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Reforming Urban Water Services in Uganda: Using Incentive Based Management Contracts to Improve Services in Small Towns

December 17, 2009

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Background: The Northern Uganda Water Supply Situation

- Towns in Northern Uganda are struggling to recover from two decades of civil war in which 2 million people were uprooted from their homes and tens of thousands kidnapped, mutilated or killed
- Many towns are now facing major population changes as IDPs return to their homes
- Water systems in smaller towns are largely “broken”:



- Systems were not maintained during the conflict
- Many wells and systems were installed on an emergency basis and operated by international organizations
- us, Town and District governments, now responsible for managing water systems do not have the requisite expertise, funding, or management capacity

USAID's NUWATER Project:

Transferring Successes from Other Towns in Uganda

- Uganda's National Water and Sewerage Corporation (NWSC) is an internationally recognized innovator in using incentive based operating contracts as a tool for improving water system performance
- Due to the business opportunities posed by the use of such contracts, there are now about 15 private operators in Uganda
- However, only three towns in Northern Uganda -- the largest -- are under NWSC's jurisdiction and with water systems managed under incentive based operating contracts
- Smaller towns in Northern Uganda, under the jurisdiction of the Uganda Directorate of Water Development (DWD), have no experience with the incentive based contracting approach
- USAID's NUWATER Project is aimed at applying the lessons learned from incentive based contracting in larger Ugandan towns to selected smaller towns in Northern Uganda
- Work is currently focused on two towns: Kitgum and Pader



NUWATER Strategy for Achieving Sustainable Water Supply

NUWSS Support	Kitgum	Pader
1. Incentive Based Management Contract	Achieve cost recovery of 28.5 Million UGX per month	Achieve cost recovery of 4.5 Million UGX per month
2. Capital Investments	<p>Increase water supply capacity to meet demand of target customer base:</p> <ul style="list-style-type: none"> • Install wells to meet supply targets • Replace high maintenance pumps 	<p>Increase water supply capacity to meet demand of target customer base:</p> <ul style="list-style-type: none"> • Rehabilitate 1 inoperative pumping station • Interconnect 3 independent supply/distribution systems
3. Output Based Aid	<ul style="list-style-type: none"> • Operating cost transition subsidy • Connection subsidy: <ul style="list-style-type: none"> - 1200 new connections 	<ul style="list-style-type: none"> • Operating cost transition subsidy • Connection subsidy: <ul style="list-style-type: none"> - 300 new connections



Key Features of Incentive Based Management Contracts:

1. Monthly Management Fee

- Management fee is based on percentage of total monthly fees collected (as bid by operator)
- Fee is subject to penalties (deductions from management fee) for failure to meet monthly performance targets:
 - Volume of water supplied
 - Volume of water billed
 - Non-revenue water
 - Number of active connections
 - Average response time to customer complaints
 - Average response time to leaks and bursts



Key Features of Incentive Based Management Contracts:

2. Quarterly Incentive Fee

$$IF = IF^{\max} * [0.3RC + 0.15WS + 0.2NRW + 0.2SR + 0.15NC]$$

Where:

- **IF^{max}** = Maximum quarterly incentive fee
- **RC** = Percentage incremental achievement in the improvement of Revenue Collections
- **WS** = Percentage incremental achievement in the improvement of Volume of Water Sold
- **NRW** = Percentage incremental achievement in the improvement of Non Revenue Water
- **SR** = Percentage incremental achievement in the improvement of Service Reliability*
- **NC** = Percentage increase in new connections

*Service Reliability is defined as total pumpage hours per month, summed over all pumping stations.



Key Features of Incentive Based Management Contracts:

3. Output Based Aid

A. Transition Subsidy:

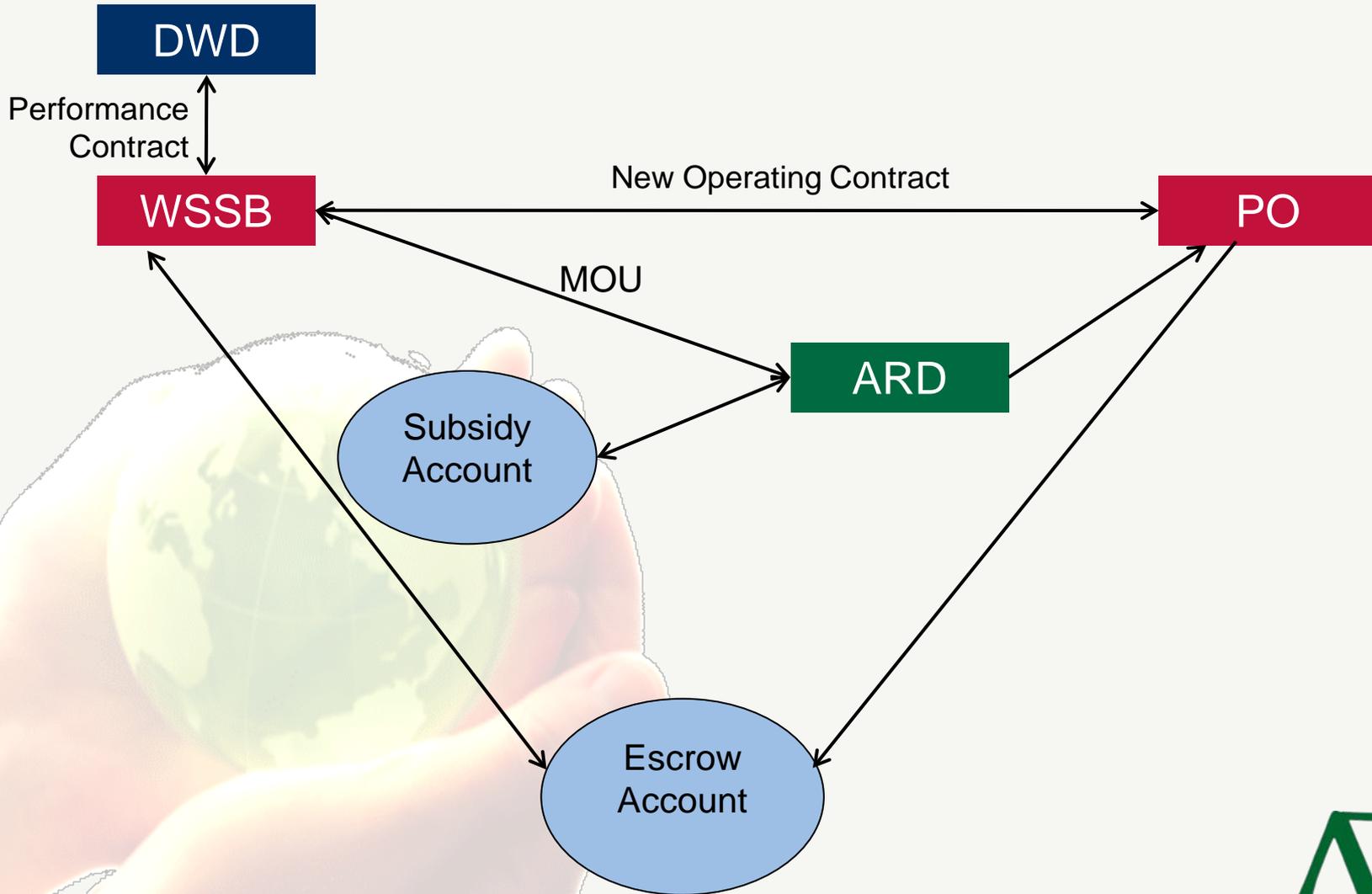
- Cost reimbursable subsidy to cover monthly operating deficit between collections and **systems based** operating expenses, during transition period to cost recovery
- Does not cover **operator based** operating expenses (e.g., operator labor and associated costs)

B. Connection Subsidy:

- Cost reimbursable subsidy based on costs in operator's bid:
 - Connection and metering unit rate (fixed rate)
 - Pipe laying unit rate (fixed rate per meter of line)
- Operator is reimbursed only after independent confirmation that connection is in working order



NUWSS Engagement Modality



Profile of Target Towns for NUWATER: Kitgum

- Population of approximately 55,500 inhabitants, in an area of 30 km².
- Town has a centralized water supply and distribution network, but network had only about 900 metered connections
- In spite of capital improvements made with donor support early part of this decade, the system has never functioned to capacity due to poor maintenance and management:
 - Less than 15% of consumers in the service area are connected to the network.
 - Water supply system falls well short of capacity to meet the customer service area needs
 - There is persistent water shortage; with frequent system outages
 - The system is in chronic budget deficit

NUWATER Tendering Process for Kitgum (April-May 2009)

- Competitive tender with the following evaluation criteria:

<i>Adequate understanding of the assignment:</i>	25%
<i>- Business Plan, including SWOT analysis</i>	
<i>Adequacy/innovativeness of the Action Plan</i>	40%
<i>- Proposed performance targets</i>	
<i>- Plan to meet/exceed performance targets</i>	
<i>Adequacy of Human Resource Plan:</i>	20%
<i>- Competence of management and technical staff; org structure</i>	
<i>Adequacy of the Financial Management Plan:</i>	15%
<i>- System based OPEX</i>	
<i>- Operator based OPEX</i>	

- A total of four bids were received



Results of Kitgum Public Tender:

Management Fee of Successful Bidder

Item	Unit	Year 1	Year 2	Year 3
Annual Total Collections	Million UGX	162	312	503
Annual Operator-Based Expenses	Million UGX	154	171	180
Management Fee	% of Collections	95%	55%	36%



Results of Kitgum Public Tender:

Key Performance Standards of Successful Bidder

Item	Unit	Year 1	Year 2	Year 3
Monthly Volume of Water Supplied	Cubic Meters	2.49	4.07	5.60
Annual Volume of Water Sold	Thousand Cu. Meters	1.84	3.34	4.81
Non Revenue Water	%	26%	18%	14%
Annual Total Billing	Million UGX	203	367	530
Annual Total Collections	Million UGX	162	312	503



Kitgum Operator Performance:

1st Quarter: August – October 2009

- Generally, operator has fallen short of targets during start-up period, for a number of reasons:
 - Underperforming production wells
 - Power shut-off due to arrears left over from previous operations
 - Obsolete billing hardware and software
- However, notable improvement in several areas:
 - Collection of arrears from previous operations
 - Non revenue water

Profile of Target Towns for NUWATER: Pader

- A “new town” that recently was designated by national government as a District Center
- Population is currently about 8,500. The town has recently experienced a dramatic shift in demographics, with a drop in IDPs offset by growth attributed to new town status.
- Water supply system has not kept pace with this shift:
 - System is decentralized: Water is supplied by 3 independent borehole systems built during the war to serve IDPs; One of the three systems is inoperative.
 - Except for a handful of connections, system relies on community tap stands; but water associations to manage tap stands have largely disbanded (only 10 of 30 taps stands are operational)
 - System operates less than 6 hours/day, due to poor condition of system, poor maintenance, and lack of funds for fuel (collections systems have collapsed)
 - Consequently, people get water from water vendors, who charge up to 10,000 UGX/liter, compared to DWD tariff rate of 1000 UGX/liter for system-supplied water

NUWATER Tendering Process for Pader (April-May 2009)

- Competitive tender with the same evaluation criteria as for Kitgum
- A total of four bids were received ... but none were found to be responsive
- The tender was re-issued, with only one bid received... and found non-responsive

Findings of Informal Survey of Uganda Association of Private Operators

- A total of 11 member companies responded to survey, 2 had bid
- **Results:**
 - All respondents were aware of tender
 - **Reasons for no-bid decision (9 responses):**
 - 1) Lack of strategic business interest in the geographic area (5 responses)
 - 2) Complexity and expense of bid preparation in light of expected returns (4 responses)
 - 3) Suspicion over the integrity of the bidding process, based on past experience (3 responses)

Alternative Strategy for Pader (Under Development)

- Town Council to manage system for interim one- year period, with technical assistance and capacity building from NUWATER
- Socialization support to be provided to educate public on the need to pay for water services
- Infrastructure to be upgraded during the interim period
- Town Council to issue tender after interim period



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DISCUSSION

