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Use of Operating Contracts for Managing Infrastructure Enterprises under “Difficult” Conditions

**Office of Infrastructure and Engineering
USAID**

The need for good water and electricity services:

- The public views provision of good water, sanitation and electricity supply as a key indicator of whether things are moving in the right direction. Providing basic infrastructure services is an important factor in rebuilding public order and credibility of governance.
- USAID and others support electricity & water services, and these services need to be sustainable.

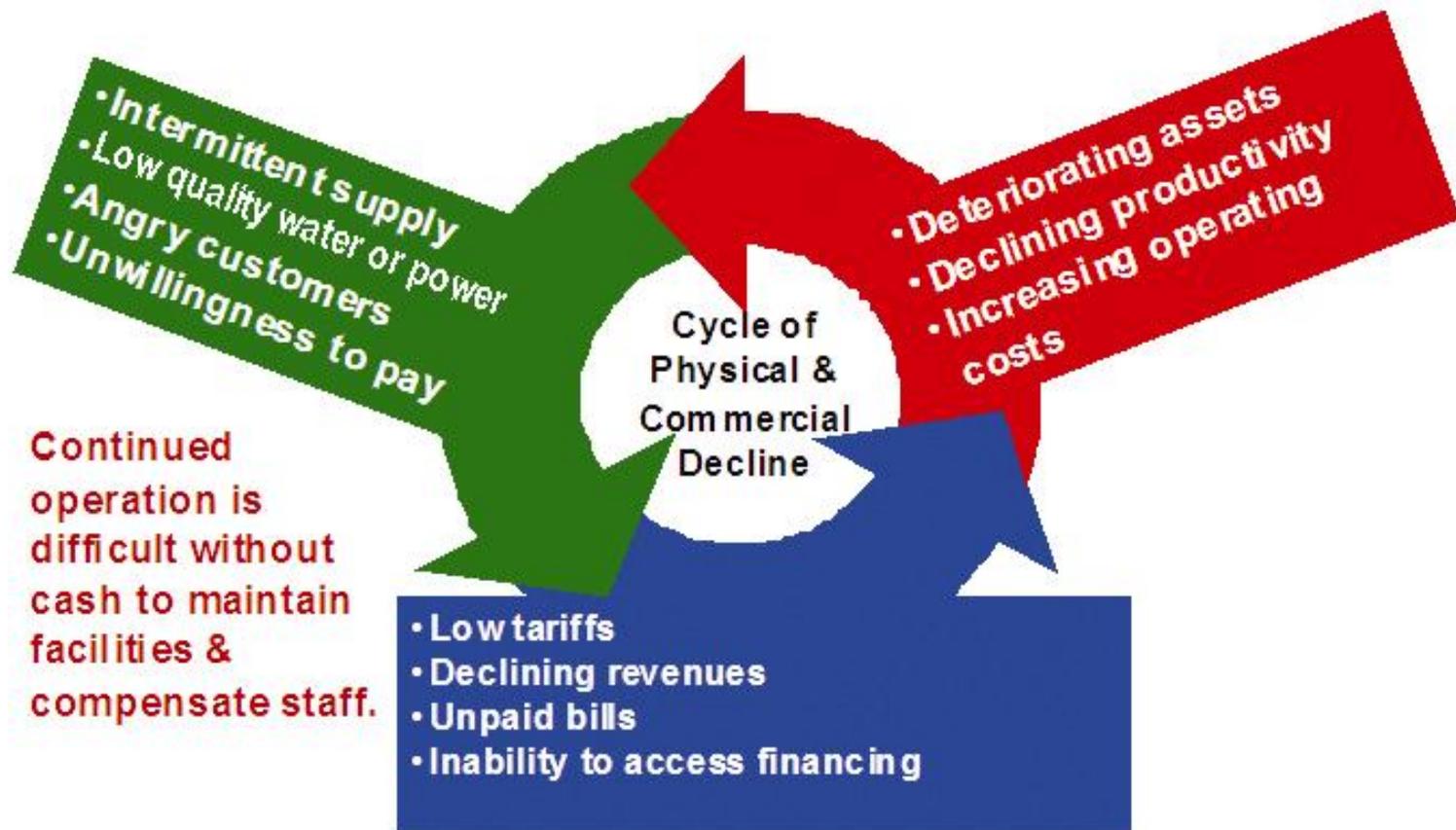


Meter reader in Bac Ninh, Vietnam



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The Sustainability Challenge for Water, Sanitation & Electricity in Difficult Situations





General Comments

- In times of stress (post-conflict, transitions from socialism, or post-disaster) **corporate governance** of enterprises may deteriorate, and **asset stripping** accelerates.
- There may be a need to establish a “**receivership**” in the immediate term, to manage utilities on behalf of the “owners” and “customers”, i.e., the citizens. Similar to bankruptcy proceeding.
- There is a tendency by USG in post conflict situations to concentrate on reconstruction of physical facilities and fuel purchases; **customer-facing functions** are often neglected.
- In the long term, private ownership or concessions may be the most efficient solution but operation contracts are a good interim solution to provide “discipline” in the interim period.
- Operation contracts are **not a silver bullet but one more tool**; they have been used successfully for decades.



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The Problem, Almost Always, is Poor Utility Governance & Management:

In most cases, rebuilding infrastructure and turning it over to local public authorities is not enough to ensure improved services. Newly rehabilitated facilities are often not properly operated and managed and will fail over a short period of time. Root causes include:

- Rampant corruption
- Weak utility governance
- Bad management



Electricity connections, Mazar e Sharif



Illegal water connections, Indonesia



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Focus of this USAID review:

1. What infrastructure problems were addressed?
2. How were operating contracts tendered and awarded?
3. What responsibilities were given to the operator?
4. What incentives did the operator have to improve performance?
5. How well did the incentives work?
6. How were services and cost recovery at the end of the contract?

Cases that USAID reviewed:

Location	Name	Sector
Cambodia *	BOT, BOO private water companies	Water
Cote D'Ivoire *	SODECI	Water
Georgia *	United Energy Distribution Company	Electricity
India – Bhiwandi *	Torrent Power Franchise	Electricity
India – North Delhi	North Delhi Power Limited	Electricity
Kosovo	Korporata Energjetik e Kosoves (KEK)	Electricity
Mali *	Energie du Mali	Electricity & Water
Senegal	SDC contract with SONES	Water
Sudan *	Yei Electric Cooperative	Electricity
Tajikistan *	PamirEnergy	Electricity
Uganda *	National Water & Sewage Corporation's Mbale Service Area	Water



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Some Definitions - Types of operating contracts

- **Management contract** – management responsibility, limited operational and commercial control, no private investment.
 - Examples: Amman, Jordan wat/san; Yerevan, Armenia wat/san; Georgia UEDC electricity distribution; Kosovo electricity distribution; Dar es Salam wat/san; Uganda wat/san
- **Concession** – full management & commercial control, plus operator makes all investments.
 - Examples: Manila wat/san; Pamir, Tajikistan electricity; Buenos Aires wat/san; Argentina electricity distribution; Bhiwandi, India electricity
- **Affermage/ lease** – A lease contract used in Europe for 150 years. Award of a lease (by competitive tender or negotiation) to a private firm to run a system for a period of years. Lessee is responsible for operational and commercial functions, and receives a fixed fee per unit of water or electricity provided to customers. Government provides the fixed capital investment.
 - Examples: Casablanca, Morocco electricity, wat/san; Macao wat/san; Cote d'Ivoire wat/san; Senegal electricity, wat/san



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Four Cases



Uganda – Delegated Area Management Contracts

- **Summary of the problem:** Decline in infrastructure because of political instability, corruption and decapitalization.
- **Type of contract:** 57 “Delegated Area Management Contract” between National Water and Sewerage Corporation and private operators
- **Results:**
 - Uganda-wide, since 2000, private operating contracts with 10 private operators now cover 57 towns and cities in Uganda.
 - Connections tripled, coverage increased from 38% to 70% since '98; NWSC now has a 140% coverage of O&M costs; revenues increased 200%; NRW down from >60% to 30%
- **Lessons learned:**
 - Strong **incentives directly linked to performance** work
 - **Local operators** will bid if terms are attractive
 - **Corporatization** is a key part of the process
 - Clear, progressive performance targets
 - Use **short contracts** initially
 - Employees gain by allowing them to bid and become operators



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Incentive scheme in Uganda:

Management Fee =

Base (Fixed) Fee = 80% of controllable costs if they achieve the base performance objectives

+ Performance Fee = remaining 20% of controllable costs

+ Incentive Fee = share of gross profit above the annual target

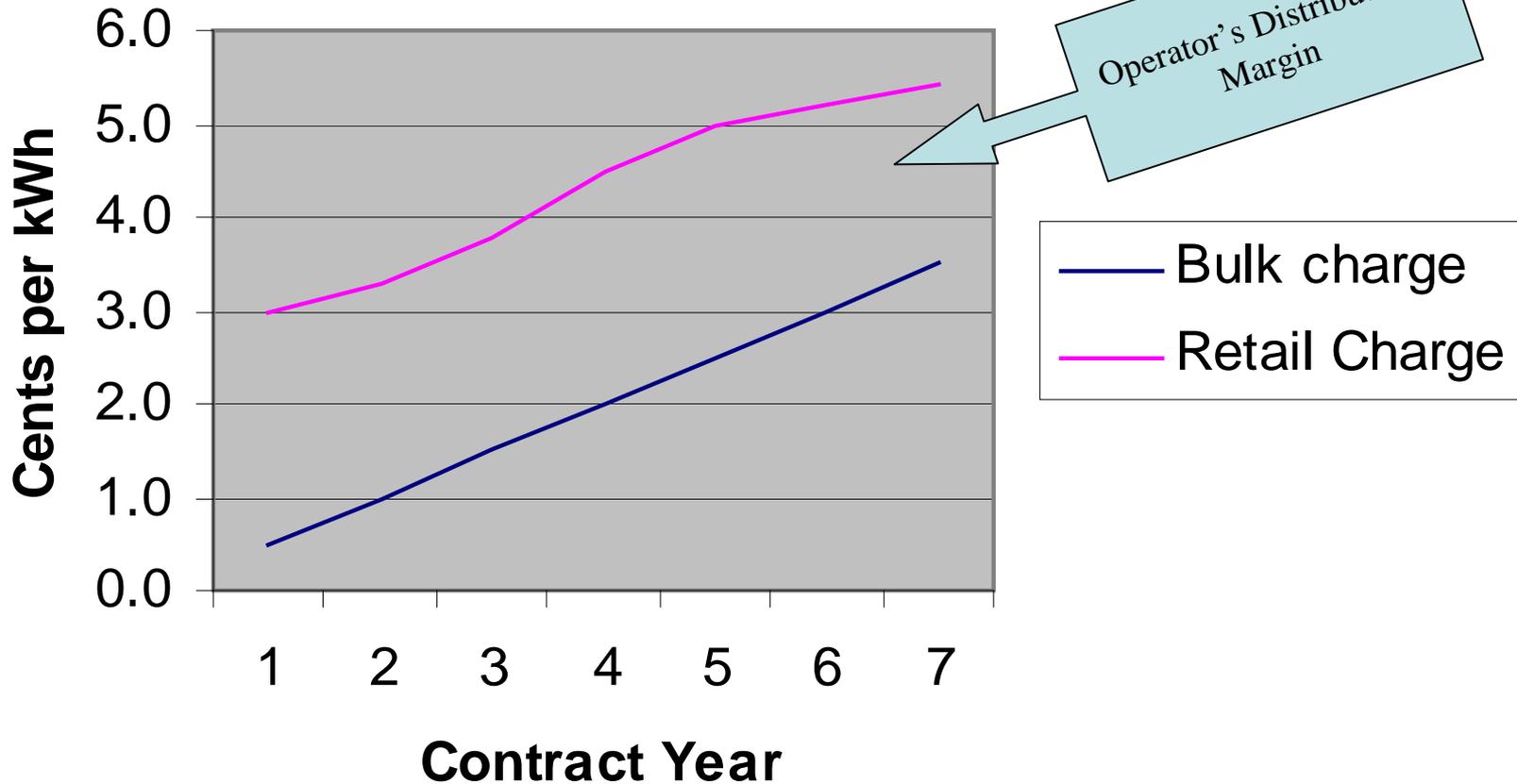


Tajikistan –Pamir Energy

- **Summary of the problem:** Difficult situation following Soviet collapse & civil war in Tajikistan
- **Type of contract:** 25 year concession contract for electric power generation and distribution in a predominantly rural area
- **Results achieved:**
 - Commercially oriented management in place; capacity increased from 28 MW to 42 MW
 - Collections increased to 90%
 - Improved service and reduced losses
- **Some lessons learned:**
 - Technical and commercial losses need to be well documented at the beginning of the project
 - Importance of stakeholder consultations in achieving sustainability
 - The need to subsidize bulk energy in declining annual amounts to cover initial operating losses
 - Involvement of Aga Khan Foundation was important



Incentive Margin for Pamir Operator





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Georgia – United Energy Distribution Company

- **Summary of the problem:** Recovery from Soviet collapse; widespread corruption, 30% collection rates, steadily declining hours of service, unpaid bulk power and other bills.
- **Type of contract:** Management Contract
- **Results achieved:**
 - Collections increased to approx. 85%
 - 24-hour supply of electricity restored for first time in 10 years
 - Staffing reduced 30%
 - Successful preparation of company for privatization
- **Some lessons learned:**
 - **Full executive authority** granted to contractor
 - Operator needed support of the national security services to deal with theft, corruption and violence
 - **Donor support (pressure!)** played key role in securing government commitment
 - Limited incentives (a few percent performance fee) can be sufficient if combined with a good contractor and full operational control.



India – North Delhi

- **Summary of the problem:** poor service, poor collections, public dissatisfaction, huge and growing financial losses. Annual operating deficit: \$488 million. Accumulated liabilities to GoND: \$4.8 billion.
- **Type of contract:** Divestiture sale with 5-year regulatory transition agreement based on Aggregate Technical & Commercial (AT&C) Loss Reduction.
- **Results achieved:** AT&C losses, including theft, reduced in 2005-06 to 28% against a regulatory target of 35%, down from 53% in July 2002. Major improvement in operational and financial condition of distribution system. Significant complaints by consumers, offset by improvements in sustainability.
- **Some lessons learned:** Importance of:
 - A pragmatic valuation of the business
 - High level, consistent and firm government commitment and support for the transaction
 - Realistic multi-year tariff regime with realistic loss reduction targets
 - Bidding on the basis of loss reduction is feasible



Incentive scheme in North Delhi:

AT&C Loss Reduction Targets	Reductions Achieved	Who benefits or loses?
“Minimum” reductions		Additional revenues split 50-50 between NDP & customers
“Negotiated” reductions		Additional revenues go to customers
		NDPL responsible for short fall in revenues

$$AT\&C = 1 - \left[\frac{\text{Energy Units Billed to NDPL Customers}}{\text{Energy Unites Purchased From Bulk Suppliers}} \right] \times \left[\frac{\text{Collection in Rupees}}{\text{Billing in Rupees}} \right]$$

The first term represents technical and commercial efficiency. The second term represents collection efficiency. Energy units are kilowatt-hours (kWhs), collections and billings are in Rupees.



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Basic conclusions of the assessment (I):

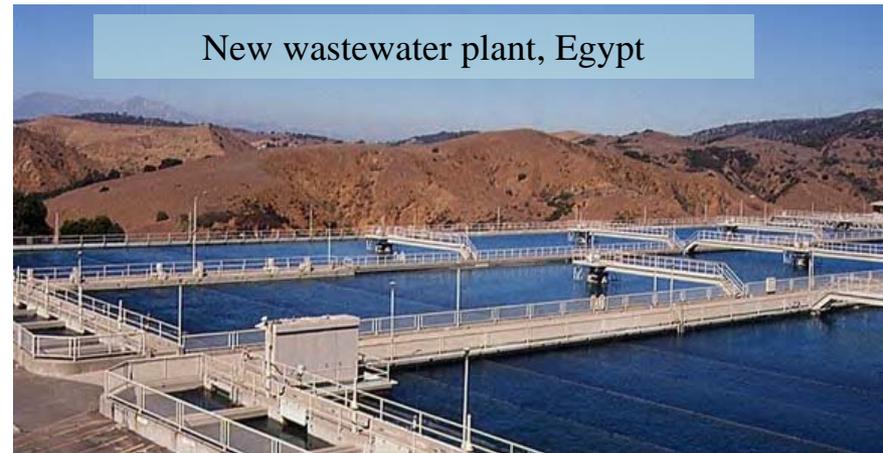
1. Incentive based operating contracts reviewed are 'turning around' poorly performing electricity & water utilities and providing reliable services in difficult situations.
2. The contracts are reducing technical and commercial losses, increasing billing rates and collections, and introducing efficient and accountable management.



Electricity meters and wires in Mazar e Sharif

Basic conclusions of the assessment (II):

3. They work in difficult environments— post-conflict situations, disaster relief, desperately poor local economies with weak & corrupt government.
4. No single formula applies to every situation. Models include management contracts (Kosovo, Georgia), divestiture with regulation (North Delhi), incentive-based management contracts with former employees (Uganda) and lease & concession contracts (Pamir; Cote d'Ivoire; Senegal).



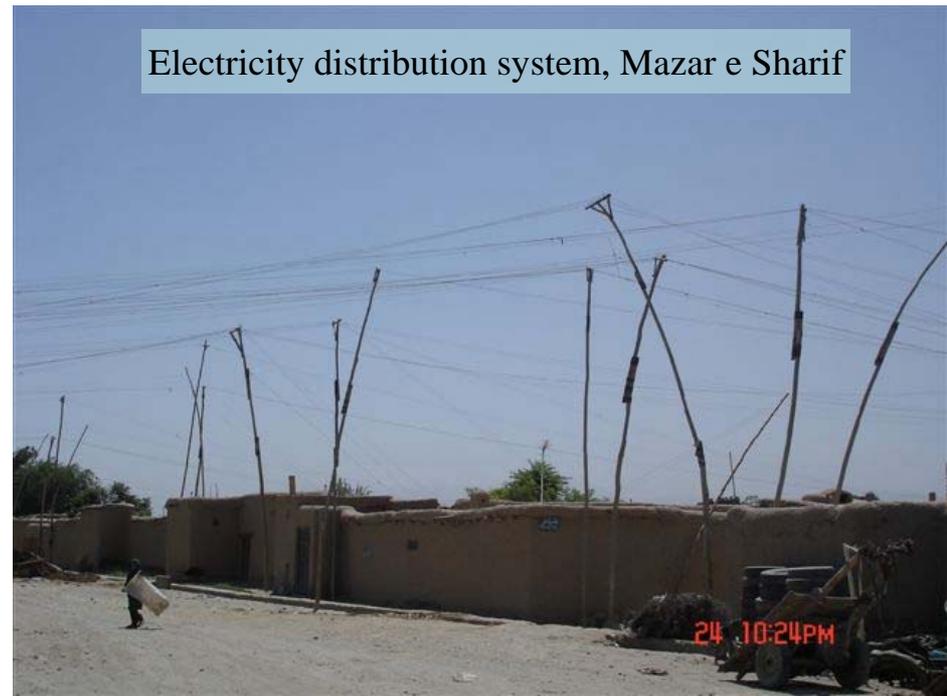
New wastewater plant, Egypt



Defunct wastewater plant, Yerevan, Armenia

Basic conclusions of the assessment (III):

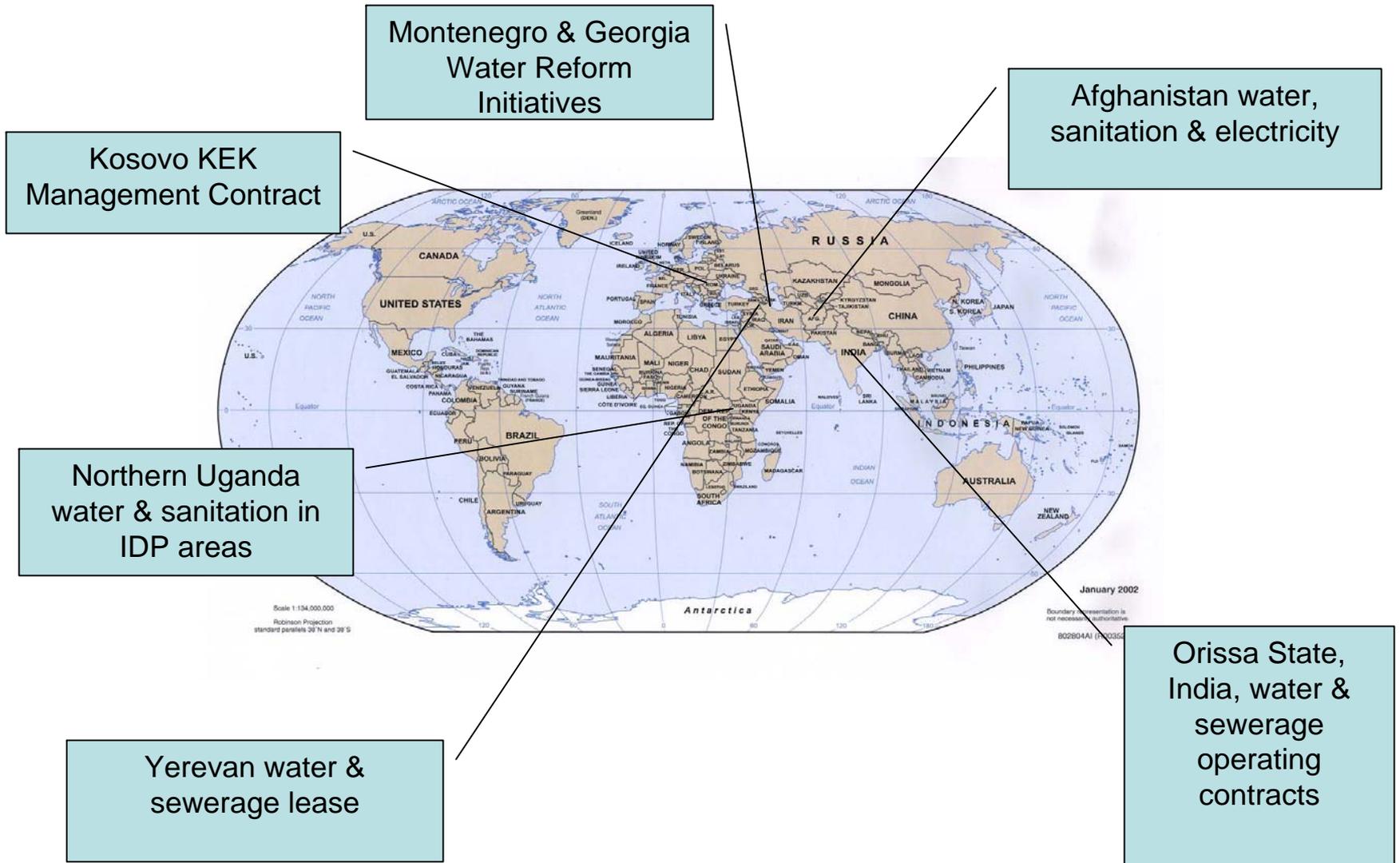
5. Successful designs are tailored to the local situation. Each case is uniquely constructed.
6. Operators should have enough control to be able to manage the business. Employees should get financial gains from better performance. Consumers should not face immediate tariff increases.





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Applications of the Operating Contracts Study





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Thank You.

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