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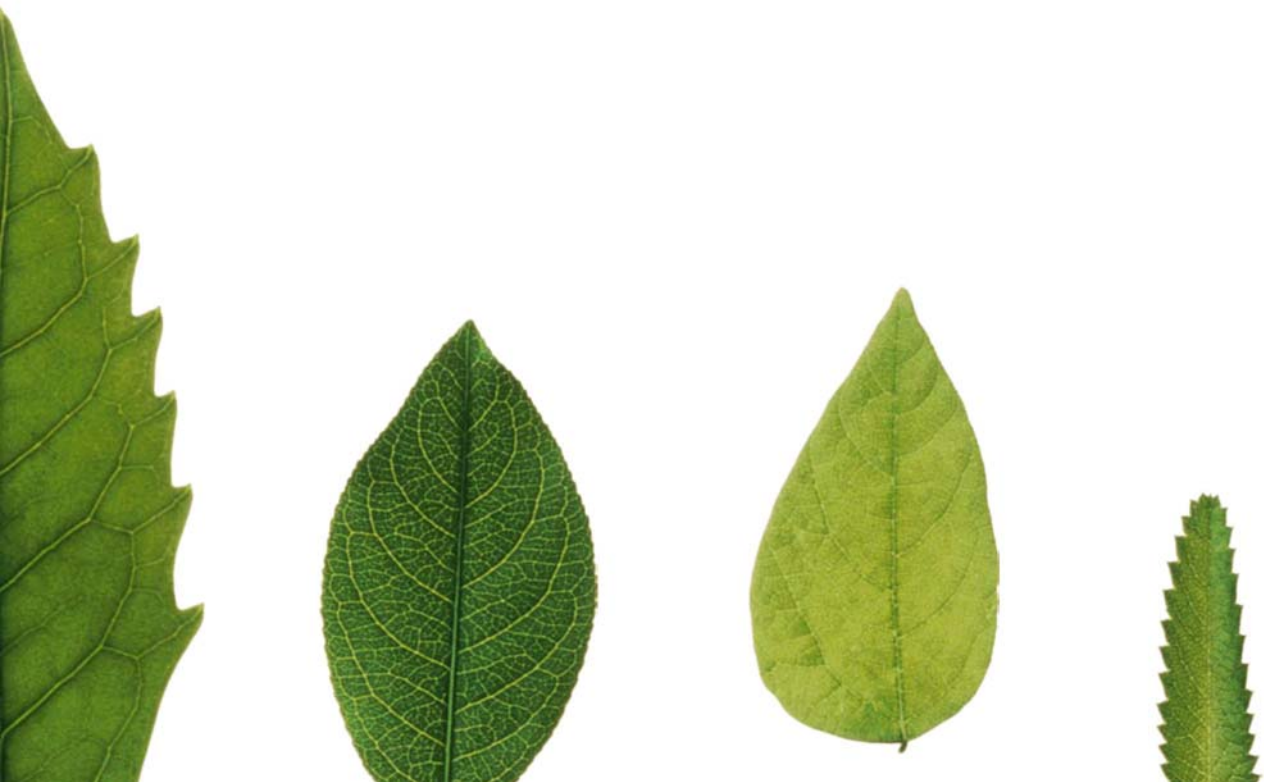

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INTRODUCTION

The link between water and poverty has now been recognised by the international community. Target ten of the Millennium Development Goals – 'Halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation'– is an evidence of this growing concern. As a consequence, countries are required to increase access to safe water supply.

There are several important challenges facing the water sector in both developing and developed countries. The first challenge poses the maintenance of the existing infrastructure which includes reducing leakages, replacing and expanding existing networks. In order to achieve this, there is a need for financial autonomy including sustainable and equitable tariffs, and efficient revenue collection. In addition, the utility company should be properly managed which necessitates building managerial capacities and improving efficiency and productivity. Since water is a basic need, socio-political issues such as affordable price, transparency, and accountability must be considered. And finally, issues of environment and health such as public health needs, conservation, and environmental management must be appropriately dealt with.

One way to tackle these challenges is through the Private Sector Participation (PSP). PSP in water is one of the most controversial and emotional debates of the current development discourse. On one side are the proponents who argue that since governments have failed in delivering quality water to everyone, the private sector can solve this problem by using market principles. In other words, the private sector can improve efficiency, extend the coverage of service, bring in more investment, and relieve governments from budget deficits. On the other side of the spectrum are those who consider that water is a common good and should not be in the hands of the private sector. They argue that since water is unlike any other resource and because water is the essence of life itself, it should not be treated like another commodity for which standard market principles apply. In other words, the private sector cannot apply just criteria for this basic need. In this context, access to water for everyone becomes a human right and it is the state's obligation to provide this vital resource to everyone. In this respect certain countries, like Sweden, have banned water companies from making profit. Others, like Netherlands and Uruguay, have barred privatisation of their systems. And then there is another group which stands in between these two extreme positions. This group thinks that solutions can be found by considering water as an economic good and a human right at the same time. It is within this context that the current debate is taking place.

PSP in urban water supply has a long history. Private initiatives were instrumental in establishing modern water supply systems, which led to privately owned or operated systems. This started as a result of urban growth since the mid-1800s in most European countries and North America. England was the precursor of modern water supply systems, which later spread to Germany, elsewhere in Europe and to the United States. However during the late 1800s, as a result of their unsatisfactory performance (inefficiency, high costs and corruption) or due to public health concerns in many European countries, these services were returned to public or municipal ownership. Today, in the European countries, the provision of urban water supply is significantly different, ranging from no private sector participation (the Netherlands), to an amalgam of PSP (Belgium, Finland, France, Germany, Greece, Italy, Spain,) and PSP with no profit motive (Austria, Denmark and Sweden), to full privatisation with strong regulation (England and Wales).

Water supply (and sanitation), especially in developing countries is one of the major challenges facing the development community. Yet, the debates regarding increasing access are not new. These debates took place in developed countries two hundred years ago. At the beginning of the 19th century, supply was not sufficient, of low quality, and often very expensive. By the early 20th century in England, water was made available in adequate quantities and the quality had drastically increased. By mid-20th century, access to water was quasi universal.

This article tries to understand today's debates on PSP in water supply from a historical perspective. It presents the history of PSP in the water supply. It then presents the current situation of the water debate and explains how it is shaped by international

organisations. In the final section the article argues why PSP debate should be re-thought, not in terms of private versus public put within a general reform context.

1 A LOOK AT HISTORY: EXPERIENCES FROM DEVELOPED COUNTRIES

Looking at how different cities dealt with managing their water supply over time can be instructive for understanding today's water supply challenges. Historically, the industrialised countries were concerned with increasing expansion of the water and sanitation system and the improvements were directly linked to the water sector legislations.[1] The drivers of such expansions and improvements were the need for fire-fighting, lack of or poor quality of water, environmental and public health concerns, industrial use, or a variety of combinations. It is argued that the business motive was the main driver for considering the first private proposal in the mid-1800s.

The experiences of France, UK and USA could be a useful illustration of the early developments. Dublin was the first modern city to introduce public water supply in the 13th century.[2] During this time, water was supplied by street carriers in other European cities. London's first major attempt to provide water supply was in 1582 (by a Dutch Peter Morris by erecting a water wheel at the London Bridge). As a result of increased urbanisation in the 19th century Europe, the traditional reliance on water from wells, water vendors or other sources was replaced by a centralised water supply system.[3] Fragmented, piece meal and localised systems were abandoned in favour of a highly centralised and integrated water supply system. This occurred in 1802 in Paris, 1808 in London and 1856 in Berlin.

It is argued that Romans were the first to manage drinking water as a priced commodity.[4] In ancient Rome, aqueducts carried clean water to its cities, which was financed by the emperor and private donations. Water fountains were characteristics of the Roman civilisation. The aqueducts were constructed not so much for hygienic purpose but for social reasons such as bath houses. Aqueducts were then piped to take water for city's basins and fountains, for private use and to bath houses. The priority was given to public needs (basins were used by citizens for gathering free water for domestic use) then to private use and finally to bath houses. Not everyone went to the public basins to get water. It is estimated that around 40 per cent of water going to Rome went to private buildings. A special tax was levied to those who used pipes from the main system into their residences (amount varied according to the size of the supply pipe nozzle). Having access to piped water at private residence was a status symbol and a luxury, mainly used by senators. The tax funds were used to cover the cost of maintenance of the system. By this method, water for the rich citizens was considered an economic good whereas for the average citizens, water was free and available by right. Each depended on the other in the sense that piped water to private residence was priced as an economic good which enabled the funding and maintain public fountains.

In New York in 18th century, after a period of using public wells which led to hygiene problems, water started to be sold to those who could afford it by business people known as 'Tea water men'. Since everyone could not afford 'tea water' and because of the increasing risks of fire, the city started to construct aqueducts in 1774. They were similar to those of the Roman experience. But this was short lived because of the Revolutionary War (1775-1783). A major epidemic of yellow fever struck in 1795. The public blamed the poor quality of 'tea water' and filthy wells for this epidemic. Under pressure,

1 P. Juuti and T. Katko, 'City in Time', *Water Time* (2005), available at http://www.watertime.net/wt_reports.asp#CiT.

2 C.F. Wingate, 'The Water-supply of Cities', 136 *North American Review* 364, 365 (1883).

3 M. Gandy, Water, Sanitation and the Modern City: Colonial and Post-colonial Experiences in Lagos and Mumbai (H.D.R.O. Occasional paper for Human Development Report 2006, United Nations Development Programme, 2006).

4 J. Salzman, 'Thirst: A Short History of Drinking Water', 17/3 *Yale Journal of Law & the Humanities* 94 (2006).

the city turned to the private sector for providing clean drinking water. In the beginning the city was reluctant to make initial investment and it therefore called on the private sector investors. It was argued that the municipality could not raise enough capital through loans and taxes to finance the works. Hence, the Manhattan Company, which later became the Chase Manhattan Bank, was formed to deliver water in the city. In its first 32 years, it laid only 23 miles of pipes and continued to force New Yorkers to rely on the collect pond and local wells. It is argued that this company was one of the 'most corrupt, incompetent, and disastrous experiments in water privatisation on record'.[5] Once again, rich people started relying on imported water. Then, with a series of disasters (a large fire in 1828, and a severe outbreak of cholera epidemic in 1832 & 1835), the government was forced to tackle the water issue. A Board of Water Commissioners was created to raise infrastructure capital (reservoir) in order to supply water to the city. It should be reminded that Philadelphia was the first city to have constructed 'sophisticated waterworks' in 1801.[6] Private management implied leaky water pipes, pollution and disease. Similar to that of New York, due to problems related to the private companies in respecting their obligations, the municipals took control of the water supply in Boston, New Orleans and other big cities in America.[7] Soon after the municipal ownership was installed, real investment and expansion of the network started through the issuance of municipal bonds. Statistics show that by 1905 the largest category of municipal debt was related to waterworks.

London has a similar story as New York on the reliance on private sector. During its first industrial revolution in the 16th century, the city was unwilling to spend more on public works and therefore called on the private sector. By 19th century, the water supply was concentrated in nine water companies. In the aftermath of a major cholera outbreak in 1840, the water companies became regulated entities. They were required to supply continuous filtered piped water to residences. In 1902, with the Metropolis Water Act, the water entities were municipalised. Some water was provided free through charities in the form of public fountains.

In the early 1800s, London-bridge Waterworks company was practicing some sort of cross subsidies for the supply of water: an extra charge was levied on brewers, stable-keepers and tradesmen.[8] The authorities were concerned that, unlike those who could afford to pay, the poor would not be able to afford services from the private sector and some poor areas did not have supplies.[9] It was argued that the poor could be supplied only through a 'public body'. It is argued that municipal and the local authorities were unwilling to undertake the risk of supplying water in London, which led private companies to fill this vacuum. However, the private sector was reluctant to supply water to the poor, except through the medium of the landlord or through separate reservoirs with intermittent supply. The rich had their own supplies whereas the poor bought water from private vendors at high prices (two shilling per week - an equivalent to their rent) or were getting it from rivers and wells.[10]

In 1861 the share of private provision of water supply in larger towns was 60 per cent, which decreased over time reaching 20 per cent in 1881 and only 10 per cent in 1901.[11] During the period 1900-1974 the municipalities were in charge of the water supply with the exception of 20 per cent of the population who were supplied by private water companies. The 1974-1989 period saw largely ten regional water structures based on river basins (between 1974 and

5 A. Snitow and D. Kaufam et al., *Thirst: Fighting the Corporate Theft of Our Water* 5 (San Francisco: John Wiley, 2007).

6 M. Melosi, 'Pure and Plentiful: The Development of Modern Waterworks in the United States, 1801-2000', 2/4 *Water Policy* 243, 244 (2000).

7 D. Cutler and G. Miller, Water, Water, Everywhere: Municipal Finance and Water Supply in American Cities, (Cambridge, USA: National Bureau of Economic Research Cambridge, Working Paper W11096, 2005).

8 W. Hunter, 'London Water Supply', 47/2422 *Journal of the Society of Arts* 475, 476 (1898).

9 J. Fletcher, 'Historical and Statistical Account of the Present System of Supplying the Metropolis with Water', 8/2 *Journal of the Statistical Society of London* 148, 174-5 (1845).

10 D. Sellers, Hidden Beneath Our Feet: The Story of Sewerage in Leeds (Leeds: Leeds City Council, Department of Highways and Transportation, 1997), available at http://www.dsellers.demon.co.uk/sewers/hidden.pdf.

11 *See* Juuti and Katko, note 1 above.

1989 there were 29 private companies supplying between a fifth and a quarter of the population of England and Wales with water) and after 1989, the regional water supplies were privatised.[12]

Water management in France was considered as a private sector activity right from the beginning. In 1782, the Perrier brothers were given licence to supply piped water in Paris. Générale des Eaux (later Vivendi and now Veolia) won its first municipal contract in 1853 during the reign of Napoleon III.[13] There were major concerns of disease outbreak, such as cholera, which led the authorities in 1894 to make it mandatory for all dwellings to be connected to the sewerage system in Paris.[14]

In Berlin, the city was unwilling to spend money on building piped water system. The first water supply system was developed by the private sector from 1852 mainly for cleaning streets and for fighting fire. Water charges were levied for private use but people had doubts on the quality since it was untreated water from river Spree. Due to unsatisfactory service, the city of Berlin acquired the water company in 1873. Contrary to the Berlin experience, the city of Munich financed its own investment for its water supply system in 1883. Ownership issue was not a topic until recently in the 1990s.

2 LINK BETWEEN DISEASE AND WATER

The association between disease (such as cholera, typhoid) and water (sanitation) was established in the mid-19th century. Research in bacteriology developed during this period. As a result, countries started paying more attention to water. Not only the poor were affected by water borne diseases, but increasingly the middle and upper classes were concerned as well. The problems were more acute in cities with growing population and increasing pollution of water sources due to industrialisation. The smelly open sewerages did affect everyone. Therefore, solutions had to be found, especially after the 1937-38 cholera outbreak. One of the most influential report on public health was that of Chadwick.[15] He argued and demonstrated that unsanitary housing conditions caused diseases and poverty. He established the correlation between poor sanitation, defective drainage, inadequate water supply and overcrowded housing with disease, high mortality rates, and low life expectancy. For example, he estimated that by putting proper sanitation and bringing clean water could add an extra thirteen years of life to the labouring class. He also analysed the economic cost of public health and explained why access to water and sanitation should be universal, especially in order to have a productive workforce. He considered that it was a waste of valuable time when the poor went to fetch water and waited in queues. In addition, during this period there was increasing social and political unrest that was especially coming from the poor. Consequently, the story of public health movement originated from Chadwick's report, starting with the Public Health Act of 1848. In the 1850s, public health was considered a noble cause and building water supply network became the prestige and symbol of wealth of a city.[16]

Although the construction of the water supply network was initiated by the private sector, water supply improvements did not take place until the

12 D. Hall, E. Lobina, et al, 'Public Resistance to Privatisation in Water and Energy', 15/3 *Development in Practice* 286 (2005).

13 'Making a Big splash: With More than a Century in the Private Sector, French Water Companies are Showing the Rest of the World How to Manage Their Water Utilities', *Financial Times,* 24 August 1999, page 17.

14 *See* Gandy, note 3 above.

15 E. Chadwick, (1842, 1965) 'Report on the Sanitary Conditions of the labouring population of Gt. Britain' *in* G.D. Smith, D. Dorling and M. Shaw ed., *Poverty, Inequality and Health in Britain, 1800-2000: A reader*, 46 (London:The Policy Press, 2001).

16 H. Breyer, Mortality, Morbidity and Improvements in Water and Sanitation: Some Lessons from English History (Occasional Paper for Human Development Report 2006, Human Development Report Office, United Nations Development Programme, 2006) available at http://hdr.undp.org/en/reports/global/hdr2006/papers/bryer%20helen.pdf.

state took full responsibility. This consisted in increasing public investment, and taking over control from the private operators. The main concern of the public authorities was to make access universal, reduce water borne diseases, and provide water for fire fighting. Public investment increased as governments recognised the importance of economic, social and political benefits of providing clean, safe and reliable water.

In England, the state took action for increasing access to water supply, whereas in France it was the responsibility of the local authorities. This is demonstrated by the coverage rates in 1911: in London 96 per cent of households were connected to water supply compared to only 17.5 per cent in Paris.[17]

The funding of the large water supply infrastructure came in the form of 'municipal bonds' like in New York City and private capital, like in Great Britain. In the early 20th century, water works represented the largest component of municipal debt in American cities.[18] However, even in the prosperous western cities, household connections were uneven, mainly favouring middle-class households. From the middle of the 19th century, private monopolies were replaced by public monopolies because the private companies were unwilling to extend coverage to poor neighbourhoods, or to improve quality, or because of excessive charges. There was also a growing distrust of private monopolies in delivering safe water. As mentioned earlier, most of the water supply was reverted back to the municipalities in London, mainly due to public health concerns.

3 COLONIAL WATER LEGACY

The colonial history has left a stamp on the structure of water systems in developing countries. For example, in the ex-British colonies, water was seen as a right. The ex-French colonies adopted the French model of involving the private sector in providing water services.[19] It is even argued that the current problems of water supply in certain developing country cities cannot be understood without reference to the historical development starting from the colonial era.[20] During the British rule in India, the city of Madras was supplied by water either through public fountains (for poor neighbourhoods) and piped water to others.[21] A water tax was imposed on each property and an increasing block rate was practiced (100 gallons per rupee for first class service, and one rupee for additional thousand gallons of water used).[22] Similarly in Mumbai, during the colonial and post-independence era, a massive investment was undertaken to build and improve the water supply infrastructure. However, only 50 per cent of the households have access to piped water.[23] The major problem in Mumbai (and like other cities of developing countries) is currently the high number of slum dwellers who are not connected to the network.

In colonial Lagos, the lack of financial support for developing water supply system led to the segregation between wealthy enclaves (colonial administrators and local elites) and the rest of the city. At the end of the colonial period (1960), a mere 10 per cent of the households were connected to piped water supply and the rest depended on shared taps, standpipes, wells and unsafe creeks.[24] This situation further deteriorated during the civil war and the successive authoritarian regimes. Industries in Lagos are now using around 20 per cent of their capital to providing basic services like water.[25] Currently only 5 per cent of households are connected to water supply. Others still depend on wells, boreholes, water tankers, illegal connections, street vendors and open drains.

17 *Id*.
18 *See* Cutler and Miller, note 7 above.
19 M.A. Lewis and T. Miller, 'Public-private Partnership in Water Supply and Sanitation in Sub-Saharan Africa', 2/1 *Health Policy and Planning* 70 (1987).
20 *See* Gandy, note 3 above.
21 J.W. Madeley, 'Town Water Supply in India', 77/3966 *Journal of the Royal Society of Arts* 27 (1928).
22 *Id*. at p. 30.
23 *See* Gandy, note 3 above, p. 18.
24 *See* Gandy, note 3 above, p. 11.
25 *See* Gandy, note 3 above.

British private capital was instrumental in setting up the Brazilian water supply during the Portuguese colonial rule in the 19th and early 20th century.[26] The general public was mostly excluded from such modernisation of infrastructure and as a result there was a popular uprising against private water companies. Subsequently, the national government took control of the services (municipal, state or at federal levels). As a result of heavy government involvement (1910-1950), water and sanitation coverage increased.

What emerges is that both public and private actors have important roles to play. However, the final responsibility is on the State and social policies are crucial for increasing coverage and making sure that the poor are not excluded from the service.

4 RECENT PRIVATISATION EXPERIENCE

After a decade of experimentation with PSP in water supply, there is an emerging trend of failures or renegotiations. Why are there so many failures in water supply? It would be instructive to see if market principles can be applied to drinking water supply and if PSP is the right option to improve coverage and increase efficiency. Because of positive externalities and the merit good argument, water is a very unusual good, which makes a clear-cut classification very hard. Its finite and locally specific supply makes it rival and thus implies that market forces should manage the supply and demand. However, one should keep in mind that water is an essential resource (increasingly considered as a human right[27]) and in spite of the type of ownership, an affordable and universal access to it should be provided. As we will see later, this goal is not easy to achieve, in both developing and sometimes even developed countries, and there is not much consensus about the right solution(s).

5 THEORY OF PRIVATISATION

The arguments in favour of state ownership rest on the market failure assumptions. As a result, governments have responded to market failure with state ownership. In other words, state ownership occurs when private firms fail or because of market failures and the state wishes to change the market allocation of economic costs and benefits. On the contrary, privatisation is a response to the failings of the state ownership.[28] The most controversial debates on public-private ownership relates to natural monopolies like water supply.

Megginson argues that the policy of privatisation has been one of the most visible signs towards greater reliance on markets to allocate resources.[29] He defines privatisation as the sale of a State-Owned Enterprise (SOE) or its assets to private agents. According to him privatisation, for more than 100 countries, has increasingly become a legitimate and accepted tool of statecraft. The industrial revolution highlighted the real debates about private versus state ownership. In this era most countries relied on the state for technological innovation. Only UK and USA turned to private enterprises to commercialise steam power, iron, or steel. It is argued that Adam Smith's *Wealth of Nations* (1776) provided additional justification of the superiority of private ownership to a public one in most businesses. However, during the Great Depression of the 1930s, many

26 L. Heller, Access to Water Supply and Sanitation in Brazil: Historical and Current Reflections (Occasional Paper for Human Development Report 2006, Human Development Report Office, United Nations Development Programme, 2006).

27 United Nations Development Programme, *Human Development Report 2006, Beyond Scarcity: Power, Poverty and the Global Water Crisis* (New York: Palgrave Macmillan, 2006) and P.B. Anand, *Scarcity, Entitlements, and the Economics of Water in Developing Countries* (Cheltenham: Edward Elgar, 2007).

28 W.L. Megginson and J. Netter, 'From State to Market: A Survey of Empirical Studies on Privatisation', 39/2 *Journal of Economic Literature* 321, 329 (2001).

29 W.L. Megginson, *The Financial Economics of Privatisation* (Oxford: Oxford University Press, 2005).

governments took an active role in economic activities. John Maynard Keynes's *General Theory of Employment, Interest and Money* (1936) provided intellectual rationale for government's intervention.

In general there are three theoretical reasons for state ownership. One is to ensure that business enterprises balance social and economic objectives rather than focus exclusively on profit maximisation. Intervention can also be seen as a response to market failure and natural monopolies (which rule out competition and hence its supposed benefits). And, thirdly, it can be desirable in situations of informational asymmetries between the principal (public) and the agent (producer).

Historically, according to Megginson,[30] state ownership of business has arisen as a result of:

- Natural expansion of 'royal power' in feudal or tribal societies (antiquity and middle ages);
- Attempts to commercialise complex and new technologies (industrial revolution of late 19th and early 20th century);
- Nationalisation of failing private businesses aimed at either preserving employment or continuation of production of essential goods and services (during economic crises like the Great Depression);
- Ideology of state ownership (like communist or certain radical socialism);
- Extreme political factionalism (state ownership of key industries becomes a political tool of reward and punishment).

After the Second World War, it is argued that Friedrich von Hayek's (1944) *The Road to Serfdom* had considerable impact on policymakers in justifying the motives in favor of privatisation.[31] Hayek's work provided the intellectual basis for Keith Joseph and later Margaret Thatcher and the Tory politicians who started campaigning for the rolling back of the British welfare state. What followed was a worldwide movement towards privatisation in 1980s and 1990s. SOEs were argued to be 'inefficient' because government used them to pursue non-economic objectives. Specifically, it was believed that SOEs were inefficient due to:

- weak incentives (especially frail incentives to maximise revenue);
- the lack of monitoring because of collective action problems;
- 'soft budget constraints' because politicians will never apply strict private sector rules in terms of budgetary requirements.

The motives for privatisation in developed and developing countries differed. In the developing countries, state ownership was seen as important in order to promote economic growth, especially in physical facilities. In addition, after the colonial legacy, most countries resented foreign ownership of large firms. Nationalisation was justified as a mean to overcome decades of colonial exploitation. China, India, Brazil and Russia provided many developing countries with the intellectual leadership in state ownership.

By the late 1970s, state ownership was common in both developed and developing countries. Poor performance of state owned enterprises lead to disenchantment with their performance. This triggered the march towards privatisation. In the early 1980s, Margaret Thatcher justified privatisation of state owned firms as means to:

- raise revenue for the state
- promote economic efficiency
- reduce government interference in the economy
- promote wider share ownership
- introduce competition

30 *Id.*
31 *See* Megginson, note 28 above.

- subject state-owned enterprises to market discipline.[32]

Although Margaret Thatcher was not the first to launch privatisation agenda, her programme has strategic importance (it was one of the most important ones).[33] After the initial apparent success in Britain, other countries followed suit (e.g. France after the coming to power of the Conservative government in 1986). Two years later, the Socialists stopped the further sale of SOE, but did not attempt to re-nationalise the privatised companies. Austria, Belgium, Canada, Chile, Denmark, Holland, Italy, Jamaica, Japan, Malaysia, Singapore, Spain, Sweden and USA all started privatisation. After 1987, privatisation went to developing world of Latin America, Africa and Asia. The 1990s show increased privatisation. Privatisation was more widespread in Latin America in the 1990s, and particularly in Chile, Bolivia, Brazil, Argentina. Chile started its privatisation in 1970s with the arrival of Pinochet, but the program was later aborted. However, privatisation was 'something of a stealth economic policy' in sub-Saharan Africa.[34] The last bastion of privatisation has been the former Soviet-bloc countries and Eastern Europe after the collapse of communism in 1989-91.

PSP in the Water Sector

Among the triggers of privatisation of water there has been increasing debt burden, fiscal and macroeconomic burdens, public health crisis and ideological shifts. It is argued that reform in water sector has higher social gains (increased coverage, service quality) but low political benefits (price increase, loss of employment).[35] PSP in the water sector has been 'late and light' compared to the privatisation of other sectors like electricity, telecommunication, and transport.[36] There has been much controversy in the water sector due to the nature of water as a basic human need, fears of price increase, public health concerns, environmental implications, and that water cannot be transferred to a profit-making entity. As demonstrated above these debates took place in USA and England hundred of years ago, when there was a shift from private to municipal ownership.

Privatisation was introduced in different regions of the world for different reasons. In Asia it was launched to reduce budgetary deficits, increase economic growth, develop capital markets and improve services.[37] In Latin America, it was started because of excessive political interference in public utilities and corrupt government. As for the case of Africa, it was mainly due to financial burden and to increase access to water for the poor. In Central and Eastern Europe it was essentially on ideological grounds where there was shift from communism to market economy. Apart from France and UK, water is mainly supplied by the public sector. In the USA and Canada, private sector participation remains limited.

Figure 1.1 Private Sector Investment in Infrastructure Sector 1984-2005

32 It should be noted that the Federal Republic of Germany (government of Konrad Adenauer) launched the first large-scale ideologically motivated 'denationalisation' programme in 1961. It sold Volkswagen and the chemical firm VEBA.

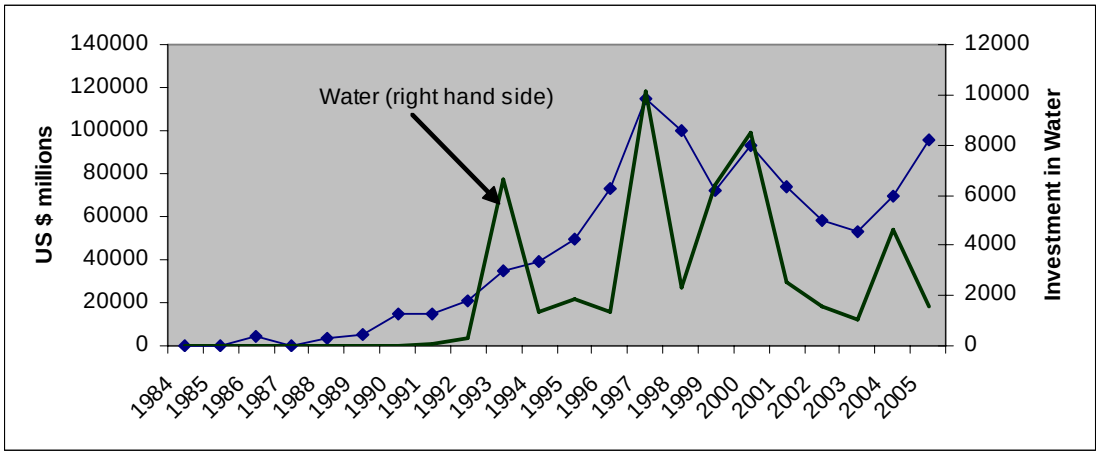
33 She adopted the term 'privatisation', which was originally coined by Peter Drucker, that replaced 'denationalisation'. *See* P. Drucker, *A New style of Government* (London: Conservative Party Centre, 1970).

34 *See* Megginson, note 29 above, p.19.

35 I.N. Kessides, *Reforming Infrastructure: Privatisation, Regulation, and Competition* (Washington, DC: World Bank, 2004).

36 J. Davis, 'Private Sector Participation in the Water and Sanitation Sector', 30 *Annual Review of Environment and Resources* 145, 147 (2005).

37 M. Ait-Ouyahia, Public-private Partnerships for Funding Municipal Drinking Water Infrastructure: What are the Challenges? (Government of Canada, Policy Research Initiative, 2006).

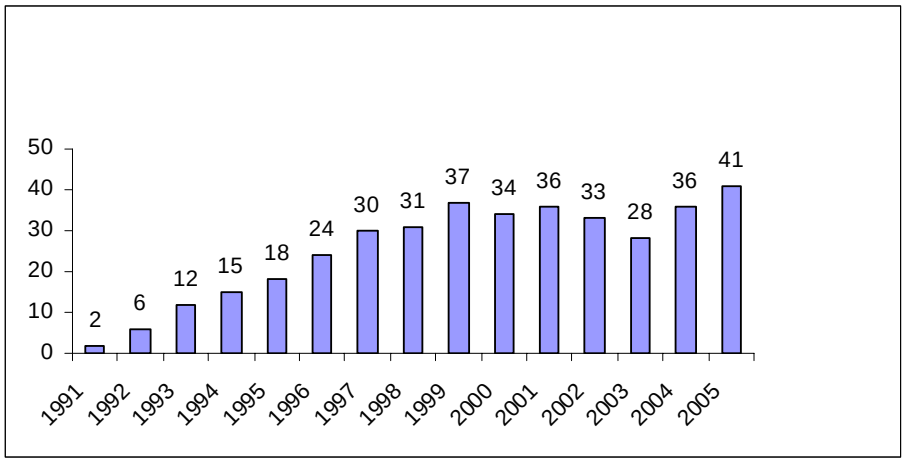


Source: World Bank's private project investment database http://ppi.worldbank.org/.

Private sector investment in infrastructure increased dramatically in the early 1990s, reaching its peak in 1997 (See Figure 1.1). Subsequently, the Asian financial crisis and successive crises in other countries, together with growing concerns about PSP in infrastructure projects and reservations amongst investors about going into developing countries because of weak regulatory instruments and market failures, led to a waning of private investment in general. As for investments in water supply and sanitation in particular, the private flows have been very erratic, reaching a peak in 1997 and falling to US$1 billion in 2003. There was a slight increase in 2004 but it has fallen again in 2005 to mid 1990s level of over US$1 billion. During the 1990-2005 period, 55 countries (representing 383 projects)[38] had introduced some form or other of PSP in water sector (See Figure 1.2). In 2005 alone, there were 41 new investments going to ten countries in the water sector (China alone had 25 projects). The much publicised cases include Buenos Aires (Argentina), Manila (Philippines), Cochabamba (Bolivia), Jakarta (Indonesia), Nelspruit (South Africa) and La Paz (Bolivia); the United Republic of Tanzania. Some of the major water companies (like Suez, Veolia and Thames Water) are withdrawing from developing countries as a result of economic and financial crises, natural disasters, corruption, risky operating environments, or non-compliance with contractual obligations. It is increasingly argued that privatisation has come full circle and there is thus a need to 're-municipalise' water services.

Figure 1.2 Number of private investment in water sector 1990-2005

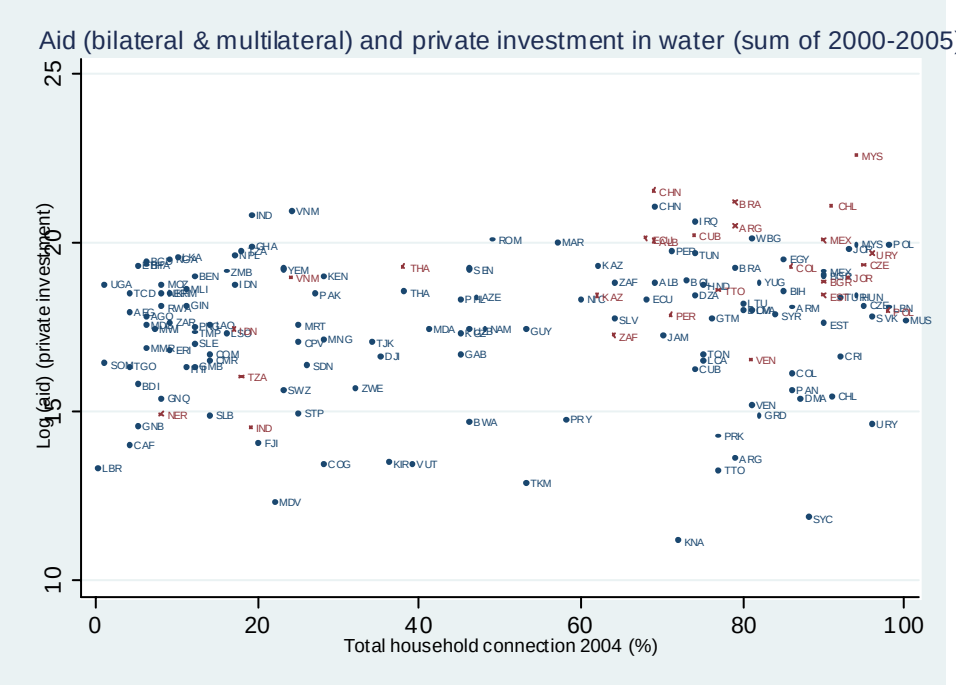
38 Based on World Bank's private participation in infrastructure (http://ppi.worldbank.org) the following countries have involved the private sector in their water supply: Albania, Algeria, Argentina, Armenia, Azerbaijan, Barbados, Belize, Bolivia, Brazil, Bulgaria, Central African Republic, Chile, China, Colombia, Croatia, Cuba, Czech Republic, Ecuador, Egypt, Arab Rep., Estonia, Ghana, Guyana, Honduras, Hungary, India, Indonesia, Jordan, Kazakhstan, Lebanon, Malaysia, Mexico, Mozambique, Namibia, Niger, Panama, Papua New Guinea, , Peru, Philippines, Poland, Romania, Russian Federation, Senegal, Serbia and Montenegro, Slovak Republic, South Africa, Tanzania, Thailand, Trinidad and Tobago, Turkey, Uganda, Uruguay, Uzbekistan, Venezuela, Vietnam, West Bank and Gaza.



Source: World Bank's private project investment database http://ppi.worldbank.org/

In order to develop water infrastructure, funds could either come from tax revenues, user charges (and cross subsidies), private-sector investment, aid (bilateral or multilateral), or a combination of some or all of these sources. As for the private investment, Figure 1.3 shows that Malaysia, China, Brazil and Chile received the highest amount of private investment in water supply sector from 2000-2005.[39] In terms of aid flow, Vietnam, China, India and Iraq topped the list. These countries also receive a high level of aid. Total household connection rate is also relatively high in these countries compared to other countries.

Figure 1.3 Aid and Private Investment 2000-2005



39 During the period 1995-1999, Philippines received the highest amount of private investment followed by Chile and Argentina.

Source: OECD Database on Aid (http://www.oecd.org/dataoecd/50/17/5037721.htm), World Bank's private project investment database http://ppi.worldbank.org/, and WHO/UNICEF 2006

We find that the private sector investment goes generally to countries that have higher levels of connection rates. Only seven low-income countries have so far managed to attract private investment in their water sector during 1990-2005 (Mozambique, Senegal, Papua New Guinea, Vietnam, India, Niger and Tanzania). South Africa is the only additional Sub-Saharan African country that has received private investment during the same period. In addition, aid and private flow goes to the same group of countries. In other words, aid seems to attract private investment and private investment flows to countries that reform their water sector.

6
MDG AND WATER

There are several estimates done in order to gauge the amount of investment required in order to achieve universal coverage in developing countries. A report published by OECD, shows that 0.35-1.2 per cent of GDP is required to finance, maintain and service the water supply networks in high income countries, 0.54-2.60 per cent of GDP for middle income countries, and 0.70-6.30 per cent of GDP for low income countries.[40] A more conservative figure is shown in a World Bank study, which estimates the investment needs for 2005-2010 for developing countries to be around 0.5 per cent of GDP.[41] The UNDP believes that 1.6 per cent of GDP is required to achieve the target ten of MDG. Following Chadwick's demonstration of the economic benefits of increased access, WHO estimated the economic costs and benefits of making water supply universal in developing countries.[42] It is shown that every dollar invested in water and sanitation for making universal coverage will bring in on average $10.3 dollars in developing countries. In more concrete terms, a total of $16.6 billion investment that is required, will bring in $171 billion of economic benefits (time savings, productivity gains, health care cost saving). This will translate into having 673 million fewer diarrhoeal cases, resulting in having around 600,000 fewer deaths, saving $1.7 billion in health care cost (over $200 million in non-medical cost such as food, transport), $3.5 billion in economic value of work loss days avoided, $7.3 billion in contribution as a result of the lives saved.

7
WATER GOES INTERNATIONAL

7.1 World Bank and Privatisation

One of the main reasons why so many developing countries decide to involve the private sector in water and other infrastructure is the influence and persuasiveness of international donors that support such policies. One of the main players in international development is the World Bank. Apart from being the largest donor, it has the capacity to produce research that supports its policies. As a result, the World Bank is able to shape the policy agenda of other regional development banks, development agencies, donor countries, academic community and penetrates the borrowing country government's decision making machinery.

40 R. Ashley and A. Cashman, The Impacts of Change on the Long-term Future Demand for Water Sector Infrastructure in Infrastructure to 2030: Telecom, Land Transport, Water and Electricity 241-349 (Paris: OECD, 2006).

41 M. Fay and T. Yepes, Investing in Infrastructure: What is Needed from 2000 to 2010? (Washington, DC: World Bank, 2003).

42 G. Hutton, L. Haller and J. Bartram, Economic and Health Effects of Increasing Coverage of Low Cost Water and Sanitation Interventions (Human Development Report Office Occasional Paper 2006/33, Report prepared for the United Nations Development Programme Human Development Report 2006), available at http://hdr.undp.org/hdr2006/pdfs/background-docs/Thematic_Papers/WHO.pdf.

It provides financial assistance and policy prescriptions to developing countries. It is argued that prior to 1990s, the Bank policies were based on Keynesian and classical economics. At this stage, market failures were recognised to happen in infrastructure sectors due to natural monopolies, externalities and public good aspect. During this time, the government was regarded as a major player. The World Bank was less interested in who owned the firm but it placed emphasis on how it was managed. In other words, it was more interested in efficiency rather than ownership. In the early 1990s, the Bank's economic approach changed radically from Keynesian to neoclassical economics. This is demonstrated by the various policy documents.[43] The government's involvement in infrastructure became problematic, lacking innovation, inefficient, not able to compete in world markets, and widespread corruption. The private sector was seen as a savior by bringing in innovation, efficiency and thus allowing the government to redirect its funds to fight poverty.

World Bank started the discussion on privatisation through the concept of decentralisation (privatisation is one form of decentralisation). It started figuring in World Bank's policy documents from 1983.[44] To this effect, a background paper for the World Development Report (WDR) 1983 was prepared to review the experiences of decentralisation in developing countries. It has been coming subsequently in most of the WDRs. It was mentioned in the International Financial Corporation's Annual Report of 1982 where together with the World Bank, it carried out a study on privatisation of some public sector enterprises in Peru. It published a technical paper entitled 'Techniques of privatisation of state-owned enterprises' in three volumes consisting of methods of implementation, country studies, and inventory of country experiences and reference materials.

One of the main messages of the WDR 1994 was that private sector should be involved in management, financing and ownership in infrastructure to ensure commercial orientation in infrastructure.[45] Bureaucrats in Business[46] were a high-profile study of SOE reform in developing countries. It expressed puzzlement at the slow pace of privatisation and could not understand why 'bureaucrats' were still in business. In the 1990s a plethora of reports on privatisation was published.

Since the early 1990s, the Bank adopted a strong position in favour of privatised water. This was promoted through policy reports, support for joint initiatives (such as the Global Water Partnership and World Water Council) with water multinationals, and through loan conditionalities or policy based lending.[47] In the 1993 Water Resource Management Report, the World Bank called onto improving water efficiency through price mechanism (i.e. market) and privatisation.[48] In its revised operation policy (2000), it reiterated the need for market mechanism and privatisation for improving efficiency.[49]

7.2 United Nations and the Water Debate

Apart from the World Bank, other international actors that have had profound impact on PSP are the IMF, WTO/GATS, the United Nations, OECD, and NGOs. After the Water conference (1977), the topic of water was referred in most of the world conferences of the 1990s including the Earth Summit (Chapter 18 of Agenda 21), Children's Summit

43 World Bank, *Bureaucrats in Business: The Economics and Politics of Government Ownership* (New York: Oxford University Press, 1995) and World Bank, *World Development Report 2004, Making Services Work for the Poor* (New York: Oxford University Press, 2003).

44 World Bank, *World Development Report 1983: World Economic Recession and Prospects for Recovery; Management in Development; World Development Indicators* 85, 117 (New York: Oxford University Press, 1983).

45 World Bank, *World Development Report 1994: Infrastructure for Development* 2 (New York: Oxford University Press, 1994).

46 *See* World Bank (1995), note 43 above.

47 D. Hall, K. Lanz, et al, 'International Context Report', D7 *Water Time* 37 (2004), available at http://www.watertime.net.

48 World Bank, Water Resources Management: A World Bank Policy Paper (Washington: World Bank, 1993).

49 World Bank, Operation Policy 4.07 (January 2000), available at http://wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf/whatnewvirt/7BA37D4B8EA4B67B8525672C007D07E2?OpenDocument.

(1990), Social Development Summit (1995), and the Sustainable Development (2002). It is explicitly one of the targets of the MDGs in terms of providing access to water (Target ten States: Halve by 2015 the proportion of people without sustainable access to safe drinking water).

Although the United Nations does not have the power in terms of financial resources, it has however managed to shape policies through UN conferences and declarations. One such international conference on water and the environment (Dublin 1992) was organised to prepare a statement for the Rio Earth Summit in the same year. The Dublin statement proposed four guiding principles including Principle 4: 'Water has an economic value and it should be recognised as an economic good'. This principle has been used to justify the commercialisation of water supply. In other words, people should be charged for the water they consume and prices are based on the cost of production and delivery. This is referred to as 'full cost recovery' and it contradicts the view that water is essential to life and people should have equal access regardless of their ability to pay. In the latter view, water provision should be financed through taxation and charges should be based on household income rather than consumption. Coincidently, the emergence of water multinationals and the Dublin/ Rio principles are linked where the multinationals became the vehicle for these principles.

The United Nations approach has been rather ambiguous. In its latest World Water Report 2006 it argues that privatisation may not be suitable in all situations.[50] Ownership is not related to efficiency. It proposes that private sector involvement depends on the political, institutional, social and cultural settings of the country. The United Nations has also linked MDGs with water and it has become a development objective. This was endorsed in the WSSD in Johannesburg (2002). In its report, the United Nations Task Force on Water & Sanitation recognised that because of specific features of investment in water (sunk costs, lack of political will to charge cost-recovering tariffs) it is difficult to attract private investment (United Nations Task Force on Water & Sanitation 2005).[51] In addition, they also recognise the difficulties associated with the implementation of public-private partnerships in water supply. Since only 10 per cent of the water is supplied by the private sector worldwide, it is now gradually recognised that the MDGs (target seventeen) cannot be achieved solely through the private sector. The private sector is not interested in going to countries (or zones) where it is most needed, especially to poorer countries.

The United Nations (ECOSOC) through its Committee on Economic, Cultural and Social Rights issued a statement declaring access to water as a human right (2002). In other words, member countries now have the responsibility to ensure that their citizens have access to water.

8 PRIVATISATION GOES WRONG

Are there industries that should not be privatised? The answer is yes because certain government services (like national defense, judicial systems, basic welfare services) are best left with the state. Megginson recognises that there is one industry where not only privatisation has proved difficult but also the argument of increasing welfare has been more than ambiguous.[52] That is water and sewerage provision.

It is recognised (by the World Bank and United Nations) that it is extremely difficult to operate a water service profitably and at the same time provide affordable services to all consumers. The multinational companies have had murky experiences in developing countries because of the large capital investments required to maintain the infrastructure.

In almost all policy documents and evaluations of major international donors, it is recognised that

50 United Nations, *Water – A Shared Responsibility* (Paris: UNESCO, 2006).

51 United Nations Millennium Project, *Health, Dignity and Development: What Will it Take?* 72 (London: Earthscan, 2005).

52 *See* Megginson, note 29 above, p. 299-400.

reforming water sector is politically very.[53] The World Bank recognised that reliance on market forces will not be satisfactory and that government will have to intervene.[54] In its 2004 Water Resources Sector Strategy, it recognised that wider reform outside the water sector would be a pre-condition for involving the private sector in the water sector.[55] This was also emphasized in the WDR 2006 which stated that privatisation may not make sense in certain context.[56] This is clearly demonstrated in the World Bank's Group program for water supply and sanitation (2004) that 'one-size fits all' approach in water sector reform is to be avoided.[57]

By 2003, the World Bank started to doubt in its own water privatisation advice and was doing some soul-searching.[58] In its evaluation, the World Bank recognises the difficulties associated with the private sector provision of water to the poor: 'getting the private sector to focus on the alleviation of poverty and to design tariffs in a way that does not discriminate against the poor has proved hard to achieve in practice'.[59] It acknowledged the excessive focus on the private sector and its lack of attention to the specific requirements of different countries.[60] It also acknowledged that the private sector may not be able to bring in the additional investment required to increase coverage in order to reduce poverty. In its progress report it further recognised that the private sector in not able to increase investment in infrastructure and that public funding will continue to be important.[61] Compared to the late 1980s and 1990s, the World Bank's infrastructure strategy has shifted from reliance on private sector to encouraging public-private partnerships. Similar conclusions are also drawn by those who argue that the World Bank is fine-tuning its orthodox policy on reliance on market and paying more consideration to social and environmental costs.[62] In addition, civil society organisations have been increasingly active in putting pressure on governments, trying to make them avoid applying market forces to public services.[63] It is generally recognised that after two decades of involving private sector in water and sanitation there are increasing popular protests, dissatisfied governments and investors.[64] The private sector has been withdrawing from the sector and is only interested when the risks are limited (e.g. management contract, leases). As a result, the World Bank started giving investment loans to public operators but emphasises the need for financial sustainability. In other words, it pressures public companies to operate on commercial basis which at least covers its costs and where the prices are set by an independent regulator which is not embedded into the daily politics.

53 World Bank, Bridging Troubled Waters: Assessing the Water Resources Strategy, 25 (World Bank Evaluation Department, 2002), available at http://lnweb18.worldbank.org/oed/oeddoclib.nsf/DocPgNmViewForJavaSearch/water_resource_strategy/$file/water.pdf, Asian Development Bank, Water for All: The Review Panel's Final Report and Recommendations (2006), available at http://www.adb.org/Water/Policy/pdf/review-panel-report.pdf; W. Savedoff, P. Spiller Spilled Water, Institutional Commitment in the Provision of Water Services (Inter-American Development Bank 1999).

54 *See* World Bank, note 48 above, p. 26.

55 World Bank, Water Resources Sector Strategy, Strategic Directions for World Bank Engagement 3 (Washington: World Bank, 2004).

56 World Bank, *World Development Report 2006: Equity and Development* 14 (New York: Oxford University Press, 2006).

57 World Bank - Water Supply & Sanitation Sector Board, The World Bank's Group Programme for Water Supply and Sanitation 13 (2004), available at http://siteresources.worldbank.org/INTWSS/Resources/12Chapter13costeffectivenessanalysis.pdf.

58 'Soul-Searching at World Bank; Privatisation's Biggest Fan Wonders What Went Wrong amid Popular Discontent', The *Wall Street Journal Europe,* 21 July 2003, p. M8.

59 *See* World Bank, note 53 above.

60 Implementing the World Bank Group Infrastructure Action Plan 5 (Development Committee, Joint Ministerial Committee of the Boards of Governors of the Bank and the Fund On the Transfer of Real Resources to Developing Countries, 13 September 2003).

61 World Bank, Infrastructure and the World Bank: A progress report (World Bank Development Committee, 2005).

62 P. Utting ed., *Reclaiming Development Agendas: Knowledge, Power and International Policy Making* (Basingstoke: UNRISD/Palgrave Macmillan, 2006).

63 K.B. Ghimire ed., *Civil Society and the Market Question: Dynamics of Rural Development and Popular Mobilisation* (Basingstoke: Palgrave Macmillan, 2005).

64 World Bank, Infrastructure Development: the Roles of the Public and Private Sectors, World Bank Group's Approach to Supporting Investments in Infrastructure (Working Paper, 2005) available at http://siteresources.worldbank.org/INTINFNETWORK/Resources/Rolesupdt.pdf.

However, recent research shows that it is only the name that has changed and the main thrust of PSP remains the same. Prasad argues that the PSP in water supply and the dominance of free-market approach in international circles is still alive but repackaged through different terminologies.[65] It is to be noted that the Word Bank has a wide range of opinions on PPP and that it has learnt lessons from past failures. This is often reflected in some of its staff publications where the debate on privatisation is much more nuanced. However, the World Bank as an institution is not willing to abandon its ideology of market approaches and this is often reflected in country policy documents on the ground.

9 CONCLUSIONS

Both theory and evidence show the ambiguities of privatisation of water service, and that the absence of effective regulation makes privatisation infeasible in developing countries. Apart from the desire to seek profits which is still prevalent, the main drivers for increased private sector participation today are poor performance of public water companies, lack of public finances, donor conditionalities, aims to increase efficiency, etc. However, history warns that water cannot and should not be treated merely as an economic good, but other dimensions like the political, socio-cultural, technological, environmental and legislative should also be considered.

Increasing coverage requires many things and money is one of the key inputs. Private sector can, and often does, assume a critical role in the provision and operation of water supply. However, loans from private sector will be recouped from the users or the government. In countries that cannot service loan repayments, the private sector does not provide a new source of financing. This is because financing water facilities is unappealing to private investors for reasons such as the 'lumpiness' of necessary investments, payback periods of 20 years or more, and the political difficulties inherent in charging and collecting cost-recovering tariffs. In this case, there is no need to be over optimistic that the private sector will solve the water problem. We caution that even in the best circumstances, PSP cannot replace public provision and in some cases, the public sector should be enhanced and given resources.

65 N. Prasad, 'Privatisation Results: Private Sector Participation in Water Services After 15 Years', 24/6 *Development Policy Review* 669 (2006).

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