		Senegal	L	1.02
Ecuador	ML	0.27	South Africa	MU	0.11
Egypt	ML	0.33	Sri Lanka	ML	0.18
Ethiopia	L	2.37	Sudan	L	1.18
Ghana	L	1.91	Tanzania	L	1.61
Guinea	L	1.85	Thailand	ML	0.2
Haiti	L	2.3	Togo	L	2.68
India	L	0.64	Uganda	L	1
Indonesia	ML	0.73	Venezuela	MU	0.19
Iran	ML	0.38	Viet Nam	L	0.77
Kenya	L	0.74	Yemen	L	0.91
Korea DPR	L		Zambia	L	0.88
Korea Rep	H	0.03			
Madagascar	L	2.26			
Malawi	L	2.73			

Source: Hall and Lobina 2008b.

L=lower, MU=upper middle, ML=lower middle

## ARTICLE 2

### **Conflicts, companies, human rights, and water. A critical review of local corporate practices and global corporate initiatives**

David Hall,<sup>10</sup> and Emanuele Lobina, Public Services International Research Unit (PSIRU) University of Greenwich

An earlier version of this paper was published by PSIRU as a report for the 6th World Water Forum that took place in Marseille, France, in March 2012

#### **Summary**

Companies use a lot of water and their waste is a pollution risk. This brings them into conflict with many communities around the world, when companies capture scarce water resources or cause environmental damage. These conflicts are real – by contrast with the false myths that ‘the world is running out of water’, or that there are many wars between countries over water resources.

The companies concerned in conflicts over water resources are not, in general, the companies involved in privatised water supply and sanitation services. They are rather the companies which are the main consumers of water – agribusiness, drinks and food companies, and mining companies.

The water demands of agribusiness conflict with other users of water, including local farmers. The large-scale purchasing of land concessions in Africa and elsewhere are the biggest current examples of this. Water is a key factor in these deals. Most of the land grabs are driven by growers of ‘biofuel’ crops, so that virtual water is exported from Africa into petrol tanks.

Mining and oil production uses large amounts of water, and pollutes water resources, as a result of adding chemicals and as a result of waste products from the mining process itself. In South America mining operations are in frequent conflict with local communities. For example, in Chile, a mining company has bought water rights in the Atacama Desert; in Ecuador, Chevron Oil has been fined \$18billion for contaminating water resources.

The largest corporate users of water are companies selling soft drinks or beer, including Coca-Cola, PepsiCo, Nestle and Unilever. There have been a number of conflicts in India between local communities and drinks companies abstracting water. Three examples involve bottling plants of Coca-Cola, which led to deterioration in

---

<sup>10</sup> E-mail: [halldj@gmail.com](mailto:halldj@gmail.com).

groundwater levels, so that local people, in particular farmers, were left with less water for their own needs.

At global level the same companies that are major consumers of water promote a number of initiatives to try and advance ideas which favour their interests in these conflicts with other users.

These companies use the idea of water efficiency and reducing their global water footprint to claim that this is offsetting local impacts. But these measures do nothing to reduce the actual impact in these specific locations, and have to be understood as public relations exercises.

The Water Resources Group, launched at the World Economic Forum, promotes the idea that general water efficiency is the key issue, that ‘clearer’ water rights are important, and that companies should be involved in defining ‘institutional mechanisms’ to allocate water resources.

The CEO Water Mandate strongly promotes the idea of ‘shared risk’. This claims that governments and society equally share the risks identified by companies of ‘regulatory’ and ‘reputational’ risks. But for the rest of society, regulation is a benefit, and the activity of companies creates risks.

By contrast, in response to many years of campaigns, in 2010 the UN General Assembly agreed that there is a human right to water and sanitation. This has been widely welcomed and used by social organisations at national and local level, but is regarded with anxious hostility by companies.

In conclusion, there is a contrast between the success of companies in promoting their ideas at global level, and the greater impact of the concept of water as a human right at local level.

## **Introduction**

Companies use a lot of water and their waste is a pollution risk. This brings them into conflict with many communities around the world, when companies capture scarce water resources or cause environmental damage. Corporate groups promote ideas such as shared risks, global water footprints, and water markets, which minimise the role of democratic politics. This contrasts sharply with the decision by the United Nations that access to water is a human right, and that human uses have priority. Companies are strongly averse to recognising rights which could limit their own economic interests. These conflicting ideologies reflect the material conflict over water resources, and different approaches to political processes.

This report consists of four sections:

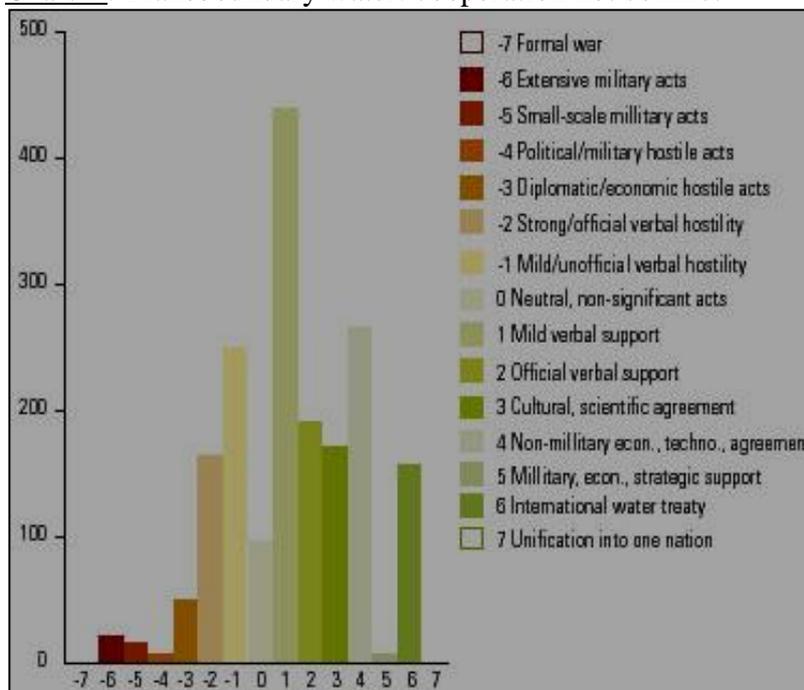
- Contextual information about water resources, and real and imaginary conflicts
- A review of actual conflicts over water resources between local communities and companies
- Global corporate initiatives on water resources, and the UN decision
- Discussion and conclusion

**Imaginary and real conflicts over water**

There is a myth in some circles that the world is running out of freshwater. The world is not running out of water. There is a constant amount of water in the world, but the availability of freshwater for human uses depends on local conditions. These may be affected by general factors e.g. climate change but the actual supply of available water depends on local weather patterns, rivers and aquifers, and the actual demands for water within the same locality, whether for household, farming or industrial use. In addition, the environmental impact of human use depends on the treatment of used water and other waste, and the sustainability of withdrawals from specific aquifers or rivers.

There is a second myth, that there are serious problems resolving ‘trans-boundary’ water conflicts between different countries. Many people have quoted the phrase ‘the wars of the 21st century will be fought over water, not oil’. But in practice there have been very few conflicts over trans-boundary water issues (with the exception of Israel/Palestine, where the source of the conflict is not the water issue itself). Agreements have been and are being negotiated over both transboundary river use and, now, transboundary aquifers. So: “Although transboundary water resources can be fodder for hostility, the record of cooperation is vastly superior to that of acute conflict, that is to say, water is much more a vector of cooperation than a source of conflict” (The Economist, 2010; Wolf et. al., 2003).

Chart A. Transboundary water: cooperation not conflict



Source: Wolf, et. al., 2003.

However, there are many other conflicts over other water issues, arising from economic and political factors within in specific countries or areas. These are not trans-boundary issues, but conflicts between different users of water - households, farmers, and business - and conflicts over the relative priority of commercial and public interests in specific cities, countryside, water basins. These conflicts and power struggles can be observed over a long time and many places, especially in context of water scarcity - the development of water supply for the city of Los Angeles in the early 20th century, for example, involved complex battles, negotiations and trade-offs between farmers, business interests and political actors.

The present conflicts range across all continents. Global corporate initiatives to promote specific approaches to water resources, such as the Water Resources Group created by the World Economic Forum, have arisen principally because companies find themselves in conflict with other users and subject to political demands. They reflect the greater power and status of corporate bodies, especially their ability to organise at global level. Their main function is to assert a corporate view of water resource issues, so that local conflicts are more likely to be resolved in favour of corporate interest. The initiatives are a form of ‘ideological hegemony’.

### **Business impact on water resources**

Commercial uses of water resources may conflict with these needs of other users and the environment (a) at times and places where water resources are scarce, so all user needs cannot be satisfied while sustaining the water sources (b) because untreated used water and other production processes pollute the environment, including water sources.

For individual companies, and for capital as a whole, the importance of each local issue is entirely economic. Water is only one factor in corporate decisions. The availability of labour, transport costs, location of mines, and cost of land are other factors which are usually of greater economic importance. The outcome of water conflicts affects the profitability of commercial activities directly - for example if abstractions by companies are limited to an amount less than the most profitable – or indirectly, for example if a company is forced to relocate a bottling plant to a location which entails higher transport costs. Thus Coca-Cola warns its shareholders that increasing demand for water means that the company “may incur increasing production costs or face capacity constraints which could adversely affect our profitability or net operating revenues in the long run” (Coca Cola, 2008). The treatment of used water may also affect the profitability of commercial activities, to the extent that companies pay for it, either by treating it themselves or by paying taxes for the cost of treatment.

The companies concerned in conflicts over water resources are not, in general, the companies involved in privatised water supply and sanitation services. They are rather the companies which are the main consumers of water – agribusiness, drinks and food companies, and mining companies. This section reviews the conflicts between businesses operating in these sectors and local populations, in all three sectors and in different continents. The cases also show how markets in water rights are useful in resolving

conflicts in favour of companies, and how companies resist recognition of rights of other users.

Agribusiness: land and water grabs in Africa

Globally, agriculture is the greatest user of water resources, for irrigating fields: in the global south over 80% of water is used by agriculture. Much of this consists of small-scale farming for subsistence and supplying local markets, but a growing proportion is in the hands of companies and investors. The water demands of this agribusiness can conflict with other users of water, including local farmers. The large-scale purchasing of land concessions in Africa and elsewhere are the biggest current examples of this.

*Land and water grabs in Africa and elsewhere<sup>11</sup>*

According to recent estimates by Oxfam, 227 million hectares of land in developing countries have been sold or leased since 2001, half of it in Africa, and most of it to international investors. The deals typically involve 50-99 year leases or concessions of land areas over 10,000 hectares (Oxfam, 2011; Bush et. al., 2011). Most of the investment, nearly 60%, is for biofuels; about 20% for food production; and another 20% is for mining, tourism, industry and forestry (International Land Coalition, 2011; Patterson, 2009; Smaller and Mann, 2009).

They include government purchases e.g. by Egypt and Saudi Arabia in Sudan, which actually advertises overseas the opportunities for such investment. But many investments are made by international agribusiness companies; some investments are by private equity firms such as the Egyptian firm Citadel Capital, the UK firm Sun Biofuels, and the German firm Acasis; some are by businesses in richer African countries, for example, South African farmers buying 172,000 acres of land in the Congo for export crops; and many are made by local elites (International Land Coalition, 2011).

The World Bank argues that the land leases are a market mechanism of modernisation and development bringing land into higher value use, transferring ownership from less to more efficient producers, and enabling more food to be produced for growing populations. Critics point out that the Bank itself and the IMF forced many African countries to discontinue public investment in irrigation as part of structural adjustment programmes, and argue that the Bank understates the contribution of traditional farming practices. Little of the benefit is going to the countries themselves: governments are being persuaded to exempt investors from tax, and charge small lease fees, so that little public benefit is gained for the exploitation of local public natural resources. Secret negotiation of commercial deals “reduces scope for public scrutiny and

---

<sup>11</sup> This section draws on a number of key reports: World Bank, 2010; Cotula and Vermeulen, 2009; Cotula, 2011; IIED, 2011; Smaller and Mann, 2009; Woodhouse and Ganho, 2011; Oxfam, 2011; Farm Land Grab (2012); International Land Coalition 2011.

creates a breeding ground for corruption” (Woodhouse and Ganho, 2011; Bush et. al., 2011; International Land Coalition, 2011).

Table N° 1. Investing in ‘land grabs’: states and companies, food and fuel

<b>Investor type</b>	<b>Examples</b>	<b>Locations</b>	<b>Objectives</b>	<b>Final market</b>
State	China, Japan, S Korea	Africa, Asia	biofuel, food, animal feed	Home consumers
Private investors	Europe, USA, Japan	All regions	biofuel, food, feed	Global markets

Source: based on Smaller and Mann, 2009.

Water is a key factor in these deals. The grabs involve not just the land but also the water resources and the cheap local labour, to support the typical large-scale monocrop plantations: “the notion of existing, available marginal lands is fundamentally flawed; investors are looking not only for available lands, but also lands that have sources of water” (Borras, et. al., 2011).

This access is included in the lease contract by formalised water rights to ensure the profitability of the investment. These guarantees effectively give the investor priority over other users, and customary users rarely have any formal rights. In some cases, no charge is made: in Senegal the contract specifies that the water is free; or water supply is effectively subsidised by providing access to water from dams constructed using public finance, for example in Ethiopia and Guinea. If governments try to revise the water rights after the contracts is signed, they may be liable for compensation under a bilateral investment or trade treaty.

A report on Mali found that two contracts guarantee investors more than half of the dry season critical reserve of water and exclusivity of service in emergency situation, while other contracts take water rights for granted; the only payments for water were a charge per hectare of land, unrelated to volume; the contracts themselves place limits on government ability to act, especially in response to continuous water shortages; most deals provide access to land without any lease fees being paid; and local residents were left out of the negotiating process with their customary rights ignored (IIED, 2011; Cotula, 2011; Baumgart, 2011).

In the case of Procana in Mozambique the company got a 50-year lease on 30,000 ha, on which it planned to grow sugar cane using drip irrigation. Procana obtained a government guarantee for up 750m<sup>3</sup> per year “To ensure that cane production is not compromised by other potential users”. Part of this would draw on the water in the Massingir dam, whose prime use is for electricity generation for export and for local business and households – the reallocation of water transfers the risk in the opposite direction, so the government may lose export earnings, or local users may have a less reliable supply of electricity. The water for irrigation also comes from local rivers, which creates a risk of water shortages for downstream small farmers. Procana saw potential

conflict over the use of the dam as a major risk factor in their investment (Borras, et. al., 2011; see also Woodhouse and Ganho, 2011). In 2010 the deal with Procana was cancelled because the company could not raise the money to deliver the \$475m. investment plan: the government was reportedly looking for a new investor (Nhantumbo and Salomão, 2010; Borras, et. al., 2011; Woodhouse and Ganho, 2011; Agencia de Informação de Moçambique, 2008).

The process also illustrates the relative disadvantage of local communities in asserting their rights to water against the claims of international companies: “African governments are signing away water rights for decades with insufficient regard for how this will affect millions of local users, including fishing, farming and pastoralist communities” (IIED 2011; Hall, 2011; Smaller and Mann, 2009).

Some campaigns against these deals have been successful. In Tanzania, a land deal for growing biofuels was cancelled as a result of protests (Hall, 2011). In Madagascar, public protest forced the government to cancel a proposal to lease half the arable land in Madagascar to a South Korean multinational, Daewoo Logistics, and forced the government to resign as well. The campaign also forced the cancellation of a deal to physically export 1% of the Faraony river’s flow to Saudi Arabia - about 260,000m<sup>3</sup> per day, for USD \$60,000 per day (Farm Land Grab, 2009).

### *Biofuels*

The increasing use of land for biofuels has already been a factor in surging world food prices, and is placing extra demands on water resources. The growth of biofuel production in the USA is expected to account for 12% of the total growth in demand for water in the USA in the next 20 years, requiring more than twice as much extra water as municipal water supply. In the eastern USA water resources are effectively free, while growers in the western USA have to buy water rights, but even there the cost of the water resources amounts to less than 1 cent per gallon of ethanol produced from biofuels. The existence of water rights markets does not, therefore, provide a deterrent to such use of water, but rather an opportunity for the growers of such a profitable crop to outbid others with less profitable uses (Tidwell, et. al., 2011; Gerbens-Leenes and Hoekstra, 2011). Biofuels are not a good ‘green’ fuel, either, when compared with other technical alternatives. A car using ethanol, the main biofuel product, uses between 4 and 10 times as much water per kilometre as a car using electricity generated from renewables.

### *Virtual water*

The impact on water resources of the land grabs shows the limitations of the concept of ‘virtual water’. This concept identifies a real effect of trade in products requiring high water input, especially food, This can in principle compensate for a relative lack of water in the importing country, so that for example an oil-producing country which is mostly desert can import food produced with water in other countries. But virtual water does

not ‘trickle down’ from water rich countries to water poor countries, because economically poor countries with low water resources cannot afford to import water this way. In fact, trade in agricultural products containing ‘virtual water’ is rather dominated by a few rich countries: 4% of countries account for 80% of virtual water transfers, and the number of people experiencing water shortages has increased in recent years despite a massive increase in trade in agricultural products. So virtual water transfers are not an “economically invisible and politically silent remedy for water deficits” between countries, but rather a feature of commercial activity which may conflict with other needs for water resources within countries. Since virtual water is also embedded in biofuel crops, it is also a way of exporting water from Africa or Latin America into the fuel tanks of cars in high income countries (Suweis et. al., 2011; Seekell et. al., 2010; Allan, 2002).

### Mining and oil in South America

Mining and oil production affects water resources in two ways. Firstly, large amounts of water are needed for many mining operations, from drilling to washing the minerals, as well as water for the household needs of the workers. In water scarce regions where the mines are the greatest consumers of water, mining companies themselves may develop or buy the main water supply systems: “When infrastructure and management systems provided by the company are also involved in supplying local communities and rural industries, the multiple stakeholders and different values involved introduce a complexity that reflects overlapping and sometimes conflicting priorities associated with the concept of sustainable development” (Robin et. al., 2003).

Secondly, mining processes pollute water, both as a result of adding chemicals – such as cyanide in gold mining or arsenic in uranium mining - and as a result of waste products from the mining process itself, which may also obstruct and block rivers and streams. Even modern mines in the USA pollute neighbouring streams with cyanide, selenium, copper arsenic and thallium (Earthworks, 2008).

The process of ‘fracking’ to extract oil and gas from shale or sands is an example of both types of impact. It involves the use of water, mixed with chemicals and sand, injected under pressure to release the oil or gas. An average ‘well’ uses about 10,000 m<sup>3</sup> of water in this process. Some is lost underground, and may contaminate groundwater; the wastewater returned to the surface may include tonnes of chemicals, and may contaminate land and surface water (Andrews et. al., 2009).

As a result of higher global prices for commodities, including oil, there is now greater activity and investments by mining, oil and gas extraction companies across the globe.

*Chile and water rights*

Two disputes in Chile are good illustrations of the conflicts. They also show how markets in water rights make the problems worse, not better, and how the privatisation of public water supplies makes it easier for companies to buy water resources.

Calama – said to be among the driest cities in the world – is in the northern region of Chile, which includes the Atacama Desert and also the main mining activities of the country. The inhabitants of Calama are protesting at the decision by the water company for the region, Aguas Antofagasta, to sell 550 litres per second of raw water from the Rio Loa, the only river in the region, to a mine owned by multinationals Xstrata and Anglo-American. The protests are based on the impact on the environment and the extra stress placed on water resources for the city. Desalination plants have been constructed to increase the available water for other mining operations, but it is cheaper for the Xstrata/Anglo-American mine to divert water from the river. Mining interests also control the public water supply: the water company is itself privately owned by Antofagasta plc, a British mining company, now majority owned by the wealthy Chilean Luksic family. In addition to the water company, Antofagasta plc also owns the regional railway system, Ferrocarril de Antofagasta (El Ciudadano, 2012b; Codelco es Noticia, 2012).

In the capital Santiago, there is a similar dispute. The water company, Aguas Andinas – which is also privatised - has agreed to sell 2.5m<sup>3</sup> of water per second from the Laguna Negra y Embalse del Yeso, built as a reservoir to supply drinking water for the city, to the energy multi-national AES, for a 530MW hydro-electric project, Alto Maipo. The opposition is based on protests about the environmental impact, the effect on the water supply for Santiago, and the effects on other businesses such as tourism. The Chilean parliament has asked the water regulator SISS to investigate the legality of the contract, although the government argues that there should be no interference with “acuerdos entre privados” [private contracts]. The opposition argues that this is contrary to the “the new declaration by the UN Assembly of the human right to water” (El Ciudadano, 2012b; Business News Americas, 2012; Global Power Report, 2011).

The water rights regime is thus part of the problem: the current legal systems, notably the law on water rights, are failing to protect environmental and human interests. It continues to be politically and ideologically contested: “competition between private and public interests have often produced unfortunate consequences because of the lack of power of the state to allocate water and to protect the public welfare... ideological conflict continues to characterize much of the discussion of water policy”. When President Bachelet introduced a constitutional reform bill to recognize water scarcity as a threat to national security, and enable the government to restrict private water rights, interest groups of large landowners such as the National Society of Agriculture denounced the bill as leading to expropriation of water without compensation (Tafur, 2011; Borzutzky and Madden, 2011).

*Ecuador, Peru and Argentina*

The Supreme Court in Ecuador has recently confirmed an award of USD \$18 billion in damages against the oil company Chevron for contamination of water in the Amazon basin as a result of oil drilling activities in the 1990s by a joint venture including Texaco, now owned by Chevron. The oil drilling spilled more than 30bn gallons of toxic wastes and crude oil into Ecuador's Amazon basin. The company denies liability in the case, which has continued for 18 years already.

As well as the scale of the damage, the case illustrates how corporations are prepared to deny the legitimacy of the rights of others and of the processes by which they are enforced. The company responded to the latest court ruling by stating: “Chevron does not believe that the Ecuador ruling is enforceable in any court that observes the rule of law. The company will continue to seek to hold accountable the perpetrators of this fraud”. This was criticised by the court for ‘manifest bad faith’ and ‘abusive’ conduct, and by the lawyer for the indigenous communities as racist: “Chevron does not want to ever recognise that indigenous or poor people have the right to access justice” (ENS, 2012; The Guardian, 2011, 2012).

In Peru there are over 148 conflicts between indigenous rural communities and mining companies over the use of water and the pollution caused by the mining companies. This is contrasted with a lack of priority given to human needs: in the Puno region, only 25% have access to drinking water, but 80% of the water resources are said to be polluted. Campaigners are calling for a constitutional amendment which “recognises drinking water and sanitation as a human right whose provision should not be subject to business interests” (El Ciudadano, 2012c).

There are many similar disputes in Argentina between communities and mining companies, as well as opposition to paper mills for the same reason. Many of these disputes have continued for a decade or more (El Ciudadano, 2012a).

Drinks companies: impacts in south Asia and North America

The largest corporate users of water are companies selling soft drinks or beer, 90% or more of which are water with some other ingredients such as sugar, flavouring and alcohol. The largest corporate water consumers in the world include the drinks (and food) companies Coca-Cola, Pepsico, Nestle and Unilever, and the beer companies.

Table N° 2. Food and drinks companies with largest water consumption 2006

Company	Water Used (bn litres)	Ratio, litres of water per kg or litre of end product
Coca-Cola	288	2.4
Nestlé	155	4.1
Unilever	66	3.3
Total	613	

Source: JP Morgan (2008).

The drinks companies also sell bottled water, which packages water from springs. Bottled water is far more costly than piped water, because transporting water in bottles is very inefficient compared with a piped water network, using 2,000 times as much energy as tap water. It is also subject to less stringent safety and quality checks than piped water, and generates large volumes of waste in the form of plastic bottles. Conflicts have occurred in North America over the impact of drinks companies on local water tables. The Perrier bottled water company (part of Nestle) was forced to close 4 of its wells in Michigan as a result of local opposition, despite hiring local public relations consultants. One reaction by the companies has been to bottle water from public supplies: as much as 40% of all bottled water sold in the USA is taken from a municipal water supply, and Coca-Cola used water from the public supply for its Dasani brand in the UK (BBC, 2004; The Environmental Magazine, 2003; Responsible Research, 2010; IGEL, 2011).

*Coca-Cola and other drinks companies in India*

There have been a number of conflicts in India between local communities and drinks companies abstracting water. Three examples involve bottling plants of Coca-Cola, which led to deterioration in groundwater levels, so that local people, in particular farmers, were left with less water for their own needs (Responsible Research, 2010; India Resource Center, 2011a).

Table N° 3. Groundwater impact of three Coca-Cola bottling plants in India

Location	Change in groundwater levels	
	10 years prior to Coca-Cola bottling operations	10 years since Coca-Cola bottling operations
Mehdigani	+7.95 metres	-7.9 metres
Kala Dera	-3.94metres	-25.35metres

Source: India Resource Centre (2011, a,b).

Coca-Cola opened a bottling plant at Palakkad, Kerala, in 1999. There were complaints and protests from the local community that the plant was using excessive amounts of groundwater, causing depletion and contamination in local wells. These protests were taken up by the panchayat. The panchayats – local councils – which are a distinctive feature of government in India, are responsible for regulating the use of local resources, including water. In many parts of India panchayats are weak bodies, but in Kerala there has been a deliberate political effort by the State to decentralise money and power to these bodies, providing the elected representatives with both training and professional volunteers to support their work, as well as a system of participatory planning and budgeting. In the case of the Palakkad bottling plant, the Perumatty Panchayat which covered the area, filed a Public Interest Litigation (PIL) in the Kerala High Court, which ruled in the panchayat’s favour. As a result, Kerala’s Minister for

Water ordered the closure of the plant in 2004. It has not been allowed to re-open, as long as the panchayat continues to withhold permission.

The production of drinks also produces waste sludge which pollutes the environment unless properly treated. In Palakkad, Coca-Cola tried to dispose of waste by offering it as a ‘free fertiliser’ to local farmers. It was found to be useless as a fertiliser, and contaminated with toxic chemicals including lead and cadmium. The company only stopped distributing its waste when ordered to do so by the state government. The state of Kerala also appointed a High Power Committee of experts to investigate civil and criminal claims against Coca-Cola, which concluded that the company had depleted water resources, caused environmental damage, and could be held responsible for causing economic losses to local residents totalling Indian Rupees 216 crore (US\$ 48 million), that a special claims tribunal should be set up to facilitate such claims, and that Coca-Cola had breached a number of laws. The state government then passed a law to create the tribunal (Drew, 2008; Government of Kerala, 2009; India Resource Center, 2010; Responsible Research, 2010; BB, 2003).

Coca-Cola opened another bottling plant in Kala Dera, Rajasthan, in 2000, although the area’s groundwater reserves had already been declared to be ‘over-exploited’ in 1998. A report by the Energy and Resources Institute (TERI) in 2008 noted that “The company’s assessment of water availability in the vicinity of a bottling operation should be from a perspective that is wider than business continuity [...]. Siting policies need to recognize and respect the existing (formal and informal) riparian rights. For instance, the informal rights of the farmers to extract groundwater for irrigation need to be respected” It specifically condemned the opening of the plant at Kala Dera, and recommended closure as “the plant’s operations in this area would continue to be one of the contributors to a worsening water situation and a source of stress to the communities around” The report also noted that: “the state governments in India have not been able to value their water resources appropriately. The water use charges levied by various state governments render this important input into the production process virtually free”. Groundwater levels fell a further 3.6 metres between 2009 and 2010 (TERI, 2008).

A third plant in Mehdiganj, in the state of Uttar Pradesh, opened in 1999. The economic benefits of employment opportunities were not as great as hoped: many jobs went to workers from other areas, wages were low, and the company resisted attempts to organise its workers in unions. There were problems with wastewater: a spill in 2002 contaminated agricultural land. But the greatest problem was the depletion of groundwater by the new plant: the levels fell by 7.9 meters in 11 years, whereas previously they had been rising. A local political institution, the Lok Sabiti (‘people’s committee’) organised protest, using the slogan “coca cola pani chor” (“Coca-Cola steals water”). The company has not negotiated with the local organisation, but rather treated it as a security problem, with police called in to arrest protestors (Drew, 2008).

The above cases all involve Coca-Cola, but other companies have similar impacts. For example, nine out of 34 PepsiCo bottling plants in India were operating in areas officially designated as water-stressed (‘over-exploited’, ‘critical’ or ‘semi-critical’) (BBC, 2011; SABMiller, 2012; PepsiCo India, 2010; India Resource Center, 2011c; Ercin et. al., 2011).

*Economic efficiency, water neutrality*

Companies argue that these impacts are compensated for by other actions, by which they can become ‘water neutral’ or even ‘positive’. Coca-Cola claims to aim at ‘global water neutrality’; PepsiCo argues that overall it has a positive water balance in India: “essentially this means that we were able to give back to society much more water than we used to manufacture our products by recharging and replenishing water through various sustainable initiatives”. These corporate actions fall into three categories – reducing the water footprint of their own products; supporting the water efficiency of other users; and promoting recharge schemes and rainwater harvesting. Only the third of these, however, mitigates the local impact of their water abstractions.

Coca-Cola has analysed its global water footprint, which consists of multiple local demands to produce all the ingredients in the drink. This full supply chain footprint, including for example the water used to grow sugar and other ingredients, is between 300 and 600 litres for every litre of drink produced. Nearly all of this is consumed through growing and manufacturing the various ingredients, especially sugar and vanilla. Similarly, studies by SAB Miller show that the total supply chain footprint of beer is between 45 litres and 155 litres per litre of beer. But global reductions in the water footprint of the product, for example by reducing the water use of vanilla growers in Madagascar, does nothing at all to offset the local impact of a bottling plant in India (Responsible Research, 2010; Ercin, et. al., 2011).

PepsiCo finances agricultural efficiency schemes and community schemes, such as rainwater harvesting, which between them save 10 billion litres of water, which the company compares with 5.8 billion litres used to produce Pepsi products in India, and argues that it is therefore ‘water positive’ in India. Coca-Cola has funded drip irrigation systems for 15 farmers in India. SAB Miller has financed small-scale demonstration fields for local farmers on reducing water use by greater water efficiency, use of more water-efficient plant varieties, or planting less water-intensive crops. While improving efficiency in agriculture does reduce overall demand for water, small-scale temporary donations, which are subject entirely to corporate decision-making, are not a sustainable way of delivering this. When the company decides to stop paying, the measures may become unaffordable, even for the chosen few. Moreover, the water saved by these schemes may be in different areas to the abstractions, and so does not balance the impact in terms of local availability and demand for water. It does not make sense to claim to be water neutral on the scale of a sub-continent such as India. For these water-stressed areas, recharge schemes in some other part of India are useless (BBC, 2011; SABMiller, 2012; PepsiCo India, 2010; India Resource Center, 2011c; Responsible Research, 2010; Ercin, et. al., 2011).

PepsiCo and SAB Miller are in effect investing in other producers’ water efficiency, but the economic return for the company is a public relations gain, improving the company’s public image. This is similar to the carbon offset schemes.

One way of reducing the local impact of abstraction is to increase the rate at which the aquifer is recharged, so that the amount available for all users is increased. SAB Miller has attempted to offset the water abstraction by its brewery in Alwar, Rajasthan,

by funding the construction of water recharge dams in the same locality, which it claims will raise the groundwater levels by over 9 metres by recharging about 300m litres of water per year – about the same as the annual volume extracted by the brewery. There is as yet no measurement of the actual impact. Coca-Cola has claimed that it has created an annual recharge of 1.3 billion litres in Kala Dera, without providing any evidence for the figure. Although increasing recharge of aquifers is a genuine way of reducing local water stress, these initiatives are not sustainable ways of delivering it. The companies do not have any direct economic incentive to fund such recharges - the economic return is a public relations gain from being seen to act responsibly. In effect, the incentive for water efficiency is created entirely by public campaigns against the abstractions, and by general public and political pressure for greater environmental responsibility. Finally, the companies themselves decide the scale and nature of the activity, and control the measurements, so the possibility of criticism or independent verification is reduced, and the actual benefit to the local community and aquifer is hard to verify (BBC, 2011; SABMiller, 2012; PepsiCo India, 2010; India Resource Center, 2011c).

### **Global corporate initiatives**

This context of conflicts over use of water resources is relevant to understanding why companies have been active in trying to shape debate on water resources. This section examines three major global corporate initiatives:

- The Water Resources Group (WRG) formed at the World Economic Forum
- The CEO Water Mandate, under UN auspices
- The Water Footprint Network

#### The World Economic Forum and the Water Resources Group

The World Economic Forum (WEF), held at Davos, Switzerland every year, is the main platform for business discussions of the world economy. Since 2008 it has been used to launch a series of reports by a group of multinational companies and others, now known as the Water Resources Group. It has also set up projects in India, Southern Africa, Mexico and Jordan. In 2012 it was announced that the group would become ‘a new global entity as part of a new international institutional architecture on water to be hosted within the International Finance Corporation’ (which is the private sector arm of the World Bank) (WEF, 2012a).

The framework for this group can be seen in two questions posed at the 2012 Davos session on “water: scarcity and stress”: “How can governments and industry collaborate to ensure that water is distributed and used as efficiently as possible?”, and “How can consumers play a role in demanding and driving change?” The first question implies that corporations have equal status to governments on water issues, and share the single object of efficiency, rather than equality, affordability or sustainability. The second

question allows people to exercise influence by buying products – but not by taking political and social action (WEF, 2012b).

### *Companies*

The table below sets out all the companies which have been members of the WEF group at various stages. It also shows which ones have signed up to the CEO Water Mandate. Very few are involved in privatised water supply – only Veolia, and perhaps CH2M Hill, fall into that category – and companies which dominate that sector, most obviously Suez, are missing. The other companies have no obvious interest in privatisation of public water utilities.

Instead, the majority of companies fall into two clear groups – the ‘consumers’ , for whom water is a large input to their business, and the ‘service’ companies, who sell products to companies looking to conserve or manage water and wastewater. In the first group are the drinks and food companies (D), and the mining companies (M). These are the groups involved in the conflicts described in the previous section, and the persistent members of the WRG, who also appear in other initiatives such as the CEO Water Mandate, are these large consumers – Coca-Cola, PepsiCo, Nestle and Unilever. The second group includes suppliers of machinery, fertilisers or seeds which can contribute to water efficiency in agriculture (A), or water engineering and services companies (W) which provide water and wastewater technology and consultancy to others: both of these groups therefore have business interests in potential markets for water and wastewater management.

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

Table N° 4. Corporate membership of WEF Water Resources Group

	Sector	Home country	Type	WRG 2008-2010	WEF partner 2012	CEO water mandate
Alcan	Metals and mining	Canada	M	X		
Barilla	Food	Italy	D	X		
Cargill	Commodities	USA		X		
CH2M Hill	Water	USA	W	X	x	x
Cisco	IT	USA		X	x	
Coca-Cola	Drinks	USA	D	X	x	x
Dow Chemical	Chemicals	USA	A	X	x	x
Halcrow	Engineering	UK	W	X	x	
Hindustan Construction	Construction	India	W	X	x	x
McKinsey	Consultancy	USA		X	x	
Nestlé	Drinks, food	Swiss	D	X	x	x
New Holland Agriculture	Agricultural machinery	USA	A	X		
PepsiCo	Drinks	USA	D	X	x	x
RioTinto	Mining	UK	M	X	x	
SABMiller	Drinks	USA	D	X	x	x
Siemens	Engineering	Germany	A	X		x
Standard Charter	Finance	UK		X	x	
Syngenta	Seeds, pesticides	Swiss	A	X	x	x
Unilever	Food	Holland	D	X	x	x
Veolia	Water, waste	France	W	X		x
IFC	Development bank				x	
World Wildlife Fund	NGO			X	x	x

Sources: WEF (2008; 2012a,b); UN and Pacific Institute (2010a); Public Interest Investigations, 2012).

In addition to the companies, there are two other important participants. One is the IFC, the private finance arm of the World Bank, which in 2012 has become the hosting organisation for the group. It thus brings the legitimacy and financial support of the World Bank. The other is a large global NGO, the Worldwide Fund for Nature (WWF), which features repeatedly in corporate-supported organisations, at global and European level. This provides the legitimacy of a civil society organisation as a participant, but one which

**WATERLAT-GOBACIT Research Network**

5th Floor Claremont Bridge Building, NE1 7RU Newcastle upon Tyne, United Kingdom

E-mail: [waterlat@ncl.ac.uk](mailto:waterlat@ncl.ac.uk) – Web page: [www.waterlat.org](http://www.waterlat.org)

has strong links with the corporate sector. WWF is a global association financed mainly by individual donations and legacies, but is also financed by companies and aid agencies. In 2010 it received €56 million, 11.6% of its donations, from companies and €89 million, 18.5% of its income, from governments. The WWF also has formal ‘partnerships’ on water with some companies, including Coca-Cola, SAB Miller, and IKEA. These focus on improving water efficiency in production processes: the WWF gives as an example of its success “improving the company’s [Coca-Cola’s] water efficiency 13 per cent since 2004”. It also supports corporate positions in water policy at national level. In the UK, for example, it has issued a joint statement with the regulator OFWAT on water abstraction licenses, which supports the introduction of scarcity charges but also for allowing trade in water rights: “Abstraction trading has an important role to play in the transition towards sustainable levels of abstraction. Measures that encourage the trading of water from lower to higher value uses would increase social and economic benefits to society. Trading may become important as a mechanism for responding to the increasing variability and uncertainty of climate change impacts” (WWF-INT, 2010; WWF-UK and OFWAT, 2009).

#### *WRG reports*

The main function of the WRG has been to produce reports. The first report, ‘Realizing the Potential of Public-Private Partnership Projects in Water’ was published in 2008, treating the creation of PPPs as an end in itself. It discusses how the Indian Business Alliance on Water (IBAW) has been used to promote PPPs in India, and calls for a similar agency in South Africa to “help shift the mindset”. It includes PPPs involving copper, gold, coal and uranium mining companies in Botswana, Namibia, South Africa and Tanzania: “businesses for whom water development is an input to their core businesses” (WEF, 2008a).

A second report in 2008, “Managing our Future Water Needs for Agriculture, Industry, Human Health and the Environment”, outlined the potential problems for business and others of water stress, and warns of potential impacts: “What if water remains inexpensive for heavy users? What if water prices double? What if water permits for agricultural or industrial uses are revoked or restricted in response to scarcity, conflict or civil society demands?” It called for a business coalition, centred on agriculture, but including also “food, textile, and chemical companies, companies active as suppliers of seed and irrigation equipment, and financial institutions active in financing irrigation and other water infrastructure.” The stated objective was to influence political climate on water governance issues, including “how water is being allocated”, and specifically “to enable more market-based mechanisms” (WEF, 2008b).

A third report was produced for the 2009 WEF meeting, entitled “The Bubble Is Close to Bursting” in partnership with a group of drinks, food, chemicals, mining, and agribusiness multinationals, as envisaged the previous year (WEF, 2009). This group, with some new members joining and others leaving, and together with the IFC, subsequently formed the 2030 Water Resources Group.

A more substantial report ‘Charting our Water Future’ was written for the group by McKinsey & Co in 2009, and has subsequently been treated as a key document at international conferences such as the Stockholm Water Symposium. The report develops at length an argument that there is a coming ‘gap’ between the demand and supply of water, and proposes a number of approaches to bridging this gap. These are mainly technical, involving the use of new technologies to improve agricultural water efficiency in particular, but also argues that “It is critical to ensure incentive design emphasizes the value of water productivity—for example through clearer ownership rights, appropriate tariffs, quotas, pricing, and standards”. The reference to ‘clearer’ property rights implies clear contractual rights, which, as seen in the previous section, are often used to override the unclear, uncodified traditional rights (McKinsey & Co., 2009).

The section headed ‘Pathways for the private sector’ then identifies the main consumers of water, and also the producers of technology and other solutions to improve efficiency, including seeds and fertilizer, for whom McKinsey identifies potential markets. This neatly reflects two of the main groups of companies involved in the WRG, who stand to gain from greater expenditure on water efficiency. But this market research is presented in a misleading chart, ‘exhibit 37’. This says it shows ‘annual expenditure’, with the strong implication that this is expenditure by the companies concerned. But it is not: it identifies markets for these companies, and so the ‘expenditure’ is money to be spent by municipalities, farmers and local businesses – not expenditure by the private companies in seeds, fertilizers etc., or even investment by these companies. (The ‘exhibit’ is also a very distorted presentation of its own figures).<sup>12</sup> So when it talks about the potential for more government intervention to “make further measures economically attractive for the private sector, and thus unlock new investments”, McKinsey is simply suggesting that government policies could increase the market opportunities for the seeds, fertiliser, etc., businesses – which are strongly represented in the WRG. The investments ‘unlocked’ will be in the company’s own production of seeds or machinery – not investments in local water systems or conservation of water resources. The table below gives an undistorted presentation of the data in McKinsey’s exhibit 37, from which it is clear that 79% of the expenditure it identifies is money to be spent by farmers, the public sector and households, and the other expenditure will come from locally established businesses, not the seeds, fertiliser, etc., companies.

---

<sup>12</sup> The ‘exhibit’ is also wildly not to scale – the length of the bars is not consistent with the numbers, neither within the same country nor the same category: the bar showing China’s 103 on irrigation systems is longer than the bar showing China’s 1,204 on Domestic fixtures and appliances, and about the same length as India’s 1,076 on irrigation systems. Fortunately McKinsey’s do not claim it is a ‘chart’, but it is still shows remarkable flexibility with data.

Table N° 5. Potential markets for suppliers of fertilisers, irrigation technology etc. 2010-2030 (an undistorted rendering of McKinsey’s exhibit 37) (US\$ millions)

<b>Expenditure by:</b>	<b>India</b>	<b>China</b>	<b>South Africa</b>	<b>Brazil – Sao Paulo</b>	<b>Total</b>	<b>As % of total</b>
Local farmers and agriculture	7141	205	28	10	7384	38
Local industry	287	3585	260	3	4135	21
Public sector and households	1714	5989	295	147	8145	41
<b>Total</b>	<b>9142</b>	<b>9779</b>	<b>583</b>	<b>160</b>	<b>19664</b>	<b>100</b>

Source: PSIRU calculations and McKinsey Exhibit 37 (McKinsey & Co., 2009).

This cannot, however, justify the huge leap which McKinsey then makes to the conclusion that it: “empowers the private sector to engage meaningfully on defining the institutional mechanisms of the future”. The market analysis simply confirms the well-known fact that the private sector seeks profitable market opportunities, and would like to maximise these opportunities. It certainly does not give such entities the right, in democracies, to ‘define institutional mechanisms’.

#### UN CEO Water Mandate: corporate risk, ‘shared’ risk and social risk

The CEO water mandate was launched as a UN initiative in 2007. It therefore predates the UN resolution on water as a human right, passed in 2010, but the possibility of such a resolution was already under discussion in 2007. The CEO mandate “recognizes that the business sector, through the production of goods and services, impacts water resources”, and so encouraged companies to endorse the mandate and ‘operate in a more sustainable manner’ and give more priority to managing water resources. It has been endorsed by 84 companies, including 14 members of the WEF group, and a number of companies in sectors which are heavy users of water such as paper and textiles. Its various reports illustrate the conceptual framework of corporate organisations. This includes the idea of ‘shared’ risk; a fear of political activity; and the acceptance of companies as members which have questionable environmental records (UN and Pacific Institute, 2010a).

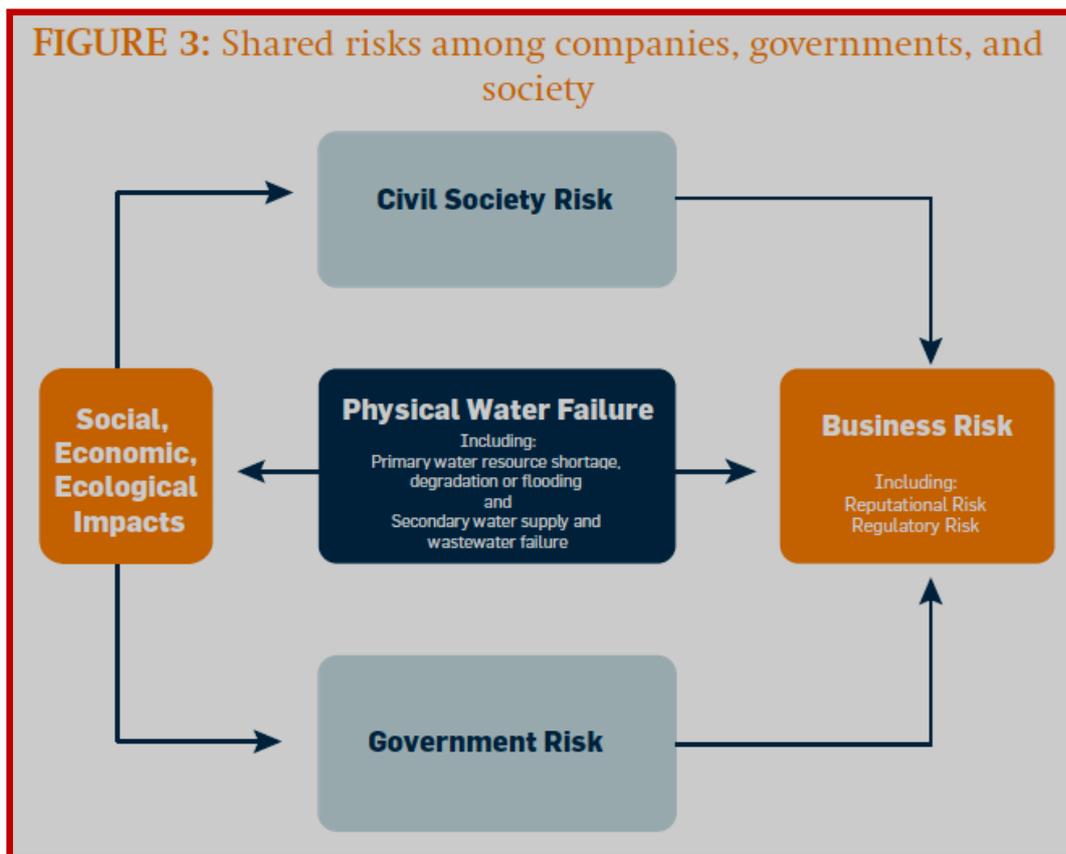
The CEO mandate makes frequent use of the idea of risk assessment. This is a widely used approach in business strategies, applied to water as it is to any other factor of production. There are now a number of online tools and websites created for this (J P Morgan, 2008; see also: WRI, 2008; CERES, 2008).

The risks for companies are identified as ‘physical risk’, the local scarcity of water itself; ‘reputational risk’ to the company’s brand image; and ‘regulatory risk’, of restrictions imposed by governments on corporate water use. The CEO Water mandate

documents, the WEF publications and many other business documents on water try to extend this approach by talking about ‘shared risks’, shared between companies, governments, communities and other stakeholders. But the risks identified in these approaches remain risks to the company, not risks to society. The only one of these risks shared with society or the environment is the scarcity of water resources themselves, and this is not a ‘shared’ risk but one in which the interests of the companies conflict with others.

The diagram below, used in a number of CEO publications, expresses this vision very clearly. In the diagram, governments, civil society and the water system itself are all sources of risk for companies. Companies themselves create no risks for anyone. Companies also have no connection at all with the social, economic and ecological impacts which stem from the failure of ‘physical water’. But the whole diagram is labelled ‘Shared risks’.

Chart B. Business view of risks: from civil society, government and physical water



Source: UN –Pacific Institute (2010b).

The obvious flaw in this approach is that it fails to acknowledge material conflicts of interest between companies and society. An assessment of risks and opportunities for society produces a very different result. This would include physical scarcity, but it would also include ‘corporate risk’ – the risk that companies will control water resources for their own benefit at the expense of households and local farmers.

Regulation also looks very different from a social perspective. For communities and ecosystems, regulation is not a risk but a positive opportunity for democratic and peaceful limitation of competing (including corporate) behaviour. By contrast, the CEO corporate diagram above has the anti-democratic implication that companies would be subject to less risks if there was no democratic government and no civil society.

What companies call ‘reputational risk’ is a result of communities asserting their interests against those of companies – which is also a positive democratic achievement from social and environmental perspectives. The descriptions of reputational risk in corporate publications are clearly describing political activity. A guide for financial institutions describes it as arising: “through tensions and conflict around access to water or the degradation of local water resources. In a highly globalised information economy, public perceptions can emerge rapidly around business decisions that are seen to impact on aquatic ecosystems or local communities’ access to clean water”. The IFC makes the same point: “Risks arising from environmental problems or social discontent surrounding a project can be extremely costly in terms of delays and stoppages, negative publicity, threats to operating license, and significant unforeseen expenditures” (WWF-DEG, 2011; IFC, 2012).

Even if a company identifies risks, it does not necessarily avoid them. These risks are themselves assessed against opportunities for profit: so even if a course of action is identified as creating serious ‘reputational risk’, the company may still conclude that such a risk is acceptable if, for example, admission of moral responsibility or discontinuing the operation would lead to greater losses to the company than the cost of lost reputation. This business decision assigns no value to the interests of others. This is one reason why the concept of a ‘human right to water’ is so ‘sensitive’ for companies (UN and Pacific Institute, 2010c).

#### *Dow Chemical as a model company*

The booklet on ‘Corporate Water Accounting’ includes a highlighted example of good practice involving one of the companies which has endorsed the CEO Water Mandate, Dow Chemical (“In 2006, the Dow Chemical Company used the WBCSD Global Water Tool and GEMI Water Sustainably Planner as the bases for a water-related risk assessment for all of its facilities worldwide”) (UN and Pacific Institute, 2010c).

This choice of Dow Chemical raises interesting issues as to what is compatible with being a member of the CEO Water Mandate. The company was the principal manufacturer of napalm, used as an anti-personnel chemical weapon, and Agent Orange, a powerful herbicide used as a weapon in the US-Vietnam war, being sprayed onto forests and crops. Dow Chemical is also now the parent of Union Carbide, the company whose

factory in Bhopal, India, killed 25,000 people in a poisonous gas explosion in 1984. The Indian government is seeking to re-open a lawsuit for damages over the Bhopal explosion, in response to which Dow states (as at November 2011) that although it owns Union Carbide, it is not responsible for any of its liabilities; that even Union Carbide “itself is not liable for claims related to the Bhopal tragedy....[that] the Indian courts do not have jurisdiction over [Dow] in this matter ..... [Dow] as a legal entity has never done business in India”. Dow’s sponsorship of the 2012 Olympic Games has been challenged by campaigners, not only on the basis of the 1984 disaster, but also claiming that: “27 years of ground-water and soil pollution from toxic waste dumped while the factory was in operation. That toxic waste has never been removed from Bhopal and continues to pollute the environment today”. Dow notes media reports of groundwater tests, and refers to a 2010 assessment which Dow says is consistent with findings “that all groundwater samples tested were within drinking water standards”. The campaign dares the organisers of the 2012 Olympic Games to drink water from Bhopal. Dow has also paid a fine of \$325,000 to settle an action by the US Securities and Exchange Commission alleging that a Dow pesticide subsidiary in India paid bribes of over \$200,000 to Indian officials to ‘expedite the registration’ of its products (Dow, 201; Close, 2012).

#### Aqueduct: a global database of corporate risk

The limitations of the corporate approach to risk can also be seen in the ‘Aqueduct’ project’. Coca-Cola has provided a global database for this project (also sponsored by Goldman Sachs, Dow Chemical, General Electric and Bloomberg), in which their collaborators are the World Resources Institute, Aqueduct bills itself as measuring and mapping water risk, but the notes explain that it is limited to “measuring business risks posed by water, thus drawing out elements that are relevant to business and financial institutions”. So Aqueduct uses the same categories of physical, regulatory and reputational risk (WRI, 2012).

This focus is not neutral, as can be seen in the way it treats the environment, and the way it values public debate. It does not yet (as at March 2012) include indicators on the impact on ecosystems. One commentator concerned with the eco-system of the Rio Grande River in New Mexico, USA, noted that under Aqueduct’s criteria “the Rio Grande might score well for risk mitigation precisely because of the unsustainable engineering that has so dramatically harmed the river's natural functions”. This was confirmed in an Aqueduct response, which added that: “An interesting area for further research might be looking at how an ecosystem approach to resilience management can reduce corporate water risks” (WRI, 2012).

Aqueduct says it plans to add indicators on eco-systems, though it is not clear if this will be done in the global dataset supplied by Coca-Cola. One of the proposed indicators is on groundwater trends, where the data itself may be contested. Another proposed indicator would fall under “regulatory and reputational risk” because of its influence on regulation and public scrutiny. As in the above diagram, the environment itself is seen as a potential source of risk, not a concern in itself (WRI, 2012).

The database at present has just two indicators on regulatory and reputational risk, one of which is ‘media coverage’, defined as “the number of media reports per capita covering water-related concerns...which reflects the level of awareness of the public and media on water and how companies are handling this resource. Higher values indicate greater awareness of water issues”, which is a fine description of a lively and well-informed democracy. But the database treats these higher values, this greater awareness as “translating to business risks”, such as regulation, critical press, and lawsuits. For the WRI/Coca-Cola database, greater public awareness is a risk-creating problem –less public awareness and less media coverage, is better (WRI, 2012).

### Water Footprint Network

A company’s ‘global water footprint’ is an analysis of all the water inputs to all the components in the supply chain of a product to see how much water is consumed in the whole production chain. This can then be used to find ways in which the water input, and the cost, can be reduced. The Water Footprint Network, which promotes the idea and the techniques for carrying it out, has been set up by the IFC and supported by various corporate and non-corporate partners, including, as usual, Coca-Cola, Nestle, PepsiCo, SAB Miller and Unilever (The Water Footprint Network, 2012).

The idea originally comes from the use of ‘energy footprints’, which enable companies to cut their use of energy. This is not only useful to the companies in reducing the real costs of energy - it is also useful in combating climate change, because reducing the demand for energy also reduces the emission of CO<sub>2</sub>, and so helps combat global warming. It also helps reduce demand for fuels such as oil and coal, stocks of which are becoming depleted. However, there is no such global benefit from companies reducing their water footprint. Using water does not directly produce CO<sub>2</sub> emissions, so reducing water use does not affect climate change. And the world’s supply of water is not being depleted: there is the same amount of water on the planet regardless of Coca-Cola’s production policies.

It is also unlikely to deal with the problem of impacts which create conflicts with local communities. The easiest places where a company can reduce its footprint are unlikely to be the places where they are already in conflict with users. Coca-Cola have identified over 300 litres of water in their global footprint for every litre of the final drink, but it is only the single litre for the final drink which is abstracted in the bottling plants in India which conflict with the interests of those specific communities in India. Reducing water used by the farmer growing the sugar does literally nothing to reduce Coca-Cola’s demand for the final litre at the bottling plant. The general point is well stated in a CEO water mandate paper: “the baseline responsibility of companies is to ensure that their activities do not infringe on the enjoyment of the right of access to water.....a company that does not respect the right of access to water in one community where it operates cannot compensate for that failure by having an extensive philanthropic/CSR program elsewhere” (Tripathi Jason Morrison, 2012).

The concept of the global footprint is very attractive for companies. If companies do reduce the water consumed by their products, it will at least do no harm. It can only enhance the reputations of companies which make the footprint commitment. And it is also something that companies can do while continuing to ignore the interests and rights of communities with whom they are in conflict.

### **The human right to water**

#### The UN resolution and its origins

In complete contrast to this technical and economic ideology from the corporate initiatives is the concept of a ‘human right to water’. One source was the concern for the living conditions of the poor, especially in peri-urban slums whose inhabitants lacked official property rights or tenancy rights, and as a result were being denied access to urban services including water. The UN Commission on Human Rights was persuaded to agree a comment to the effect that there was a human right to water and sanitation, thus providing important support for slum dwellers and others.

At the same time, many rural and indigenous movements, especially in Latin America, were demanding that their rights to local water resources should be recognised, to protect these resources against the impact of mining and agribusiness corporations.

The worldwide resistance to privatisation of public water supplies also adopted the argument that water services should not be put in the hands of private companies because the need for water and sanitation was too important and too fundamental for it to be dependent on commercial decisions based on profitability. These last two groups, in particular, formed coalitions to get the human right to water adopted in national constitutions, as it was in the first democratic constitution of South Africa in 1994. Following a referendum, Uruguay included the right to water in its constitution, followed by other countries, including Bolivia.

This process culminated on 28 July 2010, when the United Nations General Assembly agreed Resolution 64/292, which recognized the human right to water and sanitation and acknowledged that clean drinking water and sanitation are key factors to the accomplishment of all human rights. The motion was moved by Bolivia, but a number of OECD countries tried to avoid the vote being taken, and considered opposition. In the end, the resolution was supported by 122 states, and opposed by none, with 41 abstaining (UNGA, 2010).

The notion is now used by many groups at local, national regional and local levels to support a range of different positions, reflecting the range of social movements involved in its development. These include demands for extension of water supply as a public service, or for eliminating or reducing charges for water, or to reject privatisation and commercialisation, or to assert that human consumption has priority, or that local subsistence farming has priority, or to insist upon traditional customs of water governance.

The common element in these positions, and the concept itself, is the assertion of equality, not only of equal needs to a fundamental element of life, but also of equal political power – democracy – and of equality before the law. This challenges the corporate position described above, because it implies that conflicts will be resolved by democratic politics, not by markets and the ‘allocation of water to higher value uses’. Water is to be governed by human rights, not corporate strategies. It also challenges the corporate reluctance seen in the case studies above, to acknowledge the rights of others, or even to respect judicial decisions which uphold those rights. As a result, the corporate response has been confused and hostile.

### Human rights and policy capture

Following the UN decision in 2010, the CEO Water Mandate produced a paper on water as a human right (UN and Pacific Institute, 2010d). It does not treat it as a new opportunity for businesses to demonstrate their commitment to this new right. Rather, the paper refers to “the sensitive nature of this topic”, the “uncertainty” of business responsibilities, and the “concerns” and “caution” of companies. Even in a confidential survey, only two of the companies endorsing the mandate formally acknowledged the human right to water. This was due to fears that others may use the ‘right to water’ to impose constraints on business activity: “hesitancy toward a formal corporate policy on the human right to water in many cases is driven by the ill-defined landscape of stakeholder expectations regarding what actions and outcomes will constitute a legitimate and fulfilled commitment to respect the human right to water”.

The CEO Mandate itself keeps ‘ill-defined’ society at arm’s length. Even the section on ‘Community Engagement’ only commits the companies to : “Endeavour to understand the water and sanitation challenges in the communities where we operate and how our businesses impact those challenges” and even this is limited by the phrase “where appropriate, over time” (UN and Pacific Institute, 2010a).

Apart from this corporate nightmare of an ‘ill-defined landscape’ swarming with people with non-commercial agendas, the paper makes no mention of democratic political processes, and avoids altogether mentioning the possibility of conflicts of interest. Instead, it prefers to talk of: “shared social, political, environmental, and economic risks facing civil society, companies, and governments”. With no apparent role for democratic decision-making, and no possibility of the public interest conflicting with corporate interests, the implication is that public policy can always be aligned to corporate policies, and so it is only normal to expect governments to support corporate positions.

This may be one reason why the paper warns against the danger of “policy capture”, and in particular the dangers that some company activities “might be perceived as inappropriate or unlawful by certain stakeholders due to concerns of policy capture”. The CEO Mandate is very aware of this issue. Its Guide to Responsible Business Engagement with Water Policy includes a definition of the process: “Policy capture exists where organizations unduly dominate a policymaking process to an extent that excludes

or subdues other stakeholder views, resulting in policy that favors narrow vested interests to the detriment of the public good”. It warns that the appearance should be avoided as much as the reality: “Stakeholder concerns of corporate policy capture are perhaps the largest barrier to companies playing a meaningful and responsible role in the development and implementation of water policy” (UN and Pacific Institute, 2010b).

This anxious resistance to the concept of a human right to water can be contrasted with the response of the companies whose business is private operation of municipal water services. For these companies, conflict over rights to water resources are much less important than conflicts over the issue of privatisation itself. Public opposition to privatisation often uses the concept of a human right to water as one reason against it being subject to commercial operators, and so it is a powerful weapon in these political struggles. For the private water companies, it is therefore more important to try and blunt the use of this weapon by persuading people to reject the idea that privatisation is in conflict with human rights. And so the response of the private water companies to the UN resolution was very different: their global association, Aquafed, immediately issued a press release headed ‘Private Water Operators celebrate the recognition of the Human Right to water and sanitation by the United Nations General Assembly’, which even claimed that they had been “working actively with the United Nations and many other stakeholders for a decade to ensure that the Right to Water and Sanitation is recognized” (Aquafed, 2010).

## **Conclusions**

The starting point of this report was that the corporate interest in water is based on from the economic function of water as an input to the companies’ activities, manufacturing drinks and food, mining and oil exploration, and agribusiness. This economic use of water brings companies into conflict with communities where local water scarcity is created or exacerbated by the commercial activity. The resolution of these conflicts involves political and legal processes, and ideas and ideology matter in these arenas. Companies have an interest in promoting ideas which

The global corporate initiatives discussed above have been extremely successful. They have mobilised the economic and media resources of the companies themselves, the World Economic Forum, the World Bank and others, and these resources draw in NGOs and academic and other experts as well. This money – much of it public money – sustains a significant global community of people with a common agenda including shared risks, allocation of water resources to higher value uses, and global water footprints.

By contrast, communities in conflict with the same companies over water resources, have no remotely comparable resources. Yet the ‘human right to water’ has won the powerful backing of the UN, is widely referred to in local conflicts, and has a high level of public legitimacy. The global level corporate hegemony thus may have little local value. Just as the corporate ‘global water footprint’ has no relevance for its impact

at any specific location, so global ideological dominance may be less significant when dispute resolution always happens at the local level.

It remains possible in principle for companies to choose local strategies which recognise human rights and specific water rights of local communities, and accept that decisions will be made by democratic institutions through open public debate. Companies in conflict over water resources, however, make a different judgement. As the Aqueduct database insists, public debate and public awareness are seen as threats. The company in each individual case makes an economic assessment of options, which consistently do not favour recognising human right to water or public democratic decision-making. Corporate lawyers can deliver a better return by denying liability, challenging the legitimacy of courts, and endlessly delaying the final outcome of court cases (e.g. Dow Chemical in Bhopal, Chevron in Ecuador), than they can by recognising rights and engaging in public negotiation. The economic return from ‘policy capture’, by providing economic and other incentives for politicians to support the corporate position, is more reliable than engaging in political processes in the public domain.

Political contests over privatisation in the water sector itself have largely been won by social organisations. It still remains unclear if corporate interests will dominate in water resource issues.

## References

[All the weblinks listed below were consulted in 2012].

Agencia de Informação de Moçambique (2008), Biofuel project wants Mozambican labour, 28 November 2008. <http://allafrica.com/stories/200811280929.html>.

Allan, Tony (2002), “Water resources in semi-arid regions: Real deficits and economically invisible and politically silent solutions”, in Anthony Turton and Roland Henwood (eds.), Hydropolitics in the Developing World: A Southern African Perspective, Pretoria: African Water Issues Research Unit (AWIRU), pp. 23-36.

Andrews, Anthony, Peter Folger, Marc Humphries, Claudia Copeland, Mary Tiemann, Robert Meltz, and Cynthia Brougher (2009), “Unconventional Gas Shales: Development, Technology, and Policy Issues”. Congressional Research Service <http://www.fas.org/sgp/crs/misc/R40894.pdf>

Aquafed (2010), Aquafed press statement, 29 July 2010. [http://www.aquafed.org/pdf/UNGA-RTWS\\_AquaFed\\_Press%20Release\\_Pc\\_Rev1\\_EN\\_2010-07-29.pdf](http://www.aquafed.org/pdf/UNGA-RTWS_AquaFed_Press%20Release_Pc_Rev1_EN_2010-07-29.pdf).

Baumgart, J. (2011), “Assessing the contractual arrangements of large-scale land acquisitions in Mali with special attention to water rights”. Berlin, GIZ. <http://www.oicrf.org/document.asp?ID=10052>.

BBC (2003), “Coca-Cola's 'toxic' India fertiliser”, 25 July 2003. [http://news.bbc.co.uk/1/hi/world/south\\_asia/3096893.stm](http://news.bbc.co.uk/1/hi/world/south_asia/3096893.stm).

BBC (2004), “Coke's water bomb”, 16 June 2004. <http://news.bbc.co.uk/1/hi/business/3809539.stm>.

BBC (2011), “The technology of saving India's precious water supply”, 13 September 2011. <http://www.bbc.co.uk/news/business-14847808>.

Borras Jr, Saturnino M., David Fig, and Sofía Monsalve Suárez (2011), “The politics of agrofuels and mega-land and water deals: insights from the ProCana case, Mozambique”, Review of African Political Economy, (38)128: 215-234. <http://dx.doi.org/10.1080/03056244.2011.582758>.

Borzutzky, S. and Madden, E. F. (2011), “Markets awash: the privatization of Chilean water markets”. Journal of International Development, 25: 251-275. doi: 10.1002/jid.1802.

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

Bush, Ray, Janet Bujra & Gary Littlejohn (2011), “The accumulation of dispossession”, Review of African Political Economy, (38)128: 187-192.  
<http://dx.doi.org/10.1080/03056244.2011.582752>.

Business News Americas (2012), Gener eyeing 530MW Alto Maipo construction tender in H1, 31 January 2012. <http://www.bnamericas.com/en/news/electricpower/gener-eyeing-530mw-alto-maipo-construction-tender-in-h1>.

CERES – Mobilizing Business Leadership for a Sustainable World (2012), Aqua Gauge. <http://www.ceres.org/issues/water/aqua-gauge/aqua-gauge>.

Ciudadano, El (2012a) “Cada vez más conflictos ambientales en la Argentina”, Chile, 29 January 2012. <http://www.elciudadano.cl/2012/01/29/47678/cada-vez-mas-conflictos-ambientales-en-la-argentina/>.

Ciudadano, El (2012b), “Mineras e hidroeléctricas amenazan el agua potable”, Chile, 31 January 2012. <http://www.elciudadano.cl/2012/01/31/47744/mineras-e-hidroelectricas-amenazan-el-agua-potable/>.

Ciudadano, El (2012c), “Peruanos inician gran marcha por el agua y contra la minería”, Chile, 1 February 2012. <http://www.elciudadano.cl/2012/02/01/47775/peruanos-inician-gran-marcha-por-el-agua-y-contra-la-mineria/>.

Close, Lorraine (2012), “Will Lord Coe take the Bhopal water challenge? Huffington Post, 17 January, 2012. [http://www.huffingtonpost.co.uk/lorraine-close/london-2012-bhopal-water-challenge\\_b\\_1208832.html](http://www.huffingtonpost.co.uk/lorraine-close/london-2012-bhopal-water-challenge_b_1208832.html).

Coca-Cola (2008), Annual Report, [http://www.thecoca-colacompany.com/investors/pdfs/form\\_10K\\_2008.pdf](http://www.thecoca-colacompany.com/investors/pdfs/form_10K_2008.pdf).

Codelco es Noticia (2012), “Polémica venta de agua de Calama a Minera Collahuasi”, 12 January 2012, Chile. [http://www.prensaminera.cl/index.php?option=com\\_content&view=article&id=5532:polémica-venta-de-agua-de-calama-a-minera-collahuasi&catid=40:calidad-de-vida&Itemid=59](http://www.prensaminera.cl/index.php?option=com_content&view=article&id=5532:polémica-venta-de-agua-de-calama-a-minera-collahuasi&catid=40:calidad-de-vida&Itemid=59).

Cotula, L. and Vermeulen, S. (2009), Land grabs in Africa: can the deals work for development? Briefing, September. London: International Institute for Environment and Development (IIED). <http://www.iied.org/natural-resources/key-issues/empowerment-and-land-rights/first-detailed-study-large-land-acquisitions-africa-warns-impacts-poor->

Cotula, L. (2011), Land deals in Africa: What is in the contracts? London: International Institute for Environment and Development (IIED). <http://www.iied.org/natural->

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

[resources/media/report-shows-how-secret-land-deals-can-fail-benefit-african-nations-%E2%80%93-and-ho.](#)

Dow Chemical (2011), Q&A, 28 February 2011. [http://www.dow.com/sustainability/debates/pdfs/QA\\_Issuance\\_Notice\\_with\\_respect\\_Curative.pdf](http://www.dow.com/sustainability/debates/pdfs/QA_Issuance_Notice_with_respect_Curative.pdf).

Drew, Georgina (2008), “From the groundwater up: asserting water rights in India”, *Development*, 51:37–41. [http://conflicts.indiawaterportal.org/sites/conflicts.indiawaterportal.org/files/Asserting\\_Water\\_Rights\\_in\\_India.pdf](http://conflicts.indiawaterportal.org/sites/conflicts.indiawaterportal.org/files/Asserting_Water_Rights_in_India.pdf).

Earthworks (2008), “Modern mining needs a Modern Mining Law”, <http://www.earthworkSACTION.org/files/publications/ModernMiningFINAL.pdf?pubs/ModernMiningFINAL.pdf>.

Economist, The (2010), Deep waters, slowly drying up, October 7th 2010. <http://www.economist.com/node/17199914>.

Environmental Magazine, The (2003), “Despite the hype, bottled water is neither cleaner nor greener than tap water”, 9 December 2003 <http://www.organicconsumers.org/foodsafety/water121003.cfm>.

ENS – Environment News Service (2012), “Ecuadorian Court Confirms \$18 Billion Chevron Damage Award”, 4 January 2012. <http://www.ens-newswire.com/ens/jan2012/2012-01-04-02.html>.

Ercin, A.E., M.M. Aldaya, and A.Y. Hoekstra (2011), “Corporate water footprint accounting and impact assessment: The case of the water footprint of a sugar-containing carbonated beverage”, *Water Resources Management*, 25(2): 721-741 <http://www.waterfootprint.org/Reports/Ercin-et-al-2011-CorporateWaterFootprint-Softdrink.pdf>.

Evans, Robin, Peter Roe, and Jim Joy (2003), “Water use and sustainable development in coal mining – a case study from central Queensland”, SOTA Project, [http://www.csrn.uq.edu.au/docs/MCA\\_SOTA.pdf](http://www.csrn.uq.edu.au/docs/MCA_SOTA.pdf).

Farm Land Grab (2012), Food Crisis and the Global Land Grab. <http://farmlandgrab.org>.

Farm Land Grab (2009), Madagascar cancels water deal with Saudi Arabia, 14 Nov 2009 <http://farmlandgrab.org/post/view/8908>.

Gerbens-Leenes, Winnie and Arjen Y. Hoekstra (2011), “The water footprint of biofuel-based transport”, *Energy & Environmental Science*, 4: 2658–2668.

---

**WATERLAT-GOBACIT Research Network**

5th Floor Claremont Bridge Building, NE1 7RU Newcastle upon Tyne, United Kingdom

E-mail: [waterlat@ncl.ac.uk](mailto:waterlat@ncl.ac.uk) – Web page: [www.waterlat.org](http://www.waterlat.org)

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

[www.waterfootprint.org/Reports/GerbensLeenes-Hoekstra-2011-WaterFootprintBiofuelbasedTransport.pdf](http://www.waterfootprint.org/Reports/GerbensLeenes-Hoekstra-2011-WaterFootprintBiofuelbasedTransport.pdf).

Global Power Report (2011), AES Gener secures water rights to build 531-MW hydro plant in Chile, Latin America, 9 June 2011.

Guardian, The (2011), “Chevron fined \$8bn over Amazon 'contamination'”, 14 February 2011. [www.guardian.co.uk/business/2011/feb/14/chevron-contaminate-ecuador](http://www.guardian.co.uk/business/2011/feb/14/chevron-contaminate-ecuador).

Guardian, The (2012), “Chevron accused of racism as it fights Ecuador pollution ruling”, 4 January 2012. <http://www.guardian.co.uk/business/2012/jan/04/chevron-accused-racism-ecuador-pollution?INTCMP=ILCNETTXT3487>.

Hall, Ruth (2011), Land grabbing in Southern Africa: the many faces of the investor rush, Review of African Political Economy, (38)128: 193-214  
<http://dx.doi.org/10.1080/03056244.2011.582753>.

Government of Kerala (2009), Constitution of a High Power Committee, Kerala, India. [http://www.groundwater.kerala.gov.in/english/pdf/go\\_tor.pdf](http://www.groundwater.kerala.gov.in/english/pdf/go_tor.pdf).

IFC – International Financial Corporation, World Bank Group (2012), Sustainability - Managing Environmental and Social Risks  
[http://www1.ifc.org/wps/wcm/connect/Topics\\_Ext\\_Content/IFC\\_External\\_Corporate\\_Site/IFC+Sustainability/Risk+Management/](http://www1.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/IFC+Sustainability/Risk+Management/).

IGEL – Initiative for Global Environmental Leadership, and Knowledge@ Wharton (2011), “Valuing water: how can businesses manage the coming scarcity?”, [http://knowledge.wharton.upenn.edu/papers/download/031611\\_valuingwater.pdf](http://knowledge.wharton.upenn.edu/papers/download/031611_valuingwater.pdf).

IIED - International Institute for Environment and Development (2011), African governments signing away water rights for decades. London: International Institute for Environment and Development (IIED)  
<http://www.ied.org/natural-resources/media/african-governments-signing-away-water-rights-for-decades>.

India Resource Center (2010), “Government moves to claim \$48 million compensation from Coca-Cola”, 3 July 2010. [www.indiaresource.org](http://www.indiaresource.org).

India Resource Center (2011a), “Sharp drop in groundwater levels around Coca-Cola bottling plant”, 25 April 2011. [www.indiaresource.org](http://www.indiaresource.org).

India Resource Center (2011b), “Water levels continue dropping sharply around Coca-Cola plant in Kala Dera”, 21 September 2011. [www.indiaresource.org](http://www.indiaresource.org).

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

India Resource Center (2011c), “Deception with purpose: PepsiCo’s water claims in India”, 30 Nov 2011. <http://www.indiaresource.org/news/2011/pepsipositivewater.html>.

International Land Coalition (2011), Land Rights and the Rush For Land Report. <http://www.landcoalition.org/cplstudies>.

J P Morgan (2008), “Watching water A guide to evaluating corporate risks in a thirsty World”, [http://pdf.wri.org/jpmorgan\\_watching\\_water.pdf](http://pdf.wri.org/jpmorgan_watching_water.pdf).

McKinsey & Co. (2009), Charting Our Water Future: Economic Frameworks to Inform Decision-Making. [http://www.2030waterresourcesgroup.com/water\\_full/Charting\\_Our\\_Water\\_Future\\_Final.pdf](http://www.2030waterresourcesgroup.com/water_full/Charting_Our_Water_Future_Final.pdf).

Nhantumbo, Isilda, and Alda Salomão (2010), Biofuels, land access and rural livelihoods in Mozambique, London: International Institute for Environment and Development (IIED). <http://pubs.iied.org/pdfs/12563IIED.pdf>.

Oxfam (2011), Land and Power: The growing scandal surrounding the new wave of investments in land, Oxford. <http://www.oxfam.org/sites/www.oxfam.org/files/bp151-land-power-rights-acquisitions-220911-en.pdf>.

Patterson, Kendra (2009), “A case for integrating groundwater and surface water management”, in David Michel and Amit Pandya (eds.), Troubled Waters - Climate Change, Hydropolitics, and Transboundary Resources, Stimson, [http://www.stimson.org/images/uploads/research-pdfs/Troubled\\_Waters-Chapter\\_5\\_Patterson.pdf](http://www.stimson.org/images/uploads/research-pdfs/Troubled_Waters-Chapter_5_Patterson.pdf).

PepsiCo India (2010), Corporate Citizenship Report 2010-11. <http://pepsicoindia.co.in/Download/Pepsi%20Citizenship%20Report-%202010-11.pdf>.

Public Interest Investigations (2012). “2030 Water Resources Group”. [http://www.powerbase.info/index.php/2030\\_Water\\_Resources\\_Group](http://www.powerbase.info/index.php/2030_Water_Resources_Group).

Responsible Research (2010), “Beverages in Asia”, [http://www.responsibleresearch.com/Beverages\\_in\\_Asia-Issues\\_for\\_Responsible\\_Investors.pdf](http://www.responsibleresearch.com/Beverages_in_Asia-Issues_for_Responsible_Investors.pdf).

SABMiller (2012), “SABMiller Working with farmers to save water”. <http://www.sabmiller.com/index.asp?pageid=2045>.

Seekell, D. A., P D’Odorico, and M L Pace (2010), “Virtual water transfers unlikely to redress inequality in global water use”, *Environmental Research Letters*, 6 024017 <http://iopscience.iop.org/1748-9326/6/2/024017>.

---

**WATERLAT-GOBACIT Research Network**

5th Floor Claremont Bridge Building, NE1 7RU Newcastle upon Tyne, United Kingdom  
E-mail: [waterlat@ncl.ac.uk](mailto:waterlat@ncl.ac.uk) – Web page: [www.waterlat.org](http://www.waterlat.org)

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

Smaller, C. and Mann, H., (2009), A Thirst for Distant Lands: Foreign investment in Agricultural Land and Water, Winnipeg, IISD, <http://www.iisd.org/publications/pub.aspx?id=1122>.

Suweis, S. S., M. Konar, C. Dalin, N. Hanasaki, A. Rinaldo, and I. Rodriguez-Iturbe (2011), “Structure and controls of the global virtual water trade network”, *Geophysical Research Letters*, 38, L10403, doi:10.1029/2011GL046837.

Tafur, Victor M. (2011), “Water law, mining and hydro-energy conflicts In South America: tales from the Andes and Patagonia”, Special Edition, *International Journal of Rural Law and Policy*, 1 Water Law: Through the Lens of Conflict <http://www.rurallawandpolicy.edu.au/journal/index.php/ijrlp/issue/view/3/showToc>.

TERI – The Energy and Resources Institute (2008), “Executive summary of the study on independent third party assessment of Coca-Cola facilities in India”. <http://www.teriin.org/upfiles/projects/Coca-cola-ES.pdf>.

Tidwell, Vince, Amy Cha-tein Sun, and Len Malczynski (2011), Biofuel Impacts on Water, Sandia Report, SAND2011-0168, January 2011. <http://prod.sandia.gov/techlib/access-control.cgi/2011/110168.pdf>.

Tripathi, Salil and Jason Morrison (2009), Water and Human Rights: Exploring the Roles and Responsibilities of Business. [http://ceowatermandate.org/files/research/Business\\_Water\\_and\\_Human\\_Rights\\_Discussion\\_Paper.pdf](http://ceowatermandate.org/files/research/Business_Water_and_Human_Rights_Discussion_Paper.pdf).

UNEP – United Nations Environment Programme (2012a), Global waterstress and scarcity. <http://www.unep.org/dewa/vitalwater/article69.html>.

UNEP (2012b), Water Scarcity Index. <http://www.unep.org/dewa/vitalwater/article77.html>

UNEP (2012c), The contribution of climate change to declining water availability. <http://www.unep.org/dewa/vitalwater/article155.html>

UN-FAO – Food and Agriculture Organization (2012), AQUASTAT. <http://www.fao.org/nr/water/aquastat/globalmaps/index.stm>

UN – United Nations Global Compact and Pacific Institute (2010a), The CEO Water Mandate, <http://ceowatermandate.org/about/endorsing-companies/>.

UN – United Nations Global Compact and Pacific Institute (2010b), The CEO Mandate Guide to Responsible Business Engagement with Water Policy.

---

**WATERLAT-GOBACIT Research Network**

5th Floor Claremont Bridge Building, NE1 7RU Newcastle upon Tyne, United Kingdom

E-mail: [waterlat@ncl.ac.uk](mailto:waterlat@ncl.ac.uk) – Web page: [www.waterlat.org](http://www.waterlat.org)

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

[http://ceowatermandate.org/files/Guide\\_Responsible\\_Business\\_Engagement\\_Water\\_Policy.pdf](http://ceowatermandate.org/files/Guide_Responsible_Business_Engagement_Water_Policy.pdf).

UN – United Nations Global Compact and Pacific Institute (2010c), Corporate Water Accounting – An Analysis of Methods and Tools for Measuring Water Use and its Impacts A stocktaking and assessment of existing and emerging water accounting methods and tools being used in the private sector. ([http://ceowatermandate.org/files/corporate\\_water\\_accounting\\_analysis.pdf](http://ceowatermandate.org/files/corporate_water_accounting_analysis.pdf)).

UN – United Nations Global Compact and Pacific Institute (2010d), The Human Right to Water: Emerging Corporate Practice and Stakeholder Expectations. [http://ceowatermandate.org/files/Water\\_Mandate\\_Human\\_Rights\\_White\\_Paper.pdf](http://ceowatermandate.org/files/Water_Mandate_Human_Rights_White_Paper.pdf)

UNGA - United Nations General Assembly (2010), General Assembly Adopts Resolution Recognizing Access to Clean Water, Sanitation. 10967 28 July 2010.

Water Footprint Network, The (2012), <http://waterfootprint.org>.

Woodhouse, P. and A S Ganho 2011 Is Water the Hidden Agenda of Agricultural Land Acquisition in sub-Saharan Africa? [www.tni.org/sites/www.tni.org/files/Watergrabbing - Woodhouse paper.pdf](http://www.tni.org/sites/www.tni.org/files/Watergrabbing-Woodhouse_paper.pdf).

World Bank (2010), Rising global interest in farmland: can it yield sustainable and equitable benefits?

World Business Council for Sustainable Development (2005), Water Facts and Trends. [http://www.unwater.org/downloads/Water\\_facts\\_and\\_trends.pdf](http://www.unwater.org/downloads/Water_facts_and_trends.pdf);

WEF – World Economic Forum (2008a), Realizing the Potential of Public-Private Partnership Projects in Water. [http://www3.weforum.org/docs/WEF\\_WI\\_PublicPrivateProjects\\_2008.pdf](http://www3.weforum.org/docs/WEF_WI_PublicPrivateProjects_2008.pdf).

WEF (2008b), Managing our Future Water Needs for Agriculture, Industry, Human Health and the Environment <https://members.weforum.org/pdf/water/WaterInitiativeFutureWaterNeeds.pdf>

WEF (2009), “The Bubble Is Close to Bursting” <https://members.weforum.org/pdf/water/WaterInitiativeFutureWaterNeeds.pdf>

WEF (2012a), Water Resources Group, Davos. <http://www.weforum.org/issues/water#note>.

WEF (2012b), Programme, Davos. [http://www3.weforum.org/docs/AM12/WEF\\_AM12\\_ProgrammeWeb.pdf](http://www3.weforum.org/docs/AM12/WEF_AM12_ProgrammeWeb.pdf).

---

**WATERLAT-GOBACIT Research Network**

5th Floor Claremont Bridge Building, NE1 7RU Newcastle upon Tyne, United Kingdom

E-mail: [waterlat@ncl.ac.uk](mailto:waterlat@ncl.ac.uk) – Web page: [www.waterlat.org](http://www.waterlat.org)

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

Wolf, A. T, Shira B. Yoffe, and Mark Giordano (2003), International Waters: identifying basins at risk. UNESCO.  
[http://www.unesco.org/water/wwap/facts\\_figures/sharing\\_waters.shtml](http://www.unesco.org/water/wwap/facts_figures/sharing_waters.shtml).

WRI – World Resources Institute (2012), Aqueduct. Measuring and Mapping Water Risk. <http://projects.wri.org/aqueduct/framework>.

WWF – World Wild Fund and DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH (2011), Assessing Water Risk: A Practical Approach for Financial Institutions. [http://assets.panda.org/downloads/deg\\_wwf\\_water\\_risk\\_final.pdf](http://assets.panda.org/downloads/deg_wwf_water_risk_final.pdf).

WWF-INT – World Wild Fund International (2010), Annual Report 2010. [http://assets.panda.org/downloads/int\\_ar\\_2010.pdf](http://assets.panda.org/downloads/int_ar_2010.pdf).

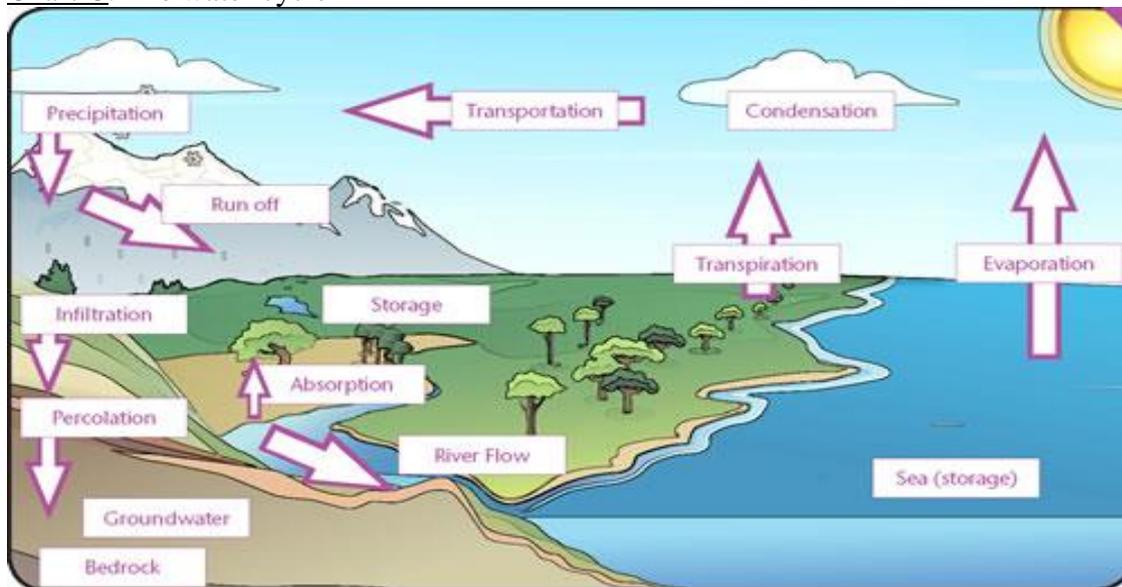
WWF-UK – World Wild Fund United Kingdom and OFWAT – Office of Water Services (2009), “Joint statement on pathways to sustainable abstraction”. [http://www.ofwat.gov.uk/competition/review/res\\_ofw\\_090917wwfabstract.pdf](http://www.ofwat.gov.uk/competition/review/res_ofw_090917wwfabstract.pdf).

## Appendix

### Global water

The total volume of water on Earth is about 1.4 billion km<sup>3</sup>. This volume does not change: the world is not running out of water. It is not a 'depletable' resource like oil or gas. Water is constantly recycled through rivers to the sea and then by evaporation to form clouds and return again as rain or snow.

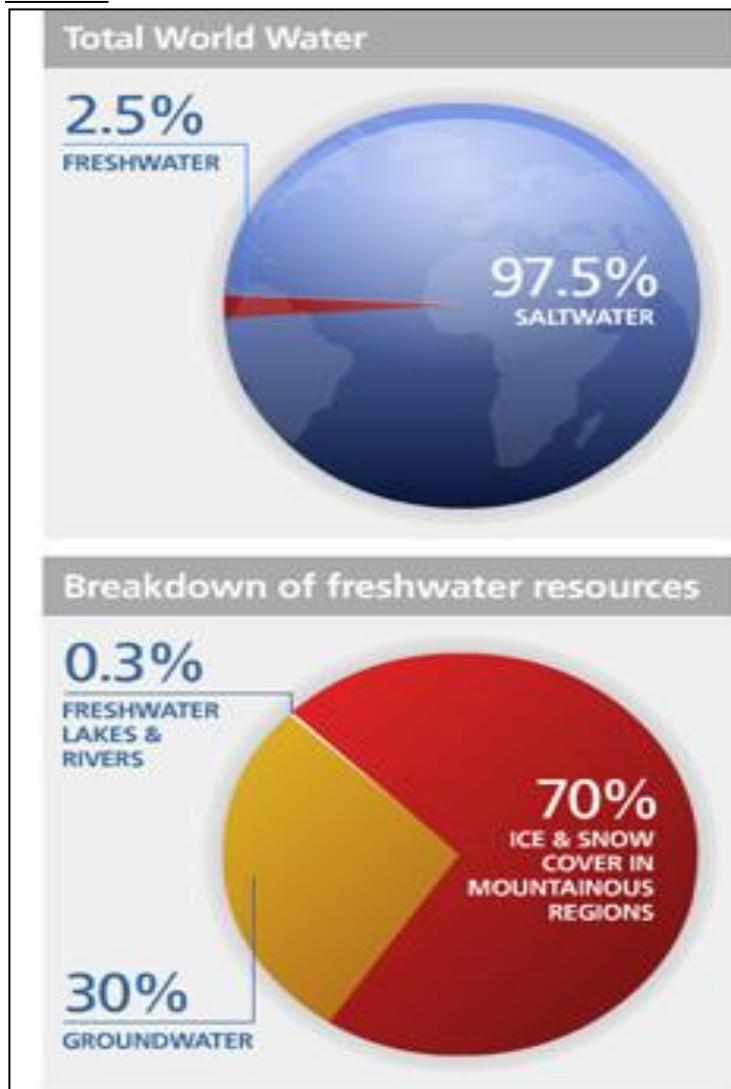
Chart C. The water cycle



Most water (97.5%) is in the sea, and not fit for drinking or irrigation. Of the remaining freshwater:

- 70% is in the form of ice and snow in mountains and Arctic/Antarctic
- Nearly 30% is in underground aquifers ("groundwater") (10.5 billion km<sup>3</sup>)
- Only 0.3% of freshwater is in lakes and rivers ("surface water") (105,000 km<sup>3</sup>)

Chart D. Water



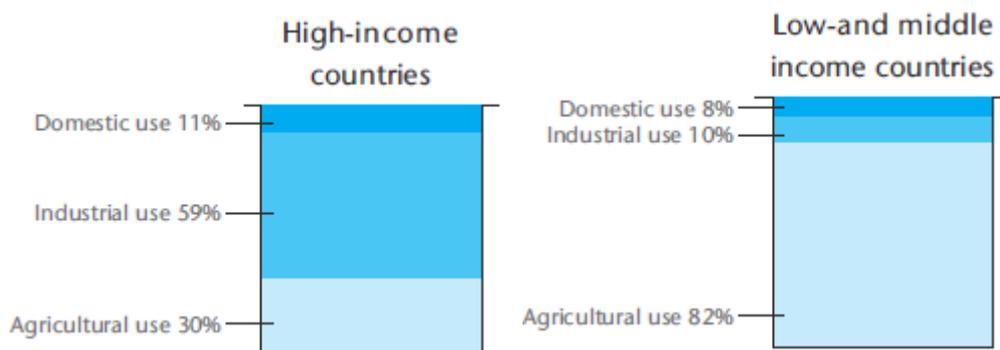
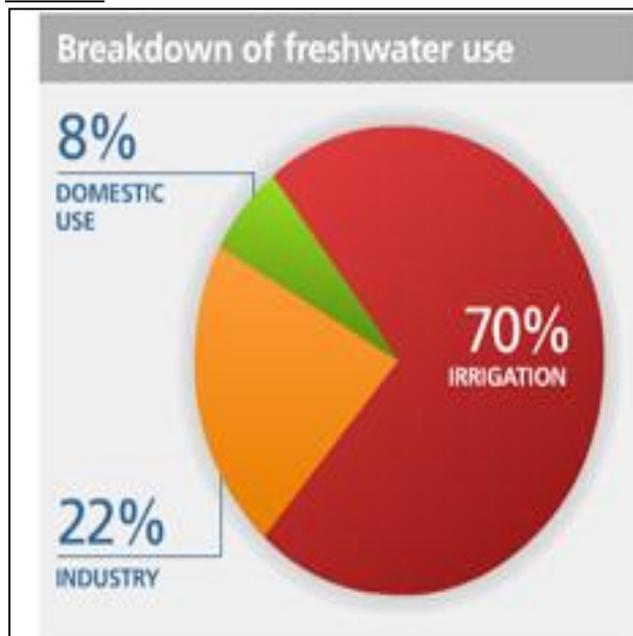
Source: World Business Council for Sustainable Development (2005); UN-FAO (2012),

Castro, José Esteban (Ed.)

Global use of water

The biggest use of water in developing countries, and in the world as a whole, is by agriculture for irrigating fields. Only 8% is consumed by households. In high income countries, industry is the biggest user, accounting for nearly 60%.

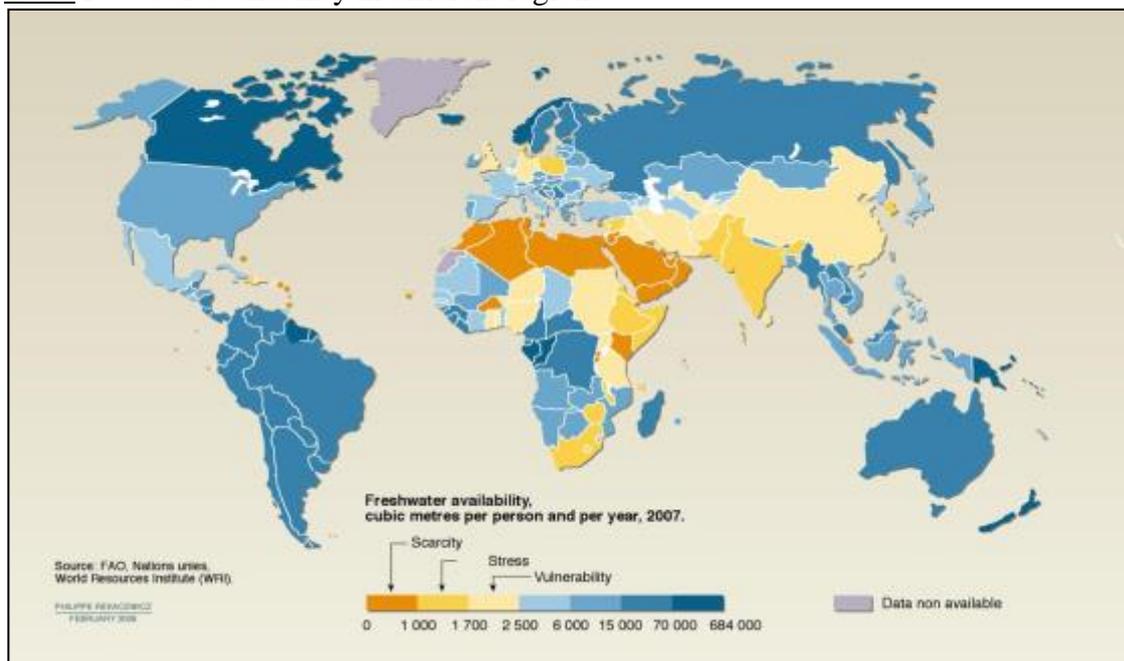
Chart E. Different uses of water



Source: World Business Council for Sustainable Development (2005); UN-FAO (2012).

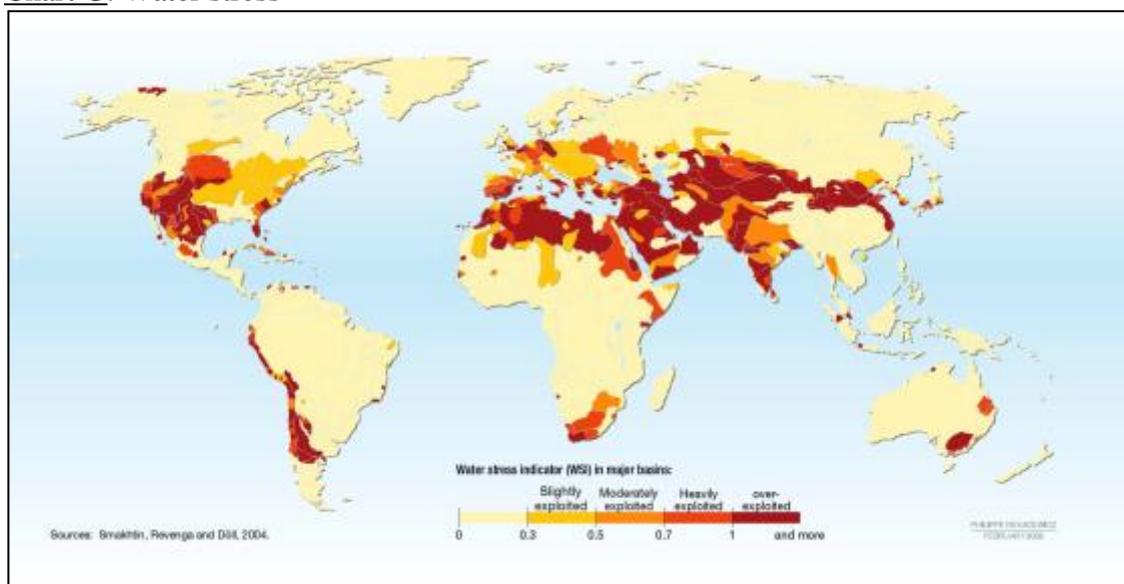
Water scarcity and water stress

Chart F. Water availability in different regions



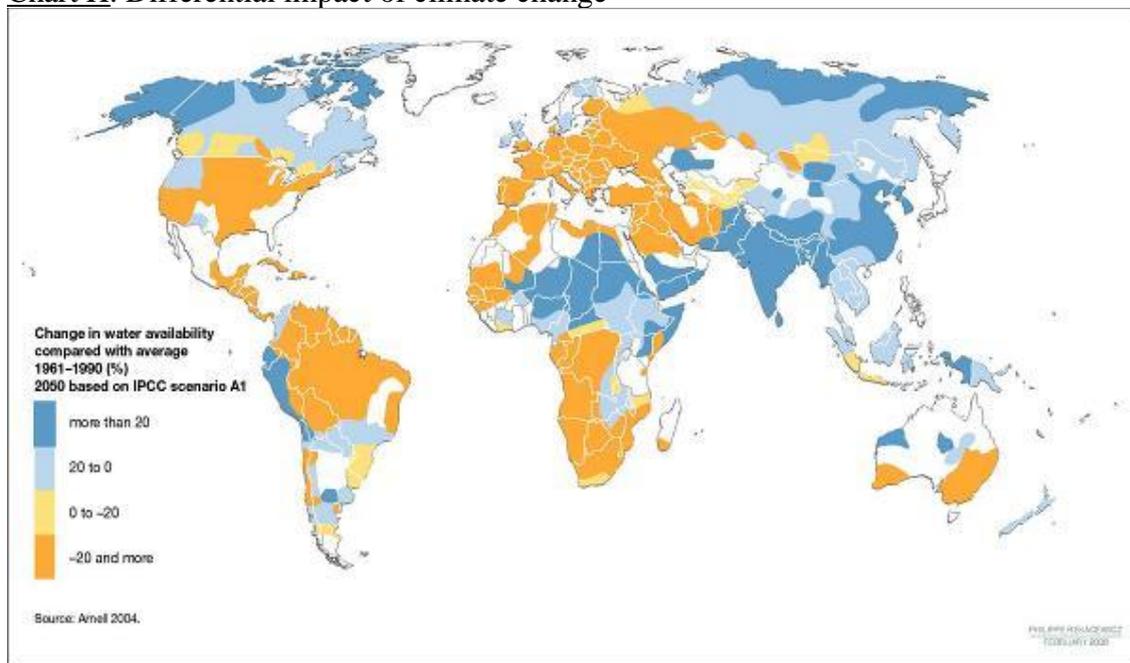
Source: UNEP (2012a).

Chart G. Water stress



Source: Source: UNEP (2012b).

Chart H. Differential impact of climate change



Source: Source: UNEP (2012c).

## **ARTICLE 3**

### **Corruption and public services**

David Hall,<sup>1</sup> Public Services International Research Unit (PSIRU) University of Greenwich

An earlier version of this paper was published by PSIRU in November 2012.

#### **Introduction and summary**

Corruption is much more than a moral issue. It undermines public services and democracy. When citizens have to pay bribes to get healthcare or fair policing, or contracts are awarded to those who pay bribes, it threatens society as a whole. Corruption wastes public money by diverting it into the hands of corrupt politicians, businesses and their agents. It perverts public policy decisions, by buying decisions which suit the interests of the rich and powerful elite. It steals wealth from countries and places it in tax havens for the benefit of corrupt individuals.

One set of problems concerns the extent to which individual public employees demand bribes from the public to provide the service they are entitled to. This undermines public services. It needs to be eradicated by implementing employment practices, including pay, which minimise the temptations to corruption and maximise the incentives to ethical behaviour.

The bigger problems concern the corrupt networks of senior officials, politicians, and domestic and foreign businesses. Government contracts and privatisations are at the heart of these systems. Policies which favour privatisation also create the conditions which are most favourable to corruption.

Corruption is often discussed as though it was a problem only in developing countries. It is blamed on the countries themselves for having poor ‘cultures’ which tolerate corruption. This is contrary to the evidence which shows that the overwhelming majority of people in all countries are strongly intolerant of corrupt practices.

Donors and international institutions like the World Bank like to portray themselves as supporting ‘anti-corruption’ initiatives. In practice, their policies favouring privatisation provide greater incentives and opportunities for corruption. Moreover, donor countries and the World Bank have actively discouraged developing countries from prosecuting multinational companies for corruption.

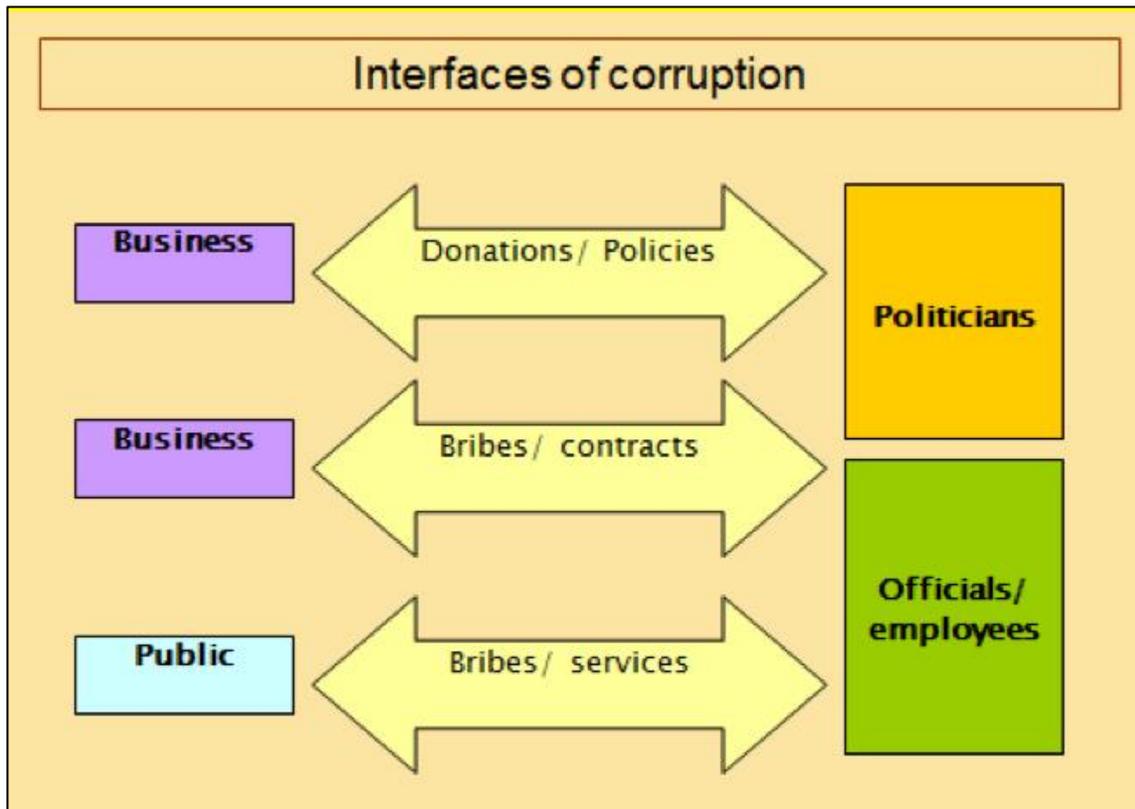
Ending corruption requires public and political organising to demand that political leaders represent public interests, not the interests of rich individuals and powerful

---

<sup>1</sup> E-mail: [halldj@gmail.com](mailto:halldj@gmail.com).

companies, and to hold them accountable. Transparency, accountability and public participation are key elements in this, as are strong and independent systems of audit, and courts prepared to prosecute, fine and ban corrupt companies and officials.

Chart A. Interfaces of corruption



**“Petty” corruption: bribes for services**

One kind of corruption is when people are expected to pay bribes in order to get the service they are entitled to from a public employee. The employee is making use of his or her position to get extra income, at the expense of citizens or the service itself. Typical examples are the payment of bribes to water workers to record false meter readings; to health workers for providing treatment at an earlier date; or to customs officials to allow goods to be smuggled without paying duties.

This is sometimes described as ‘petty corruption’ to contrast it with the ‘grand corruption’ of large-scale fraud by politicians and companies. It seriously damages public services. Citizens are cheated. It breaks the principle of fair and equal treatment. It undermines the integrity of public servants. Those who most need services find themselves having to pay as if the service was just a matter of private profit. What should

be a public service is converted into another commercial transaction. It also weakens public resolve to tackle bigger corruption. It must be eradicated.

The best-known picture of corruption is the index published by Transparency International (TI) which ranks countries “according to their perceived levels of public-sector corruption” (Transparency International, 2011a). Developing countries consistently appear as the most corrupt, and OECD countries as least corrupt. The problem of corruption is thus presented as a problem of the third world, and specifically of corrupt public employees. It is often incorrectly attributed to the culture of these countries being much more tolerant of corruption than the cultures of the OECD countries.

The index – and the analysis – are unsatisfactory. The index is not based on actual experiences or documented cases of corruption. It is based on the perceptions of people who participate in surveys. The survey participants consist almost entirely of business executives, consultants, or unspecified ‘experts’ many of whom are foreign, and businessmen some of whom may themselves have paid bribes or be part of corrupt networks. The perception of international business executives is not a reliable indicator of the culture of ordinary people.<sup>2</sup>

In fact, surveys of the public in various countries show that very few people, in any country, believe that corrupt behaviour is acceptable. Overwhelming majorities in Eastern Europe, and over 90% of Africans believe it is unacceptable (Razafindrakoto and Roubaud, 2010; Rose and Mishler, 2010; Cockcroft et. al., 2008). By contrast, there is clear evidence of a corrupt culture amongst executives themselves in rich countries. A 2012 survey found that 24% of financial sector executives in the USA and the UK believed that they had to engage in illegal or unethical activity in order to be successful (Labaton Sucharow, 2012). The evidence does not support the view that there are distinctive corruption-tolerant cultures in developing and transition countries.

The great majority of people surveyed in developing and transition countries do think that corruption is a big problem in their country (Cohen, 2012) In many states, people have anything but good experiences with the authorities when it comes to securing their and their families’ basic needs. In these countries people are often forced to give and receive assistance from relatives, friends, or members of their community. Without good governance, without functioning, transparent public services equally accessible to all, giving gifts or money is often the only way people can obtain health care, building permits, court decisions and so on.

There is strong evidence that the most important factor affecting the extent of petty corruption is the pay of the workers concerned. When pay is too low to provide the necessities of life, or where it is significantly lower than the pay of other people with similar qualifications, then corruption is used as a way of making extra money. Studies in countries as diverse as Madagascar and Ukraine show that inadequate civil service pay is linked to petty corruption. In a number of Asian countries, water meter readers

---

<sup>2</sup> The data sources for the TI index are described in “Corruption perceptions Index 2011: Long Methodological Brief”, which is in a zip file at [http://files.transparency.org/content/download/313/1264/file/CPI2011\\_DataPackage.zip](http://files.transparency.org/content/download/313/1264/file/CPI2011_DataPackage.zip).

demanded bribes when their pay was below subsistence levels, but not after their pay was increased substantially. This has been known for a long time – customs officials in 18th century England were accepting bribes from smugglers because they were paid so little (Payne, 1772; Keane, 1995).

This basic material factor is key to reducing the incentive for corruption. Effective disciplinary and criminal sanctions provide further deterrence. Building and maintaining confidence in effective and democratically accountable public services depends on more political actions – especially addressing the problem of ‘grand corruption’ Where there is a lack of confidence in the state itself, people may fall back on informal mechanisms, including reliance on friends, family and the economic reliability of petty corruption.

### **State capture and privatisation**

‘Grand corruption’ by political and business elites is a significant threat to democracy and sustainable development. It involves the payment of bribes to gain contracts and the purchase of political influence. There are three key features that set it apart from ‘petty corruption’:

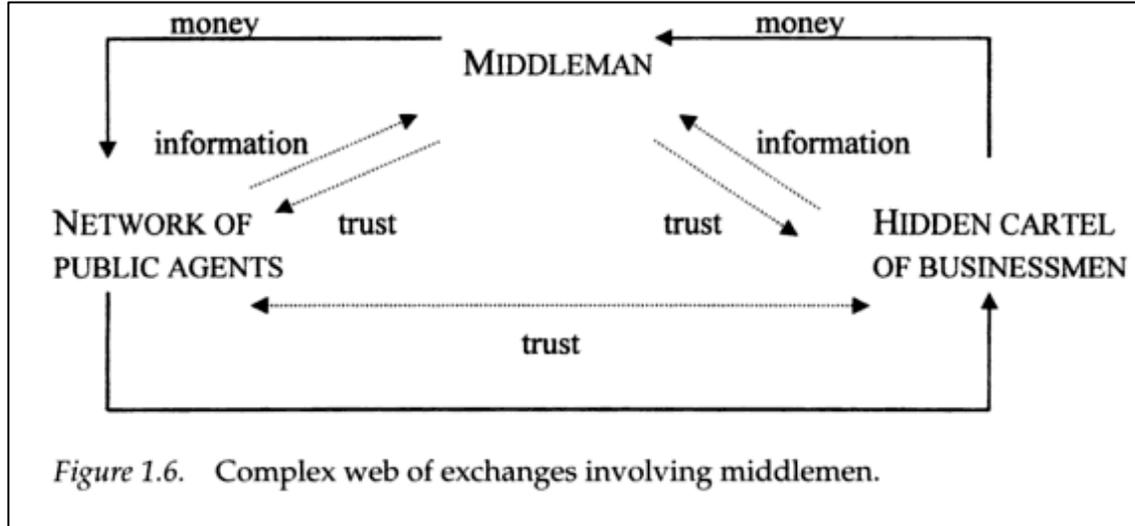
- It involves systematic networks as well as individual bribes.
- Privatisation, including outsourcing of government contracts, forms a core part of business - politician relations.
- Multinational companies, based in the rich countries which are supposedly ‘clean,’ are playing a huge and extensive role in the corruption process.

### State capture and legal corruption

The concept of ‘state capture’ was introduced by two World Bank researchers to describe the situation in some of the former communist countries of eastern Europe. They found that firms were deliberately adopting strategies of networking to influence government officials and politicians to change the laws and regulations in their favour, and partly accomplished this through corrupt payments (Hellman et. al., 2003).

One example of this kind of network developed in Italy in the 1990s. Politicians from various parties, on the one hand, and groups of companies on the other hand, agreed to allow the companies to share out the contracts amongst themselves, and decide on the prices. The companies agreed to pay enough money to keep the politicians happy, and for the money to be shared amongst all the parties involved. Middlemen were brought in to launder the money and keep the payments secret. The whole system was a way of gaining and sharing power and money, at the expense of democracy, transparency and public accountability (Della Porta and Vannucci, 1999).

Chart B. Networks of corrupt exchanges



Source: Della Porta and Vanucci (1999), p. 22

There is evidence of similar systems in other countries. In Ireland, an inquiry found that Charles Haughey, prime minister between 1979 and 1992, had “devalued the quality of a modern democracy” by accepting about €11 million in cash from wealthy business people over a period of 17 years, concealed through a network of offshore bank accounts (Guardian Unlimited, 2006). Such networks also exist in a number of developing countries, including Nigeria, where governments have developed corrupt relations with both local businesses – who are favoured with the proceeds of privatization – and multinationals, such as oil and electricity companies.

The interface between politicians and businesses is now seen as similarly corrupt in many more countries.

Nearly three-quarters of Europeans think corruption is a major problem in their country, and in the institutions of the European Union itself. They have clear views on where the corruption is taking place: 47% think that the most corrupt actors in the system are those who award contracts. The most frequently cited explanation for corruption is that “there are too close links between business and politics” (Eurobarometer, 2011).

In India, according to a 2011 report by KPMG, even Indian businesses agree that the major problem in India is not petty corruption (‘bakshish’) but rather:

- “Scams to the tune of thousands of crores (one crore = 10 million rupees) that highlight a political/industry nexus .....a web of companies and middlemen,” based on the willingness of the private sector to pay bribes.
- More than two-thirds of businesspeople (68%) admit that corruption in India is initiated by the private sector, and 42% say that bribery is considered ‘acceptable’ in their sector.

# WATERLAT-GOBACIT Network Working Papers

## Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and Essential Public Services – Vol. 3, N° 5

Castro, José Esteban (Ed.)

---

- The sectors identified as most corrupt were those where government contracts or privatisations are at stake – construction, followed by telecoms, with public services in third place, just ahead of the financial sector and defence.

These networks use illegal payments (bribes), but also build ‘networks of influence’ through legal payments – donations to political parties, or employing lobbyists to convince politicians to adopt certain policy positions. For the companies, it is a rewarding business strategy. It “involves efforts on the part of private interests to rent access and influence within well-institutionalized policy processes, often through political figures acting as middlemen” (Johnston, 2005). In developing countries, firms which spend money on lobbying get a bigger boost to their profits than firms which simply pay bribes (Nauro and Giovannoni, 2007; OECD, 2007; Economic Times, 2009). In the USA, companies with political connections get more contracts after an election in which they backed the winner. In the UK and USA, banks have spent tens of millions on lobbying to prevent tighter regulation (The Guardian, 2012).

These legal ways of buying influence work in the same way as illegal ‘corrupt exchanges’ such as bribes: “conceptually, legal corruption may be quite close to its illegal counterpart... [and] many rich countries (G7 and OECD members) seem to be challenged cases as far as legal corruption is concerned” (Kaufmann and Vicente, 2011). The *UN Convention against Corruption* includes ‘trading in influence’ as improper, but so far many states – including the Netherlands and Switzerland – have opted out of treating it as a criminal offence (European Union, 1999; Wempe, 2010).

State capture is thus not just a matter of criminal behaviour – much of what happens is constructed to be legal. It is a political problem, whereby public decision-making structures are captured for commercial interests. Government contracts or other assets are the focus of such processes, and privatisation is a central part of the system.

### Privatisation

Privatisation, in all its forms, provides great incentives and opportunities for corruption and state capture.

- The sale of state-owned industries is a one-time opportunity to buy a profitable business, so investors have an incentive to pay bribes to increase their chances of getting it, and for a lower price.
- A long-term concession for water services, or a power purchase agreement for a private power station, or a PPP, is also a one-off chance to win a stream of government-backed revenue lasting 25 or 30 years, and so there are the same incentives to pay bribes.
- In all forms of outsourcing, whether it is refuse collection, construction, cleaning or medical services, contractors may pay bribes or form cartels or both in order to win profitable business.

Bribes or political donations form the currency with which these benefits are obtained, as summarised by the Nobel-prize winning economist Paul Krugman (talking about the USA): “As more and more government functions get privatized, states become pay-to-play paradises, in which both political contributions and contracts for friends and relatives become a quid pro quo for getting government business... a corrupt nexus of privatization and patronage that is undermining government across much of our nation” (Krugman, 2012).

The author of a recent book on corruption in the EU says liberalisation is playing a similar role in Europe, where EU policies of extending the internal market have created more opportunities and incentives: “What the EU has done is allow corruption through its policies of increasing economic competition within the single market, including regulation of competition in the public procurement sector” (Warner, 2007).

These links between privatisation and corruption exist in a range of different public services, in various countries.

### *Healthcare*

The influence of the pharmaceutical companies on political processes is visible at global and national levels. This has a direct impact on health services. The effect is to divert large sums from public budgets for healthcare, and to undermine democratic policy-making.

At the global level, the multinational GSK persuaded the United Nations’ World Health Organization (WHO) to declare that swine flu had reached the level of a ‘pandemic’ – even though the WHO’s own rules did not justify this – and to recommend the use of Tamiflu as the best form of prevention. This led many countries to purchase huge quantities of Tamiflu, made only by GSK. In some cases they spent 1% to 3% of their national public healthcare budget to purchase the drug. The WHO had been advised by academics and others who had financial interests and connections with GSK (BIJ, 2010; 2012a).

In Bulgaria, the pharmaceutical company, Sopharma was privatised in September 2000. Its owner became a member of the supervisory board of the National Health Insurance Fund (NZOK). Another manager became health adviser to the cabinet and helped draft a new law which created more favourable conditions for the privatised company. By 2011, Sopharma supplied more than 70% of the medicines to public hospitals. It charged three times more for its drugs in Bulgaria than it did in Turkey.

In the USA, three multinationals have been fined huge sums of money for corrupt marketing or mis-marketing of their drugs. AstraZeneca paid \$520 million, Pfizer paid \$2.3 billion, and GSK \$3 billion in fines. (See annexe)

### *Central government*

Privatisation by outsourcing has become widespread in central government, and in the process increased the problem of corruption. The size of many central government

contracts, especially in defence procurement and construction, creates greater incentives for companies to operate corruptly in order to get business.

SGS has been used by the World Bank and others to spearhead the privatisation of customs and other central government functions – despite this company itself being involved in high-level corruption. In 1996, it emerged that SGS had paid bribes to obtain a government contract for inspection services in Pakistan. Benazir Bhutto and her husband were convicted of paying bribes, and they fled the country. No action was taken against SGS. In 2012, the Pakistani Supreme Court demanded action to prosecute SGS, but still no case has been brought. The company was even a panellist at Transparency International’s anti-corruption conference in 2010, under the title of ‘Business principles for countering bribery: An effective tool for the private sector?’ (SGS, 2010).

There is extensive corruption associated with USA contractors in Iraq in relation to security contracts funded by the USA federal government. Senator Leahy tabled a new bill on 4 January 2007 to combat war profiteering and public corruption, citing “mounting evidence of widespread contractor fraud and abuse in Iraq.... At least 10 companies with billions of dollars in U.S. contracts for Iraq reconstruction have paid more than \$300 million in penalties since 2000 to resolve allegations of bid rigging, fraud, delivery of faulty military parts and environmental damage. Seven other companies with Iraq reconstruction contracts have agreed to pay financial penalties” (US Federal News, 2007). The scale of losses from this USA-led corruption is significant. Nearly \$9 billion in Iraqi oil revenues could not be accounted for. The cash was flown into the country by the USA in shrink-wrapped bundles and then distributed without any adequate accounting (The Guardian, 2006).

The UK government has even proposed to outsource procurement services in the Ministry of Defence, so that a private company would handle all the tendering for defence equipment. This provides obvious further opportunities and incentives for corruption. In January 2012 four employees of a private company providing procurement services were convicted of fraud because they had sold confidential information to companies tendering for work. One of the multinational companies which advertises itself as a manager of procurement services is KBR (<http://www.kbr.com>) – a company which has had to pay \$579 million to settle a prosecution in the USA for corruption. Major defence contractors, such as Babcock, see this as an opportunity to by-pass normal procedures of competitive bidding and instead become long-term ‘partners.’ As Geoff Allum, analyst at Arden Partners states, “A radically different MoD procurement structure will provide Babcock with a once in a lifetime opportunity. There is every chance that the MoD will move away from self-delivery and towards outsourcing, coupled with a preference for closer, partnership-style relationships with the private sector. No one is better placed than Babcock. This could be transformational” (FT, 2011, 2012; SFO, 2012.).

#### *Local government*

Municipal and local governments globally have outsourced various functions. These include refuse collection, where contracts have been the subject of long-term systematic

corruption by private companies in a number of countries, including the USA and Italy. Outsourcing is now often introduced on a wider scale, which encourages further corruption.

For example, Malawi introduced the so-called ‘new public management’ as advised by international institutions, in the belief that it would foster accountability, transparency and good governance. In practice it has created a breeding ground for corruption at the local government level, as a result of greater contracting-out, decentralisation, user fees, public-private partnerships (PPPs), and local discretion in spending without accountability. Contracts were awarded to senior officers and councillors and their relatives and friends, even when the service was not needed. Councillors used decentralisation to justify paying themselves larger expenses, or to simply embezzle money. ‘User fees’ were taken as personal income, as though they were bribes, and used as a pretext for extorting bribes. Public-private partnerships were created as networks to give privileged information about contracts (Tambulasi, 2009).

Local government is also vulnerable to corruption by multinational companies. The largest USA retail multinational Wal-Mart is subject to a number of court cases and investigations over corruption of local government planning officials in Mexico to gain a commercial advantage. According to the New York Times:

Wal-Mart de Mexico had orchestrated a campaign of bribery to win market dominance. In its rush to build stores the company had paid bribes to obtain permits in virtually every corner of the country (Barstow, 2012).

### *Electricity and water*

Valuable long-term contracts and concessions in the electricity and water sectors provide a powerful incentive for corruption. There have been widespread payments of bribes by companies to gain power purchase agreements for independent power producers (IPPs), as well as bribes by water companies, on every continent.

- The ‘Gorilla’ file is a transcript of lengthy eavesdropping by the Slovak Intelligence Service (SIS) during 2005 and 2006. It was leaked at the end of 2011. It records a series of meetings involving leading Slovak politicians and executives of the private equity firm Penta, and others. The meetings largely concerned the payment of bribes by the multinationals involved in various privatisations, and the allocation of these bribes to individuals and parties. The discussions mostly focused on the privatisation of electricity and gas, but also involved healthcare, district heating, airport, and water. The energy multinationals mentioned include RAO UES (Russia), Enel (Italy), E.on and Siemens (Germany) and EDF (France). Regarding the latter, the transcript says, “The problem is that EDF as a state company cannot pay the commission [bribe] directly, but through the consultancy firm EPIC [<http://www.epicinvest.com>]” (EurActive, 2012).

- In the water sector, courts in France have convicted executives and public officials for bribes paid by Suez and Veolia subsidiaries in the cities of Grenoble and Angouleme and the island of Reunion. A 1997 report by the Cour des Comptes, France’s national audit body, said that the system of ‘delegated management’ on which Suez and Veolia built their national dominance was systematically flawed. “The lack of supervision and control of delegated public services, aggravated by the lack of transparency of this form of management, has led to abuses.” In Milan, Italy, in 2002 a senior executive of Vivendi (now Veolia) was convicted of planning to bribe local politicians in both the majority and opposition parties of city council in order to win the tender for a wastewater treatment plant in the south of Milan. The evidence included a floppy disk containing a letter by the Vivendi executive Alain Metz stating that he has “excellent contacts” within the right wing majority coalition (Polo delle Liberta, whose leader was Silvio Berlusconi), and planned to pay about €2 million to politicians, half of which would go to the majority parties, and the rest to the opposition and other “experts” and “mediators” whose names were not revealed. Both groups “have come under scrutiny in a host of criminal and civil cases, with accusations that include bribery of public officials, illegal political contributions, kickbacks, price fixing, operating cartels and fraudulent accounting” (Cour des Comptes, 1997; Hall, 1999).

### Multinationals

The role of multinational companies in these corrupt networks is already obvious from the examples above. The table below, listing the companies which have had to pay the largest penalties under the USA anti-corruption law, shows that they include some of the biggest companies in the world. One remarkable feature of this table is that, according to Transparency International, the Netherlands, Switzerland and Germany are three of the supposedly ‘cleanest’ countries in the world, yet each one has two companies in the list of top ten settlements for international bribery charges in the USA (World Bank, 2009; Bloomberg, 2010; WikiLeaks, 2010; Transparency International, 2011b).

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

Table N° 1. Multinationals charged in USA with international corruption: largest settlements (US\$)

1	<b>Siemens</b>	Germany	\$800 million	2008
2	<b>KBR/Halliburton</b>	USA	\$579 million	2009
3	<b>BAE</b>	UK	\$400 million	2010
4	<b>Snamprogetti Netherlands/ENI SpA</b>	Netherlands/Italy	\$365 million	2010
5	<b>Technip SA</b>	France	\$338 million	2010
6	<b>Daimler AG</b>	Germany	\$185 million	2010
7	<b>Panalpina</b>	Switzerland	\$82 million	2010
8	<b>ABB Ltd</b>	Switzerland	\$58 million	2010
9	<b>Pride</b>	USA	\$56 million	2010
10	<b>Shell</b>	UK/Holland	\$48 million	2010

Source: FCPA Blog (2012).

Table N° 2. Multinationals from OECD countries recently barred or sanctioned by the World Bank

<b>Macmillan</b>	UK	6 year ban	2011
<b>Oxford University Press</b>	UK	Probation, subsidiaries banned for 3 years	2012
<b>Alstom</b>	France	Probation, subsidiaries banned for 3 years	2012
<b>Crown Agents</b>	UK	6 month ban	2011

Source: World Bank (2012); Crown Agents (2012); Trace (2012).

It is no surprise to see Siemens at the top of this list. It has been repeatedly prosecuted in the last 15 years in Germany, Singapore and elsewhere for both corruption and cartels. While it paid a large penalty in the USA, the World Bank decided it was ‘too big to debar’ from contracts, and so only asked for a donation to anti-corruption causes. But Singapore did debar Siemens for five years, in 1996.

The case of Siemens demonstrates that corruption by a multinational company can be a systematic part of their business strategy over many years. Secondly, this is made easier by the assumption that a company from a country perceived as ‘clean’ could not behave in such a way. Thirdly, the enforcement mechanisms of international institutions and northern countries are not effective against such a company – it is ‘too big to be punished.’ Fourthly, the enforcement mechanisms of southern countries are more likely to be applied to such a company.

**WATERLAT-GOBACIT Research Network**

5th Floor Claremont Bridge Building, NE1 7RU Newcastle upon Tyne, United Kingdom

E-mail: [waterlat@ncl.ac.uk](mailto:waterlat@ncl.ac.uk) – Web page: [www.waterlat.org](http://www.waterlat.org)

### **The limits of existing initiatives**

In dealing with the problems identified above, existing ‘anti-corruption’ initiatives by international institutions have limitations. These international initiatives share an overwhelming concern with achieving a ‘level playing field’ for international business, where no single corporation should be at a competitive advantage by paying a bribe which its competitors cannot, or will not, match. Reducing the role of public services is not a concern for them, indeed privatisation provides greater business opportunities. Nor are they principally concerned with weakening democratic decision-making because companies can obtain better deals from weaker governments. In attacking corruption, they often do not want to see national legal systems used to sanction multinational companies, but rather to keep such powers of sanction for the home governments who can often be persuaded to take a light touch approach.

This difference in approach means that many of the existing initiatives fail to solve the problems. Some of the policies of these institutions worsen the situation, in particular by promoting further privatisation.

### World Bank

The World Bank advertises itself as a leading anti-corruption actor. The empirical research by the World Bank Institute into state capture and corporate bribe-paying has provided valuable evidence on the processes of state capture. Its power to debar companies from bank projects is a significant potential deterrent to corrupt activities.

There are three major problems with the bank’s activities in relation to the problems identified above.

The first is that it promotes privatisations, and provides loans linked to these privatisations. This creates conditions favourable to corruption and increases the amount of money available to be captured, as in the case of Nigeria. “There was evidence to show that an estimated US \$36 billion in annual revenue from the sale of petroleum and gas and annual huge loans from the Western lending agencies continued to be used for corrupt purposes. Despite this evidence, the World Bank and the IMF, in particular, violated their lending policies by continuing to lend more money to successive corrupt Nigerian regimes” (AFRODAD, 2007).

This problem also arises from the activities of other international financial institutions and donors. The implementation of conditions can itself require corruption. A former president of Argentina, Fernando de la Rúa, was put on trial in August 2012 for allegedly paying \$5 million in bribes to senators in the year 2000 to pass a bill allowing companies to cut the hours and working conditions of their employees. The IMF had made this law a condition for the continuation of its loan to Argentina (Deutsche Welle, 2012). The UK government’s Department for International Development (DFID) uses the Commonwealth Development Corporation (CDC), which acts as a private equity fund, to promote privatisation. The Crown Agents, another UK state body, acts as a

private contractor to run public finance systems in developing countries. Both bodies have been implicated in corruption and fraud.

Secondly, international institutions have discouraged developing countries from using their own legal systems to punish multinationals. Two key episodes occurred in Pakistan and Indonesia, where donors and development banks actively insisted on the sanctity of contracts, and fought (successfully) to prevent legal action against corrupt privatisations. In Indonesia, after the overthrow of the dictatorship of Suharto, the USA and the World Bank fought hard, successfully, to prevent Suharto's corrupt private energy deals from being terminated, and instead insisted that these corrupt contracts should be honoured in full. They threatened to withhold further aid or loans until Indonesians backed down. In Pakistan, the IMF, World Bank and the British government all threatened to withhold loans or aid unless the country dropped its prosecution of a mainly British-owned private electricity company.

Thirdly, the World Bank has failed to use its full power to debar corrupt firms from working on its contracts. These debarments have been applied to many firms, with substantial effect, but when it was faced with the prospect of debarring Siemens in 2009 it took the view that the company was too big to punish. Siemens was instead allowed to make generous donations to anti-corruption NGOs.

### OECD

The OECD anti-bribery convention commits member countries – that is, the richest countries in the world – to introducing legislation to criminalise bribery practiced overseas by companies based in OECD home countries. The convention was most strongly supported by the USA, which believed that its companies were at a disadvantage in competing for international business from governments, because they were deterred from paying bribes by the USA's own Foreign Corrupt Practices Act (FCPA), while those from other countries were not inhibited by similar legislation.

The major problem with the OECD initiative is that the member states have limited incentive to convict and punish their own multinational companies. There have been long delays in introducing legislation required under the convention, and little effective use of such legislation. The decision by the UK government in 2008 to abandon its prosecution of BAe, and instead accept a payment from the company, illustrates this weakness. BAe successfully lobbied government ministers to drop the case, arguing that it was in the UK national interest that they should be free to carry on their business globally (The Corner House, 2008). The fact that the USA has used its own FCPA to prosecute many multinationals based in other countries – including BAe – indicates that the USA also does not believe that other OECD countries are effectively applying the legislation required under the OECD convention.

The OECD initiative was intended to demonstrate that developing countries do not need to prosecute multinationals for corruption, because the home countries of the multinationals would do so themselves. The initiative has failed to achieve these objectives because the level of prosecutions, outside the USA, is very low. One indication

of this failure is that the USA itself has started to use its own legislation to prosecute non-USA multinationals.

### USA

The USA introduced the Foreign Corrupt Practices Act in 1977 in reaction to scandals over bribes paid by its companies abroad. The act and prosecutions under its provisions have had a positive impact in affecting the behaviour of USA firms. Since 2009, the number of such prosecutions has increased, and been extended to cover USA subsidiaries of European multinationals.

The greatest weakness is that the great majority of cases are settled by the company paying large sums to the courts in exchange for the case being dropped. It means that the evidence collected for these cases is rarely heard in public, companies are not debarred from future contracts, other governments do not see evidence which they could use to debar the companies, and the payments made by companies are often quite small in relation to the economic gains from the bribes.

Major USA companies, led by the USA Chamber of Commerce, are currently lobbying to weaken the law, specifically so that bribing officials of state-owned companies is not an offence.

### Transparency International (TI)

Funded by the World Bank, donor countries, and a number of multinational corporations, TI bills itself as an “international movement.” It is the best known organisation dealing with corruption, and organises an annual anti-corruption conference.

The most publicised product of TI is its ‘Corruption Perceptions Index’, which ranks countries. The weaknesses of this have been discussed above. TI now also publishes a ‘Bribe payers index.’ This focuses on the businesses that pay bribes. This index suffers from the same limitations and some new ones. The report does not name companies in its index. It simply ranks the countries in which companies are based, according to the perceived tendency of businesses from that country to pay bribes.

This leads to absurd results. The 2011 index said companies from the Netherlands are the least likely to pay bribes, only one year after the largest Dutch multinational – Shell – paid a \$10 million fine in Nigeria over corruption charges, and admitted to US diplomats that oil companies pay bribes to top Nigerian politicians. The same index rated the fourth cleanest country as Germany, only a year after the largest German multinational – Siemens – paid hundreds of millions of dollars to both the World Bank and the USA over widespread corruption for many years.

TI’s connection with multinational companies severely limits its credibility. Its supporters originally included Enron and Arthur Andersen, both of whom collapsed as a result of non-transparent accounting and Enron’s corrupt activities. For example, Shell is

one of TI's 'supporters.' The TI reports for 2011 do not mention any of the major corruption cases involving Shell during the previous two years.

The same shortcomings are evident in the structure and practice of the Water Integrity Network (WIN), which was set up in 2006 by TI and others to promote anti-corruption activity in the water sector. There have been many cases of corruption in this sector, most of them involving the water multinationals Suez and Veolia, a number of them in their home country of France. WIN then accepted a new member and sponsor, Aquafed, a global lobby organisation representing the water companies. The 2008 annual report of TI, jointly prepared by WIN, had a special focus on corruption in the water sector. In 288 pages, this report does not once mention either Suez or Veolia. Its country chapters do not cover France, the scene of the greatest concentration of corruption investigations in the water sector in the previous 15 years (Hall, 2004; Aquafed, 2006; Transparency International, 2008).

#### Other approaches

##### *Self-regulation and private auditors*

Companies consistently prefer self-regulation on corruption, and reject outside scrutiny. They argue that their accounts are already externally audited, and that internal systems will be sufficient to prevent the company from paying bribes.

However, the track record of accountants in this role is poor. Company accounts are scrutinised by external auditors, who are expected to identify and report serious financial problems. But they have a strong incentive *not* to do so, because the company is their client, and they fear losing business if they report or publicise problems, including bribes. German prosecutors have been investigating whether KPMG Germany ignored questionable payments on Siemens' books. They suspect that employees at Siemens funnelled hundreds of millions of dollars into slush funds over several years to bribe potential customers (Market Watch, 2007).

The failure of company auditors was also highlighted in the financial crisis of 2007 and 2008, when major banks and financial institutions became insolvent and were rescued at huge expense by taxpayers. Not one of these disasters had been spotted in advance by their auditors. Over 28 financial companies – in the UK, USA, Germany, Iceland, The Netherlands, France or Switzerland – received clean bills of health from their auditors just days before they were demanding state aid to protect them from bankruptcy. The cases involved all the big international accounting firms, who subsequently were paid by governments for advice on how to be alerted to such problems in future (Sikka, 2009).

### Whistle blowing

A number of countries have introduced legal protection for whistle-blowers. Whistle-blowers are seen as key sources of information for public prosecutors. Protecting them creates a deterrent because companies are aware of the risk of exposure from inside. The USA has strengthened this further by providing rewards for whistle-blowers where their information leads to prosecutions.

However, whistle blowing depends on individuals making decisions, in isolation, based on the individual person's conscience. It does not systematically develop greater accountability, transparency or public participation in the political process as a whole. The individuals themselves also remain vulnerable, even when there is legislative protection. In the USA, the whistle-blowers who exposed fraud committed by the private companies such as WorldCom have said they feared for their lives (McKenna, 2011). The UK Department for International Development inadvertently publicised the name of a Nigerian who exposed corruption connected with UK funds; as a result he had to flee Nigeria. An employee at the Central Bank of Kenya (CBK) who revealed massive corruption at the bank spent the rest of his life poor and frequently unemployed (Ledergerber and Fontana, 2011; BIJ, 2012b).

While whistle blowing is a valuable source of information, the protection of the individuals themselves remains weak and should be strengthened.

### Women and corruption

In 2001, an academic study found that a higher proportion of women in parliament was linked to lower levels of corruption. Another found that women were more likely to condemn bribery and less likely to offer bribes. The same year, a World Bank report argued that societies where women have greater rights and a greater presence in public life are less corrupt and more efficient, and so gender equality was itself a way of reducing corruption. Another more recent study, published in 2011, also found that a higher proportion of women in a country's legislature and labour force is linked to a lower level of corruption. This evidence has been used to argue that women are intrinsically more altruistic than men. The Finnish government has argued that its low level of corruption is partly due to the prominent role of women in Finnish society (Dollar et. al., 2001; Swamy et. al., 2001; World Bank, 2001; Samimi and Hosseinmardi, 2011; Goetz, 2007; Sung, 2012).

These findings can also be explained by the fact that stronger democracy results in greater participation by women, and suggest that it is the democratic improvements which reduce the level of corruption – not the gender of the individuals involved. It is true that women are less involved in corruption, but this too can be due to the fact that they have fewer opportunities to be corrupt, and have much less access to the powerful networks which are the vehicle for most corruption. Where public employees demand bribes, it is usually linked to inadequate pay. For that reason, hoping that the employment

of women will by itself reduce corruption is another way of saying that women are more likely to accept pay below subsistence levels (Goetz, 2007).

The anecdotal evidence is not consistent. It is easy to find examples of women standing up against corruption – for example, Dilma Rousseff, President of Brazil, has been prepared to operate a ‘zero tolerance’ policy against leading members of her own party who are corrupt. But it is also easy to find examples of extremely corrupt practices by women. For example Shirley Porter, a former leader of Westminster Council in the heart of London, deliberately used municipal loans to persuade voters for opposition parties to move out of the council’s area.

A new study, using data from countries with more than 99% of the world’s population, has now established the distinction between the political and gender factors very clearly. Better democracy – stronger rules of law, and stronger political rights – are very strongly linked to lower levels of corruption. When these institutional effects are taken into account, the higher proportion of women in public life is not by itself statistically significant:

Achieving an advanced state of liberal democracy and/or strengthening liberal and democratic institutions over time are both validated explanations of corruption prevalence and consistent predictors of changes in corruption over short periods of time.... The association between women in government and corruption constitutes a typical example of spurious correlation (Sung, 2012).

Greater transparency, stronger law enforcement, greater democratic rights are thus the keys both to improving gender equity and reducing corruption.

### **Better approaches**

This section sets out a series of measures to deal with the problems of public service corruption, state capture and corrupt multinationals described above. They are evidence-based. There are well-established examples of their use and effectiveness. They include a much stronger dimension of social, political and union organisation than is usual in international institutions’ initiatives.

#### Payment

The single most important solution to the problem of corruption by public service workers is paying a proper living wage. As noted earlier, successful attempts at reforming water services where corruption was a problem, for example in Cambodia and Bangladesh, have included doubling the wages of the workers responsible for meter readings and household connections.

The same point was made in the 18th century by Tom Paine, when he submitted a pay claim for the customs officials of England. He pointed out that corruption and

incompetent staff were leading to a loss of revenue and argued, “the most effectual method to keep men honest is to enable them to live so.... An augmentation of salary sufficient to enable them to live honestly and competently would produce more good effect than all the laws of the land can enforce.... The officers would be secured from the temptations of poverty, and the revenue from the evils of it; the cure would be as extensive as the complaint, and new health out-root the present corruptions” (Paine, 1772; Keane, 1995).

#### Worker-community links

Relations between workers and communities, and the status of workers in relation to communities, can play a crucial role in improving a service and reducing the incidence of petty corruption. It increases mutual respect and confidence, and by-passes the senior officials and contractors who are often the driving force behind corrupt practices.

There are examples of the positive effects of this approach:

- Water and sanitation workers on a slum project in Ahmadabad (India) were exposed to regular contact with local communities and NGOs. This public exposure strengthened community scrutiny of possible attempts at corruption, and also created stronger commitment by the workers to supplying poor households with network services. The level of corruption was far lower as a result, with contractors complaining that they cannot get contracts on the project from bribery, and the relationships generated a positive cycle of gratitude from local inhabitants, and consequent pride by employees: “At the end [of each project] we feel that we have really accomplished something. People give us so many blessings. We see and feel this sentiment” (Davis, 2004).
- Workers on a rural water supply project in Azad and Jammu (Pakistan) were expected to work unusually closely with the communities, and formed close bonds with them: villagers reciprocated by calling them “heroes”. One junior engineer said that “we will go where no one else will go. We will work late into the evenings, we work on Sundays, we work with the people, we don’t exclude them. This is how we are seen by the people”. There was very little corruption, with attempted bribery rejected by workers both because of project rules and because of “the trust that had developed between the staff and villagers” (Davis, 2004).
- A great improvement in public service delivery in Ceara, Brazil, in the 1990s was based on the same approach. Instead of following the cynical view of neoliberalism that “the public servant is presumed guilty of self-interest unless proven otherwise”, the government deliberately built on the commitment of

its workforce. Workers were given a larger and more varied set of tasks than normal, especially in developing closer connections and responsiveness, which created trust and respect, “contrasting with traditional development advice which restricts workers’ discretion to the programme specification.” The process also professionalised the public service, appointing new employees by open competition, not by patronage. As well as improving services, these new relationships almost eliminated corruption, sharply reducing the re-election rate of mayors known to be corrupt. The government actively promoted the public image of the workers, and at the same time encouraged communities to expect the best and most honest performance between workers. The process was a complete contrast to the treatment of workers encouraged by ‘new public management’:

“Government itself fed the high dedication of these workers with repeated public demonstrations of admiration and respect for what they were doing. It publicised the programmes incessantly, even their minor successes. It gave prizes for good performance, with much pomp and ceremony...All this contributed to a new respect for these workers by the public – remarkable in a time of widespread contempt for government....Communities were actively encouraged to make demands on public authorities and their workforce.... the government urged communities to act as monitors: “this programme is yours and it is you who will determine its success... make sure that those who are chosen abide by the rules ... if these rules are breached ... we want to hear about it” (Tendler, 1997).

### Meritocracy and civil service

The creation of an independent civil service – appointed on merit to ensure that policy advice and public services were provided objectively, and not by politicians – was a crucial step in building European and other states in the nineteenth century. It has been equally important in building effective states and public services in developing countries today. The economic successes of Asian countries such as South Korea were made possible through an effective state system based on a meritocratic civil service which was ‘embedded’ in government but at the same time ‘autonomous.’ Countries such as Brazil and India have also built success with some level of meritocracy in the civil service (Evans, 1995).

The absence of this is a problem, especially in countries where the state lacks public confidence. Central European countries including Poland, Hungary, Slovakia and Slovenia have failed to establish an independent civil service, and deliberately made political appointments easier, so that each party which comes to power expects “to staff the most important public administration offices with party members and associates as well as their own friends and acquaintances, without examining their professional qualifications” (Gadowska, 2007; Bugaric, 2008)

Changing such conduct by enforcing merit-based recruitment is an important way of protecting and advancing quality public services. It is also important to promote sustainable development and to oppose corruption:

A competent and meritocratic core civil service, autonomous from clientelistic networks and at the same time responsive to society characterised by... long-term career outlooks. These traits make civil servants more professional and more detached from powerful rent-seeking groups attempting to influence them. A competent, meritocratic and ‘results-oriented’ core bureaucratic system is a key ingredient in avoiding state capture and other forms of predatory behaviour (Fritz and Menocal, 2006).

The use of consultancy contracts, exchanges, and units staffed partly by business representatives within government all have similar effects. They undermine the integrity of the civil services and provide greater opportunity for legally-engineered influence and capture of key government policies. Examples include:

- In the UK, the management consultancy McKinsey & Company has gained £14 million in contracts to advise on health service reforms which will open up the health service to even more work for private firms. McKinsey staff move in and out of the Department of Health, and the firm offers hospitality to government officials including hosting meetings of government policy teams (Mail Online, 2012).
- In Germany a ‘staff exchange programme’ between civil servants and private businesses was introduced in 2004, initially without public knowledge, so that civil servants could “increase understanding of their concerns and interests” (Polk, 2011).
- In many countries, there are now PPP units within finance ministries, which include business representatives, endowed with powers to promote the use of PPPs by government. Such practice gives business interests excessive influence over decisions, with major long-term implications for public finances.

Building an independent civil service committed to national and public interests, with appointments based on merit, free of political patronage, with a secure career structure and pay and conditions reflecting their responsibilities, remains key to dealing with corruption. Such a civil service is strong enough to resist the demands of corrupt networks. The privatisation of policy-making must be ended.

### Resisting privatisation

The connection between privatisation and corruption reinforces the need to oppose privatisation. Both the sale of public companies and the outsourcing of public work create further opportunities for corruption.

There are already many cases of successful anti-privatisation campaigns around the world, in a wide range of sectors. The most successful campaigns have involved broad-based movements where unions and social movements have worked together to prevent or reverse privatisation efforts

Investment in quality public services provides the strongest inoculation against privatisation.

### Public audit and freedom of information

A strong public audit function is of the greatest importance in fighting corruption. A good example is the recent work of the audit commission of India, the CAG. This body has played a key role in exposing the cost of the corrupt sale of coal and telecoms licenses to private companies, including Essar Power, part of one of the biggest companies on the London Stock Exchange. In 2012, CAG reported that the government allocated coal licenses for \$36 billion less than their true value – equivalent to an entire year's income tax revenues. In 2010, it reported that a similar amount had been lost by corrupt allocation of private telecoms licences.

The need for strong public audit is actively promoted in Latin America by the *Iniciativa TPA*, an international body that actively encourages civil society organisations to promote transparency, public participation, and accountability in public audit systems in Latin America (REI, 2012). It has identified key problems with audit institutions, including the common refusal by audit institutions to release information publicly, partly due to a culture of secrecy and partly through fear of disclosing information (Maurino et. al., 2010).

Audit reports must be disclosed and published to unleash democratic political demands for action against corruption identified by auditors, and to protect the auditors themselves:

Through the peer pressure of societal control and increasingly assertive civil society organizations ... mobilizing political power is often more important than increasing technical capacity ... [an]external audit can be a dangerous endeavor in inauspicious political contexts (Santiso, 2007).

Ending corruption thus requires strengthening democratic participation, and protecting the independence and integrity of audit institutions and their staff. Unions and Public Services International are well placed to contribute to both elements, through participating in active campaigns for information and protecting workers involved in

audit. “We must provide a shelter for the work of public auditors and protect them from the usual custom of ‘shooting the messenger’” (REI, 2011).

The *Iniciativa TPA* is supported by ULATOC ([www.ulatoc.org](http://www.ulatoc.org)), an organisation of workers involved in public sector audits in Latin America. Founded in 2004, it has members from countries across Latin America, including Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, and Paraguay. Many PSI affiliate unions are members of ULATOC. The organisation has formed links with similar organisations in Spain, Italy, France, Belgium and Luxembourg, and with representatives of workers in the EU Court of Auditors. It works with other organisations to strengthen the role of auditors, and to protect the professional independence and integrity of workers in public audit institutions, including the network of Latin American experts in public control REI (2012).

Freedom of information legislation plays a similar crucial role. In this case, it is the public who are empowered by the ability to expose actual or potential corruption.

#### Effective sanctions

Effective legal and disciplinary sanctions are necessary to deal with all forms of corruption. Singapore is not a model of democracy, but it does provide an example of a series of policy measures which are effective. These include the creation of an independent civil service, whose salaries were repeatedly increased to keep pay in line with the private sector, on the grounds that “the government has to be able to persuade talented Singaporeans to join politics and the civil service and to motivate them to behave ethically and rationally for the national interest.”

At the same time there is an extremely strict and firmly enforced regime of penalties for corrupt behaviour, which applies to both top-level and ‘petty’ corruption, and to both public employees and private companies, foreign as well as local. The anti-corruption agency has powers to investigate bank accounts and expenditures. The penalties include five year jail sentences and fines of \$100,000.

These laws have been enforced rigorously against multinationals. In 1996, a middleman was convicted of paying bribes totalling US \$9.8 million on behalf of his multinational clients. The government reacted by banning all five companies – Siemens, Pirelli, BICC, Tomen, and Marubeni – from bidding for any government contracts for five years. “The ban applies to all government projects. Firms associated with the five companies, any new company that the firms may jointly set up, and firms that share the same directors as the five are also debarred” (Reuters, 1996).

These systems of sanctions can be replicated elsewhere. It requires a commitment to building and supporting a strong public service, and a readiness to apply powerful sanctions against the most powerful politicians, officials, and businesses, including foreign companies.

Popular action and campaigns

The problem of state capture requires a political response. Technical solutions are not by themselves sufficient if the government which controls the administration is itself captured by the interests these mechanisms are supposed to control.

There is a wide range of political actions that may address the issue of capture. The most striking recent examples are the uprisings of the Arab Spring, in which privatisation and corruption were key issues. Other actions include broad-based campaigns, especially those which try to mobilise the public around the issues of democracy, transparency and accountability.

*Uprisings against corrupt privatisations: the Arab Spring*

The Arab Spring uprisings of 2011 were prompted, in part, by widespread popular reaction against corrupt privatisations carried out by the ruling elites over many years. These privatisations were encouraged by international financial institutions and the EU. Years of trade union actions against privatisation laid the foundations for the popular revolts in Egypt and Tunisia.

A top army general, quoted in April 2011, attributed anger at Egypt's privatisation programme, involving the transfer of billions of dollars worth of public assets to private hands, as aiding the Egyptian revolution that toppled the Western-backed Hosni Mubarak from power (IPS Cairo, 2011).

In Egypt, the first massive demonstrations in Tahrir Square, on 25 January 2011, were sparked by a plan to privatise social insurance. A series of strikes by public workers and workers in privatised companies organised by independent unions of the newly-formed Egyptian Federation for Independent Unions (EFIU) were pivotal in forcing Mubarak to step down. This was followed by a strong campaign to stop the privatisation program and reverse the corrupt deals which had already been carried out, including a series of court cases brought by the Egyptian Centre for Economic and Social Rights (ECESR) over corrupt privatisations (el-Hamalawy, 2011; Ahram Online, 2012).

In July 2011, the interim Egyptian government terminated the privatisation programme. By September 2011 the courts had renationalised four companies: Omar Effendi, Egypt's "flagship" department store, Shebin El-Kom Textile Company, the Tanta Company for Linen and Derivatives, and the Steam Boilers Companies. The courts noted that these corrupt privatisations had been made because they were required by international financial institutions in order to secure loans. The court found that the companies were sold at prices far below their true value. In June 2012 the courts convicted Mubarak himself of corruption but acquitted his sons – to widespread public outrage (The Laws of Rule, 2011).

The international financial institutions continue to promote privatisation. In early 2012, the European Bank for Reconstruction & Development (EBRD) strategy declared that privatisation and liberalisation under the Mubarak dictatorship had been successful,

and promoted further privatisation of water, roads and electricity. Egyptians, including the new independent unions, continue to oppose this.

*Tax havens campaign – ATTAC Norway (& global chapters) and Fagforbundet*

In order to avoid detection by tax authorities or criminal investigations the proceeds of corruption need to be hidden and tax havens are frequently used for this purpose because of the secrecy they provide. An innovative campaign on tax havens is emerging in Norway and in many other countries that can help make corruption more difficult as well as reducing tax avoidance. ATTAC Norway is working with the public service union Fagforbundet and municipal governments in a new campaign demanding that multinational suppliers sign a disclosure that they don't put profits into tax havens. Apparently some suppliers have already dropped out of procurement bidding on these grounds. The Norwegian Finance Minister is supporting the campaign with a pledge to require companies to file country-by-country financial reports by 2014 (Jorde, 2013).

*South African unions campaign against corruption*

In 2012, the Congress of South African Trade Unions (COSATU) launched a public campaign against corruption together with affiliates and civil society organisations. The municipal workers' union, SAMWU, had long argued for this. Its members have been active in exposing corruption at the municipal level across the country "because corruption has been a decisive factor in thwarting effective service delivery to many of our most impoverished communities" (Politics Web, 2011).

Corruption Watch runs an interactive website, [www.corruptionwatch.org.za](http://www.corruptionwatch.org.za), an SMS-line and a call centre to report corruption in both the public and private sectors in South Africa. It focuses on exposing and ending corruption in service delivery – for example, police extortion of money from motorists – and the grand corruption of private contractors and officials swindling money out of government works contracts worth millions.

## **Conclusions and summary of recommendations**

### Defending public services against corruption and capture

This analysis of corruption finds different conclusions from the official international bodies. Instead of being concerned with creating a low cost 'level playing field' for international business, the focus should be on creating quality public services and preventing public policy from capture by commercial interests.

Fragmenting, minimising and under-funding the public sector is part of the problem of corruption in service delivery. The solution involves recognition of the value of civil and public services and the workers who provide these vital services.

The ‘culture of corruption’ which is so prominent in the minds of international businesspeople is angrily rejected by the majority of public opinion everywhere. It is privatisation, and the uncritical support for it by donors and development banks, which systematically creates unnecessary opportunities and incentives for corruption and policy capture. In addition, the commercial capture of the state through ‘legal’ corruption via political donations, influence trading, lobbying and infiltration of public institutions, undermines the power of democratic decision-making. It corrupts public policy decisions and public resource allocation.

Exposing corruption requires extra powers and autonomy for public audit bodies, strong freedom of information legislation to empower civil society organisations, and concerted campaigns for democratic financial decision-making, transparency and accountability. Relying on individual whistle-blowers or an improved gender balance, or self-regulation by the corporate sector or its private accountancy firms are not viable solutions on their own.

National courts should be able to apply powerful legal sanctions – including imprisonment and debarment from tendering – against corrupt elites and local and multinational companies alike, rather than simply excluding northern companies from the rule of law in countries where they operate, permitting companies to buy off prosecutions by making donations, or suppressing information of value to the public interest by confidential court settlements. International bodies and donors should support these powers by closing down the tax havens that protect the corrupt and the public monies they have stolen.

Finally, technical solutions are not the full answer. The effectiveness of combined actions against corruption depends on strengthening democratic and community organisations within every country, and developing strong links between unions and allies who support strong public services.

### Recommendations

#### *Public service workers and political integrity:*

- All public service workers should be paid a decent living wage sufficient to remove incentive for corrupt exploitation of their position.
- Appointment, career progression, discipline or dismissal of civil and public service workers should be immune from political decisions,
- All public employees should be subject to a disciplinary code which includes strong sanctions against corrupt practices.
- Commercial capture of public interests:

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

- Public policy-making should not be outsourced to consultants. Private consultants or business interests should not be appointed to bodies responsible for public policy decisions or assigning public contracts, such as PPP units.

*Privatisation, outsourcing and procurement:*

- International banks and donors should not require any form of privatisation as a condition of aid or loans.
- Procurement processes for goods or services should be completely public and transparent.
- A company should be banned from tendering for any public contract if it, or its parent or subsidiaries or associates, has been convicted of corruption in any country, or uses tax havens.
  
- Public audit and freedom of information:
  - Public audit bodies and their staff should have strong protection from political or commercial interference.
  - Public audit bodies should have strong powers to require disclosure.
  - Public audit bodies should be enabled and required to publish and publicise their findings and encourage public responses.
  - Freedom of information legislation should require disclosure to all citizens of all categories of information about public finances, including civil service salaries and the terms of all contracts.

*Legal sanctions:*

- National courts should have power to sanction any multinationals operating in the country.
- Sanctions for corruption should include long-term barring from contracts of companies and any parents, subsidiaries, associates or successors, for long periods of time.
- The use by nationals or companies of tax havens should be banned, and/or any company which is part of a group that uses such tax havens should be excluded from future tendering.
- All corruptly-gained monies should be recovered and returned to the public treasury.

*Democracy and community:*

- Open interaction between public service workers and communities and civil society organisations should be encouraged and promoted.
- Increased public participation should be systematically developed to promote gender equity and financial accountability in public service budgeting and policy decisions.

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

- Some of these strategies can be pursued at the international level, including:
- Demanding that the World Bank, IMF and other development banks and donors drop all privatisation conditions.
- Supporting international initiatives e.g. member states of the OECD to facilitate prosecution of multinational companies for corruption offences, including prosecutions in home countries such as USA or Netherlands.
- Working with campaigns such as those led by ATTAC and the Tax Justice Network to close down tax havens.
- Joining with national and international campaigns to implement strong whistle-blower protection legislation.

## References

[All the weblinks listed below were consulted in 2012 or before].

AFRODAD – African Forum and Network on Debt and Development (2007), <https://opendocs.ids.ac.uk/opendocs/handle/123456789/1655>.

Ahram Online (2012), “Hundreds of labour activists accuse Egypt's premier of corruption”, 21 January 2012. <http://english.ahram.org.eg/NewsContent/3/12/32285/Business/Economy/Hundreds-of-labour-activists-accuse-Egypt's-premier.aspx>.

Aquafed (2006), “Integrity & anti-corruption”, [http://www.aquafed.org/pdf/AquaFed\\_Integrity\\_Anti-corruption\\_PR\\_EN\\_2006-08-22](http://www.aquafed.org/pdf/AquaFed_Integrity_Anti-corruption_PR_EN_2006-08-22). 2007.

Barstow, D. (2012), “At Wal-Mart in Mexico, a Bribe Inquiry Silenced”, The New York Times, 22 April 2012, <http://www.nytimes.com/2012/04/22/business/at-wal-mart-in-mexico-a-bribe-inquiry-silenced.html>.

BIJ – Bureau of Investigative Journalism (2010), “WHO swine flu advisors had links to drug companies”, 7 June 2010. <http://www.thebureauinvestigates.com/2010/06/07/who-swine-flu-advisors-had-links-to-drug-companies/>.

BIJ (2012a), “Pharma company hid vital data on Tamiflu, scientists claim”, 12 January 2012. <http://www.thebureauinvestigates.com/2012/01/12/pharma-company-hid-vital-data-on-tamiflu-scientists-claim/>.

BIJ (2012b), “DfID launches review after it exposed whistleblower”, 19 January 2012. <http://www.thebureauinvestigates.com/2012/01/19/dfid-blows-whistleblower-identity-wide-open/>.

Campos, Nauro, and Francesco Giovannoni (2007), “Lobbying, corruption and political influence”, Public Choice, 131: 1–21. doi:10.1007/s11127-006-9102-4.

Bloomberg (2010), “Shell pays \$10 million fine to Nigerian government”, 23 Dec 2010. <http://royaldutchshellplc.com/2010/12/23/shell-pays-10-million-fine-to-nigerian-government/>.

Bugaric, Bojan (2008), “Populism, liberal democracy, and the rule of Law in Central and Eastern Europe”, Communist and Post-Communist Studies, 41, pp. 191–203. doi:10.1016/j.postcomstud.2008.03.006.

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

CIPS – Chartered Institute of Purchasing and Supply <http://www.supplymanagement.com/fraud-corruption/>. News and discussion, with international scope, on corruption in procurement and outsourcing.

Cockcroft, Anne, Neil Andersson , Sergio Paredes-Solís , Dawn Caldwell, Steve Mitchell, Deborah Milne , Serge Merhi, Melissa Roche , Elena Koncevicute and Robert J Ledogar (2008 ), “An inter-country comparison of unofficial payments: results of a health sector social audit in the Baltic States”, BMC Health Services Research, 8:15 doi:10.1186/1472-6963-8-15 <http://www.biomedcentral.com/1472-6963/8/15>.

Cohen, N. (2012), “Informal payments for health care – the phenomenon and its context”, Health Economics, Policy and Law, 7(03): 285–308. <http://dx.doi.org/10.1017/S1744133111000089>.

Corner House, The (2008), “Submission to the Woolf Committee from The Corner House”. <http://www.thecornerhouse.org.uk/sites/thecornerhouse.org.uk/files/WoolfComCHSub.pdf>.

Cour des Comptes (1997), “La gestion des services publics locaux d’eau et d’assainissement:”, <http://www.againstcorruption.org/briberycase.asp?id=721>.

Crown Agents (2012). <http://go.worldbank.org/RYFSI7VJK0>.

Davis, Jennifer (2004), “Corruption in public service delivery: experience from South Asia’s water and sanitation sector”, World Development, 32(1), pp. 53–71. <http://www.sciencedirect.com/science/article/pii/S0305750X03001979>.

Della Porta, Donatella, and Alberto Vannucci (1999), Corrupt Exchanges: Actors, Resources, and Mechanisms of Political Corruption, Transaction Publishers.

Dollar, D., R. Fisman, and R. Gatti (2001), “Are women really the ‘fairer’ sex? Corruption and women in government”. , 46(4), 423–429.

Deutsche Welle (2012), “Argentine ex-president appears on corruption charges”, 15 August 2012. <http://www.dw.de/dw/article/0,,16168626,00.html>.

Economic Times (2009), “Sodexo, Accor face ire of AHAR restaurants”, 9 Mar 2009. [http://articles.economictimes.indiatimes.com/2009-03-09/news/28467717\\_1\\_sodexo-restaurants-coupons](http://articles.economictimes.indiatimes.com/2009-03-09/news/28467717_1_sodexo-restaurants-coupons).

el-Hamalawy, Hossam (2011), “Ministry of investments to be dissolved, privatization to end, says deputy PM”, 19 July 2011. [www.arabawy.org/2011/07/19/ministry-of-investments-to-be-dissolved-privatization-to-end-says-deputy-pm/](http://www.arabawy.org/2011/07/19/ministry-of-investments-to-be-dissolved-privatization-to-end-says-deputy-pm/).

---

**WATERLAT-GOBACIT Research Network**

5th Floor Claremont Bridge Building, NE1 7RU Newcastle upon Tyne, United Kingdom

E-mail: [waterlat@ncl.ac.uk](mailto:waterlat@ncl.ac.uk) – Web page: [www.waterlat.org](http://www.waterlat.org)

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

EurActive (2012), Gorilla file, 17 January 2012. <http://www.euractiv.com/justice/slovak-politics-rocked-gorilla-corruption-scandal-news-510173>.

Eurobarometer (2012), Corruption, Special Eurobarometer 374 [http://ec.europa.eu/public\\_opinion/archives/ebs/ebs\\_374\\_en.pdf](http://ec.europa.eu/public_opinion/archives/ebs/ebs_374_en.pdf).

European Union, (1999). Article 12 of the Criminal Law Convention on Corruption, European Treaty Series - No. 173, Strasbourg, 27.I.1999, <http://conventions.coe.int/Treaty/en/Treaties/Word/173.doc>.

Evans, Peter (1995), Embedded Autonomy: States and Industrial Transformation. Princeton: Princeton University Press. <http://press.princeton.edu/titles/5690.html>.

FCPA Blog (2012). <http://www.fcpablog.com/blog/2010/11/5/in-new-top-ten-eight-are-foreign.html>.

FT – Financial Times (2011), “Babcock sees £8bn opportunity in MoD cuts”, 28 September 2011. <http://www.ft.com/cms/s/0/13273828-e9cb-11e0-bb3e-00144feab49a.html#axzz25gRhkP5K>.

FT (2012), “MoD procurement outsourcing plan attacked”, 27 July 2012. <http://www.ft.com/cms/s/0/f0d5b61a-d749-11e1-8c7d-00144feabdc0.html#axzz25gRhkP5K>.

Fritz, V. and A. Rocha Menocal (2006), “(Re)building developmental states: from theory to practice”, Overseas Development Institute Working Paper 274 September 2006. (<http://www.odi.org.uk/resources/docs/2328.pdf>).

Gadowska, Kaja (2007), “Law in action. Political patronage and corruption in public administration in Poland in the light of Civil Service Acts”, NISPA Conference, [http://www.nispa.org/files/conferences/2009/papers/200907031109520.Gadowska\\_New.doc](http://www.nispa.org/files/conferences/2009/papers/200907031109520.Gadowska_New.doc).

Global Financial Integrity (2011), “Illicit financial flows from developing countries: 2008-2009”, Washington, <http://iff-update.gfip.org/>.

Goetz, Anne Marie (2007), “Political cleaners: women as the new anti-corruption force?”, Development and Change, 38(1), 87–105. <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-7660.2007.00404.x/full>.

Guardian, The (2006), “S: Special report: Reconstruction of Iraq: Corruption: the 'second insurgency' costing \$4bn a year: One third of rebuilding contracts under criminal investigation”, 2 December 2006.

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

Guardian, The (2012), “Finance industry's multimillion-pound lobbying budget revealed”, 9 July 2012. <http://www.guardian.co.uk/politics/2012/jul/09/finance-industry-lobbying-budget-revealed>.

Guardian Unlimited (2006), “Former taoiseach Haughey took millions for favours, report finds”. 19 December 19 2006.

Hall David (1999), “Privatisation, multinationals and corruption”, Development in Practice, 9(5), 539-556.

Hall, David (2004), “PPPs: a critique of the EC Green Paper”, Public Services International Research Unit (PSIRU). <http://www.psiru.org/sites/default/files/2004-07-U-ECPPP.doc>.

Hellman, Joel S, Geraint Jones, and Daniel Kaufmann (2003), “Seize the state, seize the day: state capture and influence in transition economies”, Journal of Comparative Economics, 31, pp. 751–773 doi:10.1016/j.jce.2003.09.006.

IPS CAIRO (2011), “Privatisation aided Egypt revolt, Army says”, , 8 April 2011. <http://ipsnews.net/news.asp?idnews=55187>.

Jorde, Sigurd (2013), “Norway invests more in tax havens than in Sweden”, <http://www.framtiden.no/english/other/norway-invests-more-in-tax-havens-than-in-sweden.html>.

Kaufmann, Daniel, and Pedro C. Vicente (2011), “Legal Corruption”, Economics & Politics, 23:, 195–219. doi:10.1111/j.1468-0343.2010.00377.x.

Keane, John (1995), Tom Paine – a Political Life, London: Bloomsbury Publishing.

Krugman, Paul (2012), “Privatization can lead to patronage and corruption”, Sacramento Bee, 23 June 2012.

Hellman, Joel S, Geraint Jones, and Daniel Kaufmann, ‘Seize the State, Seize the Day: State Capture and Influence in Transition Economies’, Journal of Comparative Economics, 31 (2003), 751–773. doi:10.1016/j.jce.2003.09.006.

Johnston, Michael (2005), Syndromes of Corruption. Wealth, Power, and Democracy, Cambridge: Cambridge University Press. [www.cambridge.org/9780521618595](http://www.cambridge.org/9780521618595).

Labaton Sucharow (2012), Wall StreetFleet StreetMain Street: Corporate Integrity at a Crossroads. United States & United Kingdom Financial Services Industry Survey, July

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

2012. <http://www.labaton.com/en/about/press/upload/US-UK-Financial-Services-Industry-Survey.pdf>.

Laws of Rule, The (2011), “Illegitimate Privatization in Egypt”, 15 October 2011. <http://www.lawsofrule.net/2011/10/15/illegitimate-privatization-in-egypt/>.

Ledergerber, Zora, and Alessandra Fontana (2011), “Whistleblowing in the financial industry: The right means to curb illicit flows from developing countries?”, U4 Brief N° 1, March 2011. <http://www.u4.no/publications/whistleblowing-in-the-financial-industry-the-right-means-to-curb-illicit-flows-from-developing-countries-2/>.

Mail Online (2012), “The Firm that hijacked the NHS”, 12 February 2012. <http://www.dailymail.co.uk/news/article-2099940/NHS-health-reforms-Extent-McKinsey--Companys-role-Andrew-Lansleys-proposals.html>.

Market Watch (2007), “Auditor faulted in Siemens probe: WSJ”, 4 May 4 2007. [www.marketwatch.com/story/auditor-faulted-in-siemens-probe-wsj](http://www.marketwatch.com/story/auditor-faulted-in-siemens-probe-wsj).

Maurino, Gustavo, Renzo Lavin, Carolina Cornejo, and Juan A. Ortiz Freuler (2010), Supreme Audit Institutions in Latin America: report on transparency, participation and accountability, Buenos Aires: Asociación Civil por la Igualdad y la Justicia. <http://iniciativatpa.files.wordpress.com/2010/10/tpa-in-sais-in-latin-america.pdf>.

McKenna, Francine (2011), “Whistleblowers are not pretty”, 3 February 2011. <http://retheauditors.com/2011/02/03/going-concern-whistleblowers-are-not-pretty/>

OECD - Organisation for Economic Co-operation and Development (1997), Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, OECD, Paris, [www.oecd.org/bribery](http://www.oecd.org/bribery).

OECD (2007), “Accor Service’s bribes to retain business in Argentina”, 28 November 2007. [http://oecdwatch.org/cases/Case\\_129](http://oecdwatch.org/cases/Case_129) [http://oecdwatch.org/cases/Case\\_129](http://oecdwatch.org/cases/Case_129).

Paine, Thomas (1772), “Case of the Officers of Excise”. <http://socserv.mcmaster.ca/~econ/ugcm/3ll3/paine/volume10/183-207%20Case%20of%20the%20Officers%20of%20Excise.rtf>.

Politics Web (2011), “Corruption Watch a victory for municipal workers – SAMWU”, 11 December 2011. <http://www.politicsweb.co.za/news-and-analysis/corruption-watch-a-victory-for-municipal-workers--> .

Polk, Andreas (2011), “Lobbying: private interests and public conduct”, CESifo DICE Report 9(1), Spring 2011. [www.cesifo-group.de/DocDL/dicereport111-forum1.pdf](http://www.cesifo-group.de/DocDL/dicereport111-forum1.pdf).

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

Razafindrakoto, Mireille, and François Roubaud (2010), “Are international databases on corruption reliable? A comparison of expert opinion surveys and household surveys in Sub-Saharan Africa”, World Development 38 (8): 1057–1069. doi:10.1016/j.worlddev.2010.02.004.

<http://www.sciencedirect.com/science/article/pii/S0305750X10000239>

REI – Red de Expertos Iberoamericanos en Fiscalización (2011), “Relevancia del Control Público y el Movimiento Sindical Internacional”. Fiscalizacion, N°.7 [http://www.conectaceddet.org/index.php?option=com\\_k2&view=item&task=download&id=36&Itemid=232&lang=es](http://www.conectaceddet.org/index.php?option=com_k2&view=item&task=download&id=36&Itemid=232&lang=es).

REI – Red de Expertos Iberoamericanos en Fiscalización (2012), Informe final del Foro de Expertos, “Ciudadanía y Entidades Fiscalizadoras Superiores: Transparencia, Participación Ciudadana y Rendición de Cuentas”, <http://iniciativatpa.files.wordpress.com/2012/06/informe-final-foro-rei.pdf>.

Reuters (1996), “Briefings”, 16 February 1996. <http://www.againstcorruption.org/BriefingsItem.asp?id=13595>.

Rose, Richard, and William Mishler (2010), “Experience versus perception of corruption: Russia as a test case”, Global Crime, 11: 145–163, doi:10.1080/17440571003669175. <http://www.tandfonline.com/doi/abs/10.1080/17440571003669175>.

Samimi, Ahmad Jafari and Haniyeh Hosseinmardi (2011), “Gender and corruption: evidence from selected developing countries”, Middle-East Journal of Scientific Research 9 (6): 718-727. <http://idosi.org/mejsr/mejsr9%286%2911/4.pdf>.

Santiso, Carlos (2007), “Eyes wide shut? The politics of autonomous audit agencies in emerging Economies”, CIPPEC. <http://iniciativatpa.files.wordpress.com/2010/10/santiso-eyes-wide-shut-cippec.pdf>.

SFO Serious Fraud Office (2012), “Four guilty in £70 million contracts corruption case”, 25 January 2012, United Kingdom. <http://www.sfo.gov.uk/press-room/latest-press-releases/press-releases-2012/four-guilty-in-70-million-contracts-corruption-case.aspx>.

SGS (2010), “Business principles for countering bribery: An effective tool for the private sector?”. [http://iaconference.org/en/archive/document/business\\_principles\\_for\\_countering\\_bribery\\_an\\_effective\\_tool\\_for\\_the\\_privat/](http://iaconference.org/en/archive/document/business_principles_for_countering_bribery_an_effective_tool_for_the_privat/).

Sikka, Prem (2009). “Financial crisis and the silence of the auditors”. Accounting, Organizations and Society, 34 (6–7) 868–873. doi:10.1016/j.aos.2009.01.004. <http://www.sciencedirect.com/science/article/pii/S036136820900018X>.

---

**WATERLAT-GOBACIT Research Network**

5th Floor Claremont Bridge Building, NE1 7RU Newcastle upon Tyne, United Kingdom

E-mail: [waterlat@ncl.ac.uk](mailto:waterlat@ncl.ac.uk) – Web page: [www.waterlat.org](http://www.waterlat.org)

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

Sung, Hung-En (2012), “Women in government, public corruption, and liberal democracy: a panel analysis”, Crime, Law and Social Change, 58(3), 195–219. doi:10.1007/s10611-012-9381-2.

<http://www.springerlink.com/content/b8772830270jw656/>.

Swamy, A., S. Knack, Y. Lee, and O. Azfar (2001), “Gender and corruption”, Journal of Development Economics, 64, 25–55.

Tambulasi, Richard I. C. (2009), “All that glitters is not gold: New Public Management and corruption in Malawi’s local governance”. Development Southern Africa 26 (2): 173. <http://dx.doi.org/10.1080/03768350902899447>.

Tendler, Judith (1997), Good Government in the Tropics, John Hopkins University Press.

Trace (2012). <https://secure.traceinternational.org/Knowledge/Compendium.html>.

Transparency International (2008), Global Corruption Report 2008: Corruption in the water sector. [http://www.transparency.org/whatwedo/pub/global\\_corruption\\_report\\_2008\\_corruption\\_in\\_the\\_water\\_sector](http://www.transparency.org/whatwedo/pub/global_corruption_report_2008_corruption_in_the_water_sector).

Transparency International (2011a). “Corruption Perceptions Index 2011”. [http://www.transparency.org/whatwedo/pub/corruption\\_perceptions\\_index\\_2011](http://www.transparency.org/whatwedo/pub/corruption_perceptions_index_2011).

Transparency International (2011b), “Bribe Payers Index 2011”. [http://www.transparency.org/whatwedo/pub/bpi\\_2011](http://www.transparency.org/whatwedo/pub/bpi_2011).

U4 Anticorruption Resource Centre, [www.u4.no/index.cfm](http://www.u4.no/index.cfm).

US Federal News (2007), “Sen. Leahy Introduces Bills to Combat War Profiteering, Public Corruption”, 4 January 2007.

US SEC – US Securities and Exchange Commission, FCPA - Foreign Corrupt Practices Act (2012), List of cases brought in USA under the FCPA. <http://www.sec.gov/spotlight/fcpa/fcpa-cases.shtml>.

Wall Street Journal corruption stories <http://blogs.wsj.com/corruption-currents/>.

Warner, C.M. (2007), The Best System Money Can Buy: Corruption in the European Union, Cornell University Press.

**WATERLAT-GOBACIT Network Working Papers**  
**Thematic Area Series SATCUASPE – TA3 - Urban Water Cycle and**  
**Essential Public Services – Vol. 3, N° 5**

Castro, José Esteban (Ed.)

---

Wempe, Johan (2010), “Influence Marketing”, Conference Document Saxion.  
[http://93.175.178.104/~corruptie.org/index.php?option=com\\_content&view=article&id=70:article-news-inf&catid=37:category-newsarchive&Itemid=86](http://93.175.178.104/~corruptie.org/index.php?option=com_content&view=article&id=70:article-news-inf&catid=37:category-newsarchive&Itemid=86).

WikiLeaks (2010), “Shell’s astonishing revelations about Nigerian corruption”, 25 Dec 2010. <http://www.shelltosea.com/content/wikileaks-shell%E2%80%99s-astonishing-revelations-about-nigerian-corruption>

World Bank. (2001). Engendering Development: Through Gender Equality in Rights, Resources, and Voice, New York and Oxford: Oxford University Press.  
[http://siteresources.worldbank.org/PGLP/Resources/Engendering\\_Development.pdf](http://siteresources.worldbank.org/PGLP/Resources/Engendering_Development.pdf).

World Bank (2009) “Siemens to pay \$100m to fight corruption as part of World Bank Group settlement”, July 2, 2009. <http://go.worldbank.org/WXRNSDVI40>.

World Bank (2012), List of debarred firms”, July 2012.  
<http://www.worldbank.org/en/about/unit/integrity-vice-presidency/news>.

# WATERLAT-GOBACIT NETWORK WORKING PAPERS

## Thematic Area Series — SATCUASPE TA3 Urban Water Cycle and Essential Public Services

