

Study 1

The Informal Peri-Urban Water Sector

1. Research Problem and justification

One of the important challenges of post-war reconstruction is to provide more and better quality basic services, such as water. Previous attempts at upgrading main supply systems to accommodate peri-urban areas have been overwhelmed by the explosive demographic growth of Angola's major cities. The amount and quality of water available in most areas (especially peri-urban areas) is significantly below recommended levels. Water is costly and of poor quality, representing both a significant household expenditure for the urban poor as well as a growing health hazard as witnessed by recent outbreaks of highly communicable diseases (such as cholera) known to correlate with poor water quality and restricted access. There have been over 50,000 cholera cases in 2006 to date and over 5,000 deaths.

The Millennium Development Goals (MDGs) map out ambitious targets to half the number of people lacking minimal access to potable water by 2015. The Angolan Government has incorporated the MDGs into their short and medium term plans for the Water Sector. In the present context of post-war reconstruction there are large-scale plans (both Government of Angola and bi-lateral and multi-lateral donors) for increasing water-supply to Luanda and other cities, through increased pumping and pipeline capacity.

Previous attempts to improve peri-urban water supply have been hampered by the government's lack of capacity to maintain the infrastructure that already exists, much less upgrade these systems or build and manage new ones. Development Workshop has played a pioneering role in developing projects that have offered one of the few viable alternatives: local community management water systems. Such systems will likely remain indispensable and their expansion inevitable for the foreseeable future. However, the overwhelming majority of Angola's peri-urban population continues to rely for its water supplies on informal mechanisms. The large shortfall of supply is met by the informal market of sellers and transporters of water. These systems typically involve the purchase of water from owners of tanks who have bought their water from lorry-owners who transport water from the nearest river.

All strategies for providing better quality basic services, such as water, will require institutional development, of the water company, of local government and of local institutions at a local (bairro) level. Previous projects have encountered difficulties due to the lack of Government capacity to supervise the upgrading of water systems and to manage new systems, as well as the lack of mechanisms to manage and maintain. Institutional development implies as much work as infrastructure creation. Angola's war-broken infrastructure and backlog of maintenance and repair presents a special challenge to meeting its MDG targets.

A vital input to this institutional development for managing and maintaining water supply is better knowledge of the existing (mainly informal) systems and institutions for supplying water. These are likely to continue for some time to come. They may help in developing formal water supply or they may hinder it. There may be important lessons of

how to create systems using non-conventional opportunities and institutions for community enterprise and management of this natural resource. There is thus a need to know more about the informal supply of water and how it has evolved since Development Workshop research in the 1990s. There is a need also to understand better how it is likely to evolve and react to improved formal, regular water supply systems. There is also a need to understand better how institutional capacity can best be developed, especially at the interface between Water Companies and community management.

Development Workshop carried out studies of the informal water market in the 1990s. These studies are now over a decade old and do not take into account the significant urban growth (population size, density, and in occupied territory) that has occurred since, or possible changes in the informal water market that may have occurred for other reasons.

2. Objectives

DW proposes to carry out a study of the post-war informal water sector with a focus on the peri-urban market place and the role of micro-entrepreneurs. The action research is seen as a means of advocacy for improved Government water policy and practice to bring it more into line with the needs of poor consumers who often fall outside of the formal distribution network. The results of the research will inform programme planning and impact assessments for basic services and public health projects of the World Bank, European Union and the Luanda urban Poverty Programme (LUPP).

The research will have four objectives:

- a) To understand the post-war evolution of the informal water economy and how it has evolved since earlier Development Workshop research in the 1990s;
- b) Understand better how it is likely to evolve and contribute to the improvement of the supply of water to communities in informal settlements;
- c) Understand better how institutional capacity can best be developed, especially at the interface between communities and the service providers.
- d) Provide lessons and understanding of the sector that can feed policy advocacy and promote pro-poor poverty reduction strategies through acquisition of better services.

The research will address the key questions below:

How is the informal water economy changing in the post-conflict period?

How valid still are conclusions from studies done pre-2002 (especially in 1995 and 1998 for the World Bank by Development Workshop)?

How does the informal water economy work? Who are the key actors? What are their relationships?

What is relationship between formal and informal systems and institutions?

What is the relationship between community water management and the private informal water supply institutions?

What are the rules in informal water supply? What are the informal institutions that manage the rules, and the power relationships? Where is value-added? Where are profits made?

Community attitudes to the various actors and institutions.

How does the price for water vary across the city? Factors that affect water prices?

How can institutional capacity best be developed, especially at the interface between Water Companies and community management and taking into consideration the existence of an informal water supply system?

3. Methodology

The research will have three components:

- a) Water Market (micro-economic study of the sub-sector)
- b) Water price mapping (neighbourhood mapping using GIS)
- c) Institutional Analysis of the actors and their roles in the sub-sector

Research Tools:

DW's Research team will use the qualitative tools and a sampling survey of water sellers and consumers in the informal sector to analyze scope of the informal water economy in Luanda.

An analysis of the principal informal water supply chains of the sub-sector will build on and compared with previous research that DW carried out in 1995.

Geographic Information Systems (GIS) will be used to map the spatial and economic results of the research on an urban-district "bairro" basis.

4. Results and dissemination

A report will be produced covering the different research questions addressed in the study, providing updated and more systematic information on the peri-urban water market--and on the relative effectiveness of different community-based initiatives.

The study will project the results in a mapped format using GIS tools. It is anticipated that the study will produce a map showing the geographic distribution of water prices in Luanda.

A workshop will be held to present the research findings involving, local and central government institutions, international organizations, academic and research institutions, civil society organizations and representatives of local communities.

Presentations of findings will be made to the World Bank and the European Union, who are the main potential funders of water supply projects in Luanda. Presentations of findings will be made to NGO practitioners and policy makers who support community water management initiatives and who are active in urban poverty alleviation initiatives, and to urban planners as they examine the options for improving and expanding regular water systems and seek to devise mechanisms for articulation between Water Companies and existing community-based institutions. Presentations will also be made to health policy specialists who are devising programs to mitigate the substantial public health risks of restrictive water access.

DW is a membership of the National Water Policy Working Group chaired by DNA and supported by UNICEF. DW is one of the Government's key implementing partners on their urban community based water programme. This gives DW an opportunity to introduce lessons from research into the practical implementation of water projects that will be replicated widely by Government.

5. Institution and personnel

DW's research and monitoring unit team will lead the research with the assistance of local consultants and collaborators from other NGOs working in the water sector in Luanda.

University students will be hired for the field research period, plus additional students for data entry. Database cleaning will be done by the project coordinator. GIS assistance will be provided by a DW GIS specialist when required. DW's Documentation Centre which will provide information from other local sources on the informal water economy.

6. Timetable and budget

	Year 1	Year 1	Year 1	Year 1	Year 2	Year 2	Year 2	Year 2
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
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7. Evaluation

The whole informal sector research programme will be evaluated through an external evaluation for which purpose a local or international evaluator will be contracted. The evaluation will examine whether the research objectives were met, whether the knowledge produced reached decision-makers and how they used it.