



Public/private partnership

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PUBLIC/PRIVATE PARTNERSHIP (PPP) is just one name for the involvement of the private sector in the delivery of public services. There are many other names given to this concept e.g. private sector participation (PSP), outsourcing, etc.

The reasons for seeking the involvement of the private sector in the delivery (and often the provision) of public services can be one or more of the following:

- injection of technical/managerial expertise into the sector, and the transfer of technological innovations;
- improvement in the economic efficiency of the sector, in terms of both operating performance and the use of capital investment;
- injection of large-scale investment capital into the sector, or the creation of access to private capital markets;
- reduction in the level of public subsidies to the sector, and/or the redirection of these subsidies from the groups currently served to the poor and those not currently served;
- distancing of the sector from short-term political intervention in the operation of a utility, and a reduction of opportunities for invention by powerful vested interests;
- making the sector more responsive to consumer needs and preferences; and
- supplementing capacity currently not available in the public sector.

The main types of contractual arrangements between public and private sector in the provision of water services can be covered under the following headings:

- Service contracts
- Management contracts
- Lease contracts
- Concession contracts
- Building operate transfer/build own operate
- Divestiture

More details of each arrangement is given below:

Service contract

A service contract involves contracting out specific operations and maintenance activities to the private sector, usually for a few years. With this approach, the public provider sets the performance criteria for the activity, evaluates bidders, supervises the contractor(s), and pays an agreed fee for the services, which may be based on a

lump sum, unit cost or other basis. To achieve efficient gains from contracting out, contracts should be awarded through competitive bidding. Private bids can also be compared against those of the public agency.

Management contracts

Management contracts extend the responsibility of the private sector beyond individual service functions to encompass a broad scope of operations and maintenance. Under a management contract, a private firm manages the operations of a state owned enterprise without committing its own investment capital or accepting full commercial risks (although it does share some) for tariff collection or other matters.

International experience shows that two key elements are required for successful management contracting. First, the contractor must be given enough autonomy to implement commercial reforms. Second, the contract must have effective incentives for good performance, including penalties for failure to meet agreed performance goals and/or bonuses for superior performance.

Management contracts are generally for a period of five years, but may be longer. This allows the private sector operator to effect changes and to be accountable for results. Management contracts are sometimes seen as an attractive option when fuller private participation is not appropriate, or if it is expected that a management contractor can help to improve information about the enterprise and its market before further private participation options are considered.

Lease contracts

Under a lease, a private firm operates and maintains a government owned enterprise at its own commercial risk, with income derived directly from tariffs. Except for agreed maintenance obligations, however, the lessee has no obligation to invest in the infrastructure. Because in lease contracts the contractor normally finances working capital and replacement of short-lived assets, such as small sized pipes in the case of water supply, the duration of the contract is usually between six and 10 years, corresponding to the amortisation (write-off costs) of such works.

Leasing also therefore requires the government to commit to tariffs that cover at least operating and maintenance costs, and give the operator powerful incentives to ensure tariffs are collected and operating costs are minimised. Leases thus constitute a stronger form of private participation than management contracts.

Responsibilities for operation and maintenance, on the one hand, and for investments on the other, are conferred on different entities but are often difficult to distinguish unambiguously. This can lead to difficulties in coordinating investment decisions and operating needs, and the public authority and the lessee often blame each other for resulting performance problems.

Moreover, as the public authority retains responsibility for financing investment, budget constraints can lead to deterioration in the quality of the infrastructure, hindering the performance of the operator. In these conditions, the lessee might seek a minimum revenue guarantee that would reduce his or her incentives to perform efficiently and to exert pressure on the authority to adopt adequate investment and tariff policies.

Leasing has been used for decades in urban water supply and sewerage in France and Spain, and has also been used elsewhere in power, ports, urban transport, railways, and solid waste collection and disposal.

Concession contracts

Under a concession, the private operator manages the infrastructure facility, operates it at commercial risk and accepts investment obligations, whether they are to build a new facility or expand or rehabilitate an existing facility. A typical contract has a fixed term and involves transferring the assets back to the state at the end of the term.

Contracts generally run from 25 to 30 years, allowing the private operator to recoup invested capital expenditure. The concession is a common model for water supply and treatment, ports, airports, railways, and toll roads, when governments desire private investment but do not wish to relinquish rights to ownership of sector assets in the long term. Concession arrangements also exist for solid waste disposal and treatment.

BOT/BOO

The Build-Operate-Transfer (BOT) or Build-Own-Operate (BOO) arrangement is similar to a concession for the provision of bulk services. BOT contracts are normally used for greenfields projects, such as a water treatment plant, or a new wastewater treatment plant. For example, the private sector may undertake to construct a new dam and water treatment plant, and operate them for a number of years. At the end of the contract, all rights to the plant transfer back to the public utility. In this case, the government or the distribution utility would pay the BOT partner for water from the project, at a price calculated, over the duration of the contract, to cover the private company's construction and operating costs, and provide a reasonable rate of return. The contract between the BOT contractor and the utility is usually on a take-or-pay basis, with the utility bound to pay for a pre specified quantity of water, whether or not this quantity is actually demanded.

The primary advantage of BOT contracts is that they mobilize private sector incentives, and private sector finance, for what can be very costly new investment projects.

However, many BOT contracts are not self-supporting and cannot be financed on a limited recourse basis. They often require the government to purchase the output in a take-or-pay contract which is necessary for the BOT developer to attract private capital. Unless the government is able to make the purchase payments completely with user fees, the payments have to be subsidised by some other inter or intergovernmental transfer. Nevertheless, BOT contracts can be a good way of rapidly rectifying major supply problems.

In the BOO approach the assets remain indefinitely with the private sector partner and thus new private entry is permitted which may be complimentary to the existing public provider or in competition with it.

Where a competitive entry strategy is adopted, competitive pressure may help to improve the performance and commercial outlook of the public enterprise, although in many cases it will be difficult to establish a "level playing field" between the public enterprise and private competitors. Where a complementary entry strategy is adopted, the demonstration effects of more efficient private operation may also influence the performance of the public enterprise indirectly, through de facto yardstick competition.

Full or partial divestiture

Divestiture of water and sewerage utility assets can be partial or complete. In a complete divestiture, as in a concession, the private sector takes on full responsibility for operations, maintenance, and investment in a utility. Unlike a concession, a divestiture transfers ownership of the assets to the private sector. The nature of the public-private partnership is therefore slightly different. Under a concession, the government has two primary tasks: to ensure that the utility's assets - which it continues to own - are used well, and returned to it in good condition at the end of the concession period; and to ensure that consumers are protected from monopolistic pricing, or poor service. Under the divestiture option, the private company should, in theory, be concerned to maintain the long-term serviceability of its asset base, so that the government would retain only the task of sectoral regulation.

However, it is by no means always the case that private sector companies will take a long-term view, especially if there is a perceived risk of asset re nationalisation at some stage in the future - in this case, there may be a temptation to run down assets to boost short-term gains. There is a close relationship between asset condition, and future service standards. Even with an asset sale, the government (or its appointed regulator) will need to scrutinize the utility's asset renovation/enhancement programs. In England and Wales, for example, regular reporting of asset serviceability, and the monitoring of asset-related outputs (properties subject to low pressure or supply interruptions, leakage levels, sewer overflows, and failure of sewage treatment plants to meet emission standards) are important elements in the regulatory process.

Asset sales have been used widely in other infrastructure sectors. In the water and sanitation sector, by contrast, they have so far only been used in England and Wales. (Chile is considering this option, and asset-owning, private water companies have also operated for a long time in the United States.) Given the importance of infrastructure services to national economies, governments are unwilling to divest themselves of these key assets without introducing safeguards against inadequate company performance. In England and Wales, there are “safety net” powers to appoint another operator in case of company failure. In addition, the water companies operate under a license of limited duration. (The initial license period was 25 years, with the provision that, after year 15, the license could be reviewed, and 10 years’ notice be given of the intention not to renew the license.)

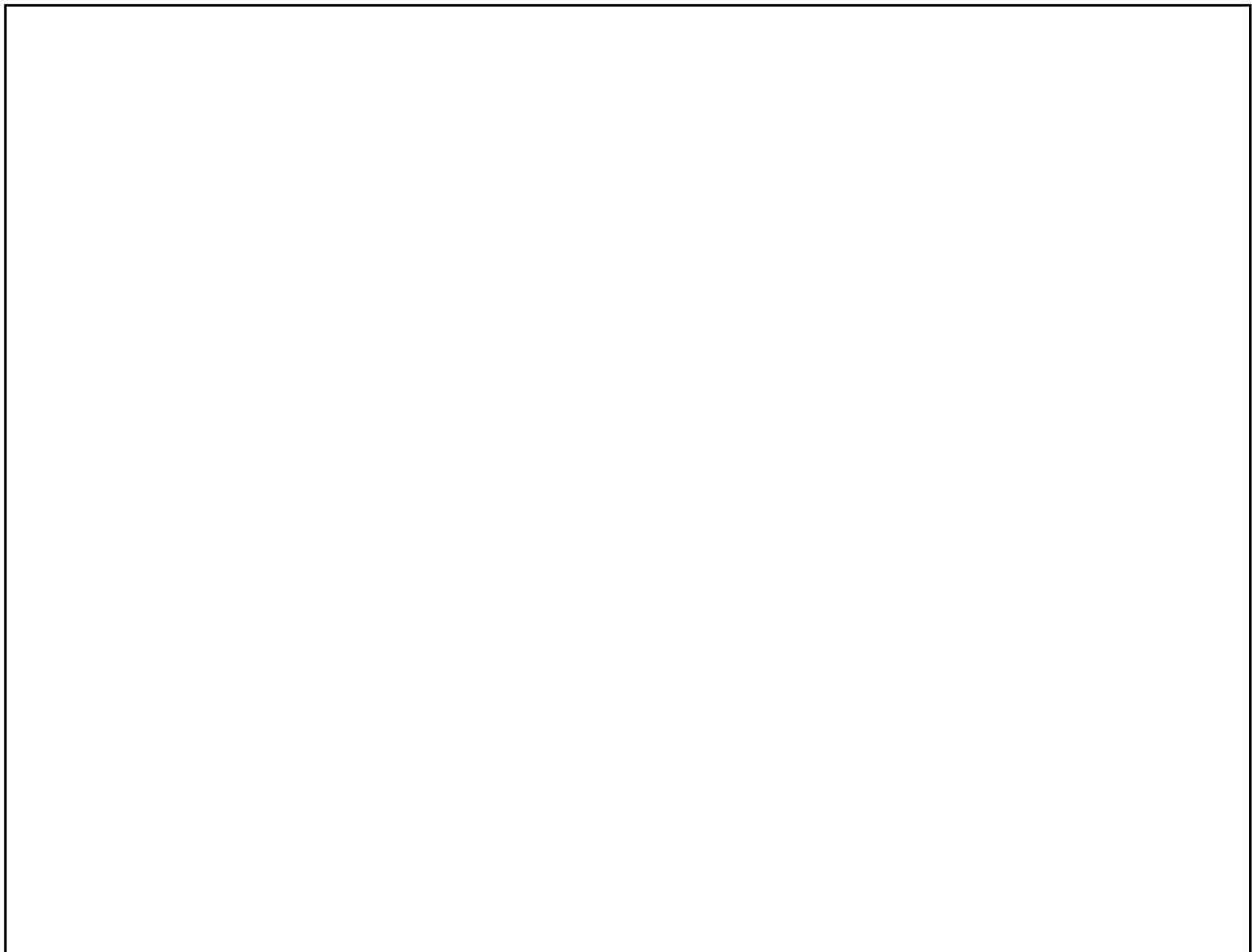
Although countries may find it politically, ideologically or even constitutionally difficult to contemplate divestiture as a potential PPP option, it should not be dismissed without evaluation.

Divestiture (full or partial) can take three different forms:

- sale of assets;

- sale of shares; and
- management buy-out.

There are circumstances in which any one of these three forms may be more appropriate than a concession. First, in a rapidly changing environment (for instance, variable rates of urban or industrial expansion), concession contracts may need frequent revisions. As these are likely to take place without the advantage of competitive pressures, such revisions may allow the incumbent company to gain from superior information and bargaining power, and could act as a disincentive to efficiency and innovation. Under divestment, companies would need to be more innovative and responsive to change. Second, in countries where the existing public sector utility is technically capable, divestiture by sale of shares or management buy-out may produce the required efficiency gains without involving the “foreign” water conglomerates that typically dominate bids for concessions. This could have the advantage of developing indigenous private sector enterprises to work in the water and sanitation industry. (This is most likely to be effective where local financial institutions are well-developed.)





Summary

Key features of the above options can be summarised in the two tables below.

The choice of PPP involvement will depend on many factors. In respect of the provision of water services there has been significant opposition in many parts of the world to the transfer of services which are genuinely regarded as the natural monopolistic responsibility of the public sector to the private sector.

In recent years there has been more acceptance of the need for and the benefits of PPP with concession contracts becoming more widely used as the vehicle.

Within the Department of Water Affairs and Forestry (DWAF) a need for some form of PPP was identified in respect of the delivery of water and sanitation services to the rural areas of South Africa.

Department of Water Affairs and Forestry considerations

The Department of Water Affairs and Forestry recognises the urgent need for water and sanitation services to be provided to rural communities.

The 1996 statistics tabulated below indicate the extent of the backlog in provision of basic water and sanitation to rural areas.

The Government of South Africa has formulated a strategy for the provision of water and sanitation services where the following policy principles apply:

- Development should be demand driven and community based
- Basic services are a human right
- “Some for all”, rather than “all for some”

Water Supply

25 liters per person/day within 200 meters of the dwelling (There are standards for availability, assurance of supply, quality and upgradeability).

Sanitation

One well-constructed Ventilated Improved Pit Toilet (VIP) per household.

- Equitable regional allocation of development resources
- Water has economic value
- The user pays
- Integrated development
- Environmental integrity

There are severe constraints on the delivery of services if all needy people are to be provided with a service within a reasonable time scale.

At the present rate of delivery i.e. that achieved in the first three years of the Reconstruction and Development Programme (RDP) it will take 30 to 40 years to meet the demand for services. Politically and morally this is an unacceptable situation and the Department of Water Affairs and Forestry (DWAF) has the objectives of:

- addressing the backlog of water supply to 12 million people within a ten year period.



- expending R1 000 million per annum on projects to achieve delivery.

The contract vehicle

Various contractual approaches were considered for the provision of water and sanitation services. Of prime importance to DWAF was to ensure that the selected approach could accommodate:

- the process (the “soft” issues);
- the design and construction of infrastructure (the “hard” engineering issues).

The principles of any contract would have to acknowledge, accept and accommodate the following:

- partnership between private and public sectors
- local government empowerment
- community involvement at all levels
- responsibilities identified
- flexibility cost and time controls
- Institutional and Social Development integrated with construction and operation
- long term involvement of the contractor

The responsibilities of the Contractor would include the need to:

- mobilize communities
- establish project Steering Committee
- prepare Business Plans/Area Business Plans
- organise institutional and social development of communities and operating authorities
- take responsibility for the design and construction and operation and maintenance of the infrastructure
- organise the transfer of the projects to local authorities
- provide mentorship after handover

The solution adopted was to use the FIDIC (International Federation of Consulting Engineers) orange book - Conditions of Contract for Design - Build and Turnkey (First Edition 1995) as the base document and to modify it to provide for the specific requirements of the particular situation pertaining to DWAF in South Africa. This adapted FIDIC approach is called Build, Operate, Train and Transfer (BoTT).

A decision was made to introduce PPP into four of the eight Provinces where approximately 80% of the workload existed i.e.:

- Eastern Cape
- KwaZulu Natal
- Mpumalanga
- Northern Province

Each Province would have its own Contractor (the “Programme Implementation Agent” - PIA) available for both water supply and sanitation projects and capable of managing the entire process. One point of responsibility is

a prerogative as is the need to adequately monitor and evaluate the progress of the PIA.

The BoTT process

DWAF put out to tender four Build-operate-Train Transfer (BoTT) contracts to consortia who had pre qualified. These contracts will be executed by the highest “points” rated tenderers (in accordance with the published Tender Adjudication Criteria) who on award of contract will become “Programme Implementation Agents” (PIAs). The BoTT contract with its PIA’s represent an innovative and ambitious approach to the delivery of water supply and sanitation services in Eastern Cape, KwaZulu Natal, Mpumalanga and Northern Provinces. The BoTT contracts are intended to accelerate delivery of the Government’s Reconstruction and Development Programme (RDP) water projects. An equally important objective of the programmes is the development of institutional capacity to ensure that the beneficiary communities are willing and able to commit themselves to owning, operating and maintaining the infrastructure in the long term. Sustainability of the endeavour will rest on this commitment.

The contracts require the Programme Implementation Agents (PIAs) to execute the following works:

- Carry out initial investigations on projects and consultation with the community representatives and authorities (these community representatives and authorities shall be identified by the Programme Implementation Agent);
- The preparation of a Business Plan for each project;
- Obtaining approval for the Business Plan from the Department of Water Affairs and Forestry. (Prior to submitting the Business Plan to the regional office of the Department of Water Affairs and Forestry for formal approval the Programme Implementation Agent must ensure that the local level Project Steering Committee has recommended its acceptance);
- The preparation of an Area Business Plan for all projects within a Planning Area;
- Obtaining approval of the Area Business Plan from the national level of DWAF;
- Institutional and Social Development;
- Design and construction of the Project or Group of Projects;
- Sanitation;
- Operation and maintenance of the project or Group of Projects;
- Training of the community and Local Authorities
- Transfer of the works to the Operating Authority;
- Mentoring of the Operating Authority.

Enhancement

The scope of works for the water supply service in the BoTT Contracts relates to the basic service RDP first phase water provision requirement of 25 liters per day per capita

within 200 meters. It should be noted that one of the points considered in the adjudication was the proposals made by the Tenderer for the facilitation of loan funding for higher levels of service if required by the community. This would take the form of a loan facility to finance the capital cost of the additional requirements which would be arranged by the Programme Implementation Agent with the community and/or the Local Government as the borrower together with the approach to the meeting of the loan repayment requirements.

Contractual dates

Tender documents issued: 10 February 1997

Closing date of tenders: 13 March 1997

Period of validity of tenders: 120 Calendar days

Date of expiry of tenders: 11 July 1997

Validity of contract: 24 Months from award

Contract period: ("life cycle of longest lasting Business Plan.")

Tender adjudication criteria document

The Evaluation Criteria were specified in the document titled 'Adjudication Criteria' issued to BOT tenderers on 20 February 1997.

With the Evaluation Criteria were Bills of Quantities which contractors were expected to price. The Bills of Quantities were included for evaluation purposes only and DWAF applied a number of sensitivity analyses to the quantities - further details are to be found in the Section on Design and Construction. The quantities in the "Evaluation Bills of Quantities" represent a typical RDP workload. The results of the sensitivity analysis were considered in evaluating the tenderers.

The adjudication of tenders took into account the structure of each consortium to ensure that the successful tenderer reflected the policy of the Department in terms of PDI's having meaningful equity in the consortium and having a meaningful role in the management and decision making processes.

Evaluation criteria

The evaluation took the phases of the works into account in the following proportions:

• <i>General document</i> pricing of bill of quantities	10%
• <i>Design and construction document</i> pricing of bill of quantities	50%
• <i>Organisational development and sanitation</i> pricing of bill of quantities	4%
assessment of the organisational development and sanitation proposals	10%
• <i>Operation and maintenance</i> pricing of bill of quantities	4%
assessment of the operations, maintenance and transfer proposals	10%

• <i>Previously disadvantaged individuals</i>	12%
Assessed in accordance with definitions formulas supplied in the DWAF "Adjudication Criteria" document.	
TOTAL	100%

Weighting

The relevant weights of the sections are as follows:

- 68 points allocated to price
- 20 points allocated to assessment of proposals
- 10 points allocated to equity ownership by Previously Disadvantaged Individuals
- 2 points allocated to equity ownership by Women

Adjudication

Tenders were adjudicated by DWAF using a system which awards points on the basis of:

- tendered price
- assessment of proposals
- PDI equity ownership

Contract management

The contract is between the Department of Water Affairs and Forestry (the Employer) and the Programme Implementation Agent. The contract structure recognises the critical role all stakeholders have to play in the provision of sustainable systems. These other stakeholders such as the District/Regional Councils, Local Authorities Project Steering Committees and Labour Desk have identified roles in the contract with the Programme Implementation Agent and the Employer having overall responsibility.

The contract recognises the role of other stakeholders as shown below.

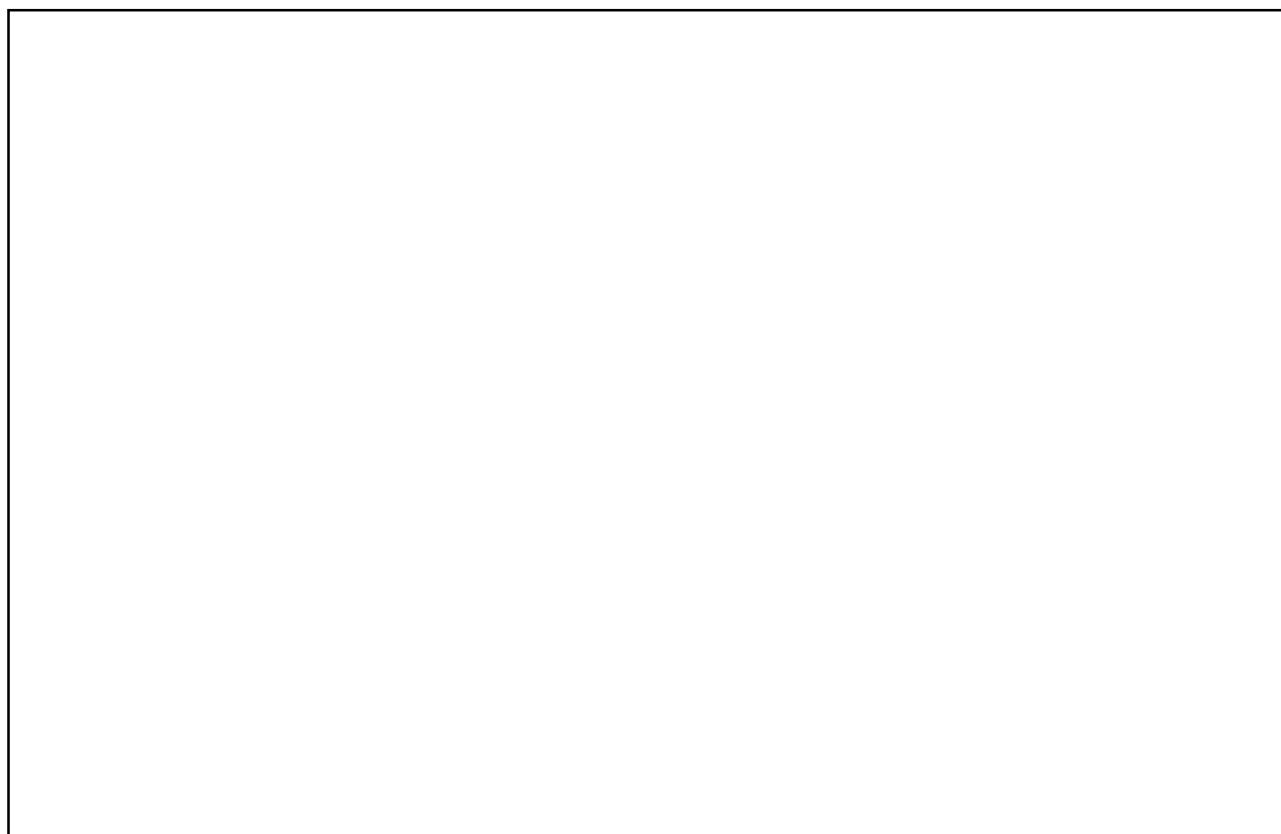
To supervise, control, monitor and facilitate the work of the PIA an Employer's Representatives' Team has been established comprising typically:

- Employer's representative (team leader)
- Site representatives
- Institutional and social development specialist
- Operations and maintenance specialist
- Sanitation specialist

Because of limitations in DWAF these positions will initially be filled by personnel from Consulting/Management companies.

Part of their role will be to build capacity within DWAF so that the Department may assume the various roles.

An objective of the contract structure selected is to place the responsibility for the execution of the projects on the Programme Implementation Agent. The Department however recognises that it still has the overall responsibility for the success of the projects and has therefore extended the existing monitoring and evaluation system to meet the particular needs of the BoTT contracts. The Department



Water Affairs and Forestry regional offices and the Employers Representative have key roles to play in monitoring the Programme Implementation Agent to ensure that the requirements of the contract are being met. The diagram below shows the structure of the monitoring and evaluation controls. In addition to this formal structure there is support and monitoring at grass roots level from the PSC and communities.

The BoTT contracts require the Programme Implementation Agent to structure activities at district council level and at project council level in such a way as to incorporate sound project management principles. This provides Department of Water Affairs and Forestry with an additional toll to monitor the performance of the Programme Implementation Agent as well providing a sound contractual basis for applying the remedies in the contract should the Programme Implementation Agent not perform.

Key Performance Indicators have been identified which cover all phases of the project and which are linked to project milestones i.e.:

- Business planning
- Area business planning
- Institutional and social development activities
- Design activities
- Construction activities
- Sanitation
- Operations and Maintenance

The Programme Implementation Agent is required to report monthly against the KPI's and these reports are

verified by the Employers Representative and by the Independent monitors as indicated below.

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Current status

- The Employer has issued contract sub-clause 8.1.1 Notices to the four PIAs together with lists of projects



to be implemented. These notices are similar to the normal contract “Commencement Notice”.

Approximately projects with budgets totalling R500 million have been identified as being suitable to be undertaken by the PIA and planning work is actively underway.

- The true test of success of the BoTT initiative can only be measured long after handover of the assets to the operating authority. If the infrastructure is sustainable then much will have been accomplished.
- Value for money can be tested but this will be imprecise because of the additional requirements for ISD and O&M to ensure sustainability.

- Much will be learned from the process and perhaps the next round of BoTT will introduce more elements into the public private partnership arrangement.

Questions will be raised as to whether private finance can be used to fund infrastructure and whether there may be commercial business opportunities for the private sector in the operation and maintenance and cost recovery of completed infrastructure.

- BoTT is viewed as an alternative and additional mechanism to achieve delivery of water and sanitation services to the needy rural areas.

With a true partnership approach it is believed that BoTT can be a success story - all the players are hard at work to ensure success.