

International Context for PSP

First Draft

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Where is PSP Going

Decreased interest in concessions; new forms of PSP; new actors; regional variations; different business models; the changing role of donor organisations. NB. For general discussion of financing issues related to the changing face of PSP see the Financing Paper.

Jamal Saghir (World Bank) OECD conference 2006: ¹
The time of mega concessions with international operators seems to have evolved.

'Evolved' may seem to be euphemism for 'ceased' but this remark was highly specific in focusing on the 'mega-concessions'. The wider picture is more complex. As has been drawn to our attention by the academic panel, the forms and extent of PSP are changing rapidly. Here are some features. The main source is Marin & Izaguirre unless stated otherwise: ²

- Leases and management contracts are becoming more prominent: up from 19% of all PSP projects in 1995-1999 to 25% 2001-2004 (now 27% ³)
- Contracts are shortening in length ⁴
- SSA less activity and projects tend to combine with electricity (12 of the 17 projects in SSA), mainly management and lease contracts
- In S. Asia formal PSP is very rare: only one greenfield project and one management contract throughout period 1990-2005
- The Latin American share fell from 50% in the '90s to 30% in 2001-5. In 2005 only four small contracts awarded including two treatment plants in Chile and Colombia
- 10 countries have reverted to public management only: Uruguay by law, Uganda, Belize, West Bank/ Gaza, CAR, Chad, Guinea, Comoros, Mali, Tanzania ^{5 6}

But despite the above, it would be a mistake to extrapolate from recent trends that PSP is on the decline, despite the high profile failures. Certainly, private investors seem to be increasingly selective in choosing where to invest and are concentrating on the higher end of emerging markets. But in some respects PSP is on the increase. Despite the downward trends of recent years, there is current growth in new contracts; here are some illustrations of this again from Marin and Izaguirre except where stated:

- There were 49 countries with PPPs in 2000. 55 in 2005 ⁷
- 16 introduced PSP for the first time since 2000 including Russia ⁸
- 41 new contracts in 2005 the most since 2000

¹ J. Saghir, *Public-Private partnerships in water supply & sanitation; recent trends and new opportunities*; OECD global forum on sustainable development, Paris nov 2006.

² Philippe Marin & Ada Karina Izaguirre, *Private participation in water*. In *Gridlines* no.14 Sept 2006, PPIAF.

³ PPIAF presentation to Technical Advisory Panel January 2008

⁴ Saghir op cit

⁵ Saghir op cit.

⁶ Philippe Marin, *PPP for urban water utilities: facts and lessons from 15 years of experience in developing countries*. Presentation to PPIAF programme council The Hague, May 2007.

⁷ Saghir op cit.

⁸ Marin op cit.

- Water treatment plant investments rose in number and volume and as proportion of total volume from nine per cent in 2000 to 35% in 2005
- In 2005 bulk facilities amounted to two thirds of committed investment and 60% of projects
- East Asia now attracts half of projects and investment flows. In 2005 60% in both greenfield bulk projects and utility concessions. (New contracts are dominated by China)
- 84% of 220 total water utility contracts awarded 1990-2005 were still operational in 2005

Decreased Interest in Concessions

Marin and Karina argue that the enthusiasm for concessions that characterised the 1990s has faded: “Contracts often reflected excessive optimism by both private investors and governments, and the socio-political difficulties of raising tariffs to levels covering costs were often underestimated. Financial markets were hesitant to provide nonrecourse financing for water projects, often requiring that financing be backed by the sponsors’ balance sheets. Finally, some of the largest water projects were in East Asia and Argentina, and when financial crisis broke out, the contracts proved insufficiently robust to weather the storm.”⁹ By 2005, 34% of investment commitments made since 1990 (11% in number) were either cancelled or under distress, i.e. under request for cancellation or in international arbitration.¹⁰

Palaniappan, Cooley, Gleick and Wolff expect that concessions will continue to be attractive in some stable economies, but elsewhere O&M contracts will be preferred. “After a decline in private investments, we expect private investments to pick up again with changing actors and new strategies.”¹¹

This does not mean that concessions for water utilities have completely disappeared. Thirty-six were granted in 2002–05. But most were in countries with access to long-term local currency financing, such as Chile, China, Colombia, and Malaysia. And the average size of concessions has diminished. A concession contract represented an investment of only US\$54 million on average in 2005, compared with more than US\$270 million in 1995–2000.¹²

In addition, a growing number of concession projects are based on a mix of public and private financing (in Colombia, Malaysia, and Peru, for example). But the era of mega-concessions financed by international operators in foreign currency seems to be over. The only large concessions reaching financial closure since 2000 were the two in Malaysia (the Johor and Syabas concessions), and these involved local companies and tapped local capital markets for funding.¹³

What is clear is that, with the lack of enthusiasm for concessions, the total PSP investment in the water and sewerage sector is declining. According to Palaniappan, Cooley, Gleick and Wolff¹⁴, in the eleven countries¹⁵ they studied, private sector investment was US\$ 11.2 billion between 1990 and 2004. In 2006 investments in these same countries were nearly 30

⁹ Private participation in water, toward a new generation of projects?, Philippe Marin and Ada Karina Izaguirre, Gridlines, September 2006, PPIAF, World Bank, Washington

¹⁰ Marin and Izaguirre op cit.

¹¹ Palaniappan, Cooley, Gleick and Wolff, op cit. p.5

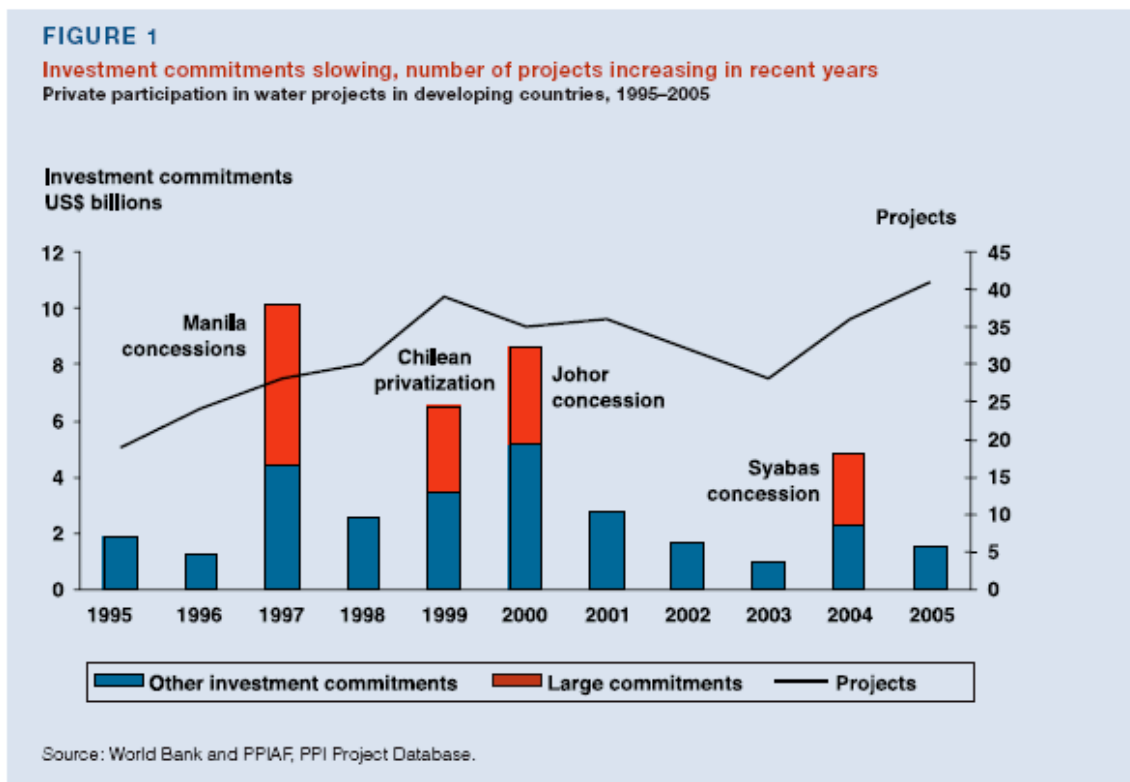
¹² Marin and Izaguirre, op cit. p.3

¹³ Marin and Izaguirre, op cit. p.3

¹⁴ Palaniappan, Cooley, Gleick and Wolff, op cit. p.5

¹⁵ The eleven countries addressed in the Palaniappan, Cooley, Gleick and Wolff study are: the Czech Republic, Hungary, Mexico, Poland, the Slovak Republic, Turkey, Brazil, Russia, India, China and Indonesia.

percent below their 1998 peak level of US\$ 1.6 billion. Marin and Izaguirre¹⁶ also note a slowdown in investment (see Figure 1 below). In 2005 investment flows amounted to US\$1.5 billion, within the US\$1–2 billion range of the past five years (excluding the US\$2.5 billion Syabas concession in Malaysia in 2004).



Furthermore, although private activity took place in 10 countries, most of the investment flows went to just 2: China (56 percent) and Algeria (34 percent). Beyond these 2 countries commitments amounted to around US\$150 million. This confirms that private investors are increasingly selective in choosing where to invest and are concentrating on the higher end of emerging markets.

New Forms of PSP

As identified by David Hall and Richard Franceys, forms of PSP other than concessions are still moving ahead. In the past 15 years sixty-eight developing countries brought private participation to their water sector. “By 2005, 54 of those countries still had operational water projects. And between 2003 - 2006 countries as diverse as Albania, Algeria, Ghana, Peru, and Russia have opened their water utilities to private participation. These facts suggest that the perception of a widespread retreat by the private sector from water activity in developing countries is unfounded.”¹⁷

The multinational private operators that were taking on concessions in the 1990s are still interested in developing countries, but they are focusing on selected markets and lower-risk

¹⁶ Marin and Izaguirre, op cit. p.1

¹⁷ Marin and Izaguirre, op cit. p.4

projects. In 2005 Veolia was the most active, with seven management contracts (one each in Armenia, the Czech Republic, and Russia and four in China). Suez was the private sponsor for the management contract in Algeria's capital city of Algiers.¹⁸

Thus the decline in investment flows has been accompanied by a growth in new contracts. "Indeed, 2005 was a record year: 41 projects reached financial closure, the most since 1990. So while investment commitments have declined, the perception that private participation in water has come to a standstill does not reflect the whole truth."¹⁹ There is no evidence that private sector participation is coming to a standstill, instead its nature and form is evolving.

For Palaniappan, Cooley, Gleick and Wolff, this evolution of PSP stems from the fact that, having been stung by public backlash against previous failed public-private agreements, private companies are moving from divestiture agreements and concessions, which involve high capital risk, to operation and management contracts, which do not imply private investments. Marin and Izaguirre agree, noting that while concessions have been declining, management and lease contracts have been increasing. "Together they accounted for 24 percent of projects in 2005, similar to their share in 2001 – 2004 (25 per cent) and significantly higher than their share in the second half of the 1990s (19 percent)."²⁰

There has been a growing trend toward wastewater contracts versus water contracts, possibly because wastewater contracts are less politically charged. There has been a significant increase in the number of sewerage and sewage treatment contracts awarded since 1999. There has also been an increasing tendency for local and national companies to win these contracts, which until 1995 had been regarded as almost exclusively the domain of companies operating in or from OECD economies.

For Marin and Izaguirre, what we are seeing today is "a natural maturation of the market following an initial boom." Now more aware of the benefits and risks involved, stakeholders are looking for contractual arrangements best suited to each country's situation. They believe that in the coming years a new generation of projects can be expected to emerge. They predict that these are likely to be moderate in size; include more management and lease contracts as tools to improve the performance of utilities; and involve more greenfield projects for bulk facilities. Marin and Izaguirre believe that these projects are likely to increasingly involve regional players"²¹

New Actors

Between 1990-97 top five sponsors held 54% of all projects. (Suez, Veolia, Thames Agbar and Saur). By 2002-05 top five fell to 30% and three were from developing countries.²²

Palaniappan, Cooley, Gleick and Wolff²³ anticipate that in the near future, local private actors will become more predominant. Local private actors are also taking a much more significant role in the water sector, particularly in China and Russia."²⁴ New players are also arriving on the scene in other countries. New private firms are entering the water business in developing countries. National or regional firms from Argentina, Brazil,

¹⁸ Marin and Izaguirre, op cit. p.4

¹⁹ Marin and Izaguirre, op cit. p.1

²⁰ Marin and Izaguirre, op cit. p.3

²¹ Marin and Izaguirre, op cit. p.4

²² Marin and Izaguirre op cit.

²³ Palaniappan, Cooley, Gleick and Wolff, op cit. p.7

²⁴ Palaniappan, Cooley, Gleick and Wolff, op cit. p.6

Colombia and Malaysia joined those from China and Russia as the primary sponsors of utility concessions awarded in 2005.²⁵ This reflects a more localised market in water and sanitation. To date, most local companies have remained nationally focussed with very little international activity.

Richard Franceys notes that ten new company entries have been made in this edition of Pinsent Masons Yearbook: two in Australia, one each in Kuwait and the Philippines, and the remaining six in Western Europe. For Kuwait and the Philippines, there were new (local) owners for local companies, and the Australian entries reflects the country's interest in private equity.²⁶

In addition, since 2001 European water companies— from such countries as Germany, Italy, Portugal, and Sweden—have shown new interest in developing countries. Joining them in 2005 was Vittens of the Netherlands, which won the management contract for Ghana's national water utility in a consortium with Rand Water of South Africa.

Private equity firms have recently become significant investors in water utilities. According to David Hall, it is too soon to tell if they are buying water companies hoping for quick turn-around sales, or are looking for long-term secure investments with regular and reliable returns. Sixteen companies are either held by what are essentially financial investors: one in France, two in the US, five in Chile and eight in the UK, including three of the 10 water and sewerage companies.

In many developing countries the most prevalent model of private provision is small private companies who act as vendors of water and water-treatment equipment. While traditionally these companies have not been regulated and the quality and price their services has been a matter for each small operator, there is a trend in some countries to license them as part of municipal supply. In general, the smaller local companies are not a major source of investment or expertise. Private vendors of water-treatment equipment often operate the equipment under contract. A typical client for these service providers is an industrial or large commercial facility that needs on-site wastewater or water treatment. This business model seems to be growing rapidly as on-site and smaller scale technologies become more reliable and economical, and are increasingly used in residential and commercial applications.²⁷

At the same time, advances in technology are reducing diseconomies of scale associated with small systems. Today, on-site and closed-loop systems are a small but growing share of the water and wastewater sector. Numerous private companies have emerged to provide small-scale conventional treatment for water and wastewater. Emerging economies are increasingly requiring on-site treatment for wastewater instead of connection to overburdened centralized systems. This introduces new actors and methods of financing into the water sector including property and land owners, flat complex developers in water stressed areas, and engineering firms who provide Design Build and Operate (DBO) functions.²⁸

New entrants are coming from the operational side with no great investment commitments and little tradition of face-to-face contact with consumers. But the French traditional service providers are still active in seeking new contracts. In 2005 Veolia took on seven management contracts in Armenia, China (4) the Czech Rep. and Russia²⁹. Suez took on

²⁵ Marin and Izaguirre, op cit., p.3

²⁶ Pinsent Masons Water Yearbook, David Lloyd Owen, quoted in GWI, November 2007

²⁷ Palaniappan, Cooley, Gleick and Wolff, op cit. p.15

²⁸ Palaniappan, Cooley, Gleick and Wolff, op cit. p.6

²⁹ Marin & Izaguirre op cit.

Algiers. Things are changing already from just two or three years ago. To what extent it is still fair to say as did Shah *et al* that only four international companies (Suez, Veolia, SAUR and Agbar) remain interested in new overseas ventures, is open to question.³⁰

According to Marin and Izaguirre: *In the coming years a new generation of projects can be expected to emerge. These are likely to be moderate in size. They are likely to include more management and lease contracts as tools to improve the performance of utilities, and more greenfield projects for bulk facilities. And they are likely to increasingly involve regional players. The new players come from varied origins; according to Kauffmann: water construction companies or engineering companies, industrial conglomerates seeking to diversify, local companies that formed joint ventures with international operators and local companies expanding and going regional. Mergers and acquisitions activity in the water sector has also been very intense...with at least 98 corporate transactions registered since 1997*³¹. Firms are becoming more and more specialised for example some specialise in the task of reducing non-revenue water, for which contract negotiations are currently taking place in Mumbai for example. Marin and Izaguirre also find that *private investors are increasingly selective in choosing where to invest and are concentrating on the higher end of emerging markets.*³²

Winpenny³³ identifies no less than 116 recent market entrants from outside of the 'developed countries' plus 18 based in developed countries. China alone counted for 27. They often sub-contract with an experienced operator to have access to their expertise. Manufacturing and construction firms are moving in to offer their specialised services.

The new entrants have extremely varied origins:³⁴

- Only 10% previous experience as independents,
- 20% linked with foreign operators,
- 9% privatised utilities,
- 8% conglomerates
- Most of rest from construction and manufacturing

This remarkable variegation of the sector is what Philippe Marin describes as the maturing of the sector. But while reports of the death of the private sector are exaggerated, one should bear in mind that private companies do not always bring a net gain in capital investment. As Camdessus pointed out,³⁵ they finance their projects by drawing on the same capital markets as others, although they may induce 'complementary funding'.

Regional Variations

Developing regions show remarkable variation in their share of private activity and in the type of contractual arrangements used. East Asia and Latin America have led the regions, accounting for 75 percent of projects and 90 percent of investment flows in 1990–2005.³⁶

Palaniappan, Cooley, Gleick and Wolff note that when analysing the data, it is apparent that private companies are focusing in key regions and withdrawing from others.³⁷ Marin

³⁰ Shah et al op cit .p. 13

³¹ C. Kauffmann *Private sector participation in water & sanitation infrastructure: the policy challenges of involving private investment in key primary sectors: the water & energy sectors in focus*. Global Forum on International Investment March 2008 Manila p.4

³² Marin & Izaguirre op cit.

³³ J. Winpenny, *Opportunities and challenges arising from the increasing role of new private water operators in developing and emerging economies*. Background issues paper for OECD Global Forum on sustainable development Nov 2006 OECD Paris, section 2.1

³⁴ Winpenny op cit. section 2.4

³⁵ Camdessus op cit. p.32

³⁶ Marin and Izaguirre, op cit. p.3

³⁷ Palaniappan, Cooley, Gleick and Wolff, op cit. p.6

and Izaguirre, point out that while Latin America was the most active region in the 1990s, its share of investment flows fell from almost 50 percent in the 1990s to 30 percent in 2001–05. Indeed, PSP came almost to a standstill in 2005, with only four small private projects awarded³⁸. “The drop in private activity appears to be the direct result of a backlash against utility concessions, which had been the favoured scheme for introducing the private sector in the region.”³⁹

East Asia has replaced Latin America as the most active region, attracting half of all new private water projects and investment flows in 2001–05. The activity was driven largely by China—by far the biggest market for private water investors among emerging market economies today—but also by Malaysia. In 2005 East Asia was again the most active region, with more than 60 percent of the activity. This activity includes both greenfield bulk projects and utility concessions.

Eastern Europe and Central Asia ranks third, but presents a different picture. Most of its private water projects relied on public investment for capital expenditure, taking advantage of public financing from the European Union (at a concessional rate) or the European Bank for Reconstruction and Development (which can lend directly to municipal governments without sovereign guarantees). As a consequence, management and lease contracts accounted for 70 percent of all projects. In 2005 private activity remained modest but steady with six new projects: a lease contract in the Czech Republic, a management contract for the Armenian city of Yerevan, and three leases and a management contract in Russia.

Lagging behind are the Middle East and North Africa, with 10 stand-alone water projects, and Sub-Saharan Africa, with 17. These regions also had contracts combining water and electricity services (7 in the Middle East and North Africa and 12 in Sub-Saharan Africa). Because of the high country risk in Sub-Saharan Africa, private operators had been reluctant to invest there even during the “concession boom,” leading to a predominance of management and lease contracts. As these schemes have proved to be more sustainable, such countries as Côte d’Ivoire and Senegal have become international success stories for private participation.

In South Asia private activity remains rare. Only a greenfield project and a management contract were awarded in 1990–2005.

Different Business Models

For Palaniappan, Cooley, Gleick and Wolff⁴⁰ the traditional focus on public versus private ownership or operation of built assets tends to hide the entire context within which business models in the water sector operate. For example, water rights are valuable assets that affect service provider behaviour perhaps as much as “built” assets. For Palaniappan et al, the context in which business models operate should be defined to include other important characteristics, such as:

“Where does investment capital come from? Who repays the capital? How is the service organized (i.e., central systems, decentralized systems, etc.)? How are service quality, potable and ambient water quality, and economic factors such as tariffs or rates of return to invested capital, regulated?”⁴¹

³⁸ San Andrés Island in Colombia, Tumbes in Peru, and two treatment plants in Chile and Colombia

³⁹ Marin and Izaguirre, op cit. p.3

⁴⁰ Palaniappan, Cooley, Gleick and Wolff, op cit. p.11

⁴¹ Palaniappan, Cooley, Gleick and Wolff, op cit. p.12

Table 1. Current and Emerging Business Models in OECD countries

	French (Affermage)	Concession	English/Welsh	Canadian	German	US	Closed loops
Status	Stable	Some decline in non OECD and OECD countries	Limited dissemination	Stable	Stable	Stable with some emerging private	Emerging
Level of decentralisation	Municipality	Municipality	Regional	Regional or Municipal	Municipality	Municipal/Regional	Condominium
Who owns the assets	Municipality	Municipality	Utility	Municipality	Municipality	Municipality or Regional District	Property developer
Who pays for investments	Municipality/ basin organisation	Utility	Utility	Municipality	Municipality	Municipality or Regional District	Property developer
Who defines the service	Municipality	Municipality	Regulator	Municipality	Municipality	Public utility or service commissions	Property developer
Who sets the price	Municipality	Municipality	Regulator	Municipality or Regional District Board	Utility	Public utility or service commissions	Property developer
Robustness vis-à-vis key drivers	Attracts no private capital. Depends on municipal capacity to raise funds	Depends on emergence of domestic operators and their capacity to raise private funds	Fails to attract private capital. Apparent shift towards mutual funds	Attracts no private capital; Regional models capture economies of scale, particularly useful in less dense areas surrounding urbanized areas.	Until recent reform due to EU regulation, service provided by multi-utilities (water, energy, urban transit), with cross subsidisation	Attracts no private capital. Depends on municipal capacity to raise funds	Best qualifies in new, extensive, peri-urban habitats

Palaniappan, Cooley, Gleick and Wolf, November 2006, op cit. p.12

The Changing Role of Donor Organisations

"In most countries, the question is no longer how to attract private investment, but rather how to attract bilateral and multilateral aid, which leads to Management Contracts and Lease Contracts. The role of the operator in this new context is to: (i) optimize the investment; (ii) improve operations; (iii) be a catalyst to attract local and international funding; but (iv) no longer be a major investor."⁴²

The role of the donors will be to select the countries where public-private partnerships will be possible. If consumers cannot afford to pay the full costs of water and sanitation services, aid transfers from north to south will be required, which makes it inevitable that donors will be involved in policy decisions impacting on forms of service delivery.⁴³

⁴² Louis Petrique, SAUR International, in Private Sector Participation in Municipal Water Services in Central and Eastern Europe and Central Asia: Facing a crisis of confidence in private sector participation in the water sector – measures to overcome obstacles to more effective PSP, p.17, OECD and World Bank, Conference Proceedings, Vienna, 2 – 3 July, 2003

⁴³ OECD and World Bank 2003, op cit. p19

The IFI/donor community view PSP as one vehicle for improving water supply service provision, but no longer see it as a panacea. At a 2003 conference in Vienna, they indicated a willingness to continue to support PSP projects in suitable national contexts, as instruments of their development work. They are also willing to play a more proactive role in developing advice on standard procedures and for developing contracts, managing transactions and project implementation. However donors want the private sector also to play its part by adopting transparent procedures, and by accepting that risk is part of the business. Donors also say they would like the private sector to be more innovative by, e.g., developing new models, considering franchise systems, and enhancing the involvement of local partners.⁴⁴

There are mixed views on whether donor behaviour in regard to PSP is changing. For some, despite some loss of confidence in the private sector as a solution to the problems in the water and sanitation sector, the World Bank and other major donors' policy continues to remain the same: PSP is the main answer. Others note a change in the rhetoric of these organisations who now say there will always be a mix of public and private service delivery. Although in some countries, IMF conditionalities have been reduced with the repayment of debts, IFIs and donors still have a major influence on sector policy decisions in their role as the main source of loans and grants to finance capacity building, extension of services, etc.

Role of Small Domestic Companies and SSIPs

This section is adapted from Robin Simpson's Financing Paper, from M T Solo, Competition in water and sanitation: the role of small scale entrepreneurs (http://www-wds.worldbank.org/external/default/main?pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187283&theSitePK=523679&entityID=000094946_99031910553915&searchMenuPK=64187283&theSitePK=523679) and from a BPD paper that cannot yet be cited as it is in an early draft.

TORs: Role of small domestic companies and SSIPs: Attitudes towards these actors; the services they deliver; SSIPs relationships to larger utilities; proximity to poor; costs and pricing; to what extent could SSIPs be integrated, financed and regulated as part of the formal sector?

Attitudes towards SSIPs

There is a long history of conflict surrounding SSIPs, stretching back, according to Dardenne, to the opposition of vendors to network expansion in 1788 in Paris.⁴⁵ As Solo points out, "Historically, utility companies emerged to take sole command of water supply in cities in Europe and the USA to guarantee water quality and to provide pressure points for fire prevention and control." SSIPs were seen as providing a low quality, high cost service and were regarded as insignificant and unreliable actors unable to offer economies of scale. Furthermore, "where utilities have monopoly rights, SSIPs activities are at worst illegal, or at best irregular"⁴⁶ and hardly suitable candidates for consideration when discussing water sector reform. Discussions on PSP, from both sides of the fence, centred on the large transnational corporations and how to deliver large-scale infrastructure based services.

⁴⁴ OECD and World Bank, op cit. p.7

⁴⁵ B. Dardenne *The role of the private sector in peri-urban or rural water services in emerging countries*. Global Forum for Sustainable Development OECD Paris Nov 2006. section 3.1

⁴⁶ M T Solo, Competition in water and sanitation: the role of small scale entrepreneurs (http://www-wds.worldbank.org/external/default/main?pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187283&theSitePK=523679&entityID=000094946_99031910553915&searchMenuPK=64187283&theSitePK=523679)

Services delivered by SSIPs and vendors –

SSIPs serve approximately 2% of the urban population in Latin America and East Asia and 50% in Africa and SE Asia. They take a wide variety of forms, and are typically financed from personal funds or micro-credit. Some operators have extensive systems with medium term funding e.g. the *aguateros* of Paraguay, who drill wells and invest in distribution systems.

Kariuki and Schwartz⁴⁷ have classified SSIPs dividing them into those that are dependent on existing networks and those which have independent networks and whether they operate:

- piped networks
- point sources
- mobile distributors

For example a dependent piped network would buy bulk from a utility and develop a sub-system, while an independent would develop its own water sources.

This is a complex matrix providing a rich variety of providers with in turn different relationships to the regulatory authorities. Kariuki and Schwartz identified 10,000 small providers in the locations studied. Very small piped networks (up to 50 connections) are often just small networks connecting to neighbours, but are sometimes run by user associations.

Cooperatives have been developed in Bolivia, Mexico, and Vietnam. Community participation can be very successful in short run and the role played by SSIPs in Manila has been particularly widely noted.⁴⁸

The scale of SSIPs is huge and their operations relatively unstudied. Proportions of populations in cities covered by SSIPs are:^{49 50}

- 10% Dhaka,
- 44% Jakarta;
- 21% Dakar,
- 30% Kampala;
- 35% Abidjan;
- 56% Dar;
- 60% Nairobi;
- 66% Conakry;
- 80% Kartoum

Kariuki, *et al* outline three roles for SSIPs:⁵¹

- Gap filler;
- Pioneer;
- Subconcessionaires;

⁴⁷ M. Kariuki & J. Schwartz: *Small-scale private service providers of water supply and electricity: a review of incidence, structure, pricing and operating characteristics*. World Bank policy Research Working Paper 3727 WB 2005

⁴⁸ Dardenne op cit. section 2.2.3

⁴⁹ *Financing water for all*. Report of the World Panel on Financing Water Infrastructure, chaired by Michel Camdessus, report written by J. Winpenny; World Water Council, *et al* World Water Forum 2003. p.32

⁵⁰ M. Kariuki, J. Schwartz & M. Schur, *Reaching unserved communities in Africa with basic services*. Gridlines no. 9 June 2006 PPIAF

⁵¹ Kariuki *et al* op cit.

Another way of describing them is as being present by 'default or design'. There is some shift towards the latter as SSIPs are increasingly being seen as operating small public systems that need to expand or improve. A well-known example is that of the 350-600 *aguateros* in Asuncion/Ciudad del Este, Paraguay. They claim to have invested 12.5\$million (250\$ per household connection) to make 50,000 connections in Asuncion according to Solo (2003).⁵² They drill their own wells and borrow from commercial banks. They are reported as charging less than the municipal network for a 24/7 service.⁵³

Costs and Pricing

Kariuki and Schwartz found that price differentials may have been exaggerated by studies using large units of comparison such as cubic metre. Certainly they found that incomes of vendors were low. In her study of Cambodia, Kenya and Philippines, Kariuki found that:⁵⁴

- Piped network operators compare fairly well with public utilities, especially bearing in mind that the latter do not practice full cost recovery; other studies found prices of small piped networks to be on average 1.5 times those of municipal utilities.
- hours of service are 14.5 Cambodia; 19.5 Kenya; 21.5 Philippines; these compare quite well with the utilities
- Slightly higher prices are charged by points sources (except Bengali SSIPs who got discount bulk water) Studies elsewhere found standpipe sellers buying in bulk and sell on often at high mark up 30-90%.
- Higher prices charged by truckers due to fuel increases
- Mobile vendors showed highest variability. For example, water carriers in Haiti are very expensive, in Port au Prince a factor of 12 compared with the public water supply.⁵⁵

To what extent could SSIPs be integrated, financed and regulated as part of the formal sector?

Despite their disadvantages, SSIPs have the merit of their existence. They are increasingly being recognised by donors as well as local governments.⁵⁶

- In Cambodia, the GRET programme of *Mini-reseaux d Eau Potable* (mini-grid for drinking water) has provided three services to improve SSIPs.⁵⁷
 - Institutional support: contract design, communal /business negotiations;
 - Technical support: design and operational advice
 - Financial support including subsidy to hardware and underwriting of risk on loans; Between 2001 and 2006 14 networks were installed supplying 18,000 people.
- GTZ has supported Association of Private Water Operators in Uganda.
- IDA (WB) has supported 50-60% of investment costs of SSIPS in Cambodia.

The issue of recognition is crucial, as illegality reduces standards. In Cote d'Ivoire an association of vendors was established to group together registered vendors. They suffer from being charged the high retail consumption rate and so have to charge more than the

⁵² Shah et al op cit. p. 20 / 21

⁵³ Dardenne op cit. section 3.5

⁵⁴ Kariuki & Schwartz op cit. also M. Kariuki: SPSP Global mapping initiative: Presentation to PPIAF programme council, The Hague May 2007

⁵⁵ Dardenne op cit. para 157

⁵⁶ Shah et al p.21

⁵⁷ Dardenne op cit. note 31

social rate and cannot compete with illegal vendors who steal water and so undercut prices. Hence legal vendors have declined in number.⁵⁸

The perverse consequences of exclusion from recognition are also shown by a 2000 study carried out by Mukame Kariuki and Bill Wandera of latrine workers of Dar es Salaam, where the City used to have a monopoly of cesspit emptying. As the service was unable to keep up with demand, richer clients operated a system of 'express' payments for the pits to be emptied with vacuum equipment while the poor would employ 'frogmen' to empty the pits manually and they would then dump the ordure illegally, which led, predictably, to protests from those nearby. At times the frogmen were attacked, and their already unpleasant and dangerous work often had to be done under cover of darkness.⁵⁹ The monopoly thus effectively suppressed the service (at least *de jure*), and condemned informal workers to appalling working conditions and concentrated the public health risk on the poor. The city agreed to operate a licensing system for private operators, which has led to charges falling and the numbers served to increase.

At Consumer International's regional conference for Africa in 2002, Mukame Kariuki advocated that municipalities relinquish monopolies over water and sanitation and allow alternative provision through a legal framework incorporating Community Based Organisations for example. She pointed to perverse aspects of the legislation such as the inability of public utilities to count alternative providers in coverage targets or business plans, as well as the monopoly provisions, which in effect rendered alternative providers illegal. In due course, her advice was partly followed (licensing, access to depots) and the situation improved to an extent.⁶⁰

So, while conditions for SSIPs remain difficult when exclusivity of supply is transferred from public to private concessions, some commentators have begun to recognise the contribution made by small water operators. Solo notes that SSIPs respond to local conditions, offer a more personalised service designed to meet the financial requirements of their customers and unlike many utilities, generally are profitable, can start up quickly and cheaply, are open to new technologies and innovations and are entirely self-financed. In addition, when utilities lack the means to extend their network services, small-scale contractors are often the ones to build extensions and hand them over to user groups. "For more than forty years virtually all new secondary infrastructure in Latin America has been supplied by developers and paid for by home owners." They also own or manage water point, kiosks, latrines, pipelines, storage tanks and fillers.⁶¹

In Asuncion, SSIPs eventually obtained recognition after many years of hostility and discouragement and have become eligible for subsidy.⁶² In Ho Chi Minh City, Vietnam, recognition of the role of SSIPs was granted in 2001 and 19 % of population are now served by SSIPs.

In Manila, SSIPs became integrated into the concession on a contractual basis. Inpart engineering connected 25,000 households (in excess of the contract) having invested US\$350,000. Informal service providers are often illegal, (as was the case in Manila) in the

⁵⁸ Dardenne op cit. section 2.2

⁵⁹ M. Kariuki & B. Wandera: Regulation of cess-pit emptying services: a case study of public private initiatives in Dar Es Salaam in Infrastructure for Development DFID London, 2000

⁶⁰ M. Kariuki. Making space for the urban poor in public-private partnerships. Paper delivered to regional conference of CI-Africa. Nairobi, 2002

⁶¹ M T Solo, Competition in water and sanitation: the role of small scale entrepreneurs (http://www-wds.worldbank.org/external/default/main?pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187283&theSitePK=523679&entityID=000094946_99031910553915&searchMenuPK=64187283&theSitePK=523679)

⁶² M. Mehta *Meeting the financing challenge for water supply & sanitation* WSP 2003 p.98 ff

expectation that the PSP provider will extend connections, which then may not happen. NGOs have often brokered agreements between municipalities and SSIPs e.g. in Nairobi, Kibera.⁶³

The line between the small SSIPs and the formally recognised services is gradually blurring. Shah reports for DFID⁶⁴ that local private firms can be involved in sanitation programmes, drawing credit from a multiplicity of sources including their own savings, family, moneylenders, micro-credit agencies, and commercial banks. These sources are supplemented by NGOs, donors, and even other firms. The largely DFID funded Community Led Infrastructure Financing Facility links a UK based NGO with several Indian associations and NGOs, providing finance for scaling up and assumes some commercial risk. *According to the new paradigm, the appropriate role for governments (including municipalities) is to fund the promotion of sanitation and domestic hygiene, using scarce fiscal revenues to leverage household, community and private sector resources as described above. Governments, central and local, will also continue to channel ODA and the proceeds of concessional loans.*

Conclusion?

The controversy surrounding PSP clearly took its toll on the private sector at the end of the '90s but it is not the case that PSP is in retreat, despite appearances to that effect. But it is clearly in a state of mutation to a new role, with a greater diversity of actors, including community based organisations, a greater role for local actors in developing countries and a greater recognition of the role of the basic SSIPs which serve vast numbers of people. Again the debate over SSIPs demonstrates a convergence of approach, possibly allowing them to graduate from the 'default' option to demonstrating advantages of 'design'.

⁶³ N. Shah et al: *Financing of Water Supply & Sanitation* Finance Policy Background Paper DFID 2007 p.21

⁶⁴ Shah et al op cit. p.24