Project Finance

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Introduction

- Great demand for solutions to wastewater treatment
- Increasing role wastewater treatment plays or will play in making treated wastewater reusable for specific needs
- This poses financial burden to the budgets of individual governments

It is essential to look for innovative ways to finance the infrastructure for such projects

Extent of Wastewater Needs

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- In developing countries approximately six children per minute still die from diseases caused by unsafe water and inadequate sanitation.
- Deterioration of the aquatic environment is visible around the globe.
- In most of the UNEP Regional Seas the discharge of untreated domestic wastewater has been identified as a major source of environmental pollution.

Coral reefs, precious habitats, biodiversity, fishing, and income from tourism are adversely affected

Extent of Wastewater Needs
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- According to MDG goals, it is estimated that 2025 projected wastewater treatment needs are in the order of USD 72 billion annually as additional for wastewater treatment, household sanitation and hygiene. Of the USD 72 billion, USD 56 billion is required for wastewater treatment alone (Vision 21).

Compared to the current spending of USD 14 billion annually, an increase in investment of 4 to 5 folds is required to reach the sanitation target within the wastewater sector.

Conventional Public Finance

- Conventional contracts are EPC: Engineer & Procure
- Governments fund their projects by:
  - using existing funds
  - issuing debt (government bonds)
  - borrowing funds totally or partially
- In order to borrow, a government gives a sovereign guarantee to lenders to repay these loans

This shows as a liability on Government's list of financial obligations, →affecting its credit rating

Conventional Public Finance

- Lenders analyze Government's total ability to raise funds for repayment of the loan through taxation and/or general public enterprise revenues, including new tariff revenue from the project, i.e. through taxpayers or users, or both
- Donors may impose certain covenants pertaining to the utility and may dictate certain terms that go beyond the project itself

This funding taxes already strained government own balance sheets limiting its ability to undertake other projects

Alternate Methods of Finance

	Funding Source	Contract Type
➢ Public Funds	Budget Grants Loans	EPC Mgt Contract Lease
➢ Private Funds	Private banks M L A	BOO/Private BOT Concession

Drivers for Private Finance

- Capital investment required to build modern wastewater treatment plants remains high
  Most governments cannot afford such investment, and prefer to use funds for more socially desirable projects
- Introduction of more commercial methods and approaches in the way public utilities are financed and operated,
  Hence improved efficiencies in operations and cost recovery
- Private sector finance can reduce the cost of treatment through competition, efficiency, and introducing more integrated solutions, eg
  Biosolids to fuel plants, utilization of grey water, or accessing new revenue schemes such as capitalization on the revenue potential of dry sludge

Basic Criteria for PPP

- Enabling framework (legislative, regulatory, political… throughout life of project)
- Well dimensioned, economically relevant project (social economic need, correct investment size, proven technology)
- Responsible reliable public party (decision maker, undertakings, e.g. off-taker, involvement of stakeholders) ……(country/utility ratings)
- Motivated, experienced private party (ability to sustain project-related undertakings, track-record &finances, interest – risk/reward and short term vs long term
- Clear and flexible contract (clear rules, adjustments in the course, benchmark e.g. termination, arbitration, etc.)
- Smart financing structure (efficient management and allocation of risks, FOREX, Packaging security, O&M and EPC

The Project is Bankable once these are met

Understanding PPP

- Responsibility for arranging project financing lies with the private sector participant(s)
- All stakeholders must understand the process when evaluating the value for money conditions *in PPP projects*
- Understanding the process will assist public managers in both, managing transaction advisors and in negotiating with private sector parties
- The processes and structures used in the financing of projects are dynamic and continue to evolve, so

All stakeholders need to be flexible

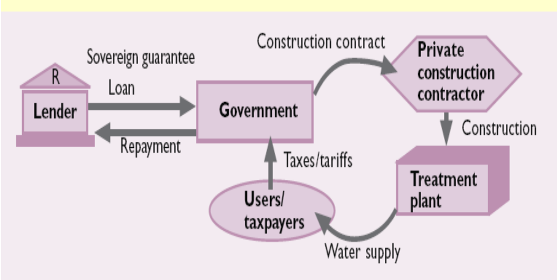
Structuring Finance

The three primary finance options and their structures include:

- Public Finance
- Corporate Finance
- Project Finance

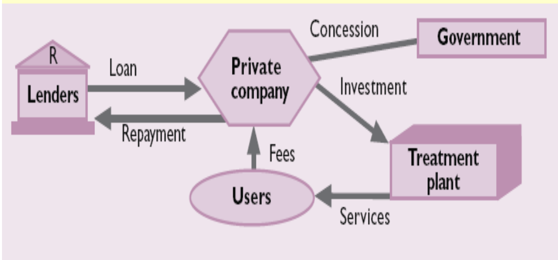
Public Finance Structure

(Source: Project Finance Manual, National Treasury South Africa 2001)



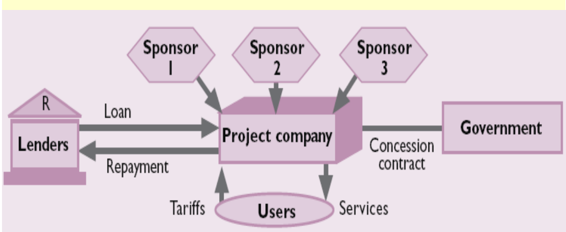
Corporate Finance Structure

(Source: Project Finance Manual, National Treasury South Africa 2001)



Project Finance Structure

(Source: Project Finance Manual, National Treasury South Africa 2001)



Investor profiles

Investor profiles vary widely from project to project

- ***Promoter,*** *usually government departments in need*
- ***Sponsors,*** *construction, supply, management companies*
- ***Equity funds,*** *may include local unit trusts or foreign equity funds with social objectives*
- ***Banks, at least as short term lenders,*** *frequently as long term lenders and financial arrangers. Though they raise debt but may also raise equity*
- ***Non-bank financial institutions,*** *like pension funds and insurers*
- ***Suppliers,*** *in the form of short to medium term, and may also be sponsors with equity*
- ***End-user,*** *prepayment for future delivery of service but more often take or pay contracts*
- ***Government,*** *not necessarily direct but could be indirect like guarantees, take or pay*
- ***Management and employees,*** *may promote or sponsor ►given priority to service*
- ***Public participation,*** *usually at operating stage*

The party (or parties) responsible for funding must contact as many potential investors as possible early in the process. This reduces the cost of financing by increasing the potential investor base.

Financing Strategies

- Sponsors are responsible for developing the financing strategy.
- Sponsors usually hire a financial adviser (e.g. investment or merchant bank) to design the strategy.
- Advisers must have the technical expertise, contacts, track record and innovative thinking necessary for planning and implementing complex strategies.
- In conjunction with the sponsors, they explore and contact potential sources of finance, and analyse the opportunities and methods for diverting risk from sponsors while maximising the project's ability to leverage or maximise its gearing ratio.
- Financing strategy is based on the cash flow requirements of the project and includes multiple sources of funds.
- The long- and short-term options for funding are used extensively from the inception phase through the termination of a project.

Department managers should be fully aware of various potential investor strategies, allowing them to focus when negotiating

Risks
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- **Availability risk,** services may be less than required. Private sector is penalized.
- **Completion (technical and timing) risk,** construction and design risk. Bond.
- **Counterparty credit risk,** most obvious and common associated with other parties to the agreement unable to deliver. Due diligence is done and obtaining performance bond.
- **Country (political) risk,** investors review history and watch carefully to stop funds or take steps to repatriate funds. Insurance.
- **Currency risk,** part of construction and operating risk when revenue and expenses are in different currencies. Laws mitigate this but best managed by hedging, agreeing with suppliers on fixed rates but also can be mitigated by arranging a portion to be paid in relevant foreign currency or borrow as much as possible in local currency.
- **Force majeure risk,** natural or manmade . It's accounted for when valuing the project and deciding on the required rate of return. Insurance.
- **Inflation risk,** when actual inflation exceeds projected risk. Mitigated by indexing.
- **Input and throughput risk,** when viability depends on supply of sufficient natural resources. Proper due diligence.

Risks
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- **Market (demand) risk,** may be affected by increases in cost of raw materials, development of substitute service, overall economic conditions, government policy (taxes), political developments, and environmental concerns. Mitigated by requesting certain conditions in agreement such as automatic rate increases, take or pay, etc..
- **Operating risk,** applies to certain resources. May be directly controlled by management (labor issues) or external (exchange rates on imported supplies). Mitigated by good labor relations, long term fixed supply contracts, insurance, and adherence to environmental and other laws and regulations.
- **Regulatory risk,** applies to regulated projects with risk ranging from complete disallowance to recover costs to regulatory lag. Controlled by stipulating in agreement that volatile cost factors are automatically passed on to customers.
- **Residual value risk,** applies only to projects when value is fixed to assets upon handing over to public sector at end of project. Mitigate by assigning a residual value up front.
- **Resource risk,** when natural resources required in the project are not of the expected quality or quantity. Mitigate by due diligence.
- **Technology risk,** possible changes in technology resulting in providing service being provided with suboptimal technologies. Contracts may address this and corrective measures are set up.

References

Mainly: Project Finance Manual, Version1, National Treasury, South Africa, 2001

Also: UNEP Publications on MDG Goals

Others: As shown

THANK YOU