

PRIVATE SECTOR PARTICIPATION IN WATER SUPPLY AND SEWERAGE – Lessons from Ten Case Studies in Developing and Developed Countries¹ –

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INTRODUCTION

Private sector participation (PSP) in water supply and sewerage was first introduced in England, against the background of the government sector's financial shortage and inefficient management in the 1980s. Entering the 1990s, a wide range of cities in European countries as well as developing countries followed suit.

JBIC has made loan commitments to date to the urban water and sewerage projects primarily undertaken by the public sector in developing countries. In recent years, however, as more and more projects introduce various PSP schemes, JBIC is increasingly required to examine the eligibility of those schemes or to receive preliminary requests for possible project consideration. It is of great significance for JBIC therefore to systematically review the diversified PSP schemes and to accumulate know-how on project formulation.

The purpose of the study is to survey PSP schemes of the water sector in both developing and developed countries and organize the features of specific schemes. The study reviewed literature, drew information from relevant web sites, and conducted interviews.

CHAPTER I. OVERVIEW OF THE WATER SECTOR PRIVATIZATION

1. FEATURES OF THE WATER SUPPLY AND SEWERAGE MARKET

Urban population is rapidly growing in the developing countries, thus needs for the development of water supply and sewerage system (including new investment and better management) is very high. This will require a huge capital investment and it is difficult to afford the total amount only by governments or donors. A large number of governments in developing countries and donors are starting to share a common understanding that to attain efficient management, lower cost and higher treatment standards in the water supply and sewerage system, introduction of private sector practice or participation of the private sector is needed².

Privatization of the water supply and sewerage sector increased significantly since 1989, when the utilities in England and Wales were privatized³. This survey found that 162 projects were in the process of

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1 This is a summary of the report "Private Sector Participation in Water Supply and Sewerage - Lessons from Ten Case Studies in Developed and Developing Countries," the result of a study commissioned to KRI International Corp. The survey staff were: Naohiro Kitano, Kenichi Ariga, Kengo Mizuno (currently with Nomura Research Institute, Ltd.), and Asako Uozumi from JBIC; Nobuhiro Mori from KRI International Corp.; and Lazenby Jeremy and Endley Philip from GIBB Ltd.

2 There has been no proliferation of PSP arrangements in the water supply and sewerage sector to match that in power or telecommunications, because of the following reasons: (i) Social factor: Water is widely viewed as a 'gift of God', rather than a finite resource (water as 'public property'). From the viewpoint of safety, it is unacceptable that a private monopoly supplies all water. It is also politically difficult to keep the tariff at such a high level for a PSP operator to earn profits; (ii) Technical factor: Every water source produces slightly different quality of water, with different composition and treatment needs. As a result, each water supply system tends to have a set of specific technical solutions, which work against standardization of the physical design and construction, and of the subsequent operational regime. Further, it is difficult to inspect and value much of existing network underground, except by expensive sampling techniques; and (iii) Shortages of operators: Although there are many opportunities, there are comparatively few good quality, large projects. There is a shortage of large utility operators and skilled consultants with the ability to develop PSP contracts, and major commercial banks and investment funds are relatively inexperienced in dealing with water supply and sewerage contracts.

3 France is an exceptional case, as she has consistently encouraged privatisation in the water supply and sewerage system from 19th century.

privatization⁴ as of the end of February 1999. However, it can be said that the global market for water supply and sewerage has not reached maturity. Only a handful of operators (three in France, four in England, and one in US) have a capacity to do business in the international market, and the market is highly

oligopolistic⁵. In terms of contract value, the majority of existing privatization contracts are concentrated in European cities and large cities in other regions. Although the number of projects located in small and medium cities is growing, fully competent private operators relative to the demand is not enough.

Table 1 Forms of Contracts for Privatisation

Form (Duration)	Outline	Characteristics
Service Contract (3-5 years)	Part of the functions of an existing water supply and sewerage utility is transferred to private sector management and control for a limited time.	<ul style="list-style-type: none"> • Functions suitable for commissioning include the management of capital programs, leakage reduction, billing and collection and information technologies.
Management Contract (5-10 years)	A private sector utility operator or consultant is awarded the rights to operate and maintain a part or the whole of a water supply or sewerage system. (Capital investment is not included.)	<ul style="list-style-type: none"> • Objectives are to improve (i) performance and reduce costs as preparation for a more radical PSP solution; and (ii) the performance of a utility by capacity-building of managers and systems. • The private sector is paid fees based upon achieved performance.
Lease Contract (5-15 years)	A publicly-owned utility is rented to a PSP utility operator, which then takes responsibility for all aspects of the water supply and sewerage system, usually with the exception of capital investments.	<ul style="list-style-type: none"> • The contract normally specifies target performance standards to be achieved.
Concessions (25-35 years)	The responsibility (including capital investment) of a utility for water supply and sewerage is transferred to the private sector for a set period of time. Contracts are usually awarded to consortia which are lead by a utility operator.	<ul style="list-style-type: none"> • Incentives, penalties and an independent regulator come along for the effective management of operation of the whole system. • Quality and profitability of the outcome depends upon the long term satisfactory operation of the system.
Divestment/ Full Privatisation	A publicly-owned utility, including its assets, is transferred to the private sector in perpetuity. The new private owner then operates the system under license, and under the control of a regulatory system.	<ul style="list-style-type: none"> • This provides for high levels of efficiency and incentive-driven improvement, together with complete freedom to plan for the future and borrow for capital investment. • Many countries legally forbid divestment, and this method has been used rarely.
Build, Own, Operate and Transfer (BOOT)	A project sponsor offers to sell additional bulk water to a municipality, from new physical infrastructure which the sponsor will build, own and operate for an agreed time, before the infrastructure is transferred back to the public authorities.	<ul style="list-style-type: none"> • Suitable for a larger municipality's infrastructure expansion project. • BOOT contractors usually have no responsibility for existing assets or their operation.
Private-Public Partnership (Joint Company Contract)	These are true partnerships between, for example, a municipality and a PSP utility operator in which the parties form a joint company.	<ul style="list-style-type: none"> • Each party holds shares in the company. • Such partnerships may then perform water supply and sewerage services on the basis of one of the contract structures described above. • These may be more easily accepted by an untrusting electorate, but may involve conflicts of interest because of the twin role (regulator and operator) played by the public authority.

4 Breakdown of the 162 projects is: 44 in Europe, 50 in North and South America, 55 in Asia and the Pacific, and 13 in Africa and Middle East.

5 Two French companies, Generale des Eaux and Lyonnaise des Eaux under the Vivendi Group, are dominating the global market with more than 60% share of the total investment primarily funded by the private sector.

2. PRIVATE SECTOR PARTICIPATION CONTRACTS

Private sector participation can take various forms, from service contracts (the smallest involvement of the private sector) to divestment/total privatization (the largest involvement). The main forms of private sector participation are categorized as: (1) service contracts; (2) management contracts; (3) lease contracts; (4) concessions; (5) divestment/full privatization; (6) BOOT (build, own, operate and transfer); and (7) private-public partnership (joint company contracts) (Table 1). According to the World Bank, the most common contractual form in the water supply and sewerage sector is concession⁶.

3. ALTERNATIVES TO PRIVATE SECTOR PARTICIPATION

Retaining a utility under public ownership while introducing private sector methods may be a useful way. The important reasons for taking such alternative are: (1) political risk is small; and (2) the lower cost of public sector finance, in comparison with private (commercial) finance. It should be noted, however, that both of these reasons have potential disadvantages: less politi-

cal risk means that the utility and its tariff remains under the control of national or local assembly, and public financing of infrastructure can often be impossible to obtain or unpredictable from year to year. The main alternatives are: (1) commercialization; (2) corporatization; (3) capitalization; and (4) twinings (Table 2).

4. FUTURE TRENDS

The present issues for PSP in water supply and sewerage includes not only identification and formulation of large projects, but also expanding privatization targets including small and medium-sized municipalities. It is highly likely that financial assistance provided by donor agencies will lead to development of new guarantee schemes and financing packages. This will also facilitate the utility operators to meet the need of the small and medium-size municipalities.

However, PSP alone cannot respond to the expanding demand. What is also needed is assistance from donors to public sector operators and improvement in their management through introducing management techniques of the private sector. Water resource management is another important issue.

Table 2 Alternatives to Private Sector Participation

Methods	Outline	Characteristics
Commercialisation	A process by which a publicly-owned utility organization is simply made more commercial. Such a utility can be given more control over its future operations and investment step by step.	This process is frequently a precursor to a PSP arrangement, since it also increases the marketability of the utility.
Corporatization	This is a legal and organizational process to create a publicly-owned utility organization with a separate existence to its public owner.	The process of corporatization often involves creation of a limited company with shares owned by public organizations such as local municipalities.
Capitalization	An intermediate step between corporatization and PSP arrangements, which gives a corporatised utility a financial value (i.e., a balance sheet value) and is often linked to distribution of free shares to the national, regional or municipal population.	The capitalized utility is able to borrow commercial capital in order to make infrastructure investments.
Twinning	The usual format for twinning is to partner a developed, modern utility with an under-performing utility.	These arrangements have largely been less effective due to a lack of commitment by one or both parties.

6 However, there is a view that the most common is the service contract.

CHAPTER II CASE STUDY

1. SELECTED PROJECTS

This study analyzed and evaluated ten cases (three in Europe, three in Asia and the Pacific, two in North and South America, and two in Africa and Middle East) to identify what elements lead PSP to success. (Table 3)

Reflecting the current market climate, the most common contractual form among these cases was concession. Only the French model represents a mature PSP, indicating that this is still a new market. Since projects in England, where PSP is expected to develop in the coming ten years, as well as in Australia, Poland, Guinea, Buenos Aires, and Santiago, have already attained some results, this study analyzed the

success factors during the initial phase of the project.

Projects in Manila and Jakarta, taken up as cases in Asia, and the case in Izmit, chosen as a BOT project, have not accomplished major outcome yet at the time of this study, so it focused on the project formulation process.

The case of Caracas (Venezuela) and others can be referred as examples where PSP was considered but either abandoned or unsuccessful. On the other hand, improvement efforts in Istanbul proceeded without PSP arrangement.

Since all the projects mentioned above were primarily executed by the private sector, there was constraint in obtaining information for the study. The outline of each project is as follows.

Table 3 Outline of Selected Projects

Form	Europe	Asia/Pacific	South/North America	Africa/Middle East
Management Contracts		Adelaide (Australia) 15-year contract Started in 1995 Achieved target to reduce operational cost.		
Lease Contracts	Gdansk (Poland) 30-year contract. Started in 1993. Achieved target to improve water quality.			Conakry (Guinea) 15-year contract. Started in 1989. Improved connection and metering rates.
Commission Contracts		Manila (Philippines) 25-year contract Started in 1997 Jakarta (Indonesia) 25-year contract Started in 1998 Both cases too early for evaluation.	Buenos Aires (Argentina) 30-year contract. Started in 1993. Improved water supply capacity, water quality, and unaccounted for water.	
Mixed-type Contracts	The French model Distributes water to 78% of the total population and treat 74% of sewerage.			
Divesture/Full Privatisation	The UK model (England and Wales) Started in 1989. Improved quality of drinking water and sewerage water.		Chile (Santiago) Two-stage method. Started in 1990. Improved service standards during Stage 1.	
BOT				Izmit (Turkey)* 15-year contract. Started in 1995. Too early for evaluation.

Note: * JBIC has provided non-ODA loans for this project.

2. MANAGEMENT CONTRACT

(1) Adelaide (South Australia [SA], Australia)

Background

Commission of Audit established in 1993 concluded that water supply and sewerage sector of the Engineering and Water Supply Department should be contracted out, in order to increase price competitiveness of the service.

Objective

(i) To reduce the cost of operating water supply and sewerage service; (ii) To achieve service export development targets; and (iii) To support realizing a state government program of private sector participation in various public utility functions.

Form/bidding

The water supply and sewerage sector was reorganized into the South Australia Water Corporation (SA Water) in 1994, which set out to sign a management contract for the water supply and sewerage service in Adelaide with a private operator selected through an international bidding. The bid was prepared and managed in a proper way, and finally the consortium, United Water, which was a consortium made up of Thames Water (United Kingdom), Compagnie Generale des Eaux (France) and Kinhill (Australia), endowed with abundant experience, became the winner and started operation in 1995.

Contractual requirements

- (i) To save 20% of management costs; and
- (ii) To increase exports from water industry companies based in SA.

Contract performance

United Water is virtually 100% compliant with the target, including the improved water quality and cost savings. Tariff levels went up by some 8% by the end of 1998. (The private sector is not responsible for water rates under the contract. Since CPI increased 8.4% from 1994 [pre-PSP introduction] to 1998, the hike seems largely due to a rise in prices.)

3. LEASE CONTRACT

(1) Gdansk (Poland)

Background

Decentralization unfolded on a major scale in the early 1990s in Poland. Gdansk, with population of 470,000, was facing a lot of problems in water supply and sewerage service (decrepit equipment, poor water quality, frequent supply interruptions, and high distribution losses). There was a serious need to improve and expand the system and its technical and economic management.

Objective

- (i) To improve the water quality;
- (ii) To upgrade the level of service; and
- (iii) To maintain the fair tariff.

Form/bidding

The City of Gdansk began discussions with the SAUR Group, and in 1992 SAUR Neptun Gdansk (SNG; with SAUR taking up 51% of equity and the City 49%) was incorporated as a joint stock company. In 1993, a 30-year lease contract was concluded between SNG and the City.

Contractual requirements

- (i) Compliance with EU standards in the quality of water; and
- (ii) Drawing up an improvement plan for the waste water treatment system.

Contract Performance

In the first few years, the relationship between the city and SNG was complex and tense, which did not improve matters. In 1995, however, with the reelection of the municipal council, revisions were made to the contract so as to make clear the time and procedure of the tariff negotiations, and their relationship improved. The quality of water achieved the target level and the waste water treatment plan was laid out. The rate of increase in tariff was 29% lower than rate of inflation during 1992 through 1997, and the water consumption was reduced on a massive scale by installing meters.

(2) Conakry (Guinea)

Background

In Conakry, the capital city of Guinea, less than 40% of its residents had access to piped water as of the end of the 1980s. After attempts at restructuring the national water company had failed, in 1989 the government entered into a ten-year lease arrangement for private sector operation of water services, with an assistance from the World Bank.

Objective

- (i) To improve water supply coverage and to reduce unaccounted for water;
- (ii) To provide the institutional framework for a capital investment program;
- (iii) To establish a commercially viable and self-supporting water utility; and
- (iv) To ensure a balanced contractual relationship between the parties involved.

Form/bidding

Two new companies were established: Societe Nationale des Eaux de Guinee (SONEG) and Societe d'Exploitation des Eaux de Guinee (SEEG), with the private sector taking up 51% of ownership and the government 49%. A bid to procure a private partner of SEEG was won by a consortium comprising the French companies Compagnie Generale des Eaux and SAUR. SONEG owns urban water supply facilities and is responsible not only for planning and implementing new investment plans but developing the water supply and sewerage sector as well. SEEG is responsible for operation and maintenance of the water supply equipment, and carrying out billing and collecting.

Contractual requirements

- (i) Tariffs collected are allocated to SEEG and SONEG, while a fixed percentage of revenue is paid to SAUR; and
- (ii) SEEG maintains a \$400,000 performance bond.

Contract Performance

Production capacity increased from 7.5 million to 28.7 million cubic meters per year between 1988 and 1994, while the share of the population with

access to safe water grew from 40% in 1989 to 52% in 1994. During the same period, metering has increased from 5% to nearly 95% of all connections. In 1995, tariffs more than covered operating cost.

Problems encountered

(i) SONEG is both responsible for monitoring the performance of SEEG and for capital investment. On the other hand, SEEG is an operating company and service contractor of SONEG at the same time. In the regulatory context, this relation is less than ideal.

(ii) In 1995 the tariff was elevated to \$0.90/cubic meters, leading to an increase in default rate. Reduction of unaccounted for water through illegal connections remains one of the outstanding challenges. At the moment, the second round of negotiation is under way for revision of the contract.

4. CONCESSION CONTRACT

(1) Buenos Aires (Argentina)

Background

The water supply and sewerage in Buenos Aires (population of 9.3 million in the metropolitan area) was in the hands of the public company (OSN), but it faced various problems including the deficient water quality and low sewerage rate. In 1990, the government of Argentina decided to privatize the Buenos Aires water supply and sewerage system and created a privatization committee.

Objective

To improve the water supply and sanitation services to the urban population by increasing the coverage of water supply and sewerage systems.

Form/bidding

With support of the World Bank, and following an international bidding process, the government entered into 30-year concession contract with Aguas Argentinas, a consortium headed by Lyonnaise des Eaux that offered a tariff discount of 26.9%. Before the tender, the government not only took such steps as the State Treasury assuming OSN's liabilities of \$238.5 million and increasing tariffs, but guaranteed the concessionaire's right to rent the assets free of

charge and to cut off service for non-payment. Reduction of the work force was financially assisted by the government and the World Bank. The project also gained massive amount of funds from IFC, the European Investment Bank and commercial banks.

Contractual requirements

(i) Some one million residents will be connected to the water supply and sewerage system every five years; and (ii) Aguas Argentina is responsible for commercial and technical operations, maintenance, and provision of all investment financing necessary to achieve the certain performance targets designated in the contract.

Contract Performance

Water production capacity was augmented from 3.4 to 4.2 million cubic meters per annum, both water quality and unaccounted for water improved, and connections to water system and sewerage system both increased (from 70% to 77%, and 58% to 60% respectively). Financial status also improved, with the operating profit registering surplus. Although tariffs were raised once, current water and sewerage rates are still 17 percent below pre-privatization levels. In 1998, the government revised the tariff policy to remove all connection taxes⁷, in order to extend services to the poorest districts.

(2) Manila (the Philippines)

Background

In Manila, unaccounted for water was estimated to be more than 50% and the water quality was poor, frequently causing outbreaks of infectious illness. In order to overcome these problems, and with the World Bank assistance, the Manila utility was split into geographical halves (Manila East and Manila West) in 1995 to be opened to competitive bid for a 25-year concession contract.

Objective

(i) To improve access to water supply and sewerage services; (ii) to improve water quality and therefore reduce incidence of water-borne disease; and

(iii) to ensure sustainable repayment of water-related infrastructure loans to the previous utility.

Form/bidding

Competitive bid was carried out for each East and West area, and the contract was efficiently concluded. The bidding for East was won by a consortium lead by Ayala Corporation, while a consortium of Benpres and others was a winner for West.

Contractual Requirement

(i) To extend service coverage by 2001 from current 70% to 77% in the case of Manila East and 87% in the case of Manila West; (ii) To achieve service obligation (such as elevating the level of drinking water quality to meet with the national standards). On the other hand, the government will underwrite previous loans owned by the residual public utility.

Contract Performance

Although the contract appears to have commenced implementation satisfactory, it is too early to make any sensible comment on the services provided so far at this moment. In 1998 when the country was hit by the El Niño Effect, the normal services were successfully maintained.

Problems encountered

(i) Different tariffs for two areas; and (ii) There is a concern that if the level of the successful rate bid for Manila East was too low, the concessionaire will have difficulty to raise necessary funds for implementing duties (of management and infrastructure development).

(3) Jakarta East (Indonesia)

Background

Discussions took place between Indonesian authorities and potential concession operators through the early 1990s. In 1997, without an international competitive bid, two concession contracts were concluded for split-up areas similar to Manila concessions. In 1998, the government was replaced

7 Charges for connecting water pipes to gain access to clean water.

and both concessions were declared null and void. Both concessionaires have appealed. Eventually the contract may be reinstated under the assumption that the consortia are restructured and other terms of the contracts renegotiated.

Objective

(i) To improve access to water supply and sewerage services; (ii) to reduce incidence of water borne diseases; and (iii) to ensure a balanced contractual relationship between the parties involved, thus ensuring sustainability during the 25-year term of the concession.

Form/bidding

The concession contract was signed between the public utility and two consortia lead by Thames Water and Lyonnaise des Eaux. Speculation has it that the contract is under renegotiation since 1998.

Contractual requirement

(i) Accelerate the rate of connections to customers; (ii) extend, refurbish, manage, operate and maintain water treatment works, and (iii) invest in capital works to expand the distribution system.

Contract Performance

It is too early to make any sensible comment on services at this stage. It is worth noting, however, that a collection rate of 96% has been achieved.

Problems encountered

(i) The altered circumstances required prolonged and expensive renegotiation of the concession contracts; and (ii) the risks associated with the original equity investments made by the concessionaires have increased.

5. MIXED TYPE CONTRACT

(1) The French model

Background

In France, private sector involvement in the water industry began in 1853 with the founding of Generale des Eaux. By 1933 there were eight major private sector companies and a number of smaller regional

concerns. By 1990, only five significant private sector entities remained; two of these have subsequently merged with their larger competitors, leaving three very large groups to dominate the French water and sanitation market. In 1998, private sector companies currently distribute water for about 78% of the population, including the great majority of the urban population. The private share of those with sewerage is in excess of 74%.

Objective

The key objective is the use of private sector management to increase operational efficiency of the service, with cost advantages to the municipality and consumers.

Form/bidding

Local communities may either entrust the management of their water services to a private company or directly manage them through a Water Authority. The three main forms of contracts are leasing, management contracts and concession, whose situations are highly diversified and case-specific. In 1995 the law was revised and a competitive tendering process became mandatory for choosing operators. This allowed greater competition between companies tendering to win contracts.

Contractual requirements

The requirements of contract will generally be case specific and will outline the capital improvements and agreed standards of services to be delivered within a long-term pricing structure.

Contract Performance

Although the water supplied by a private company was 16-44% more expensive in 1997, the compliance rate for water quality was four times better.

Problems Encountered

The major problem is the lack of competition, evident firstly in the potential for closed competition to renew contracts, and secondly in the concentration of private sector contracts in the hands of three groups. (This will be improved in the coming years, since the law was revised to enforce a competitive tendering process at the end of each private sector contract.)

6. DIVESTMENT FULL PRIVATIZATION

(1) UK Model (England and Wales)

Background

Prior to 1989, the water industry in England and Wales consisted of ten publicly owned water supply and sewerage authorities that were multifunctional, combining operation and regulation. However, the lack of public capital to fund investment was a problem. Full privatization was chosen due to its ability to allow significant investments and promote efficiency within the sector.

Objective

(i) Freeing the water supply and sewerage authorities from government intervention and protecting them from fluctuating political pressures; and (ii) releasing the water supply and sewerage authorities from the constraints on financing which public ownership imposes.

Form/bidding

In September 1989, the operational functions of the ten regional water and sewerage authorities were converted into public limited holding companies and a “Water Service Company” was established within each holding company for the eventual transfer of operating assets and accounts. The companies were licensed for 25 years from 1 September 1989. So far, privatization of the water industry has been limited to England and Wales.

Contractual Requirements

(i) To meet targets set by Office of Water Services (Ofwat) to reduce water leakage; and (ii) to enforce conditions imposed by the licenses.

Contract Performance

Company performance has generally been satisfactory. A massive increase in investment (nearly twice pre-privatization levels) has brought about an improvement in water quality, pollution control, and levels of leakage. The regulatory agency (Ofwat) is independent of the government and water system companies and is given broad discretion.

Problems Encountered

Further improvements are required in the regulatory framework.

(2) Chile (Santiago)

Background

Chile has adopted a two-stage PSP implementation process. The first stage created public-owned concessions. The second stage divests these organizations by sale to private sector bidders.

Objective

<Stage 1> To establish water utilities which are autonomous, self-financing and commercially viable under a consistent legal framework.

<Stage 2> (i) To eliminate public sector funding from the urban water supply and sewerage sector; and (ii) to introduce competitive and comparative mechanisms to a privatized system.

Form/bidding

<Stage 1> In 1988 and 1989, legislation was implemented to liberalise participation in the sector, and the most vertically integrated regional companies have gained the concessions for all parts of the water and sewerage system within their operational areas.

<Stage 2> In response to a shortfall in managerial expertise and technological development, and increasing demands for capital investment, the government initiated legislation in 1995 which would lead to the full privatization of the water and sanitation utilities.

Contractual Requirements

<Stage 1> In case of Santiago, (i) to achieve water quality of national target level; and (ii) to supply water for 24 hours a day. The government pays out subsidy to operator on a sliding scale from 25% to 88% to subsidize the poorest.

Contract Performance

In Santiago, standards of services improved (for example, unaccounted for water declining from 28% in 1990 to 20% in 1994), and it may be said that Stage 1 has been carried out in a satisfactory way. The real tariff increase over the first four years was 41%. The Stage 2 bidding results have not been announced yet.

7. BOT

(1) Izmit (Turkey)

Background

A project was started in Izmit with a population of 600,000 to develop new water sources and enhance water supply capacity by constructing the dam structure in 1987. However, owing to difficulties in financing, construction work was suspended. It was decided to pursue a Build, Operate, and Transfer (BOT) solution and the existing contractors (a consortium made up of Thames Water plc of UK and two Turkish contractors) to undertake the project.

Objective

(i) To provide assured supplies of water for the growing domestic and industrial demands; and (ii) to obtain the finance required for the project from the private rather than the public sector.

Form/bidding

In 1995 the Municipality of Izmit and the project companies (former contractors, Japanese trading firms and others) signed a large-scale turnkey contract and work on site was restarted in 1996. Construction was completed in 1999. The number of these BOT projects is limited in the current market.

Contractual Requirements

The principal contractual obligations are set out in the Implementation and Water Sales Agreement between the Municipality and the project company. This agreement specifies the conditions of supply, operation and maintenance requirements, water quality standards and water quality monitoring procedures, in an attempt to ensure appropriate risk sharing.

Contract Performance

The construction phase was completed in 33 months compared with an original target of 36 months. Full operation of the project started successfully in January. When the region was hit by an earthquake in July 1999, major structures such as dam, water purification plant, main trunks and distribution network,

all of which were earthquake-resistant, remained unharmed and are under normal operations today.

CHAPTER III. SUCCESS FACTORS OF PRIVATISATION

1. SUCCESS FACTORS OF PRIVATISATION

As a result of the case studies, a number of general success factors were extracted from project formation through early stages (Table 4). Major factors include development of legal basis and other government support, a realistic implementation plan, clear objectives, and long-term partnership between operator and municipality.

Even with all these success factors present, eventual success is not guaranteed during the implementation phase. However, their absence will forecast subsequent problems. For assessment of water supply and sewerage projects, where privatisation is one of the options, these success factors will prove useful as checklist.

2. A PROCESS LEADING TO APPROPRIATE PRIVATISATION

A procurement process plays an extremely significant part in the selection of the privatisation partner, and definitely requires guidance and advice from donors (Table 5).

CHAPTER IV. PROPOSAL

The water supply and sewerage sector in developing countries has just started a privatisation process. While donors are currently responsible for (i) providing financial assistance to the utility and advisory supports for improving its managerial efficiency, they are also expected to play the following roles from the standpoint of (ii) promotion of private investment (Table 6):

(a) To provide advisory supports to help construct project schemes, including introduction of private financing, in order to improve the water supply and sewerage system with capital investment jointly from

the public and private sectors;

(b) While taking into account the public welfare, to help the central government and local municipalities by providing low-interest loans to ensure the commercial viability of the project as a whole, which is the pre-requisite of introducing private funds;

(c) Considering the present status where there

are only eight major operators worldwide, give information and knowledge to new entrants and help raising competent firms; and

(d) To support establishment of independent regulatory committee and statutory audit, in order to ensure that the privatisation scheme stabilize for a long period of time.

Table 4 Success Factors in Early Privatisation: Key Points

Success Factors	Key Points	Examples
(1) Government Support	The support enables there to be: (i) a legal basis for a PSP arrangement; (ii) commitment to an independent PSP arrangement free from political interference; (iii) appropriate regulation; and (iv) a realistic tariff to ensure income to the PSP arrangement.	<ul style="list-style-type: none"> • In Chile, legislation was implemented to specify tariffs and others. • In Buenos Aires, under the strong leadership of the central government, a privatisation committee comprising related parties was established. • UK has a regulatory agency that is independent from both the operator and government. • In Conakry, roles are duplicated among the utility operator, regulatory agency and construction contractor, indicating not satisfactory relations under the regulatory frame. • In Jakarta (East), the contract carries a review-of-tariff clause to ensure profit for PSP.
(2) Political Stability	It is needed for attracting private capital for long periods of time.	<ul style="list-style-type: none"> • In Jakarta, after the government was replaced, both concessions were declared null and void.
(3) Informed Professional Advice	During the preparation and implementation process the government and municipal client must have access to the same quality of informed professional advice as the PSP consortia.	<ul style="list-style-type: none"> • Projects in Buenos Aires, Conakry and Manila received assistance from the World Bank group.
(4) Realistic Implementation Plan	It is important that the consortia bidding for a contract are given confidence that the implementation process is achievable, and that all aspects of the associated plan have a realistic timetable, to which the public authorities are fully committed.	<ul style="list-style-type: none"> • In France, municipalities are able to choose contract form, and a variety of entry options are available.
(5) Clear Objectives	This is essential to performance measurement of the PSP arrangement by the regulator, and to performance achievement by the utility operator.	<ul style="list-style-type: none"> • Clear objectives were put in place in all the cases.
(6) Credible Winning Bid	It must be possible to deliver the service for the bid price. There is no point in achieving a low water price at the cost of subsequent under-performance of the water supply and sewerage service.	<ul style="list-style-type: none"> • In the concession contract in Manila East, a concern is raised over the very low level of the successful rate bid.
(7) Long-term Partnership	The whole process must be designed to put in place the foundation for a long term relationship between operator and municipality.	<ul style="list-style-type: none"> • In France, the public and private sector has built up a long-standing trust under cooperative agreement. This could hamper competition, however, and requires to be monitored. • In Gdansk, contract relationship was complex and tense at first. Contract was then revised and relations were improved.
(8) Risk Sharing	The key strategy is to ensure that risks are carefully identified at the start, and then allocated by the contract to the contractual parties most able to mitigate that particular risk.	<ul style="list-style-type: none"> • In Izmit, risks were appropriately allocated by contract.

Table 5 Key Points in Procurement of Private Utility Operators (Under the Assumption of Open Competitive Bidding)

Process	Key Points	Examples
(1) Design and Preparation for the Bid Process	<ul style="list-style-type: none"> To study water supply and sewerage system and to fully examine the most suitable PSP option. To build up legal and regulatory framework prior to the bid. A process for bidding must be designed both to be realistic and achievable. 	<ul style="list-style-type: none"> In Adelaide, the bid preparation and management were conducted in a proper way. In Manila, contract was concluded smoothly due to the clear bid procedures etc.
(2) Management of the Bid Process	<ul style="list-style-type: none"> Government strictly adheres to the bid schedule. Winning bidder is equipped with sufficient ability and financial capability. Bid assessment standards is transparent and clear. 	
(3) Negotiation and Transition to PSP	<ul style="list-style-type: none"> Process of negotiation remains confidential between both parties. Once there is agreement on the detailed PSP arrangement, all parties concerned should have access to the text of the agreement. 	

Table 6 Expected Activities of Donors

Issues	Examples of Support
(1) Advisory Supports Related to Project Scheme Building	<ul style="list-style-type: none"> Provision of advisory supports for institutional improvement of public utilities in the planning stage of PSP. Provision of funding to support PSP studies and preparation for PSP implementation. Development of standard agreements and legal instruments. Provision of funding to support the training in developing countries in required skills such as regulation.
(2) Financial Assistance	<ul style="list-style-type: none"> Provision of low-interest loans and guarantees to give local municipalities access to PSP.
(3) Market Development	<ul style="list-style-type: none"> Communication of information and expertise to new entrants. Support the development of private company able to bid for service/management contracts.
(4) Sustainability	<ul style="list-style-type: none"> Support for the development of strong and independent regulators. Provision of funding for statutory audit of future PSP contracts, to support public confidence and ensure that each generation of PSP contracts provides lessons for the next generation.

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