Annexure II.4	FORMS OF PRIVATE SECTOR PARTICIPATION IN WATER SECTOR

Corporatisation Model

Andhra Pradesh

The Andhra Pradesh State Irrigation Development Corporation (APSIDC) was incorporated as a State Government undertaking in the year 1974. The organisation is presently operating on a "No Profit No Loss" principle. APSIDC was set-up with an authorised share capital of Rs. 10 crores, which was subsequently enhanced to Rs. 125 crores, as on 31st March 2000.

Objectives

This organisation was set-up with the following objectives:

- Investigation, Construction and Monitoring the lift irrigation schemes, tube wells, bore wells and infiltration well
- Exploitation of surface water and ground water to create irrigation potential in the upland and drought prone areas and also in areas that does not have any sort of irrigation facility
- Benefit of Small & Medium Farmers and Schedule Castes & Schedule Tribes and other weaker sections of the society to raise their socio-economic status

In addition, APSIDC also takes up deposit schemes, wherein the farmers pay 100% of the cost of construction to APSIDC and after completion of the construction the scheme is handed over to the agencies or beneficiaries for maintenance.

Management and Organisation

The management of the corporation is vested with the Board of Directors headed by the Chairman and consisting of the Vice-Chairman & Managing Director and other Directors.

For the functioning at the field level, APSIDC has a division in each district. Presently, there are 23 Divisions and 9 Project Offices, each headed by Executive Engineer / Project Officer with the supporting staff.

Service Contract

Chennai

In Chennai, the operation and maintenance of 14 sewage pumping stations was contracted out in 1992. The success of this contract led to further contracting out of an additional 61 pumping stations, on a mixture of two and three year contracts. In addition, the operation and maintenance of four water boreholes has been contracted out and it is planned to ex tend this to a new water treatment plant and a new sewage treatment plant. The contracted out stations have achieved cost savings of 45-65%, compared to the Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB). This has been achieved without any redundancies, instead CMWSSB has re-deployed excess staff to vacancies resulting from retirement elsewhere within the organisation.

Rajkot

Rajkot has contracted out a number of municipal services to private firms as well as community groups. These services include solid waste management, maintenance of streetlights, public toilets and gardens, recreation services and afforestation. Contracting has led to cost savings (estimated at 5% of the total revenue expenditure on service provision), rationalisation of labour management within the corporation and helped it to increase service coverage for essential services and provide extra services like aviary and aquarium etc. Rajkot Municipal Corporation has been careful in controlling the extent of contracting out to ensure the public department has the capacity to provide essential services in the vent of service disruption.

Management Contract

Poland (Gdansk)

Around the early 1990s, the deficiencies of the city's water and sanitation system, coupled with the need for more efficient management to expand the system, eventually made it imperative to bring in the private sector. Parallel to this initiative, the city needed to upgrade treatment of its wastewater to comply with the multinational effort to restore the Baltic Sea to its ecological equilibrium.

In 1991 the municipal council of Gdansk ordered liquidation of the regional water utility. In July 1992 a mixed company, the *Saur Neptun Gdansk S.A. (SNG*) was created to serve the cities of Gdansk and Poland. The city of Gdansk owns 49% and Saur 51% of the new company's equity of approximately $5 million.
The private operator Saur is responsible for operation and maintenance of the system, maintaining quality-of-service standards as specified by the city municipal council and billing and collection. The city retains ownership of the pertinent infrastructure and is responsible for capital investment and for financing, regulation and setting of tariffs.

Thus, the city of Gdansk, through its municipal council, controls and regulates the performance of the company both as a shareholder in SNG and through the contract.
The municipal council and the private operator renegotiate a new rate every year through a complex and time-consuming process.

The scheme adopted in Gdansk represents a great improvement in administrative and operative terms over the previous situation. Although the revenues are not enough to cover all financing needs, they have made a positive contribution. Financial restrictions have affected the pace of investment. Under the private sector arrangement, funds for capital investment come from operating surpluses. Rent payments to the municipal council have not been sufficient to generate the necessary resources for investment and to improve creditworthiness. A thirty-year lease contract was signed between the city of Gdansk and SNG in 1993.

Benefits

- SNG succeeded in optimising the performance of the existing treatment plants and raising the quality drinking water to the standards of the European Union by the end of its first year, exceeding the contract's provisions

- SNG has also constructed a modern laboratory for effective control of drinking and wastewater effluents and has implemented a related programme for control of industrial effluents
- The total length of water and sewerage pipe systems has increased by 20% and 3%, respectively, from 1993 to 1996. The number of pipe breaks reduced from 763 in 1992 to 550 in 1995 and average repair time was brought down to 10 hours (although the time allowed in the contract was 24 hours)

Drawbacks

Under this scheme, private companies have few incentives to save on capital costs, and the efficiency of and accountability for investment often become a problem. This model implies a conflict of interest and unfortunately, the relationship between the city and the SNG has been complex and tense. Economic conditions and regulatory procedures are not yet stable. As a consequence of tariff increases and meter installations between 1993 and 1995, average demand reduced sharply from 277 to 212 litres per day and concomitantly, average water production fell by more than 20%. Tariff adjustments have been subjected to political considerations. Successive tariff increases below the rate of inflation have undermined the financial capacity of SNG. The uncertainty involved in the negotiations between the municipal council and the company have slowed proposed investments.

In June 1995 the contract was amended because the new municipal council (which was elected in mid-1994) criticised some aspects of the contract and decided to renegotiate it. Clearer procedures for and timing of annual tariff negotiations, sharing and control of information and definition of a coherent annual operating plan consistent with politically viable tariff increases were established. A new remuneration formula for the private operator was defined on the basis of a fixed return on capital. The lease period of thirty years seems too long for this type of model where the private sector has no responsibility for investment.

Lease Contract

Guinea

Until the late 1980s Guinea had one of the least developed urban water supply sectors in West Africa- less than 40% of the urban population had access to piped water. In August 1989, after attempts to restructure the national water company had failed, the government entered into a lease arrangement for private sector operation of water services in the capital city and sixteen other towns.

Two new companies were created: a state-owned water authority, *Societe Nationale des Eaux de Guinee (SONEG)* and a water management company, *Societe d'Exploitation des Eaux de Guinee(SEEG).* The state (49%) and a private foreign consortium (51%) formed by the French companies, Compagnie Generale des Eaux and Saur jointly own SEEG.

SONEG owns the urban water supply facilities in the cities and towns covered by the lease. SONEG is responsible for sector development, including planning and implementation of new investments, setting of tariffs, and servicing of the sector's debt. SEEG is responsible for operating and maintaining urban water supply facilities as well as billing and collection. SONEG bears financial responsibility for works that directly affect SEEG's operating results. This results in creation of a practice of sharing of risks between the government and the private company.

Contract details

- The private partner was selected by the government after international competitive bidding on the basis of the minimum rate to be retained by the lease contractor on each cubic meter of water collected
- SEEG holds a 10 year lease contract with SONEG
- SEEG retains an agreed share of the tariffs it collects and pays the rest to SONEG as rent
- The consortium also provides management services to SEEG through a separate management contract funded out of a fixed percentage of SEEG's revenues

In the past, low water rates did not cover operating costs and depreciation. As part of the lease arrangement, the government agreed to raise tariffs gradually to a level that covered operating expenses (including depreciation) as well as yield an acceptable financial return on system assets and on the lease contractor's equity.

Consequences of privatisation

- In Guinea, major gains in service availability and quality were achieved during the first five years of the lease contract. In part these gains accrued from substantial investment in new water supply, which increased production capacity from 7.5 million to 28.7 million cubic metres per year between 1988 and 1994
- Share of the population with access to safe water increased from 40% in 1989 to 52% in 1994. Water connections increased from 16,500 in 1989 to 33,500 in 1995. Metering has increased from 5% to nearly 95% of all connections

However not all was perfect with the arrangement

- Rates have increased from \$0.24 to \$0.90 per cubic metre between 1989 and 1995
- SONEG has had difficulty in providing the capital needed for investment, effectively carrying out its regulatory functions, and monitoring compliance of the private contractor, SEEG with contract obligations. In response to a substantial tariff increase, commercial losses have risen because of rising non-performing accounts of consumers. This has led to the erosion of SONEG's financial capacity
- The practice of sharing of risks between the government agency and the private company has created a situation in which no clear commercial incentives are brought to bear on the private management company in its operation and maintenance roles

Concession Agreement

France

- The French water services market is saturated (matured), slow and well understood by investors
- Domination by private sector, covering 96% of the domestic market
- 58% of all water supply systems serving 75% of the population contracted out
- Consumers are well represented both politically and legally
- In-Built competitive structures :
  - fierce competition in domestic market
  - professional attitude of market players – concern for reputation
  - polluter-pays principle
- The communes themselves contribute a minimum of 20% of all construction costs, while the regions occasionally assist in funding some of the bigger projects

Municipal Governments are responsible for ownership of infrastructure, setting of performance standards to be maintained by the private players, dictating terms of contracts.

- Water companies, and therefore the consumers pay fees for the withdrawal and pollution of their water to the nation's six major river basins. The water agencies proceed to use this money for all different types of capital projects in their respective river basins, such as dams, reservoirs, sewer systems, sewage treatment plants, and conservation programs, as well as for the operation of industrial and domestic sewage treatment. Overall private companies fund only a third of the capital expenditures on water and sewerage

Status of recovery

- Full cost recovery. Obtains finance from consumers
- While the companies do pay for the cost of operating the services they run, they do not pay for the financing of much of the costly infrastructure in a highly capital intensive industry

Contract details

- Concession for 30 years on an average, after which competitive bidding starts
- High quality service without Central Government subsidies and private investment is encouraged
- The winner of a contract must not reduce the number of employees of the utility or their wages before it takes it over

Consequences of privatisation

- The French model has been adopted by the World Bank in implementing institutional reforms in developing countries- Buenos Aires is a flagship of the French model
- By 1996, the private companies have managed to bring down the difference between their charges and those of the public companies from 23%(in 1991) to 16%

However, the French Water Resource sector is not without its share of difficulties:

- Various forms of regional taxation are still required to meet the costs of wastewater treatment services
- Every level of Government has been providing subsidies the practice of which has considerably reduced market incentives

- The French have still not allowed foreign companies to enter the water and sewerage sector, so competition is still at a domestic level
- Some of the companies develop such a relationship with the communes that the competitive bids become decidedly non-competitive negotiations

Build-Operate-Transfer (BOT)

Australia (Sydney)
Serious water supply problems at the beginning of the 90s. A series of heavy storms increased the turbidity of the water supply, which had already been degraded by urban growth, to such a degree as to render it unsatisfactory in the eyes of the public. New treatment plants became an urgent necessity, but it lacked both the funds and the technical expertise for the task. Therefore the public sector turned to the private companies for help.

Institutional arrangement

- Private firms are responsible for the construction of plants, as well as their ownership and operation for a period of 25 years
- After the completion of 25 years, the private firms are to revert the plants to the government, which can then if it so desires, contract out the operation for another term
- To promote competition, the government divided the contract into three segments, two of which included one plant and the third two plants, and made sure each was built and run by a different company. This was intended to ensure that any failure on the part of any one company would not spoil the entire city's water supply

Contract details

- The operator(s) entered into a long-term contract (25 years) with the government to build, operate and provide a facility on a fee-for-service basis. Tax and accounting incentives were offered to ensure investors receive a return on their investment earlier than they normally would through such huge infrastructure commitment
- The contract is for a period of 25 years
- The government took bids for the four facilities which it intended to build

The city's water supply facilities ran into difficulties in 1998, becoming contaminated with the bacteria *Cryptosporidium* and *Giardia* to such an extent that the New South Wales Health Department had to order a million households to boil this water.
The newly built Prospect treatment plant was identified as the likely source of bacteria. On the other hand, Australian Water Services, builder and operator of the Prospect plant, denied all responsibility on the fiasco on the grounds that its contract did not require it to check for either *Giardia* or *Cryptosporidium*.

Full Privatisation

Great Britain
In the 1980s, the United Kingdom faced demands from the European Commission to clean up its environment. The existing conservative

government of Margaret Thatcher declared it was unable to make the necessary investments in the range of £24 billion over the next 10 years that were needed to improve efficiency in water services. So it decided to privatise water services.

In 1989 the British Government took the unusual step of fully privatising its water and sewerage utilities. There are 10 investor-owned water and sewerage companies that enjoy near monopolies in their respective areas of the country but are also strictly regulated by the government. There are 18 smaller water-only companies as well.

Institutional arrangement

- The government has divested the entire utility, infrastructure included. The total responsibility of owning, operating, maintaining, financing rests with the private entity
- The British Government has desisted from subsidies or other politically motivated interventions

Contract details

- Complete sell-off of state-owned assets
- Attractively priced water shares were floated on the stock exchange. Conditions were set for profits to soar
- Entire ownership and therefore entire risks transferred to the private company

Consequences of private participation

- The water companies have undertaken huge investments of £3 billion annually on an average and this has led to improved infrastructure which in turn has brought about improved performance
- The quality of water has improved throughout the country, and, despite some years of drought, fewer consumers face quantitative restrictions. There is less sewer flooding
- In the fifth year after privatisation, 96% of the plants complied with discharge permits, as opposed to 87% in the first year
- Compliance with the European standards among the beaches has increased from 66% before privatisation to 89% today
- Privatisation has led to increased public awareness, as environmental groups fight for clean rivers, lakes and oceans

Despite the clear environmental benefits from privatisation, further progress is still needed.

- Sewage produced by 4 million people still receives only preliminary treatment or none at all. However the private companies expect to eliminate this problem and treat all collected sewerage by 2005
- Water losses from the distribution system across all companies are as high as a third of all treated water, a figure comparable to utilities in many Third World countries
- A major problem associated with water privatisation has been the unpopularity of the water companies. Charges for water and sewerage have doubled since 1989, and since 11% of the homes have meters, there is no way the majority of the households can check their consumption of water and hence cannot keep their costs under control