

Thematic Group on Scaling Up Rural Water Services

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# L'approche d'approvisionnement d'eau potable par des postes d'eau autonomes privés pour des populations en zones semi ou péri urbaines : forages illégaux ou effort de survie

Par Cyriaque Adjinacou, MGE Bénin

**Stream: Financing for sustainable service delivery**

## Summary of presentation

L'éradication de la pauvreté est liée à l'accès des populations à l'eau potable dans les petites villes et les zones rurales. Au Bénin, le secteur de l'Approvisionnement en Eau Potable (AEP) constitue l'une des priorités nationales. Différents sources de financement sont mobilisables pour la réalisation des ouvrages d'eau potable : elles peuvent être officielles ou informelles

En effet dans le cadre de la mise en œuvre des projets de développement, le pays bénéficie d'importants appuis techniques et financiers de plusieurs partenaires au développement en vue de garantir la disponibilité en quantité et qualité suffisantes d'eau potable aux populations dans tous les départements. Cependant une analyse de la situation montre que la demande reste forte tant en nombre d'ouvrages à réaliser que pour l'amélioration des services fournis. C'est dans ce contexte que d'autres financements moins officiels mais tout aussi efficaces et utiles sont mobiliser soit dans le cadre de la coopération décentralisée ou plus récemment des financements strictement privés. En fonction de leur faible niveau ces ressources financières des ménages sont mobilisées pour la réalisation d'ouvrages simples mais modernes parce que motorisés

Il s'agit de rendre compte d'une nouvelle stratégie d'approvisionnement en eau potable en promotion ces 3 dernières années dans le centre du Bénin. C'est une mode qui tend à prendre la place et jouer le rôle des puits traditionnels qu'on pouvait retrouver par concession ou habitations en milieu urbain ou rural. Une zone particulière et service public d'eau potable déficitaire. Comme troisième type de zone à desservir elle se situe entre la zone rurale et le milieu urbain

Généralement composé d'un puits, d'un réservoir affecté de pilotes ou en béton armé, d'une moto pompe au moyen duquel l'eau est remontée dans le réservoir, les PEA privés connaissent une prolifération galopante dans les différentes communes rurales et en zones péri et semi – urbaines. C'est surtout dans les zones à faible taux d'équipements.

D'un coût moyen de réalisation de 2.000.000 de francs CFA et construits par un ménage ou un groupe d'individus d'un même quartier. En général ces ressources financières sont mobilisées sur fonds propres du promoteur ou auprès des institutions de micro crédit. C'est un nouveau commerce florissant en réalité. Ces ouvrages hydrauliques sont fortement fréquentés par les populations. Il est ordinaire de voir des hommes venir chercher l'eau au niveau des PEA privés, généralement transportée dans des bidons au moyen d'un vélo Cette tendance observée peut être liée au dispositif mise en place pour la distribution/vente de l'eau au niveau de ces ouvrages. Si la réalisation et l'existence des PEA privés ne sont pas légalement reconnue par l'Etat béninois, ils permettent cependant de satisfaire un temps soit peu les besoins en eau des localités non desservies.

Il est donc incontestable que les PEA privés participent dans une certaine mesure à combler les besoins en eau des populations en milieu rural et semi – urbain Etant donné la qualité douteuse de l'eau distribuée au niveau des PEA privés et de leur nombre sans cesse croissante, il est primordiale de chercher à mieux les organiser. C'est absolument parce que le service d'eau public est défaillant que la mise en place des postes d'eau autonomes

privés (PEA) a été possible. Les PEA privés constituent des mesures alternatives pour palier aux déficits en eau des populations.

Dans cette logique il est important de mieux situer les impacts de cette approche comme source d'approvisionnement en eau des populations en zones semi urbaines et dans les quartiers périphériques de certaines grandes villes de notre pays ?

Compte tenu du fort taux de fréquentation PEA privés, de l'importance de leur contribution dans la réduction des inégalités d'accès à l'eau des populations à la base, il urge que des réflexions soient portées sur la formalisation de leur existence pour la préservation de la santé des populations.

# Opportunities and Prospects of Using the Common Fund in the Rural Water Supply and Sanitation Subsectors in Mozambique

Idalina Alfai, National Directorate of Water, Mozambique

**Stream: Harmonization and alignment in the rural water subsector**

## Summary of presentation

This presentation is aimed at sharing opportunities and prospects of using Program Sector Wide Approach in the rural water supply and sanitation subsectors, within the context of the National Rural Water Supply and Sanitation Program (PRONASAR), designed by the Government of Mozambique and its Development Partners.

### Background of PRONASAR

Mozambique has various international commitments including the following:

- 2000 – **Millennium Development Goals**, which sets the goal of reducing by half the proportion of people with no access to safe water and basic sanitation by 2015;
- 2003 – **Rome Declaration**, which declares harmonization of aid with Program Sector Wide Approaches (SWAPs), strengthening management and improvement of aid effectiveness;
- 2005 – **Paris Declaration** defines aid alignment and the use of internal systems to avoid parallel implementation structures.

At national level, Government commitments to materialize and reach international commitments, were translated in:

- **Review the Water Policy**, in 2007, defining the country MDG goals, consisting of meeting the targets of 70% and 50% for rural water supply and sanitation, respectively by 2015;
- **Strengthening private participation** and Non-Governmental Organizations (NGOs) in the sector;
- Accelerating sector decentralization and deconcentration to local levels;
- Elaboration, in 2007, of the Rural Water Supply and Sanitation Strategic Plan (PESA-ASR), which defines the medium and long term vision, objectives, priorities and strategic guidelines for the WASH sub-sector with the aim of meeting the MDGs.

### What is PRONASAR

As a way of operationalizing and implementing the PESA-ASR, with support from partners, the Government of Mozambique elaborated the National Rural Water Supply and Sanitation Program (PRONASAR), with the aim of aligning and harmonizing all Rural Water Supply and Sanitation activities implemented by various actors/stakeholders, with the view of:

- Ensuring Access and use of reliable water supply services to more than 4.5 million additional people living in rural areas, thus increasing coverage to 70%, through the construction of about 12.000 water points and 120 small water supply systems, by 2015;
- Ensuring, by 2015, reliable access and use of sanitation services to more than 2.0 million inhabitants in the rural areas, thus raising coverage to 50%, through self-construction of 400.000 household latrines.
- Increase financial investment base in order to reach about US\$ 300million (an average of \$50 million/year);
- Increase internal budget for the sector to equivalent to 5% of nation GDP.

## **Objectives of PRONASAR**

Overall: Contribute to meeting basic human needs, improve well-being and reduce rural poverty, by increasing access and use of water supply and sanitation services.

Midterm: Increase sustainable Access to Water Supply and Sanitation to 70% and 50% of the population, by 2015, respectfully.

Immediate:

- Improve quality, increase coverage and ensure sustainability of rural water supply and sanitation services;
- Increase the number of technological options and management models;
- Decentralize, strengthen institution and human resources in the subsector;
- Strengthen the link between planning, financing and decentralization.

## **Funding Mechanisms**

The main funding sources of PRONASAR are: the State Budget, which includes general or sector support to the budget, the common funds and parallel funding. The State Budget funds will be in the CUT account (Treasury Account) and SISTAFE (the State Financial Management System) and will be bound to be used for the objectives originally established for them. It is hoped that by channelling aid through the CUT account, the administrative burden on the Government and Development Partners dealing with the various parallel financial management setups and some duplications will be minimized.

## **Parallel funding arrangements**

PRONASAR funding mechanisms allow for parallel funding by donors, NGOs and other stakeholders at central, provincial and/or district level, or development partners who for some reason have not yet accepted CUT as a channel for aid.

Such transactions, outside direct control or monitoring of e-SISTAFE, can be registered at the level they occur and be included in the annual plans and budgets and reports.

The outside-CUT funding option and the parallel mechanisms will be gradually abandoned as e-SISTAFE is rolled out to all administrative levels, including Districts and as confidence on public financial management systems and tools increases.

Fiduciary risks related to aligned arrangements as well as parallel mechanisms will be evaluated by Development Partners.

## **Key lessons**

- Enabling environment in country translated into the existence of clear policies and strategies, as well as medium and long term plans for sector development;
- Openness and commitment of development partners to support Government and Sector commitments and partners' reliance on the State procedures and capacity to finance water supply and sanitation activities, shown by the adherence to the Common Fund.

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## **Sector Decentralization Funding Principles and Approaches**

Manuel Alvarinho, President of the Water Regulatory Council, Mozambique

### **Stream: Financing for sustainable service delivery**

#### **Summary of presentation**

The funding system is essential to make feasible or not the decentralization of responsibilities and sector coordination. The need for a rational use of a scarce resource, as it is the money, can easily be an argument for centralization. The institutional setup and the flow of funding should be consistent.

Sector activities are increasingly funded through the budget support but it seems that there's a need for a sector specific parallel funding to support earmarked allocations. The SWAp can be an option for that. Sector funding and General Budget Allocation should be complimentary.

The other important aspect of the decentralization is the promotion of income generation and budget allocation to water and sanitation, consistent with the responsibilities at each level. Funding should also be based on performance at each level and less as an administrative decision associated with the planning.

The presentation also raises the issue that to promote massive scale up of sustainable services it's required a business orientation within the concept of community management and , so, the "pay for a service by an operator" concept, as it's usually applied in the urban context, it should also be one of the options developed for the decision of the community.

The presentation proposes a rationale to contribute to the design of the funding system and the flow of funds, and will be covering the following topics:

- Principles advocated;
- Approach on Decentralization and Funding Allocation
- Sources and Flow of Funding – Case of Mozambique
- Considerations on serving the poor and income generation.

#### **Key lessons**

- Decentralization: Who is charge of something, at each level, controls the money allocated for that!
- Promotion of self-reliance –the income generation from the community should be rewarded.
- The need for a Competitive/Performance based allocation of funding, through peer assessment mechanism

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## Scoping Report on Assessing the Initiatives to Strengthening Rural Water Service Delivery Models in Ethiopia

Tamene Chaka, RiPPLE & John Butterworth, IRC

Stream: Harmonization

### Summary of presentation

Reaching very ambitious targets to provide water and sanitation to all is currently attracting huge efforts from government (funding about half of sector investments), donors (a little over a quarter) and NGOs (a little under a quarter) in Ethiopia. However, currently fragmented projects and programmes place a huge burden on government with high transaction costs while levels of capacity are low. As a result significant levels of funds remain unspent and construction of new schemes is slower than required. Other concerns are a lack of sustainability due to an emphasis on construction with inadequate post-construction support.

The main recognized service delivery model is community management where operation and minor repairs are the responsibility of WASHCOs. The 'One WASH' programme builds upon this model and aims to harmonise efforts around one plan, one budget and one report (at woreda, regional and national levels). This includes a common approach (including a project implementation manual) and improved standardized M&E (woreda inventory) which will provide a common framework for all regions and actors to implement and monitor progress. Increasing amounts of finance from donors are also expected to flow through a common fund (multi donor trust fund) and procurement be more aligned with government guidelines. While working within one plan, budget and report, different implementation modes (e.g. in disbursement, procurement, accounting and financial reporting) and actors are expected to remain including large numbers of implementing NGOs. It is also recognized that a mix of Service delivery models are required: Self supply and multiple use approaches being identified in the accelerated universal access plan and innovations like the Community Development Fund are being seriously considered for scaling-up.

This presentation presents the results of a Triple-S scoping study in Ethiopia that aimed to examine existing service delivery models and their performance, as well as innovative approaches and potential application at scale. It focuses in particular on the challenges of moving towards a harmonized sector based upon a series of key informant interviews. Everyone seems to agree this is a good thing, but progress is slow in harmonizing actions rather than rhetoric. Analysis includes identified barriers towards harmonization, and possible drivers of change and opportunities to overcome these obstacles.

## Key lessons

- If there are service delivery models existing in the country which have proven sustainability in providing the service are preferred options to scale up and can be an input to harmonize approaches
- Government has to take the lead role in bringing a harmonized approach
- The participation of all the stakeholders in the sector including government, donors, NGOs and the private sector will increase the ownership of harmonization
- Capacity building activities at the local level is essential during or before the implementation of harmonization

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## Decentralised funds for a sustainable Water Supply and Sanitation Project and Programs

Cheikh DIA, French Development Agency – AFD – Addis Ababa, Ethiopia

### Stream: Financing for sustainable service delivery

#### Summary of presentation

Since many years, AFD has adopted a strong commitment in collaboration with other donors for the achievement of the Millennium goals for development. In the water sector, AFD has provided grants and loans to enhance the capacities of the water sector managers, both in the rural and urban areas, by using various approaches, adapted to each context in order to ensure the sustainability of the water supply and sanitation schemes.

In the remote rural area, funds have been provided, either through the local governments, with a decentralized or centralized decision making process, either through NGOs or with the involvement of the private sector, for the implementation, control and supervision of works.

In the countries where comprehensive water policies are in force, water sector wide approach and where efficient public funds management system are being implemented, the funds have been channelled through the national disbursement mechanism. In countries where the national disbursement mechanism is not working properly, the funds have been disbursed, either through the implementing agencies directly, like local and/or international NGOs, or private companies.

For the sake of accountability towards its hierarchy, AFD has decided to systematically conduct decentralized ex post evaluation of the project it funds. Very often, in the water sector, these decentralised ex post evaluations has shown that the sustainability of the outcomes of these projects are at risk due, among other factors, to lack of involvement of the local authorities and beneficiaries, lack of funds and capacities of the main stakeholders, mainly for the maintenance of the water supply systems. The evaluation has also shown that the funding instruments (grant, loan or guarantee) are not always suitable to any kind of counterpart, e.g. there are countries, according to their macroeconomic profile, who can afford loans while for many others grant is more convenient.

As already mentioned above, access to credit is one of the main challenges to reaching the MDGs, especially in the context of the recent financial and economic crisis. Mobilising sufficient financial resources to meet critical environmental and social challenges requires innovative approaches. Thus, AFD has envisaged, finding out how to channel credit to the medium and small town, to rural areas, where the needs are different than the big towns and where the preconditions required by the financial institutions are difficult to meet.

In urban and areas, it is known that the small private providers (SPP) are very active in the water supply sector, but access to credit is for the SPP a challenge due to the specific needs of these actors, the scale in which they operate.

To ease the access to credit for the SPP, AFD offers to implement a tool called ARIZ, which is a dedicated risk-sharing tool, and facilitates access to bank credit. Its purpose is to guarantee any type of submitted equipment loan, either by a small medium enterprise (SME) start-ups, business development and transmission and microfinance institutions (MFIs). To implement ARIZ tool, AFD has identified pilot areas in Laos and Madagascar. Findings and lessons learned will be shared with all the AFD partners after the completion and evaluation of the

pilot projects being implemented in these countries.

**Blending grants and repayable financing seems to be relevant (OECD, 2009).** It consists of combining concessionary financing (either grants or loans with a grant element) with repayable finance in order to support a single project or a comprehensive lending program. In the water sector, this has been done at the level of specific projects or via the establishment of financing vehicles which aim at combining diverse sources of finance.

**Output-based aid (OBA)** is a financing tool which has the potential to radically change the way subsidies are provided for a broad range of publicly supported goods and services. OBA subsidies are paid based on effective and measurable performances to service providers, which are therefore better inclined to deliver results. Although a growing number of pilot projects have adopted OBA principles in the water and sanitation sector, the approach has yet to be scaled up and mainstreamed. As currently applied, it has a reputation for complexity and high transaction costs, which means that in most cases, it has been difficult to scale-up.

In addition to the credit allocation system to sovereign states, retroceded to municipalities, the approach which consists of providing grants or loan directly to the municipalities (sub sovereign loan or grant) has shown success and limits, mainly in relation to the capacity to absorb and manage those funds.

The evaluation of this approach has shown that, the success does not depend only on the volume of credit allocated to the municipalities, but also on the extent to which decentralization of the decision making process, the capacity of municipality to manage the water sector, both financially and technically and the implementation of a sustainable operation and maintenance system of the water supply schemes.

Among other funding tools that AFD has experimented in the Water and Supply and Sanitation sector we can mention, among many other tools (i) funds granted through the decentralized cooperation, (ii) grouped financing vehicles, (iii) national or regional fund dedicated to Water and Sanitation and (iv) funds provided by local banks.

As mentioned above, providing funds is not enough, but adopting an approach for the sustainability of the water and sanitation schemes should be taken into consideration since the inception of the projects or programs. Therefore, allocating funds for operations and maintenance is of high importance.

Funds could be allocated either by Grant through the decentralized technical bodies in charge of the water sector at the level of the districts. This approach has been implemented in Anjouan, Comoros Islands, with the support of AFD and Initiative Développement (ID). L'Union des Comités d'Eau d'Anjouan (UCEA) is now in charge of all the maintenance aspects of the water supply schemes. Sustainability is ensured by training the local people in charge of the UCEA, and fund are provided, in a long term perspective based on the cost recovery approach.

In the Eastern Chad (Almy Nadif Project), AFD has funded in collaboration with KFW, the access to rural Water supply by implementing an important drilling program which consists of more than 400 boreholes. The sustainability of these boreholes is ensured by training care takers, by providing funds for the establishment of store of spare part, by signing contract with the pump provider who is committed to provide spare part with a long term perspective. The same approach is being implemented in the north of Togo (Plateaux region) with the technical and financial support of AFD and the European Union.

In Haiti, the French Cooperation, in collaboration with the UE has supported two NGOs, operating in the North-West of the country, Inter Aide and ID in Jean Rabel, Mare Rouge and Bombardopolis, to put in place a maintenance system, managed by local technicians, to ensure the sustainability of the water points. The funds continuously mobilized by the water users' associations are deposited in the microfinance institutions. The same approach is being implemented with a relative success in Southern Ethiopia, with support of AFD and the European Union, in close collaboration with the Woredas (districts) Water offices.

### **Key lessons**

- For a sustainable maintenance system for the rural water points, funds should be granted for a continuous availability of spare parts. Providers of pumps should be committed to train the caretakers. The money collected by the Water Users' Association is managed with transparency.
- Affordability of loans in relation to the risk inherent to the exchange rate. Loan given in hard currency, while the business is run in local currency.
- Necessity of a close technical assistance to the SPP and to the financing institutions.
- The viability of the business model of the SPP in relation with the scale to which they operate.
- The difficulties met by the SPP, to have collaterals for their loans and benefit from a guarantee mechanism.

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## The Emergence of Service Delivery Models in Ghana

F. Mawuena Dotse, MAPLE Consult, Ghana, Benedict Tuffuor, TREND Group Ghana and Nana Professor Boachie Danquah, University of Ghana Business School

### Stream: Service Delivery Models

#### Summary of presentation

In Ghana, the facilities provided in the delivery of rural and small towns water include (a) point sources (hand pumps, hand dug wells), (b) small towns piped (?) water supplies, (c) multi village piped system, (d) connections to the Ghana Water Company Limited (GWCL) distribution lines, (e) private providers and (e) self supply. This paper however concentrates the discussion on point sources, small towns piped supplies and multi village piped systems because of the delivery of these facilities (is undertaken through?) the National Community Water and Sanitation Programme (NCWSP) which provides the strategic direction for the rural water sub sector. A key characteristic in the management of these services is community ownership and management within the framework of decentralised delivery in consonance with the country's decentralisation policy. Within the framework of decentralisation, Municipal and District Assemblies (M/DAs) which are the highest deliberative and legislative institutions in the district are responsible for planning and implementing water delivery. They are also responsible for supporting the beneficiary communities in the management of the water facilities provided.

Based on the facilities provided, the main service delivery models in existence are:

**a) Direct community ownership and management.** This model is applicable to all point sources and some small towns piped water systems and multi village piped schemes. Under this model, community water and sanitation (WATSAN) committee and a Water and Sanitation Development Board (WSDB) are established to manage point sources and small towns water systems, respectively. Both the WATSAN committees and the WSDBs are responsible for tariff/water user fee determination and collection as well as the operation and maintenance of the facilities. The tariffs determined by the WSDBs are subject to the approval of the M/DAs. The WSDBs employ staff usually a Manager/ Technical Coordinator and an Accounts/Revenue officer.

#### **b) Community owned systems under private management**

This model is applicable to small towns' water systems (usually with large settlements) and multi village piped systems. Being community owned, the stakeholders establish a WSDB as a policy making body. Under the authority of the M/DAs, the WSDB engage the services of a private entity to manage the water supply systems. As part of the contractual relationships, the WSDBs seek approval from the M/DAs for the tariffs while the private operators are responsible for the collection of the tariffs approved. The tariff collected is shared between the WSDB and the private operator within an agreed framework in the contract. The private operators are also responsible for the operation and maintenance of the system as well as undertaking all major repairs, replacements and extensions to the system. The latter activities are contingent on the prior approval of the WSDB. The private operators are expected to submit periodic technical and financial reports to the WSDBs on the system.

#### **c) District owned and managed systems**

These are systems where the Municipal/District Assemblies own and directly operate small town piped water systems. The Municipal/District Assemblies appoint the members of the WSDB through a system of institutional

representation. This model is limited to only a few systems financed under a KfW supported programme.

The following challenges have been identified in the service delivery models identified.

#### ***Water quality analysis***

Water quality is a key challenge in water delivery independent of the model adopted. The Municipal/District Assemblies, the WATSAN committees, the WSDBs and the private operators lack the facilities to conduct water quality analysis independently. As a result of this phenomenon, there are instances where the water from the systems have not been subjected to any form of chemical and bacteriological analysis, a situation which could pose grave danger to the beneficiaries resulting in possible rejection of the water by consumers.

#### ***Technical competence of the private sector and Municipal/District officials and access to spare parts***

Inherent in the community ownership and management system is decentralised maintenance of the facilities being managed under all the models in existence. However, with the exception of point sources where area mechanics have been trained and licensed, the maintenance of the piped systems continues to be problematic given the absence of competent local repairers in the private sector and in the M/DA to undertake immediate repairs particularly those relating to electro-mechanical aspects of the system. Under these circumstances, beneficiaries have to depend on repairers who are very distant from the communities and in some cases outside the district capital. Unlike the point systems for which a spare parts distribution system has been established, there are no designated spare parts outlets for the electro-mechanical parts of the piped systems.

#### ***Tariff setting***

Given that almost all the piped systems are single units serving smaller populations unlike the Ghana Water Company Limited (urban utility provider), the economy of scale for the production of water is very low resulting in high cost of production. On account of this, the tariffs determined for these beneficiaries are higher than what is charged by GWCL for its consumers.

#### ***Payment of bills by institutional consumers***

A challenge to the sustainability of the piped water systems is the high default rate of institutional consumers (schools, health facilities, police stations etc) who depend on the central government for the payment of their water bills. The payments are often delayed and in some cases not paid thereby jeopardising the financial health of the systems.

#### ***Non involvement of sub district local government structures in the management system***

Notwithstanding the adoption of decentralisation as the strategy for the delivery of water, the service delivery models instituted have excluded the sub district structures (Zonal/Area/Town Councils) in the management of facilities in preference to WSDBs which are outside the national decentralisation framework.

#### **Key lessons**

- The sustainability of water facilities would be enhanced if beneficiary communities are prepared to pay water user fees /tariffs. In Ghana, the sale of water at the water point provides higher revenue to the WATSAN committees for operation and maintenance.
- The existence of trained and certified personnel to undertake repairs coupled with the availability of spare parts within easy reach contributes to the effective repairs on water facilities
- Stakeholders should institute measures to ensure the periodic analysis of the quality of water provided in the communities given the lack of capacity of the M/DAs and community institutions to undertake the activity independently.

- Where decentralisation has been adopted as the strategy to facilitate water delivery, efforts should be made to ensure the holistic involvement of local government institutions at all levels given the legal mandate conferred on them to manage **all** community based services (including water).

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## Global Water Operators Alliance (GWOPA) activities to improve financial management of Water Operators

Faraj El Awar, Global Water Operators Partnership Alliance

### Stream: Financing for sustainable service delivery

#### Summary of presentation

##### About GWOPA

Since 2008, the Global Water Operators' Partnerships Alliance (GWOPA) serves as a global network and knowledge hub for water operators partners' worldwide. Hosted by the Water and Sanitation Programme of UN-Habitat, the United Nations Human Settlements Programme, the GWOPA Secretariat is strengthening advocacy and alliance building activities and is establishing contacts and partnerships with financial and substantive partners in the water and sanitation sector. Key achievements so far have been the formation of its international steering committee and subsequent adoption of the GWOPA Charter, including its Guiding Principles and Code of Conduct. The Alliance is continuously expanding its membership and is identifying partners who are willing to contribute their expertise and resources to realizing the Alliance objectives. Active collaborations with alliance partners have been initiated with key organisations such as the International Water Association, Cap-Net, Transparency International, IB-Net, the European Union and UNU. Through these partnerships, the Alliance is delivering knowledge tools and training services and facilitates brokering and identifying financing for more frequent and effective partnerships between Operators.

##### Challenges many African Water Utilities are facing today

- poor financial management systems,
- high share of non-revenue water,
- lack of revising and adjusting tariffs to capture the increasing costs of services,
- sufficient financial resources to fund development of new facilities and major rehabilitation works with heavy reliance on subsidies from national government treasuries,
- lack of enforcement of regulations,
- a paradox of overstaffing on one hand and limited qualified and trained staff on the other hand, with the majority of the workforce being unskilled,
- draught periods, which cause shortage of water to supply and reduction of sales volume of water and hence reduction of revenue.

##### What could be done to address these challenges?

- Assist utilities to enhance their overall financial management to attract funds from domestic capital markets or international financial institutions,
- Enable utilities to tackle challenges in operational efficiency and revenue collection by implementing efficient systems,
- Assist utilities in developing business plans for identifying strategic investments for service extensions and extended coverage,
- Integrate technical assistance towards higher operational efficiency and improved financial management into general Capacity Building activities directed at water utilities such as GWOPA Twinning Programme

##### The link between small urban and rural water operators

Many small urban centres in Africa serve as intermediaries between big or medium-sized cities and rural settlements. In their role as marketing outlets, they serve as important engines of economic growth for the rural sector. At the same time, small urban centers share many features with their rural settlement counterparts. This also applies to water utilities of small towns, which tend to face similar challenges and problems as experienced in the provision of rural water services. Therefore, it can be assumed that many solutions developed for the problems of utilities of small towns are also applicable in rural settings. In particular, with business-type approaches in water provision getting more popular in rural areas, there are opportunities to expand the reach of

urban Peer-to-Peer Twinning approaches to support entrepreneurs' capacity in operational and financial management across a broader geographical scale .

### **Efforts of GWOPA to establish a Water Operators Advisory & Financing Facility**

To support the work of GWOPA in improving operational efficiency in the public water sector, an **Advisory & Financing Facility** is currently being established with a designated focus on improving the financial management of public water operators. The goal of the GWOPA Facility is to address the capital shortage of water utilities by facilitating increased investments for expanding services to the poor while improving environmental and operational efficiency.

The two key activity areas are pre-investment technical assistance and mobilizing of seed capital. Specific support services include direct provision of information, expertise and technical assistance by the Facility in financial management as well as brokering of assistance by other partners provided to partner operators in form of technical support, loan guarantees and/or loans for investments.

### **The Approach**

- The initiative started in 2010 with selecting pilot utilities to apply a methodology for financial analysis of water utilities to enable improved operational efficiency and enhanced financial management
- As an initial step, the analysis was applied to two utilities from the Lake Victoria region:
  - (a) Gussi Water Supply and Sanitation Company (GWASCO) from Kenya and
  - (b) Bukoba Water and Sewerage Authority (BUWASA) from Tanzania

### **Key lessons**

Improving operational efficiency and financial management of water operators can result in:

- Significant reduction of total costs and cost coverage tariff
- Increasing per capita consumption of water
- Reducing subsidy requirements from national government or other bodies
- Reduction of the working ratio (operating expense to operating revenue ratio)
- Increasing the coverage of water supply services without drawing on additional external sources
- Enabling utilities to access finance from domestic financial resources (local banks) at commercial rates

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# Private sector participation in operation and maintenance of community water schemes – A case study of the three districts water supply scheme

Robert van Ess, Water Directorate, CWSA

**Stream: Harmonisation and coordination**

## Summary of presentation

### Introduction

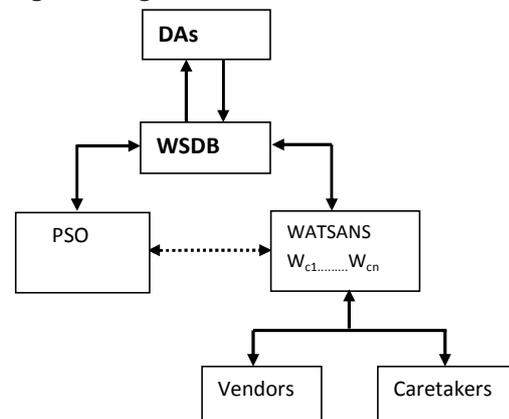
The Three Districts Water Supply Scheme (3-DWSS) is the largest small towns' water supply schemes in Ghana. The Water Scheme was constructed in 2008 with funding from the Government of Ghana the Danish International Development Agency (DANIDA) and the Department for International Development (DFID) at a total cost of USD 11,062 million. The scheme currently serves over 129 communities and 18 institutions in three districts; namely; Dangme East and Dangme West in the Greater Accra Region; and North Tongu in the Volta Region. The total population currently served with water from the scheme is 115,092 representing 36 percent of year 2000 total population of the three District Assemblies. The system draws raw water from the River Volta located at Aveyime. The design was a hundred percent slow sand filtration installations with a capacity of 3,600 cubic metres per day on a per capita water demand of 28 litres per day. It has in total, 235 public standpipes, 65 institutional standpipes and 109 chambers earmarked for private house connections. The system is connected to the National Grid of Electricity but with a standby generator set of 100kVA.

### The Management Structure of 3-DWSS

The fundamental principle of the National Community Water and Sanitation Programme (NCWSP) makes beneficiaries of water services responsible for the operation and maintenance of the facilities. In this regard, each individual community was assisted to form a Water and Sanitation (WATSAN) committee with membership ranging from seven to thirteen. The WATSAN Committees were then grouped into seven zones, based on the distribution of the seven high level tanks of the scheme. Thus, WATSANs of communities receiving water from the same tank were grouped together. A Water and Sanitation Development Board (WSDB) was then established with membership of two WATSAN Committee representatives from each of the zones, a representative from Central University – the major institution benefiting from the scheme; and a Planning Officer from each of the Districts as co-opted members.

The WSDB has an oversight responsibility for the overall management of the scheme. It is the major decision making body in matters of water and sanitation in the communities and is overall responsible for the management of the scheme including tariff setting, water quality and monitoring of the Private Systems Operator (PSO).

**Fig 1 Management Structure for 3-DWSS**



The WATSAN Committees are responsible for selecting and supervising water vendors and caretakers and ensuring the maintenance of the pipelines and standpipes within the community. They also facilitate communication on disorders and defects between the water users and the WSDB.

The District Assemblies (DAs) are the highest political authority with considerable responsibility of ensuring that water service delivery is sustainable. They provide technical support to the WSDB and the WATSAN Committees for the management of the operation and maintenance of the scheme. **Figure 1** shows the management structure.

### **The involvement of the Private Sector**

The complexity of the design of the water scheme; the large number of beneficiary communities; and the ownership rights of the scheme because of the multiplicity of Districts and communities prompted the need to involve the private sector in the operation and maintenance of the scheme. The Community-Private Partnership (CPP) was thus proposed and agreed as the Management Model for the scheme. The CPP refers to “*a range of options for involving the local private sector in service provision*” (Mime Consult 2003). The PSO has been involved in the following two key activities:

*Operation and Maintenance* – Under the CPP management arrangement, a PSO was contracted by the WSDB to be the sole and exclusive operator and maintainer of the water scheme from the treatment plant to the bulk meter point in each beneficiary community.

*Modalities for Cost Recovery* – Pay as you fetch is the method used to collect water fees at the public standpipes. The price of water at the public standpipe is USD 0.76 per cubic metres. House connections are yet to be implemented but it is anticipated that water tariff for house connection will cost USD 1.03 per cubic metres. Water is sold at the standpipes by water vendors who have been selected by the respective WATSAN Committees. The PSO, at agreed periods, collects revenue for water use as per the meter readings. Each vendor is paid a commission of 20 percent of the revenue. Institutions connected to the scheme also pay directly to the PSO. Recovered standpipe bills under this arrangement have improved tremendously – from 30 percent to 99 percent as compared to an initial arrangement where vendors accounted and paid revenue to the WATSAN Committees.

### **Challenges of the Partnership**

1. Reduced authority of WATSAN Committees – direct revenue collection by the PSO has reduced the default rate of payment of water bills by communities but has also resulted in the refusal of WATSAN Committees to cooperate with the PSO. Vendors have become more accountable to the PSO than to the WATSAN Committees. This has negatively impacted on the authority and ego of the WATSAN Committees.
2. Inadequate supervisory role of the WSDB and the District Assemblies – this is as a result of limited technical skills of the members of the WSDB and the inadequate logistical support to the DA field officers. The result is the absence of technical and financial reports on the scheme since handing over the scheme to the WSDB and the PSO.

### **Key lessons**

1. The need for a WSDB with technical and financial capabilities – a complex scheme such as the 3-DWSS requires a WSDB with members who have financial and technical acumen to be able to supervise the activities of the private partner in order to promote transparency.
2. The need to avoid political interference – Politicians’ involvement in consultative meetings prior to the

signing of the partnership agreement helped reduce interference and factionalism

3. The need to streamline communication flow – the modality for collecting tariffs may promote interaction between the PSO and vendors whilst excluding the WATSAN Committees. Effective communication channels must be developed to promote PSO-WATSAN interaction in order to reduce suspicion.

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## Community Development Fund (CDF) in Ethio - Finnish bilateral program for Rural Water Supply & Environmental Program (RWSEP)

Getenet, Amhara Region Water Resources Development Bureau (AWRDB)-Ethiopia

### Stream: Financing for sustainable service delivery

#### Summary of presentation

Community development Fund (CDF) is initiated by Ethio - Finnish bilateral program for Rural Water Supply & Environmental Program (RWSEP). It has been started 15 years back in one of the Federal Democratic Republic of Ethiopia regions; the Amhara Region. It is one of the 9 administrative Regions in Ethiopia with an area of 157,076 km<sup>2</sup> (15 % of the country) and a population size of 20,650,420. It has 10 administrative Zones & 151 woredas (districts). Water Supply Coverage level is 54 % in the rural and 87 % in the urban. The program is operational in 14 woredas of 4 administrative zones in the region.

The program operates in two thematic areas; water supply and environmental sanitation. The programme uses direct financing to the community. It is a process by which a funding agency (donor, NGO or government) provides funds directly to communities responsible for managing the implementation of sub-projects.

#### Key issues in CDF

- Communities will be fully responsible for the funds allocated to them
- Communities have to demonstrate both their willingness & capacity to finance the future O&M, by depositing up-front contribution in to saving accounts
- Implementation fully depend on communities own initiative
- Communities receive technical & material support from Woreda authorities during & after construction at least by contributing 15% of the total project cost.

The Federal Democratic Republic of Ethiopia water policy strongly support the existence of demand responsive, decentralized approach in the establishment of water supply services in the country to attain the Millennium Development Goal (MDG) or Universal access plan (UAP) . The UAP prioritize simple and low cost technology which is in line with the strategy of the RWSEP program.

The water supply and sanitation works in the RWSEP program are implemented in two phases which is preparatory phase and the implementation phases which involve different stages of processes involving many actors including the beneficiaries and the responsible government and non government parties.

## The CDF project cycle

Cycle	Responsible body
1. Promotion	Development Agents, Health Extension Workers & WWRDO experts.
2. Application preparation & submission	Preparation- WATSANCOs assisted by promoters. Submission – WATSANCOs to the WWRDO experts.
3. Appraisal at Desk level & Field level	Woreda Water Resources Dev. Office experts.
4. Approval (Final decision)	Woreda CDF Board chaired by Woreda administrator.

After the fund is received from the donor, Regional Bureau of Finance & Economic Development transfers to the community through the Amhara Credit Saving Institution (ACSI) which is regional organization. The credit institution is available in every district of the region. It has established at least one branch office or two in some other districts for easy access to the user community to the services it provide. The fund for the capacity building component, such as community training, is transferred to the woreda finance offices to be used by health and water offices from the Regional Bureau of finance & Economic Development (BoFED). The fund for direct project implementation is transferred to the community through the Amhara Credit & Saving Institution (ACSI) to be used by the community for RWSEP activity by themselves. Use of Funds is reported back to the Funding Agency through the Water Resources Development offices (WRDO). User community contributes 15% of the total development cost.

### Key lessons

- The community financing brings about fast economic development and poverty reduction
- CDF ensure full ownership of the community projects
- Build the capacity among the community, enhance the local private sector and the community to become partners in development
- Increase the efficiency of the implementation and reduce work load of the local government from implementation to facilitation.

### References

1. The full CDF guideline document can be accessed through E-mail contact with Mr Elis Karsten at E-mail address of: [http:// RWSEP@ethionet.et](mailto:RWSEP@ethionet.et)

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## Challenges of Maintaining Rural Water Supply Schemes in Kavango and Caprivi Regions (Republic of Namibia)

J Gibson, Maluti GSM, South Africa & K Matengu.

### Stream: Financing for Sustainable Service Delivery

#### Summary of presentation

The sustainability of rural water supply systems in Southern Africa has proved to be an elusive goal for some time now. While some success has been achieved in the utilisation of community based organisations to carry out operation and maintenance activities and the financing thereof, it is being increasingly recognised that some degree of external support is necessary since community organisations cannot be expected to successfully bear this responsibility on their own.

In the 1990's Namibia adopted a policy of Community Based Management (CBM) for all rural water schemes throughout the country. This policy was to be implemented in three phases:

1. Community mobilisation for project implementation (Aug 97 – July 98);
2. Hand-over for operation and maintenance with major maintenance being carried out by the Directorate of Water Supply and Sanitation Coordination (DWSSC) (Aug 98 – July 03);
3. Hand-over of full ownership (all operation and maintenance responsibilities) of schemes to community based institutional structures (Aug 03 – July 07)

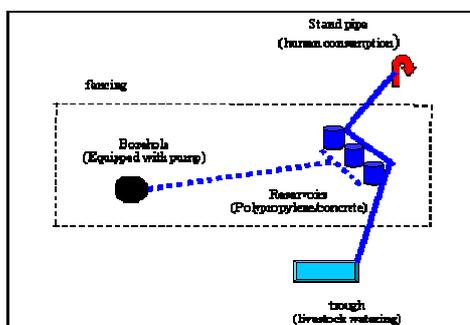
To a large extent this process has stalled in Phase 2. It is clear that the progressive implementation of the CBM model from phase 2 (community responsible for O&M) to phase 3 (community ownership and total responsibility) is unlikely to enhance sustainability. There is growing evidence that it may in fact lead to substantial deterioration of the service due to insufficient maintenance of infrastructure by both community based organisations and DWSSC.

It has been reported that by July 2008 561 water points of a total 7,731 had been handed over for full ownership, this against a target of 2,054.

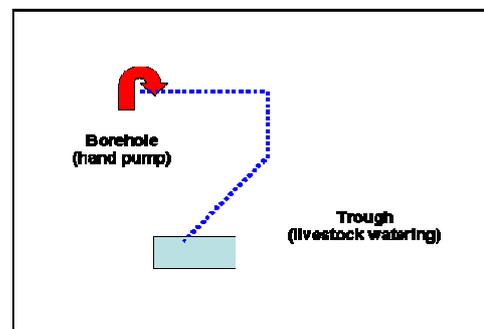
This short term research assignment was carried out by Maluti GSM Consulting Engineers on behalf of Lux Development. The research included interviews with management and operational staff of DWSSC at Head Office and in both the Kavango and Caprivi Regions. A sample 8 Water Points were visited at which community Water Point Committees were interviewed. The schemes visited were identified by the DWSSC and Lux development staff as representative of the challenges they faced.

#### Installed Infrastructure

In the Kavango and Caprivi regions a typical “Water Point” has either of the following configuration:



*Diesel or Electric Powered Scheme*



*Hand Pump Schemes*

The nature of schemes varies considerably between regions, with, inter alia, 249 diesel schemes in Kavango (65% of total) and Caprivi having 556 hand-pumps (65% of total).

#### Community Committees

The community at each water point is represented by a “Water Point Association “(WPA) as well as a “Water Point Committee” (WPC). The WPC takes responsibility for day to day operation of the infrastructure as well as the collection of tariffs. Generally it was found that the WPC’s had started off with much enthusiasm and had performed both of their core functions adequately. However, with time, the responsibility of carrying out WPC tasks , and in particular, the responsibility for the financing of the O&M costs in the presence of poor cost recovery, resulted in the waning of the spirit of volunteerism. In many cases however, some community members managed to keep their schemes operational even under such difficult circumstances (eg. in Caprivi there are only 4 fuel stations in the whole region (the area is 300km long and up-to 150km, wide in places), all of these stations are in the main town of Katima Mulilo. Fuel supply to remote rural diesel driven pump stations is therefore a significant challenge) It was also noted that in most cases the people originally trained for these roles were no longer involved and new people had been appointed. These new appointments were made by the WPA’s but the new functionaries received no training.

#### Cost Recovery

The WPC’s have not managed to sustain reliable cost recovery from consumers. The high degree of poverty in the area coupled with communal nature of the supply systems has created a set of circumstances predisposed to a classic “tragedy of the commons” failure. It was found that communities, by and large, collected funds sufficient for operational needs only, ie. fuel and some nominal salaries. As a result the minor maintenance of the management plans was neglected, although the agreed tariffs were designed to cater for this. The neglect of agreed maintenance plans soon resulted in a need for major maintenance, for which the responsibility fell to the DWSSC

#### Tariff Setting

The setting of tariffs was largely left to community committees and this resulted in a system heavily skewed in favour of families with livestock holdings. An example being the village of Undungu (a diesel powered scheme), where the monthly tariff for domestic use was set at NAD 30 (US\$ 4) per family whereas families with livestock pay an additional NAD50 (US\$ 6-67), irrespective of the number of animals they have. It was noted that the consumption by livestock was up to ten times greater than that of people, in an average village. Such a system is clearly inequitable but it was also noted that it was, in all likelihood, the livestock owners that ensured that there was always money for fuel by paying there monthly tariffs. It was reported anecdotally that there may even be payments of lesser amounts, as ad-hoc collections.

#### Technical Support from DWSSC

The local offices of DWSSC, based in Rundu and Katima Mulilo respectively, received requests for major maintenance on an ad hoc basis as problems were reported to them. These requests could be for either mechanical/electrical or civil works maintenance. The Regional Offices are equipped with the necessary tools and machinery to carry out all repairs that may be required. The reports received indicated that the maintenance work performed by DWSSC was effective but was often delayed due to long supply chain time frames in receiving spare parts.

It was noted in the quarterly reports of both regions that there were constantly substantial backlogs in attending to requests and these appeared to be growing.

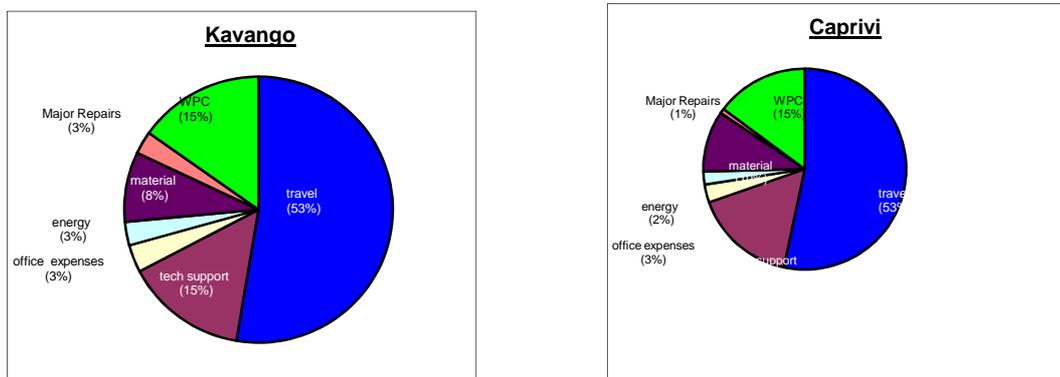
Local DWSSC staff complained that vehicles “must be parked” part of the way through a month once the travel budget had been exhausted, this implies that, in each and every month, support could only be provided for part of that month. To establish an estimate of required budget an activity based cost model was developed and

presented at a workshop of Head Office staff, Regional Managers and Operational Supervisors. Given the homogenous nature of the types of schemes, it was possible to develop generic resource inputs (time and travel) for each scheme type. These inputs were developed by the field staff that were present at the workshop. The outcome of this exercise indicated that the support function was significantly under budgeted.

	Kavango	Caprivi
Budget 2010	US\$ 990,810	US\$ 959,373
Cost Model	US\$ 2,285,485	US\$ 1,907,732
Comparison with RSA (free basic service)	US\$ 1,948,800	US\$ 723,755

Note: 1 USD = 7.6 NAD (Feb 2010)

Significantly the single largest item was transport costs at 53% of the total in both cases:



### Conclusion

The nature of support to remote rural water schemes requires lengthy travel and this is further complicated by the fact that the exact nature of what is required at a scheme that has broken down is, in most cases, unknown before the support team arrives. This makes the provision of on-going support particularly difficult. It is difficult for planners to estimate actual resources required to adequately operate and maintain such schemes.

This research indicates a need for a realistic evaluation of what is required to facilitate sustainable community based management systems:

1. Identification of work to be carried out by local people and how it will be paid for (tariffs or subsidies)
2. Identification of technical and institutional support required and how this will be adequately funded, with particular emphasis on including realistic transport costs to provide support in settlements located far from the operational hub
3. Identification of ways to make community based models sustainable including appropriate institution arrangements.

### Key lessons

- The provision of adequate resources for the O&M function, (day to day activities, preventative maintenance and major repairs) needs to be realistically considered. Sufficient funding, personnel and equipment (from CBO's, Govt, and Private Sector) for the above-mentioned activities must be realistically identified and quantified.
- The limits of local cost recovery and availability of government funding must be considered in developing a funding model for sustainability. Special attention must be given to ensure that equitable tariffs are set when multiple use (domestic and livestock) services are provided.

- Local CBO's struggle to collect funds where communal supply is made available. Consequently funds are collected for operations only and preventative maintenance is neglected, this soon results in need for major maintenance.
- As the operational circumstances become progressively more difficult the initial spirit of volunteerism collapses and committee members and caretakers resign thus requiring new, untrained appointees.
- Training alone is not a sufficient condition for the success of rural water supply schemes, ongoing support to WPC's is essential to ensure that the necessary skills are available.
- The logistical challenge of providing support to rural water supply schemes is often underestimated. This together with the large degree of variability in the nature of the work lead to large institutional inefficiencies in the provision of support to rural water supply schemes.

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## CLIMBING THE WATER HILLS

### Issues in scaling up community-based rural water supply models in India

James, A. J. and M. Thakkar, IMACS, India

#### Stream: Governance

#### Summary of presentation

The first 'hill' that policy-makers have to climb deciding to move away from government provision to community-management. Making community-based management work effectively in a project mode is a second. A third 'hill' is to scale up effective community-management into an entire state or country. The fourth hill is to scale is to sustain the quality and effectiveness of community management, working within existing political systems and sustaining improvements.

Several states in India, including Uttarakhand, Maharashtra, Gujarat, Rajasthan, Kerala and Tamil Nadu have climbed the second hill. They have implemented effective community-based rural water supply projects and programmes in the last decade: The World Bank-supported Swajal Project in Uttarakhand established community procurement and management supported by a strong Program Support Unit (PSU); the World Bank-supported *Jalswarajya* Project in Maharashtra created a strong support structure for community-based water supply which in turn enabled them to expand beyond water into supportive livelihood activities, especially for women; the Government of Gujarat created the Water Supply Management Organization (WASMO), which is the only state government institution in the country mandated to oversee village-level water supply, that supports, empowers and delegates management to *Pani Samitis* (People's Water Committees); the KfW supported *Aapni Yojana* in Rajasthan introduced innovative means of deciding water charges for supply from community stand posts, charging user households according to the number of adult (1 unit), children (0.5 units) and livestock (0.3 units), once the monthly costs of this bulk water supply were calculated; in Kerala, decentralization of political power to districts has given a huge boost to community management, and the lesson that elected representatives are not always part of the 'community'; in Tamil Nadu, the government water board put a section of its Rural Water Supply engineers through a process of Change Management, to change their perceptions about their wider societal role, which enthused them to work with communities in a radically different way, and thus bring about huge improvements in the quality of water supply service delivery.

But they have not made it over the third hill of scaling up beyond their project areas to the rest of the state. The reasons are diverse but the basic problem is that typical development administrations are unable to implement carefully-crafted project guidelines because of a lack of vision, experience, manpower and funds. \

Yet, in this process, they have thrown up several useful lessons, not only for those following but also for themselves to climb the third hill. And here they may well learn from the experience of Sri Lanka, which has scaled the third hill and are grappling with issues of the fourth hill, according to NGOs, resource persons, engineers of the country's National Water Supply and Drainage Board (NWSDB) and the staff of the 16-year old Community-based Water Supply and Sanitation Project (CWSSP). The Sri Lankan story, however, is another paper.

## Key lessons

- Communities are willing to pay but how they are made to pay is critical: Demonstrating improved service quality and then asking for payment brings a better response than doing it the other way around, but measures like asking for payments in instalments also help
- Political support is vital: especially to insulate reform processes from vested political interests (e.g., Gujarat, Kerala, Maharashtra) and to establish the primacy of community decision-making
- Institutional role clarity is essential: between government agencies (e.g., for bulk supplies and village-level distribution), community institutions (traditional bodies like Caste Panchayats, statutory Village Panchayats, and special bodies like *Pani Samitis* or Village Water and Sanitation Committees), and private players
- Shifting the balance of power to communities requires time: As seen in Maharashtra, Kerala and Tamil Nadu, in addition to policy support, such a shift requires sustained effort - but becomes virtually irreversible thereafter.

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## The challenges of improving coverage and water quality at commune and village levels in Thailand

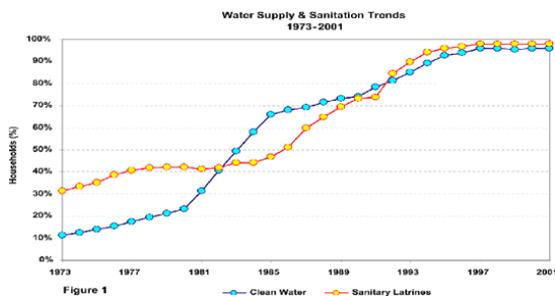
Muanpong Juntopas, and Sapon Naruchaikusol, Stockholm Environment Institute, Asia Centre, Thailand

**Stream: Service delivery models for sustainable rural water**

### Summary of presentation

The provision of clean water supply and sanitation has occupied a high priority in Thailand's national development plans in the last decades as it is seen to have a vital link to the prevention of diseases and basis of good health. The government also assigned years 1981 to 1990 as the "Decade of Water Supply and Sanitation in Thailand" in line with the UN declaration. During this time, there was a marked increase in the socioeconomic development of the country, particularly in education and health. Traditionally, about 5% of the national budget was allocated to water supply and sanitation and comprised about 20% of rural development budget between years 1981-1991. This increase resulted in sufficient quantities of water being available, although not always of a satisfactory quality. Many agencies are responsible for water supply, often with overlapping responsibilities, resulting in a duplication of effort and a lack of collaboration. Over time, while the quality of urban water supplies has developed rapidly, those in rural areas have lagged behind.

Access to an improved water supply increased from 10% in 1970s to 90% at current time. Despite these levels of access, many water quality problems remain, particularly microbiological, and increasingly due to chemical contamination, affecting both ground and surface water sources.



Current water in Thailand are delivered by a) Self help rain water harvest stored in local made water jar that are widely used in Thailand, which has had supports to revive from various government and NGOs in the last 30 years b) Piped water service. This is provided by 3 types of service providers. 1) Metropolitan Waterworks Authority (MWA) 2) Provincial Waterworks Authority (PWA), and 3) community own management delivery system by village waterworks. MWA and PWA are state enterprises who provide services to urban population. The MWA (piped supplies) serve Bangkok and its vicinity of providing about 2 millions connections and serving 10 millions people. The MWA delivers 1.7 billions m<sup>3</sup> clean water in 2008, at average sale price is 12 THB/ m<sup>3</sup> ( 30 cents USD) 2) The PWA (piped supplies) serves city, town, and commune municipalities providing 3 millions connections to population living in 647 city, town and commune municipalities, 77 TAOs<sup>1</sup>, and 171 village charging fee at . THB 8-12/m<sup>3</sup>. (20-30 Cents USD 3) village own system (technologies) serves the population in 65,000 villages run by 65,000 water committees, and the water fee of 5 THB/m<sup>3</sup>. There is problem with water quality at this level. Recent studies found water delivered by most village water works (50%- 90 % of sampled) is below standard of safe drinking water, with bacterial contamination and 4-8 % with heavy metals. .

<sup>1</sup> Tumbon Administration Organization, the new administrative body at commune under the decentralization Plan of 1999.

The village water delivery systems (technologies) were built in the last 4 decades since 1970s by various departments of central government. After the construction, the systems were transferred to village water committees to continue running the service, with the aim of becoming financially self-sufficient. Today though significant percent of village systems are still in operation, and some even manage to make profits, the majorities of them are facing serious challenges:

- 1) production system is partially in “malfunction” due to village inability to up keep system maintenance
- 2) resulting poor water quality and growing dissatisfaction among water users who are now financially better off and looking for better options
- 3) lack of fund to expand service to all households in the village ( average coverage is 62% of all households)
- 4) Strong needs for consistent technical support, and systematic monitoring.

The decentralization in mid 1990s devolved power and responsibility for development planning and management, and public service to local level to commune – the *TAO (Tumpon Administration Organization)*. The Act of 1999 defines the period of the decentralization process of 10 years. A total of 50 central departments, 245 public services are subject to the decentralization Plan, and 180 functions have been transferred or are in the process of being transferred to TAOs in 2007. Rural water supply is one among services being transferred, the physical assets, to TAO and technical support from DWR. On the one hand, moving water delivery from village up to commune level is a positive one in that it presents good opportunity for service improvement. But in reality the transition is difficult. Today, clean water delivery is ‘not a mandatory service’ by TAOs”, and many villages are left to continue operating in existing condition.

However, there remains a challenge in institutional coordination, both vertical and horizontal, as development budget is now directly channelled to TAO. Decentralization has been accompanied only by fiscal transfer, but not human resources. TAOs have few staff, and limited skills. This leaves the question as to whether it would be more effective that rural water service delivery be moved up to intermediate level to that of PWA. Different management models are being tried out by TAOs depending their human resources and financial capacity, as well as their location, 1) TAO takes over the service 2) Joint management with village committee, 3) TAO hire private sector to run delivery system under TAOs monitoring 4) Hook up to the PWA system and services, for those villages that are near city and town. Each model has different suitability to each kind of TAO. With rural community becoming more modern gain higher income, users are demanding for quality; many do not trust the village water system. Change is needed. There are instances, that villages in near proximity to PWA, preferred PWA services and asked to be hooked up to service of PWA rather than that of TAO and villages. On the other hand, a “mandatory service” can be beyond the capacity of small-scale local authorities such as TAOs. In terms of local finance, the dilemma is a choice between two options: (i) transferring funds as general grants in expectation that local authorities will make effective use of them; and (ii) granting purpose-specific grants for delivering standardized services throughout the country.

#### **Key lessons:**

- 1) While investment in the “Hardware” of water supply is important, the ultimate success in service delivery lies in “software” during and after
- 2) The scale of delivery must be placed at the level where capacity can support its sustainability, not only in financial terms, but also quality assurance
- 3) Decentralization of responsibility for public service delivery must be accompanied by both financial transfer and human resources..
- 4) Greater roles of private sector in service delivery is one promising option as income of the people increase, and thus can afford high quality service efficiently produced by competitive private sector. Local government could assume more roles in regulation and monitoring

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## Practical lessons for the management of rural water supply in Tanzania

Kashillah H, Based on studies by Alexia Haysom, Sam Moon and Diana Nkongo for WaterAid in Tanzania

### Stream: Service Delivery Models

#### Summary of presentation

Sustainability of rural water supplies is a major concern in Tanzania. Water point mapping surveys shows that nearly half of all public improved water points in rural areas of Tanzania are not functioning. (A public water point is defined as point at which water is intended to emerge from a public, improved water supply, such as a tap or handpump) Even very new water points have a problem – a quarter of 2-year old water points have been found to be non-functional.

WaterAid will present key lessons from 3 different studies which explore the reasons behind non-functionality of community water supply in Tanzania. The first study explores **financial management and cost recovery operation and maintenance**. The study questions whether full cost recovery is a realistic strategy and under what conditions. It also questions whether community participation, which we consider to be essential to promote 'ownership' of schemes, is always appropriate when communities have little understanding of technological and management options.

The second study questions whether there should be an increased **role for private water operators** in addressing the sustainability challenge. Tanzania's National water Policy shifts the management of rural water away from village water committees to more autonomous entities. The idea is to ensure that funds are not used for other purposes and are available for repairs when necessary. The study compares private management with other models and explores the correlation between private management schemes and improved functionality.

The third study focuses on **monitoring and regulation** and asks what we can do better. Although primary responsibility for sustainability lies with the community, there are important roles for village government and district water departments. It concludes that clearly defined roles and responsibilities are key to sustainability of water supply, and makes some suggestions about how regulation could be carried out at the village level.

Based on these three case studies, WaterAid will share practical ideas to improve sustainability which could be adopted at the district level

#### Key lessons

- There is a need to balance participation and ownership when it comes to difficult decision making
- More autonomous entities are often more successful at achieving sustainability
- Village government and District water Departments have a key role to play in ensuring sustainability (e.g. Support scheme management by Water User associations and ongoing technical support respectively.)
- Clarity of roles and responsibilities across tiers of government and with the community is a key element of sustainable water supply.

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## Assessing the Impact of Post-Construction Support—The Circuit Rider Model—on System Performance & Sustainability in Community Managed Water Supply: Evidence from El Salvador

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### Stream: Service Delivery Models

#### Summary of presentation

This paper describes the efficacy of "build-and-walk-away" drinking water systems relative to "build-and-support-with-on-going technical assistance" water systems in rural areas and small urban areas of El Salvador. Specifically, the research in El Salvador directly measured the impact of a particular model of post-construction support, the Circuit Rider model, on community run water supply system performance and sustainability in the western part of the country. This study evaluated 60 small rural and peri-urban community-run water supply systems in El Salvador. The Circuit Rider model, founded by the National Rural Water Association (NRWA) in the United States in the 1970's, in response to the need for operation and maintenance assistance in rural water systems, is now operating in El Salvador, Guatemala, and Honduras. The results find that the Circuit Rider model of post-construction support leads to lower rates of microbiologically contaminated water, higher rates of drinking water disinfection, improved operator knowledge about treatment, less negative community perception of chlorine (the most common source of drinking water disinfection in the global south), higher rates of community payment for water service, greater likelihood of household water meters, and greater financial transparency in El Salvador.

**Background:** A challenge for planning community run rural water supply systems is long-term sustainability, whereby sufficient, safe drinking water is supplied on regular intervals over time. In El Salvador 84% of households have access to an improved source. Unfortunately, the quality of water delivered by piped systems is consistently compromised. There are many rural water systems that are characterized by poor performance, poor water quality, insufficient supply, intermittent service, high costs, scarce resources, aging infrastructure, inadequate technical knowledge, poor operational management or defunct water committees (Lee et al, 2005). Much of the early literature on rural water supply assumed that community management of services was sufficient to maintain water supply over time (Whittington, et al, 1998; Sara et al, 1996). Recent water supply research has found that community management is not enough. There are other project variables that matter such as physical village size and user fees (Kleemeier 2000), and water prices and collection time (Briscoe et al, 1990). Most recently, post-construction support in operation and maintenance has received attention for its impact on project sustainability outcomes over the long-term (Davis et al, 2008; Komives, et al, 2008; Prokopy et al, 2008; Whittington, et al, 2008; Lockwood 2003).

**Methodology:** No research to date has looked at the effect of post-construction support, the Circuit Rider model in particular, on system performance and sustainability. Thus, we conducted an assessment of 60 small rural and peri-urban communities in order to study the effect of the circuit rider model on piped rural water supply system performance<sup>2</sup> (water quality and water supply) and system sustainability<sup>3</sup> (financial, technical and operational

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<sup>1</sup> To study system performance, microbiological water quality tests (3M™ Petrifilm™ and Colilert) and residual chlorine tests (HACH DPD free chlorine reagent, 5ml sample, powder pillows) were run in each community in El Salvador. (Chlorine is the most common source of drinking water disinfection in the global south). Water samples were drawn from households closest to the distribution tank and furthest from the distribution tank in all communities to test for residual chlorine and microbiological water quality (E.coli enumeration, E.coli presence/absence, and residual chlorine).

management and environmental sustainability) in El Salvador. We use a case-control design to assess the effects of the circuit rider model on 60 (randomly selected intervention (28 Circuit Rider) and control (32 no Circuit Rider) communities. Principal study activities in this ethically approved investigation included: microbiological water quality tests and drinking water disinfection tests to study system performance, and structured interviews with a Village Water Committee (VWC) member and village water system operator, in each community, to gauge the system sustainability of each rural water supply system. Key informant interviews with Salvadorian professionals in the water sector served to enhance the validity and reliability of the results.

**The Circuit Rider Model of Post-Construction Support: The Circuit Rider Model of Post-Construction Support:**

The Circuit Rider model is designed to provide on-going technical assistance so that the Village Water Committees (VWCs) and their water system operators have the capacity to prepare for and overcome technical, financial and operational obstacles. In El Salvador, Guatemala, Honduras, and the United States<sup>4</sup>, the Circuit Rider model offers access to a trained technician. These technicians are engineers or are trained by other Circuit Riders, water engineers, and water operators prior to gaining Circuit Rider status. Circuit riders, once trained, make monthly visits to rural communities to address operation and maintenance problems, and train VWCs and their operators in water quality and disinfection, water source protection, and accounting and budgeting. Circuit Riders also hold workshops every few months for operators and VWCs. These workshops address common operation problems in rural water systems and in managing rural water systems: pump maintenance, water treatment, treatment technology options, microbiological water quality testing, and residual chlorine testing, calculating household water fees, and any relay any new standards or laws. In El Salvador, the Circuit Riders also stress the importance of meters, installed in households to reduce water waste. To receive assistance from the Circuit Riders in El Salvador, Guatemala and Honduras, VWCs solicit support, or Circuit Riders who work in one community will offer their assistance to adjacent communities. ASSA, the organization in El Salvador that offers Circuit Rider post-construction support provides post-construction support to over 125 communities, and is primarily funded by the International Rural Water Association, an arm of the National Rural Water Association in the United States.

**Results:** The research found that post-construction support, the presence of the circuit rider model specifically, leads to lower rates of microbiologically contaminated water, higher rates of drinking water disinfection, improved operator knowledge about treatment, less negative community perception of chlorine, higher rates of community payment for water service, greater financial transparency, and greater rates of household water meters ( $p < .05$ , statistically significant\*). Circuit rider communities were also more likely to have village water committees (VWCs) and more likely to have women participating on these VWCs than control communities; however, no statistical significance was found ( $p > 0.5$ ). Circuit rider communities are more likely to be financially transparent: households were more likely to deposit their monthly water fee, the funds that pay for operation,

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<sup>3</sup> To study system sustainability, in each village, the president or treasurer of the water committee and the Drinking Water System Operator were interviewed with previously piloted structured-interviews in 60 rural villages with community water supply. The structured interviews were designed after preliminary research: over 50 interviews with drinking water operators in Honduras, El Salvador, and the United States, visits to drinking water supply systems in all three countries, and interviews with technicians who deliver assistance to operators and their VWCs in all three countries. From these interviews, the variable categories, that are relevant to assessing the delivery of safe drinking water and the long-term sustainability of water supply in piped systems, were identified. The system sustainability categories in the structured interviews included financial management, technical management, operational management, and environmental sustainability.

<sup>4</sup> In the United States, the trained technician has been in the water or wastewater field, in an operational and/or managerial position, for a minimum of 5 years.

maintenance and technical fixes in rural water supply systems, in a bank than in the household of a single community member ( $p < .05, *$ ). Meters, installed in households to reduce water waste, are also more likely in circuit rider communities ( $p < .05, *$ ), especially important in water scarce communities.

### Key Lessons:

- 1) A challenge for planning community run rural water supply systems is the delivery of safe drinking over the long-term. Circuit Rider post-construction support is associated with better water quality and system sustainability outcomes. It is a valuable model that governments, NGOs, village water committees, and rural water system operators can study and apply lessons learned.

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## Access to and use of safe drinking water to achieve household level water security by empowering rural communities

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### Stream: Governance

#### Summary of presentation

India with world's 16% population has only 5.2% of land area and only 1.5% of freshwater resources. Per capita availability of freshwater in 2001 has come down to 1,836 cu.m., which is likely to go down further. 720 million people lives in rural areas. More than half of the country falls in semi-arid/ arid regions and receives rainfall only for 15 to 35 days annually, which poses a challenge to ensure year-round availability of safe water to all. Acknowledging the fact that poor and deficient water services will hamper growth, about Rs.180 billion or 4 billion US\$ annual investment is being made in rural water supply sector. People demand water supply from the Government or its agencies as a matter of right and over the years, 'dependency culture' has developed. With the 73<sup>rd</sup> and 74<sup>th</sup> Amendment of the Constitution in 1993, water supply has been placed with the lowest tier of the government. In rural areas, these rural local bodies are known as Panchayati Raj Institutions (PRIs). At village level, they are known as Village Panchayats, which represent between 1,000 and 30,000 persons. The challenge has been to ensure adequate water supply on a sustainable basis through these nascent PRIs to meet the growing demand of water services to such a vast population.

To translate the constitutional provision into reality, in 1999 Sector Reforms were introduced in rural water supply sector. Under these reforms focus shifted from centralized, supply-driven and government-managed water supply approach to demand-driven, community-managed and decentralized approach. Massive information, education & communication campaign, capacity building and empowerment of local community and their institutions were started to enable them to plan, approve, implement, manage, operate and maintain their own water supply systems. Village Water & Sanitation Committee (VWSCs) as a representative body of the user groups was formed as a part of PRIs at the village level, to shoulder the responsibility for all aspects of water supply.

India has 28 States and one of them is Gujarat, which is located in western part of the country bordering Arabian Sea. With 54 million population, which is 5.4 % of the country's population, it has 5% land area but only 1.5 % of water resources. Per capita freshwater availability is less than 1,000 cubic meter. Two-third part of the state falls in arid and or semi-arid region. The State has a very long coastline of about 1,750 km and salinity ingress is one of the major problems. In last 75 years, every third year has been a drought year. State also faces Fluoride, Nitrate and salinity as major contaminants in ground water sources. The State had faced a devastating earthquake in 2001 which killed about 20,000 people and injuring more than 200,000 persons. Non-availability of water supply of adequate quantity and appropriate quality was the most critical limiting factor in its quest for economic growth. With ground water being the main source of drinking water, two-third part of the State faced perpetual scarcity of water. Every year, almost one-third population was served through water tankers and during drought, water used to be transported through railway wagons disrupting the movement of other essential items. Every year, for almost 8-9 months, Government and its machinery were kept busy in making emergency arrangements of drinking water to such a vast population. On an average, State was spending about Rs. 1,250 to 1,500 million (30–38 million US \$) annually on emergency measures to provide drinking water to rural people living in water scarce areas. It was realized that due to poor water services and consequent preoccupation of the Government in managing scarcity, State is unable to achieve faster economic development.

In this backdrop, in 2002, State Government decided to focus on assured availability of drinking water to all on long-term basis. In this pursuit, a number of steps were taken and 'sector reform' as a major policy initiative was adopted.

To achieve the goal, a special purpose vehicle namely Water and Sanitation Management Organization (WASMO) was set up with the sole objective of enabling and empowering the rural communities to plan and manage their own local water resources, water supply and sanitation. WASMO forged partnerships with 75 NGOs and multi-disciplinary teams drawing people with expertise of community mobilization, developmental communication, engineering, resource managements, finance, accounting, etc. were formed. In the villages, 10-15 members VWSCs as a sub-committee of village local body (Village Panchayat) were formed. These committees were empowered under law as well as their capacity was built to enable them to take decisions. A deciding factor for their empowerment has been that the funds for implementation of the water supply systems were transferred to the account of these VWSCs after agreement on service levels and scheme design. These VWSCs are made fully responsible for planning, implementation, operation and maintenance of the water supply systems. The VWSCs were made aware of various issues relating to water quality and they carry out tests and upkeep the drinking water sources. The VWSCs have been provided with the technical support to enable them to take up the construction work. They maintain and operate their accounts and procure all required contracts and materials. The most important aspect has been that people have become responsible and have started planning and implementing various water conservation measures which has drastically improved the overall availability of water in these villages. VWSCs have adopted conjunctive use of water to meet year round demand of water.

Government also provides them incentive funds for operation & maintenance as well as for major replacements. However, most of the VWSCs collect adequate tariff from households to operate and maintain the systems. As a spin off, in these villages, responsive and accountable local leadership especially among women has emerged. They have started taking over other responsibilities. Starting with 82 villages in 2002, at the end of 2009, VWSCs have been formed in 15,807 villages out of the total 18,066 villages of the State. In 9,042 villages, water supply work has been taken by the VWSCs, out of which work in 5,488 villages work has been completed and in 3,554 villages work is ongoing. In 12,000 villages, VWSCs are totally managing in-village water supply including water testing. 14,216 water quality testing teams of at least 5 persons each are working in the States. 125,167 persons have been trained on various aspects of the drinking water and 17,456 training programme have been conducted..

Today, water supply through tankers or train has become a thing of past. Local people are able to take decision and source their water from appropriate sources. In fact, different models are developing in different villages with a view to ensure supply of safe water to each household. The VWSCs have ensured 100% household connection for piped water supply. The state which has 26.86% households with piped water supply in 2001 has more than 57.72% households with piped water supply in 2009. Bacteriological contamination free drinking water sources has been increased to 97% at the end of 2009 from 33.5% only in March, 2008. The incidence of various waterborne diseases has come down drastically.

This approach is full of possibilities and opens up totally new areas for regeneration of village socio-economic life. The model captured the imagination of people, ensure their full participation and encourage innovations to achieve efficiency and effectiveness. The model has thrown up a number of small entrepreneurs and village level utilities. It has tremendously helped in access to new and appropriate technologies as well as management models in rural areas, which was not possible in norm-based top down prescriptive design approach as possibility of innovations and use of new technologies were restricted.

The work carried out in Gujarat has been widely acknowledged as a path breaking initiative and in long-term, has proved a sustainable model. In 2006-07, it has been awarded '**Prime Minister's Civil Services Award**' and in 2009, it has been awarded '**United Nations Public Service Award**' for innovation in public service. With the success of this approach, in 2009, national programme for rural water supply has been revamped and new guidelines have been issued. Now this approach is followed nation-wide wherein village community is to be empowered and be responsible for in-village water supply sources and systems. Under the new approach, conjunctive use of water is promoted and 'household level access to and usage of safe drinking water' is to be achieved. In this endeavour, role of the Government and its agencies have shifted from 'provider' to that of a 'facilitator'.

### Key lessons

- i.) Empowerment of local communities and bringing awareness leading to demands for safe drinking water and improved water services;
- ii.) Enabling environment to facilitate the community to take over the full responsibility on long-term basis;
- iii.) A dedicated institution, building partnership and working together with NGOs to help the community;
- iv.) Flexibility in norms and rules allowing community to take decisions to bring 'sense of ownership';
- v.) People's choice, their preferences and traditional knowledge to be part of the solution;

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## Towards a conceptual framework for Sustainable Services at Scale in Rural Water

Lockwood, H., Aguaconsult, UK

**Stream: Setting the scene - opening session**

### Summary of presentation

#### The challenge of sustainability and a focus on the 'system'

For the past two to three decades we have been relatively successful at providing new rural water infrastructure – building the physical systems – and showing increasing coverage levels on paper. Despite this we have largely failed to find durable solutions in meeting the needs of the rural poor. Various approaches have been developed and rolled out since the 1980s (many focusing on community-management or its variants), but users face continuing and unacceptable problems with systems that operate at sub-optimal levels or breakdown completely, leading to wasted resources and false expectations.

Failure rates have been particularly high for hand-pump based technologies in sub-Saharan Africa, but for other regions the picture has also been poor. Globally, data from a range of countries as far apart as Central America, Africa and Asia indicate that about one third of systems are non-functional. However, in many instances far higher rates are cited. For example, a recent study by Wateraid Tanzania shows nearly half (46%) of water points in rural areas are not functioning. There appear to have been a number of fundamental barriers to providing sustainable water supply, including: a focus of intervention at the level of the community, which is inherently unscalable; investing primarily in infrastructure rather than in sector systems and 'carrying capacity'; financing which focuses largely on initial construction, rather than taking into account the full life-cycle costs; and a persistent lack of coordination and harmonisation – often driven by donor and NGO agendas – leading to fragmented policies and implementing practices and a lack of alignment with government policies.

Of course, there are other factors which can reduce the functionality of a water system, including changes in local water availability and quality and intermittent electrical supplies. However, the underlying trend has been for both funding and implementing agencies to take largely project-based approaches, with a focus on physical systems, whilst tending to under-estimate the need to develop capacity of the sector as a whole. Constructing physical systems is an obvious requirement, but this is just one part of a much more complex set of actions that are required to provide a truly sustainable service. Increasing coverage does not equate to increased access.

#### Breaking the cycle of poor sustainability - towards a Service Delivery Approach

Providing a service relies on many different factors being in place and working together: 'soft' factors such as skills, behaviours, norms and practices; 'hard' factors such as suitable technologies; availability of finance for capital expenditure; and institutional factors that can provide for long-term support to community systems. Much work has been done to investigate the causes and to find solutions. There have been cases, in which some of these causes have been addressed successfully, but these have often remained isolated and few examples exist where sustainability is addressed at scale. Hence, the discourse on sustainability has shifted from a focus on one or two individual factors, to the requirement for a systemic assessment which can address the underlying causes in a more holistic way.

The **Service Delivery Approach (SDA)** is a concept that addresses all of these elements and is based on the need to move from a focus on means of service delivery (the water supply system) towards the actual service accessed by consumers. The SDA explicitly aims for full coverage within the logical unit for dealing with water services

(that is the *'intermediate level'* – a district, municipality, region or other depending on the context) by planning and working at scale. Secondly, the SDA works on the premise of sustainability of access; once access is achieved it should be maintained through a proper understanding of the full life-cycle costs and institutional support needs.

#### Applying the Service Delivery Approach through country specific models

The Service Delivery Approach is a conceptual framework, but it must also be put into practice. We can best envision this as context-specific **service delivery models** relevant to the realities of the country and the service area, including the type of rural population, levels of social and economic development and private sector involvement amongst other factors. The service delivery model is the *'how to'* of applying the approach and includes the policy, legal, institutional, financial, governance and normative frameworks that describe how and what services can be provided to users.

Service delivery models are always country-specific and may include different management arrangements (i.e. self-supply, community, private, utility or any hybrid of these), and as such it is difficult to conceptualise one 'generic' model, which can be applied universally. But given the decentralised context of most developing countries there is a common separation of functions as follows: i) at national level functions refer largely to setting policy, norms and legal frameworks, as well as coordination of financial flows; ii) at intermediate level functions concentrate on the service authority, including coordination, regulation and monitoring; and finally iii) at the local level functions are focussed on operation and provision of services to consumers.

There are few countries with a truly comprehensive service delivery model in place. South Africa provides us with one such example, with a well defined and holistic 'service delivery life-cycle' framework. Following the new democratic government in 1994 a series of legislation and policies were established to define clear roles and responsibilities down to and including the level of *Water Service Authorities* at municipal level and *Water Service Providers*, responsible for the day to day operational functions.

The value of adopting a SDA and defining service delivery models is to highlight the inter-connection between stakeholders, institutional roles, functions and elements that need to be place at all levels, from the community up to national level. Without supporting the entire complex of requirements, from policy and sector capacity for learning and innovation down to system construction, we are unlikely to solve the continuing problem of sustainability. This demands a comprehensive and long-term partnership on the part of development partners and a visionary commitment on the part of national government.

#### Key lessons

- Our focus on new system construction has led to a collective 'sustainability blind spot' manifest in policy, planning, financing and support systems that are often inadequate to ensure continued services.
- A re-assessment is needed of how national and development partner support is provided – thinking in terms of an indefinite service (the SDA) and understanding the requirements of a service delivery model is a starting point to address underlying capacity gaps at all levels in a holistic way.
- Achieving the goal of reliable safe water in the community may often require support to improve policy, legislation, coordination mechanisms at national level and monitoring and post-construction support capacity at the intermediate level
- Some funding and implementation agencies are increasingly recognising the need for making these changes, but there is still a powerful impetus to focus on system construction driven by the impending Millennium Development Goal deadlines, which must be re-focussed to a service delivery approach

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## Decentralisation and the use of cost information in delivering WASH services

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### Stream: Service Delivery Models

#### Summary of presentation

The WASHCost project ([www.washcost.info](http://www.washcost.info)) is carrying out action research into the life-cycle costs of provision of rural WASH services in Burkina Faso, Ghana, India (Andhra Pradesh) and Mozambique. WASHCost collects and analyses information on the disaggregated costs of providing rural services, and in parallel advocates for the effective use of this information in decision making about service delivery. The project's objective is to enable more cost effective provision of sustainable services to rural populations and especially the poor.

To support identification of the most likely pathways to wide use of cost information, and thus to achieving the project's objectives, initial mapping work was carried out in the four countries to understand the main sector drivers, and particularly the flow of decision making, planning and budgeting for rural WASH service provision. This note is based on a WASHCost working paper that synthesises the findings of these mapping studies (Moriarty et al, 2010)

In looking at the WASH sectors across the four countries, a number of common trends can be identified. These include:

- **WASH sectors in flux** WASH sectors are undergoing quick moving and wide-ranging processes of change in all countries. Two of the most important drivers to this change are: wider processes of **decentralisation** (deconcentration and devolution); and national **harmonisation and coordination** (within government, and between government and development partners). The ongoing, incomplete (arguably embryonic) and frequently contested process of change that these drivers engender, is causing sector agencies to re-evaluate and change their roles and mandates, leading to a situation where a complex mix of old and new approaches to service delivery coexist and sometimes conflict. A third important driver to change in the sector is economic growth and rising expectations that are leading to demand for new and improved rural services.
- Some of the more important change processes identified in the water sectors in the four countries include:
  - National governmental agencies increasingly playing a role of facilitator and regulator (rather than implementer)
  - Local government taking on a range of roles from service provision to local level planning, , regulation and financing
  - An increased role for the local private sector (as implementers and managers of services)
  - An across the board reliance on (versions of) community management
  - Emergence of increasingly clear nationally agreed models for service delivery
  - A shift towards more managerially and technically complex types of service – in water, towards piped schemes (and household taps) at the expense of more traditional manually operated point-sources.
  - In all countries sanitation seriously lags water both in coverage and in attention in policy

An important difference between the countries is that while in India universal coverage in water services is (rightly or wrongly) assumed to have been achieved leading to a concentration on sustainability; in the African countries sustainability (avoiding slippage) is only just starting to come onto the agenda, and the focus is primarily on delivering new services.

### **Using cost information in decision making**

#### ***'Real' decision making continues to happen at national level, and within projects***

For WASHCost to achieve its objectives, it must be possible to clearly identify (existing or potential) planning or decision making processes into which cost information can be fed. Currently, in all four countries these processes are at best partial: cost is not currently a major driver in to decision making in the sector. What cost information exists, is typically limited to the formulation of national level strategies, plans and projects which are seldom strongly linked to financial flows. Indeed, the disconnect between planning and budgeting by sector ministries and national financing frameworks (such as Medium Term Expenditure Frameworks) is striking.

This is true at the national level and even more so at the sub-national. Although frameworks and activities for decentralised planning exist in all countries, only in India are these linked to significant financial flows. In practice, much decentralised planning is a largely paper exercise. In the African countries, new services tend to be delivered by projects, and hence planning takes place at the level of, and specific to, the project.

#### ***Awareness of costs is limited to capital investment***

Awareness of unit costs at all levels is typically limited to capital investment (often in a highly aggregated form). National figures provide per-capita costs for implementing different types of scheme. Information or awareness about other aspects of unit costs is very limited; how much is spent on the operation and maintenance of typical schemes or how much it costs to provide support services? Costs for major rehabilitation and replacement are even less discussed, and can be considered as something of an intentional blind spot in the sector – everyone knows they are there, but no one (governments or donor) really wants to address the matter.

The findings of the rapid assessments show both challenges and opportunities to WASHCost. Challenges, because the WASH sectors in all four countries are in a state of great change, with blurred and sometimes contradictory areas of governance responsibility; nascent planning processes; and, in donor dependent countries, only gradual movement towards greater harmonisation. This means that it can be difficult to identify a single clear entry point for, or potential owner of, WASH cost information.

That said, after decades of stagnation, real progress and real opportunities exist within the processes of harmonization and decentralization. To achieve its objectives, WASH Cost needs to actively engage with these processes, and use an intelligent mix of advocacy and action research to develop in parallel both the demand for cost information, and the tools by which this can be made useful.

## Key lessons

- Harmonisation, coordination, and decentralisation processes are leading to great change in the delivery of rural WASH services. The processes are however embryonic and often contested, leading to a confusing mix of old and new. An additional driver to change is increasing wealth, leading to demand for more complex and expensive services.
- Planning and decision making processes in the WASH sector are fragmented, confusing, and often only poorly linked to financial flows (if at all). The majority of real decision making continues to happen at the national level and within (implementation) project. Nonetheless, the direction of change is clear.
- Cost data is used almost exclusively at the national level, and only as it relates to capital investment. Other costs, to do with O&M, support, and rehabilitation and replacement are unknown and often ignored.
- WASHCost needs to adopt a parallel strategy of a) collecting and advocating around the use of life-cycle costs (emphasising those other than capital investment) and b) developing tools and approaches to use life-cycle costs in new planning and budgeting processes.

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## What's in a service? Using water service ladders in life-cycle cost analysis

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### Stream: Service Delivery Models

#### Summary of presentation

This note is based on a working paper (Moriarty et al, 2010) of the WASHCost project and sets out current thinking on defining and stratifying water service delivery. To do this, a 'ladder' has been developed, with each up step the ladder representing a clearly defined qualitative and quantitative improvement in service provided to users. The WASHCost project looks at the life cycle costs of providing sustainable WASH services in Burkina Faso, Ghana, India (Andhra Pradesh) and Mozambique. The service delivery ladder has been developed, and will be tested, by WASHCost to enable like-with-like comparison of water service delivery across different countries and contexts. The objective is to be able to answer the question: what does it cost to sustainably provide a given level of water service over the full life-cycle of the different elements of the service delivery system(s). WASHCost will also use the ladder to investigate and compare designed-for service with actual service received.

In WASHCost a *service level* is understood to contain clearly defined (and normative) range of acceptable values for a set of key indicators of service provision: quantity, quality, reliability, accessibility, and status.

**Quantity** refers to the per-capita quantum of water provided for and accessed by users. Typically it is measured in litres per capita per day (lpcd). It is the most common and widely accepted measure of service level.

**Quality** refers to both microbial and chemical water quality. It does not, typically, differ according to service level.

**Accessibility** refers to the ease (or lack of it) with which people can access water. There are many different dimensions to accessibility (distance to source, terrain, number of people sharing a source, social-exclusion etc.). Distance to source and number of people sharing are commonly used in practice, however we propose that all of these can be subsumed into a single indicator: time spent collecting water, measured in minutes per capita per day.

**Reliability** (or security) refers to the extent to which the service performs according to expectations. Typically this is expressed as the percentage of time that the service is not fully functional *according to design* (many systems do not provide 24/7 supplies; however, as long as the periodicity of supply is defined and met, the system would be considered reliable).

**Status of source** is drawn from the JMP ladder (JMP 2010), and is included in WASHCost to allow direct comparison of costs of providing services as defined by JMP. It refers to whether a water supply system is considered 'improved' or 'unimproved' according to JMP norms.

Based on these indicators, WASHCost has developed a generic water service delivery ladder containing five levels (below), three of which represent different levels of acceptable service, and two representing below standard or unacceptable services.

	Quantity (l/c/d)	Quality	Accessibility (min/c/d)	Reliability	Status
High	>60	Good	<10	Reliable/secure	Improved
Intermediate	>40	Acceptable Acceptable Acceptable	30		
Basic (normative)	>20		30		
Sub-standard	>5		60		
No service	<5	Unacceptable	>60	Unreliable/unsecure	Unimproved

### Next steps

The WASHCost service delivery ladder is work in progress that is currently being tested by the project in field research in Ghana, Burkina, Mozambique and India. The next steps will involve further testing and refining of the ladder in country and as part of a process of national stakeholder dialogue.

Whether service levels are a useful way to classify the different experiences of water users and water service providers with respect to cost remains an open research question. In WASHCost we find it difficult to see how we can make any progress on costs if we can't agree first on what it is we want to pay for. We feel that measuring life-cycle costs on the basis of service delivery (both planned and received), in addition to the more traditional focus on technology used, will be useful in deepening discussions of cost effectiveness within the sector.

### Key lessons

- To compare the costs of services in a meaningful way it is necessary to first agree on a definition of the service to be provided.

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## Self Supply approach in Zambia

Moses Mumba, Christopher Likombeshi, Koji Kumamaru, Malama Munkonge and Marjorie Mwale

### Stream: Service Delivery Models

#### Summary of presentation

##### Introduction

The Ministry of Local Government and Housing developed a 10 year (2006-2015) national rural water and sanitation strategic plan intended to both speed up the achievement of the MDGs and meet the national vision for universal coverage. The first five years have been dedicated to piloting various rural watsan models and approaches that may be adopted into policy in the second phase. The Self supply pilot project was launched in three districts namely Milenge, Nchelenge and Chiengi (Luapala Province) in 2008. This pilot is currently supported by MLGH, funded by UNICEF, and co-implemented by WaterAid Zambia and DAPP with the 3 district local authorities. In Zambia, the Self supply is defined as the step by step improvement of private and communally owned water sources using the beneficiaries' own investment.

##### Background

Water supply coverage in rural Zambia is about 37% (CSO, 2000). Luapula province, the project region, has the second lowest water supply coverage at 18.8%. The specific water supply coverage for Milenge district is 6%, Nchelenge 14% is and Chiengi is 17% (CSO, 2000). Most interventions used for rural water supply service delivery are based on communal facilities i.e. borehole equipped with hand pump with a targeted coverage of 250 people within a 500m radius. But the scattered rural communities of Zambia (13people/km<sup>2</sup>) make it challenging for most communities to have access to these facilities. However, one traditional water source (TWS) can cater for at least 120 people. According the 2007 baseline survey for the pilot, there were about 620 traditional water sources in Milenge alone (Zulu Burrow, 2008). This means the upgrading of these facilities could cater for 74,400 people which is more than 100% coverage for the district (higher than the MDG target). Other factors contributing to low access to water supply include poor O&M of the communal facilities, lack of ownership and competing demands on low household incomes. Most conventional communal water points have a 30% failure rate within a period of 2 years due to poor O & M for boreholes that is partly been attributed to a low sense of ownership for such facilities. In addition, most rural household income is usually spent on food (purchase of agricultural inputs e.g. fertilizer and seeds), clothing, education and health. Water has a very low priority in the household budget. Meanwhile, most privately owned and communally shared TWS facilities studied in the survey showed longevity as compared to boreholes. These factors contributed to the idea of piloting self supply approach in Zambia.

**The table below sets out the process which has been followed by two different organizations implementing the self supply approach in Zambia.**

	<b>DAPP (Nchelenge &amp; Chiengi Districts)</b>	<b>Water Aid Zambia (Milenge District)</b>
1	District Stakeholders' meeting	Introducing project to Full Council
2	Sensitisation meetings in Wards (Self supply & Hygiene promotion)	District Stakeholder meetings (orientation of district level staff and selecting the project areas)
3	Community Dialogue meeting (Self supply & Hygiene promotion)	Meeting with Senior Chief to introduce the project and seek permission to operate in the Chiefdom.
4	Situation Analysis	Orientation meeting at sub district level
5	Preliminary Water quality monitoring	Baseline Survey

6	Identification of demonstration water points	Community Sensitisation
7	Formed Artisans' Associations	Capacity Building (roles & responsibilities, water source improvements, hygiene promotion, water quality monitoring and basic financial management.
8	Training of Artisans (Masons, pump menders, blacksmiths & Rope pump producers) No comprehensive well improvement training.	Social marketing ( Demo plot, identification of champions of self supply, talking walls, community fairs, distribution of IEC materials to advertise availability of skilled labour, technological options and services)
9	Upgrading of wells	Identification and engagement of Suppliers: a. Mansa Trades Skills' Training Institute - skills development & Rope pump production, b. Two Metal fabricators (Windlass, buckets, well mouth cover, ropes) c. local traders i.e. shop owners
10	Rope Pump Production & selling	Water Source improvements
11	Established revolving fund for rope pump loans	Hygiene promotion
12	Social marketing (Rope pump)	Water quality monitoring (pre improvement)
13	Project Monitoring	Setting up of the revolving fund (Key stakeholder meeting, consultancy procurement, signing of MOU, development of procurement plan, disbursement of grant to Loan Scheme committee, disbursement of loans to shop owners and TWS owners/households.
14	Exchange Visit	Exchange Visit
15		Project Monitoring with LA & WAZ Staff
16	Documentation of the approach	
17	Evaluation of Self Supply Pilot	
18	Dialogue process with Government to adopt Self Supply as a rural water supply strategy in Zambia	

### **Achievements**

- The piloting has ignited demand to progress up a ladder of improvement - a positive transformation of people's dependence mentality
- Increased level of information, knowledge and skill in self supply resulting in communities having a clear understanding and project acceptability
- Two years after project start up, 68 out of 108 TWS owners (63%) who had expressed willingness to upgrade had at least made one improvement option in Milenge District ranging from concrete apron with a well mouth cover fitted with a lid to a fully lined well fitted with a windlass and drainage system. Nchelenge and Chiengi (jointly) had 488 out of the initial 516 TWS owners (94.5%) actually making one level of improvement to their water points (mostly apron, lifting device and drainage). Though the level of improvement was higher in Milenge and took longer to achieve. Whereas, in Nchelenge and Chiengi the level of TWS improvement was lower but the response from the community was extremely high.

### **Challenges**

- Varying approach introduced by a funding agency (subsidised communal boreholes) just when the project was gaining momentum posed a challenge to promotion of the "self help" approach as people got confused with the conflicting messages
- Delay in starting the loan revolving fund slowed down the enthusiasm that households had to upgrade their facilities.
- Lack of funding and limited scope of loan facility (i.e. loans in Nchelenge were only for rope pump purchase) leading to few substructure improvements like ring casting and well lining)

- Rainy season impeded rate of improvement.
- Initial dependency on seasonal income from agricultural inputs slowed down progress during the first year of pilot implementation

### **Critical Issues**

- Potential exists to access and influence water point owners through Civic leaders and CBO leaders. However, challenges may be experienced in sharing roles and responsibilities between the political leadership at sub district level (Ward Councillors) and the Local Authority Administration structure (Area Development Committee at Ward level). Project staff should attempt to understand this challenge in order to enhance vital stakeholder coordination and collaboration at the sub district level.
- Rural Health Centre staffs are already overstretched. How can they be involved in the project and have their capacity strengthened while ensuring their clinical service provision does not suffer?
- Can a community based organization without prior experience in savings and credit programmes generate confidence and be trusted to manage a loan scheme? Can a microcredit programme for water and sanitation development (not necessarily directly connected to bringing income) work?

### **Key lessons**

- Although many TWS owners expressed interest in improving their water point, financing this process was challenging for them. Most are low-income subsistence farming households with cash inflows only upon sale of surplus crops. The average cost of full well upgrading is US\$500.
- Putting decision-making power in the hands of the CBOs helped in building consensus. And in this way ensured everyone was satisfied with the outcome, which may not have been the case if the project staff made decisions
- Self Supply promotion requires a lot of quality interaction with different community stakeholders. To do this effectively, means working with fewer communities per field staff than implementers usually plan for in traditional approaches.
- In order to encourage water point owners to upgrade their facilities, it requires identifying and utilizing effective and influential communication channels. Developing community linkages with key CBOs served as a source of information and feedback to both the water source owners and project staff.

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## **Governance Reforms in Rural Water Supply in Maharashtra, India**

J.V. R. Murty (WSP-SA, The World Bank, India)

### **Stream: Governance**

#### **Summary of presentation**

Maharashtra is located in the Western India and has a total population of about 97 million as per the last census of 2001. Out of this, 56 million (58%) population resides in rural and 41 million (42%) in urban areas. The State has 35 districts. Two of the districts are urban (Mumbai and Mumbai suburban) while the remaining 33 are rural. For administrative purposes the State is divided into six revenue divisions<sup>5</sup>. The rural population resides in 24,000 Gram Panchayats, further sub-divided into 40,785 villages and around 45,500 habitations.

Despite sizeable investments over two decades (80s and 90s) in the RWSS sector, many citizens still remained without access to safe and adequate water and sanitation in Maharashtra. On the other hand there was a financial crisis where resources were limited and needs were many. This situation prompted Government of Maharashtra to undertake governance reforms in the sector, in the year 2000.

The reforms included:

- Uniform approach across the state (33 districts, 24,000 gram panchayats) irrespective of source of funding
- Local governments to lead the process of need identification, designs, execution and O&M , in full consultation with residents
- The Village Water and Sanitation Committee (VWSC) is the vehicle to assist local governments in the process
- The village should contribute 10% of capital cost and agree to pay for full O&M costs (including power cost) through appropriate user fees. Village free to decide their user fees.
- The District government to provide technical support to the villages and also supervise quality of the process and works.
- The centralized Public Health Engineering Department (PHED) has been restructured to play a role of technical consultants to villages.
- Introduced competitive rewards based on performance indicator for the local governments.

All these reforms led to a drastic shift from the traditional top-down approach to a bottom-up approach across the state with appropriate institutional strictures to support the process. The changes in roles and responsibilities before and after reforms are shown below in Table-1.

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<sup>5</sup> Konkan, Pune, Nashik, Aurangabad, Nagpur and Amravati

**Table-1: Maharashtra Rural Water Supply- Roles and Responsibilities Pre and Post-Reforms**

Project Cycle Activities	Gram Panchayat <sup>6</sup>	Block Panchayat	Zilla Panchayat	PHED <sup>7</sup>
<b>Plan, Design &amp; Execution of water supply infrastructure</b>				
Water Supply Needs Identification	❖			*
Community mobilization	❖			
Design of scheme	❖	❖	❖	
Single village	❖			*
Multi-village	❖		❖	*
Contracting	❖			*
Funds routing	❖		❖	*
Supervision during construction				
Single village	❖			*
Multi-village			❖	*
Water Quality Testing	❖	❖	❖	*
<b>O &amp; M responsibility</b>				
Single village	❖			*
Multi-village	❖		❖	*
Water tariff finalization				
In village water distr	❖ *			
Bulk water supply			❖	*
Water tariff payment collection				
In village water distr	❖ *		❖	
Bulk water supply				*
<b>Monitoring and Grievance Redressal</b>				
Capacity building of GPs			❖	
Monitoring	❖	❖	❖	*

❖ Post-reforms, \* Pre-reforms

Based on these reforms, the World Bank has financed a RWS project in the state from 2002-2009. The project has been implemented in about 3021 villages in 26 districts across the state, covering about 8.9 million rural citizens (1,162,606 households). A recently concluded report of this project indicates the following improvements due to the approach<sup>8</sup>.

<sup>6</sup> India has adopted a three tier decentralized rural governance structure and assigned different roles and responsibilities to the three tiers. The nature of the organizations and their roles vary from state to state. The Gram Panchayat (GP) is the lowest tier of elected government, the Block Panchayat is the second highest tier and the Zilla Panchayat is the district level elected government.

<sup>7</sup> The Public Health Engineering Department (PHED) is the state level centralized engineering unit that has been created in 70s in most states to design, execute and manage water supply schemes in both villages and cities.

<sup>8</sup> Draft project Implementation Completion Report, The World Bank, March 2010. The figures quoted above are subject to final revision of the report.

Indicator	Baseline Situation- 2002	Current Situation- 2010
% of GPs where water schemes are fully functional and are delivering potable water to the households as per GoM criteria <sup>9</sup>	N/A	2,294 (where water supply commissioned) 76%
% of households using sanitation facilities in project villages.	19% (220,895)	77% 898,351
% of GP where 100% open defecation free status has been achieved	0%	61% (1848)
No. of GPs where full community contribution for capital has been achieved	0	3,022
% of GPs holding a minimum of 6 gram sabhas <sup>10</sup> per year, to make decisions on planning, implementation and O&M of RWSS	0%	93% <sup>11</sup> (2,810)
% participation of women in the Gram Sabha meetings, across all GPs	5%	53%

### Key lessons

- Decentralization is part of the larger governance structure and needs political commitment, appropriate policy environment institutional structure
- While decentralizing, it is important to define the role and responsibility of the centralized institution (like the PHEDs) and also undertake necessary restructuring of the centralized agency.
- While decentralization is seen as giving a large part of the roles and responsibilities to lowest tier of government or communities, there is a need to define the support from higher tiers of governments.
- Competitions, peer-learning are good approaches to capacity building of local governments.

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<sup>9</sup> To be reachable within 1.6 km distance, 30 m vertical distance

<sup>10</sup> Gram Sabha is village assembly to make decisions concerning village development or other local issues

<sup>11</sup> Last assessed in March 2008

## Decentralised cooperation as an alternative model for financing water and sanitation: Eau Vive's Experience in Burkina Faso

Juste NANSI, Eau Vive, Burkina Faso

### Stream : Financing sustainability

#### Summary of presentation

The term “decentralised cooperation” encompasses all aspects of partnership (friendship, twinning, exchanges etc.) between the local authorities of one country and their counterparts in another country. One of Eau Vive's missions is to serve as a link between peoples, and as such, has been working with African and French local authorities for the past twenty years to help them develop cooperation projects, particularly for water and sanitation. Experience from the PASEP programme to improve water supply services in Burkina Faso (2007-2011) is used to illustrate the added value of this financing mechanism both in terms of the type of intervention and the sustainability of the partnership. The conditions that would be needed to scale up this type of project are discussed, and suggestions are made for further developing such financing mechanisms.

#### Decentralised Cooperation and the PASEP programme

Financing of the PASEP programme results directly from the provisions of the Oudin-Santini Law in France, which since 2005, has permitted local and regional authorities as well as public water utilities to dedicate up to 1% of their water and sanitation service provision budgets to finance international cooperation projects in this sector. At the initiative of nine *communes*<sup>12</sup> in Burkina Faso and the national public water utility (ONEA), and within the national framework of decentralised water services, the PASEP was designed to respond to the poor technical and financial performances of the water supply networks, and the lack of local service management capacities. The French partners are the Paris region water authority (SEDIF) and the city of Reims.

Unlike conventional watsan projects, 45% of the overall budget of this project (€700 000) was dedicated to the capacity building of the local authorities (*communes*) and other local service management stakeholders. This was due to the partners' knowledge of this field (the city of Reims directly manages its own public water supply services and the SEDIF provides services to 144 towns in the Paris region). Their understanding of the issues involved in developing and managing water services led them to place a strong emphasis on local skills development and also meant they allowed considerable flexibility in project design to facilitate adaptations as implementation progressed.

Indeed, the main achievement of the project thus far is the way the local authorities have been able to assume their responsibilities thanks to a much better understanding of the issues at stake and of water supply service management. They have been able to develop an overall vision of the service working alongside local ONEA technicians to specify the network improvements required. Their exchanges with the French partners have given them insights into two different management systems (direct and contracted), helping them to identify the most appropriate management system for their towns (bearing in mind local social, economic and political factors). These local authorities have also refined their own expectations and demands regarding the way the operator runs the network, ensuring better management of resources to cover maintenance and some of the investment costs. In terms of organisational structure, a *Communal Water Commission* now exists in each *commune*. Representing all stakeholder groups (elected officials, users, technicians, water sellers etc.), it coordinates consultations and deliberations on service provision, formulates proposals and recommendations and monitors the local authorities responsible for the service.

<sup>12</sup> Administratively, Burkina Faso is divided into 13 regions, which are divided into 45 provinces and in turn 351 *communes*

As urban water supply management improves, the local authorities are now turning their attention to their rural constituencies, not covered by the PASEP. Thanks to the aforementioned flexibility within the PASEP, steps were taken in 2009 to seek financing to extend actions to rural areas by approaching existing “twins” or decentralised cooperation partners. Following visits and exchanges between partners in both countries, three towns in France have undertaken to support the *commune* of Zorgho, to improve rural water supply services from 2010-2015. The project budget is approximately €450 000. This project is based on Zorgho’s official Communal Development Plan for the WatSan sector. The French local authorities that are involved will contribute from their own budgets, but will also mobilise funds from other bodies (water agencies, water syndicates etc.) eligible to contribute thanks to the Oudin-Santini law. These mechanisms enable local authorities in the South to have access to fairly substantial and sustainable funding resources, thanks to the trust that is built between the partners. French watsan sector stakeholder network, pS-Eau, estimates that in 2009 the Oudin-Santini law mobilised around €11.5 million for international water and sanitation projects, and about 1,3 billion F CFA (2 million euros) in Burkina Faso.

### Conditions for scaling up or extending practices

A favourable institutional context (e.g. established solidarity mechanisms in the North, similar service provision structures in North and South to facilitate experience sharing) / Existing partnerships where ties of familiarity and trust have already been established – or new contact established by mutually trusted partner / A development “operator” like Eau Vive with strong expertise and knowledge of both sides / Taking into account the local context within framework of national sector strategies

### Recommendations

Share experiences and results widely in the North and South to mobilise further partnerships and decentralised cooperation to target water and sanitation and to encourage dissemination of good practices.

### Key lessons

- **Sustainability:** Decentralised Cooperation is an alternative means of financing local water supply services that encourages all stakeholders (North and South) to take responsibility and play an active role. The sharing of experience is key to building capacities for sound management to ensure service sustainability.
- **Sustainability:** The relationship of mutual trust that is built between the local authorities through active cooperation and the technical assistance provided by those experienced in watsan service provision is an important factor in ensuring on-going financial support.
- **Scaling up:** The experience of reviving existing decentralised cooperation partnerships and focusing them on water and sanitation would seem to have significant potential for scaling up the PASEP experience in several other *communes* in Burkina.
- **Recommendations:** Capitalising on the experience of this financing mechanism and sharing the results widely would contribute greatly to expanding the experience

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## Sector Decentralization Funding - Principles and Approaches

Jane Nimpamya, Association of Private Water Operators in Uganda (APWO – Uganda)

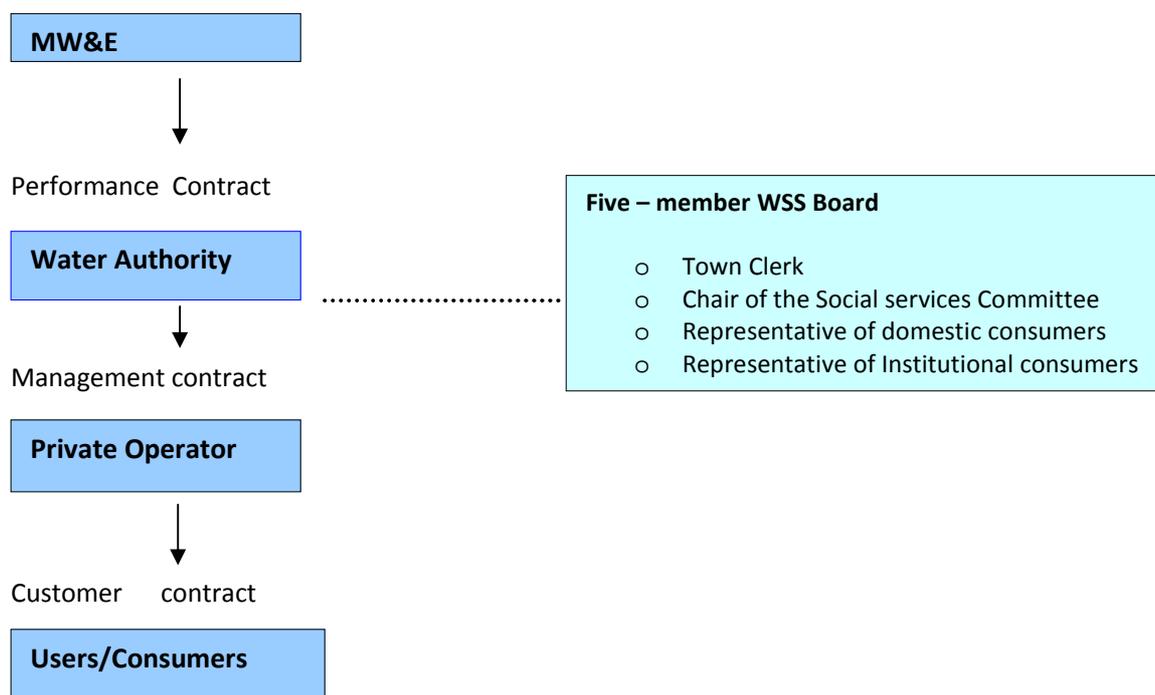
**Stream: Identifying Challenges to sustainable service delivery**

### Summary of presentation

Concept of PSP in the water sector was derived from the government programme of decentralisation of essential services from the centre to the local governments. There was lack of capacity at the local government levels to ensure efficiency and effectiveness of water supply service delivery to the communities in small towns. Private sector brought in professionalism in form of private water operators.

Since 2001, the Uganda's water sector has had private water operators managing water supply systems/schemes in small towns under management contracts with local authorities, (the town councils/town boards). To date, Private Water operators are managing 74 water supply schemes in Uganda out of the 205 completed ones. The target is to have all water supply schemes both rural and small towns managed by PWOs.

**Fig.1 Contractual Structure of the Urban Water supply Sub Sector**



The Ministry of Water and Environment (MWE) signs a performance contract with the Water Authority which is Local Government while the Water Authority signs a management contract with the Private Water Operator (PWO) who in turn signs a customer/consumer contract with the users/consumers. The Private Operator is directly supervised by the Water Supply and Sanitation Board (WSSB) of the Water Authority/Local government. The management contract requires the Private operator to provide services of

management of the water supply schemes and provision of sanitation services within the town council and the neighborhoods. The roles of each are well laid in the contracts

In addition, there are various policies that support PSP in the water sector and all are geared towards harmonization although some laws and policies were passed before the introduction of PSP which makes it not easy to harmonize policies.

The operators are coordinated by the Association of Private Water Operators (APWO) and the Regulation unit in the Ministry of water provides the regulation role while the water supply and sanitation board of the Local Governments provide the supervisory role.

The article **aims** at assessing how introduction of private water operators has improved service delivery in small towns and rural growth centers, hence contributed to attainment of national development targets and MDGS.

**Methodology:** Literature review, collection of data from monthly and annual reports submitted to the Ministry of Water and Environment by the Local authorities (Local governments), interviews of some Water Boards of Local Governments and Private water Operators

#### **Achievement**

The main achievement of this approach is to improve efficiency in service delivery while using private operators as a tool to reach more rural areas.

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## Cost and financing of rural and small towns water services delivery in Ghana

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### Stream: Finance

#### Summary of presentation

This note presents preliminary results from the WASHCost pilot studies in two districts of Ghana on the cost of service delivery using the Life Cycle Cost Approach (LCCA). The main cost components proposed by WASHCost for the LCC from Fonseca et al. (2010), are: capital expenditure (CapEx), operating and minor maintenance (OpEx), cost of capita (CoC), capital maintenance expenditure (CapManEx), and the expenditure with support cost. The results shown are limited to only CapEx, OpEx and CapManEx due to insufficient data on cost of capital and the support cost. The systems used for the study cover the main technologies for delivering rural and small towns' water services in Ghana: multi-village piped scheme (MVS), single-village piped scheme (SVS) and boreholes with hand pumps (BHPs) also known as water point sources. These technologies also give an indication of the levels of service: the BHPs provide the basic water supply of 20l/c/d while the piped water schemes provide an intermediate supply which is a mix of house connection (60l/c/day for 20% of users) and public standpipe (20l/c/day for 80% of users).

The CapEx per person was adjusted by inflation and compared for the various technologies. The OpEx and CapManEx adjustment was made for inflation and annualised based on the number of years of operation to get an annual equivalent for the period. The LCC was used to determine the annual cost of water service delivery by annualising the CapEx using an inflation of 15% and a useful life of 20 years and adding the annual OpEx and CapManEx to obtain the total annual cost of service delivery.

The cost of operating and maintaining the systems (OpEx and CapManEx) reveals a wide variation. The OpEx for piped schemes is generally higher than the CapManEx but in the case of the BHPs it is the reverse. The CapManEx, which refers to expenditure to keep the asset in good shape such as repairs and replacement of parts in the case of the MVS is about 12 times that of the SVS. CapManEx for the SVS is also about 5-7 times that of the point source.

#### Financing

Financing arrangement for water schemes was as follows: ESA 90%, District Assembly 5 %, and community contribution 5 %. However, since 2009 the new government has abolished the community contribution. There are new financing arrangements emerging where the private sector provide all the funding and sell to the community members. The financing and cost recovery arrangements are not yet clear. The financing of Capital Maintenance Expenditure is not clear.

#### Planning and budgeting

The Community Water and Sanitation Agency (CWSA) is the government agency that facilitates rural water provision. CWSA prepares the Strategic Investment Plans (SIPs) for the provision of new facilities where the per capita cost figure for planning in the preparation of the SIPs is US\$ 45per person. The information provided in the SIP guides project preparation but actual cost of project implementation is established by the market through the bidding process.

### Next steps

This note has presented the preliminary results which are not representative of the country. WASHCost has scaled up data collection to more regions and district to provide clearer understanding of the cost of water service delivery in Ghana.

### Key lessons

- The relative magnitude of cost for different technologies and services levels for the water facilities and the water services are valuable information for planning and implementing a sustainable water service delivery for rural and small town communities.
- With other forms of finance outside the government emerging the life cycle cost approach produces robust and easily comparable figures for the annual cost of providing rural and small town water services that could inform the various financing mechanisms.
- Lack of planning and budgeting beyond the investment cost will adversely affect sustainability

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## Local funding for water and sanitation services in Madagascar

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### Stream: Funding streams for sustainable service delivery at all levels

#### Summary of presentation

##### The three financing blocs

According to the current law, communes are in charge of making decisions on investments for water and sanitation

services in their constituency and of the dialogue on programmes for developing public water and sanitation services that affect them. This system requires funding for capital expenditure to be available at commune level through the different financing blocs: intergovernmental transfers, sector funds, off-budget funds.

The Intergovernmental transfers dedicated to communes are just too small giving that they got less than 1.8% of the overall State budget in 2007. Initially, every commune in Madagascar gets a basic grant for operating costs amounting to about \$3000 per annum. Few of them get capital cost from central government.

##### Madagascar

With an area of 587,041 kms, Madagascar is the world's fourth largest island. Of its 19.7 million inhabitants, 71% live below the poverty line. In 2005, Madagascar ranked 143 out of 173 countries on the United Nations Development Programme's (UNDP) Human Development Index. There are 22 regions and 1559 communes in Madagascar.

Coverage indicators for water supply and sanitation show that access is low, and varies greatly in urban and rural areas. According to JMP, in 2008, an average of 41% of the population had access to safe drinking water and 15% had access to adequate sanitation. Access to water in urban areas was 71%, and access to sanitation was 27%. In contrast, access to water in rural areas was 29% and access to sanitation was only 10%.

Water and sanitation sector funds are essentially administered by the Ministry in charge of Water and Sanitation. Those funds are decentralised only as far as the budget for running its 12 interregional Directorates. The Ministry in charge of water only allocated 1% of its operating budget to regional branches of state agencies. For now, planning relating to the State Investment Programme is still a central administration privilege.

Funding from NGOs is not included in the State's budget and considered as off-budget. The 2006 Public Expenditure Review concluded that such resources could amount to 15% of the Ministry in charge of water budget. Such funds are invested locally.

##### Coordination of various initiatives by local authorities

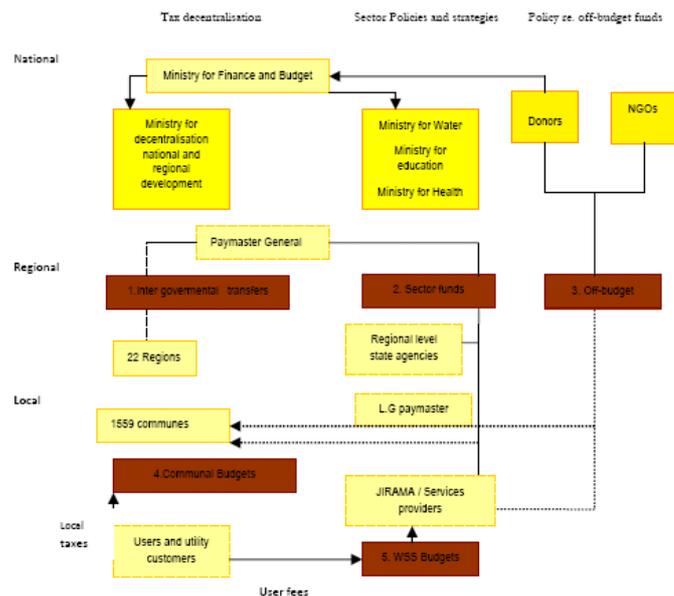
In Madagascar, Communes can use two tools (planning and consultation) to ensure the social and economic development of their territories. The formulation of the Communal Action Plan if this is organized in a consultative way is an opportunity to mobilize stakeholders to integrate their own water and sanitation plans. It is crucial for sustainability purpose that local authorities have an overview of what is planned and a good understanding of current and future water and sanitation provisions. They will be able to provide external supports to service providers or at least informed on difficulties which undermine a permanent provision of water and sanitation services.

Nevertheless, the result is disappointing. Local governments have little information on off-budget funds available for their constituencies and can not have access to them. The Communal Action Plan and the water and sanitation plan at central level are rarely linked.

## The local financing flows from users to service providers

As manager of a public water supply, the commune must ensure the development of water services and waste water networks on its territory. In practice, it can contract out water services through leasing or management contracts. The leasing was developed in 30 communes with the Ministry in charge of water in 2006 and only half of them are still engaged in such contract. In a lease contract, the municipality reserves the ownership and financing of investments. The “farmer” is simply an operator

required to ensure the operation of the public service, through taxes or fees paid by users for the services rendered. The concessions, rights, and duties of the “farmer” are explicitly defined with respect to both the commune and the user. To enable the commune to recoup its investments, the operator also collects what is called a “surcharge” on users and transfers it to the commune. The amount of the surcharge is set by the commune council, taking into account the annuity, loan capital, and interest rate.



## New financing mechanisms

The local Development Fund (LDF) is one of the new financing mechanisms developed in Madagascar. This is a specific form of intergovernmental transfer to assure communal and inter-communal investment. FDL is providing subsidies to fund locally determined project priorities through a common basket fund financed by some donors. The LDF aims to:

- build the capacities of communes
- finance communes activities through budget supports
- ensure alignment, ownership and harmonization of actions.

The fund allocation depends on the number of population, infrastructure gap and distance from the capital of District or region.

The user contribution is also an alternative to local finance. The National Company of water (and electricity), JIRAMA can subcontract the operation and maintenance of public tap to a user association or small private sector. These associations or small private sector recruit or elect a manager to run each public tap. For instance in the rural Commune of Ankadikely Ilafy (sub-urban of Antananarivo), the manager sets the price -per-bucket that ranges from 0.01\$ to 0.025\$ among different taps. The revenue from these small payments is divided as follows: ¼ is kept by the tap manager as a salary; ¼ stays within the fokontany in which the tap is located to provide for maintenance of the water system; the final ½ goes to the commune to pay for the water consumption (which is billed at the aforementioned rate of 0.2 \$ per cubic meter).

## Key lessons

- To fulfil its role as manager of water and sanitation services in its territory, Commune has to ensure that capital expenditure is available at commune level through the different financing blocs: intergovernmental transfers, sector funds, off-budget funds.
- The commune should be able to coordinate activities, interventions and all financings in its consistency
- The new financing models should be implemented to reach universal access

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## Support to the Sustainability of Rural Water Systems The Experience of Honduras

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### Stream: Service Delivery Models

#### Summary of presentation

After decades of intense activity Honduras has achieved success in increasing access to water and sanitation for the rural population, coverage amounts to 81% by broad definition. This activity includes the construction of around 6 thousand conventional water systems with patio taps. The systems are delivered to the beneficiary communities after completion, to be administered by local Water Boards composed of elected members who serve two years of voluntary service. Water Boards are well trained and their motivation is at peak when receiving a new or renovated system so important for their well being. Honduran Law grants ownership of water systems to the communities and recognizes Water Boards as operators after sanctioned by the Municipality.

Water Boards have demonstrated to be ideal to run rural water systems, but during the 90s surfaces awareness about poor quality of the services, in spite of the huge investments done. Too many systems showed deficiencies ranging from poor performance of Water Boards to premature collapse of the entire system.

Field investigations suggested a common path of gradual deterioration, typically starting with Water Boards ceasing to reunite periodically, lost members not replaced, lack of renovation and other administrative deficiencies leading to wrong decisions and simple problems unattended turning into bigger problems each passing day. Several institutions worked out responses, mostly capitalizing the strengths of Water Boards while overcoming their weaknesses by promoting Water Board associations, to care for themselves:

Model	Sponsor/type of organization	Level
Central Committee	Catholic Relief Services / NGO	Regional
Water Regional Council	Save the Children Honduras / NGO	Regional
AHJASA (Honduras Water and Sanitation Boards Assoc.)	AHJASA / NGO	Supraregional
AJAM (Association of Municipality Water Boards)	SANAA / National utility	Municipal
Program of Sustainability Support	SANAA / National utility	National

The National Autonomous Service of Aqueducts and Sewer Systems (SANAA by his Spanish acronym) implemented with financing from USAID the Program of Sustainability Support, that revolves around the "Operation and Maintenance Technician" or "TOM" by his Spanish acronym. Each TOM cares for up to 50 water systems he visits regularly to make review work, diagnostics and, based on the field information, he implements training and educative events to fix administrative deficiencies as well as advice and supervision work. Visits, advice and supervision work, training and education events are free services, in order to booster confidence in the TOM. In turn Water Boards must assume corrective actions and the costs to fix physical deficiencies.

The information gathered is feed into the Rural Water Systems Information System (SIAR by his Spanish acronym) that yields a global overview and valuable statistics, identifies weaknesses and serves as a planning tool. Diagnostics are used to classify water systems into four categories as shown in the table ahead. All activities are intended to preserve systems already in category "A" and to promote systems in categories "B" and "C" into category "A".

The Program worked very well for more than ten years, delivering excellent results including principles to intervene

rural water systems regularly without supplanting local responsibilities. The percentage of Category “A” systems increased from a disheartening 6% to a more reasonable 45%. Category “A” is now an indicator of sustainability.

### Water System Categories

CATEGORY	DESCRIPTION	EXAMPLE OF MEASURES TO TAKE
A	The system works fine, chlorination is in practice, the Water Board meets regularly and is well organized. There’s a tariff and bad debts are moderate.	Praise the good work, encourage the Water Board to care for the status of the system
B	The system is working but it shows administrative deficiencies. Investments are not needed to improve the system category to “A”.	Work with the Water Board to correct the administrative deficiencies
C	The system works totally or partially but it shows administrative and physical deficiencies. Investments are required to improve the system category to “A”. Repairing costs can be afforded by the community.	Reorganize the Water Board Reinforce training and education Identify deficiencies and corrective actions Supervise reparation works
D	The system is so broken down in physical and administrative terms that the costs to correct such deficiencies are beyond the capacity of the community.	The TOM, will not dedicate much time to this system since little he can do to improve the situation

After USAID support ended the Program could not sustain itself and several accomplishments came to a halt or went backwards; later interventions partially improved conditions but now the situation is mainly defined by local and regional models, leaving many communities aside.

SANAA has experienced integrating and nurturing Water Board Associations within municipal boundaries, a concept known as AJAM that facilitates mutual assistance and provides a convenient link between Water Boards and local or central governments for purposes of regulation, control, planning, auditing and others. Several AJAMs have blossomed around the country; some have come up to develop a great deal of maturity, assuming an active role in sustainability.

SANAA intends to adapt the Program of Sustainability Support by means of strengthened AJAMS, and expand this concept to form a web to cover the whole country replicating the original Program, but with most services paid by the communities, always with the continuous support of SANAA as a Technical Adviser, a role assigned by the Law.

### Key lessons

- Water Boards are well suited to operate rural systems but need some form of backup support. Weaknesses with respect to operating performance and unattended damages endanger the sustainability;
- Rural water systems as well as their operators are prone to decay over time, especially when left alone;
- Corrective measures and actions taken by Water Boards under encouragement by professional, external agents are key steps to preserve the quality of the services and prolong the integrity of the systems; Water Board Associations are promising and in many cases proven mechanisms to strengthen sustainability.

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## Models for support to sustainability to community-based management in Colombia

Johnny Rojas, Adriana Zamora, Shirley Paola Tamayo, Mariela García and Stef Smits (Cinara/Univalle, Colombia & IRC, the Netherlands)

### Stream: service delivery models

#### Summary of presentation

Colombia's water supply and sanitation services provision is regulated by Law 142 of 1994, which stipulates that municipalities are responsible for guaranteeing that these services are provided. However, this does not necessarily mean that municipalities have to become service providers themselves; they have to promote the conformation of water utilities for service provision to which four different modalities are identified: private utilities, public utilities, public-private utilities and community-based organisations. There are an estimated 11.500 community water service providers in Colombia, particularly in rural areas, which makes them the predominant management modality in the country. Even though community-based management is considered by many the most appropriate management model in rural areas, many operators also face difficulties in managing and operating their water supply systems, thereby putting performance and sustainability of services at risk. In response to these difficulties, various forms of support to community-based organisations have arisen. This presentation provides an overview of these efforts and models to support community-based operators.

At the national level, it has been the responsible Ministry of Environment, Housing and Territorial Development (MAVDT) that recognised the need for support to community-based operators. In a survey it undertook in 1998, it appeared that of the 11.500 operators, only a small percentage was registered with the sector regulator and control entities (CRA and SSPD), and equally small percentages of these had adequately trained staff or were complying with basic legal and administrative requirements. Many small municipalities were facing similar problems themselves. Hence, the MAVDT started a programme called "entrepreneurial culture", which emphasised that even though community-based service providers are non-profit bodies, they should need to adopt basic "business" principles and good management practices, in order to be an adequate service provider. As part of the programme, various tools and methods were developed to support rural operators in carrying out the legalization process required by the Colombian law and adopting the management practices needed to improve their performance. Booklets were developed explaining how to carry out cost and tariff studies, or develop and O&M plan. Computer software was provided to support communities in billing and book keeping. In addition, MAVDT started to support rural operators directly through training and technical assistance. However, with only two staff members dedicated to run the entrepreneurial culture program, its capacity for support has been limited; the MAVDT has only been able to support 1100 rural operators over the 10 years the programme has been running, i.e. only 10% of all rural operators. In this process, rural operators have also been encouraged to register themselves formally as service providers at the regulating entities, and to be incorporated into the sector information system. This would allow central government to carry out monitoring and control over rural operators, but also help them formalising their businesses. However, a commonly heard complaint of rural operators is that they prefer not to register as the regulator also hands out fines in case of non-compliance with rules and regulations. As a result, for many rural operators, registering with the national regulator has often become a burden rather than a source of support. Additionally, rural operators commonly find it impossible to fill out information into the sector information system as it requires a huge amount of information, much of which is not relevant for small rural operators.

In the view of the limited support from national government, rural communities and municipalities are seeking other models for support to rural operators. A survey in two departments in Colombia (Caldas and Valle del Cauca) already showed a wide range of support models. These include:

- Mutual support between communities. An example of this is Aquacol. This association of community-based service providers was established in 2001. Aquacol is a platform for a collaborative action between

communities and its members provide mutual support on the basis of horizontal learning and solidarity principles. In addition, it undertakes advocacy activities at national to lobby for regulation and policy which is adjusted to the rural context.

- Support by municipalities to rural communities in their area of jurisdiction. Even though the policy framework mentions that municipalities need to guarantee water supply, also in their rural areas, few municipalities actively undertake support activities in their rural areas. However, some promising examples were found in which municipalities provide such support, either directly through a dedicated unit (for example in the Municipality of Cali), or where it contracts the utility for the urban area to also provide support to the surrounding rural areas, which happens for example in the rural areas of the cities of Manizales and Medellin.
- Addressing attention to rural areas by Departmental authorities and programmes. Two of the Departments in Colombia have started doing this. In the Valle del Cauca, a dedicated rural water supply programme (PAAR) started in 2004 as an effort to pool resources and capacities between municipalities, Departmental authorities and others. This programme has focused both on new investments in rural water supply systems, alongside strengthening of management practices of operators. In the Caldas Departmental government a dedicated unit for rural water supply. These efforts are now being superseded by the so-called Departmental Water Plans (PDAs). This is a nation-wide effort to pool financial resources and capacity together at Departmental level. This would allow reducing fragmentation of limited investments by small municipalities. However, the PDAs are biased towards investments in water and sanitation in urban areas only. Even though Caldas and Valle del Cauca try to maintain their focus to rural areas, the financial basis for that is undermined by the PDAs, as these would absorb most of the budget. Hence, the PDAs are seen as a possible threat to investment and attention to rural areas.
- An exceptional model of support to rural operators is the experience of the Coffee Growers' Association. In the areas where coffee growing is the main economic activity, this Association has for almost 40 years been providing assistance to rural communities in the development but also administration of rural water supply. Originally, the rationale of these water systems was for productive activities, particularly processing coffee beans, but over time these have also become used for domestic water supply.

### Key lessons

- These examples show that there is a high demand from rural service providers for support. The government, through the MAVDT, Departmental governments and municipalities only provides limited support. It depends on the proactiveness and willingness of dedicated municipalities and Departments to set up structured support. In absence of that, rural operators seek mutual support among themselves, or remain isolated and left on their own.
- However, programmes of support to rural areas, need to take into account the realities of rural operators. There is a high diversity amongst them in terms of level of professionalism. Some are well organised and can be regulated accordingly. But much support needs to go to those rural communities that are operating in the most basic manner. Support to them will have much more basic requirements.

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## Principles and Best Practice for realizing Gender Inclusion and Equity in Sustainable Rural Water Supply Services

Rop, Rosemary, [Water and Sanitation Program, Africa]

### Stream: (Governance)

#### Summary of presentation

##### *Introduction*

This presentation focuses on the practices that support gender responsiveness and equity in rural water supply as a feature of inclusive governance. Gender is a concept that refers to the socially constructed roles, behaviour, activities and attributes that a particular society considers appropriate for men and women.

##### *Importance of gender inclusion and equity to sustainability of Rural water services*

The water and sanitation sector has the potential to have one of the most positive impacts on the socio political and economic position of women, girls and marginalized groups in Africa. Sustainable, affordable services lift them from a life preoccupied with basics. Quality services can improve their health and that of their families, improve their security and free them to engage in social, economic, educational and political activity. In eastern Uganda research found households spending on average 660 hours per year collecting water, which represents two full months of labour. In spite of their central responsibility in water and sanitation issues, women often have very limited role in public and private decision making regarding water resource management and development. Equitable involvement of men and women has been positively correlated with improved sustainability, improved transparency and governance in management of rural water services

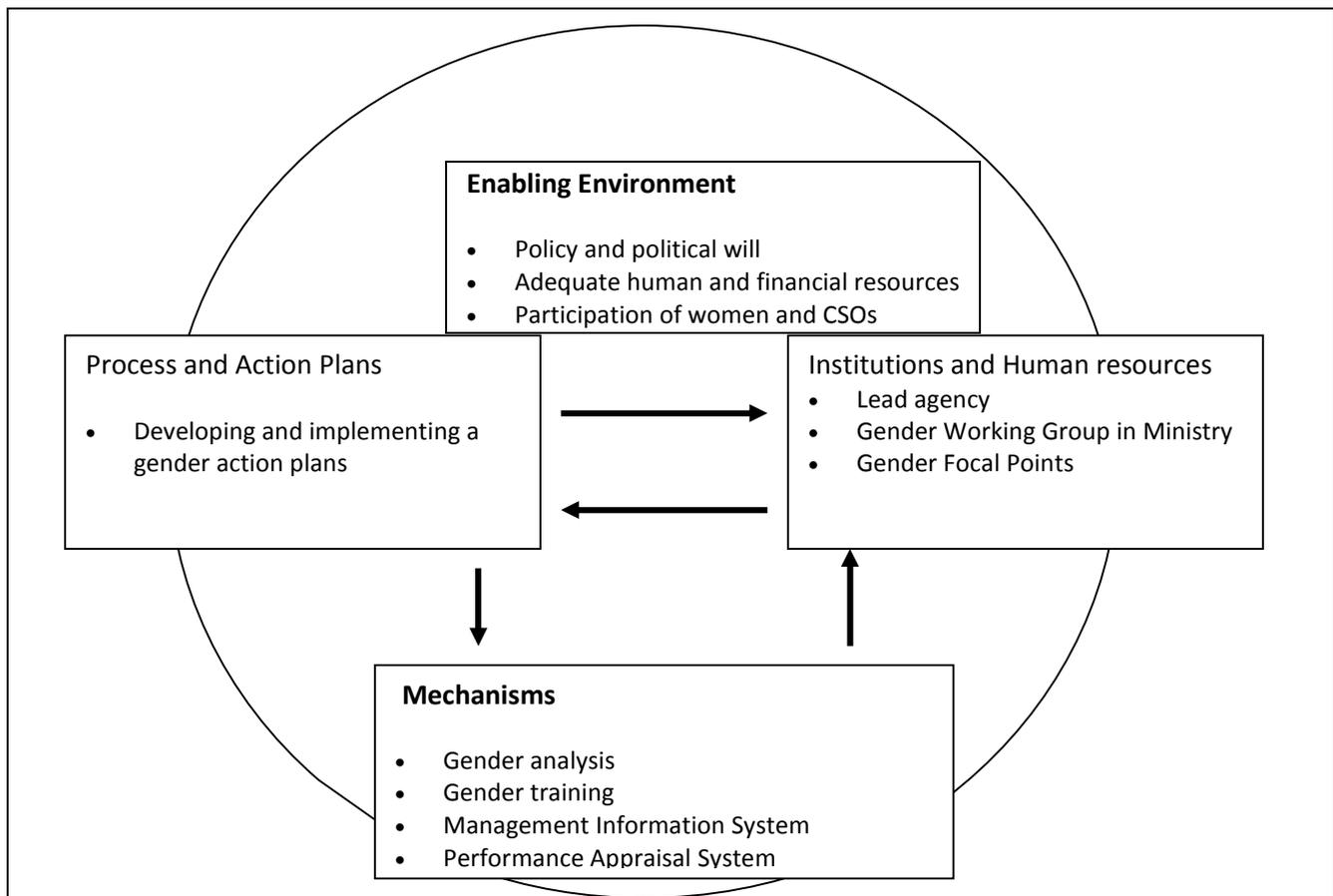
##### *Practices for ensuring gender inclusion and equity in rural water supply*

Governments need to undertake gender analysis to inform policy formulation and provide an enabling environment. Policy indicates government's intentions to adopt a gender responsive approach and forms the basis for resource allocation. The budget is the most important policy tool as money is never gender neutral. At this level the practice of gender responsive budgeting facilitates targeting of expenditure to meet differentiated needs in society.

Institutions engaged in rural WSS operations need to adopt institutional policies and strategies that address gender firstly internally, to be seen to walk the talk and ensure a gender and diversity friendly work environment. At another level agencies must ensure that staff is equipped to mainstream gender throughout their action plans and project cycles - planning, design, budgeting, implementation, monitoring and evaluation.

Governments will need to monitor and evaluate gender at country and regional level by collecting sex-disaggregated data, undertake gender analysis and using outcomes for decision-making for improved service delivery. In addition to this is capacity building and enforcing compliance through the use of performance contracts.

Finally the role of the ministry in providing leadership to gender mainstreaming efforts involves appointing focal points, setting up working groups and ensuring that all sector players support policy objectives. All the above practices work to complement each other as shown in the diagram below.



Source: Adopted from the Gender Management System Handbook, Commonwealth Secretariat

### Key lessons

- Ensure enabling environment by mainstreaming gender into sector policies, budgets and strategy.
- Address gender within operations, sector action plans and project cycles
- Put in place mechanisms for training, monitoring and evaluation and enforcement of policy
- Assign institutional roles and appoint persons responsible for mainstreaming tasks

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## Building an institutional rain water harvesting environment: The RAIN model and its challenges

Nijhof, S. & A. Schoemaker, RAIN Foundation, the Netherlands

### Stream: Governance

#### Summary of presentation

##### Introduction

RAIN Foundation is an international network with the aim to increase access to water for vulnerable sections of society in developing countries by collecting and storing rainwater. Since 2005, RAIN and its partners focus on field implementation of small-scale rainwater harvesting (RWH) projects in Nepal, Ethiopia, Burkina Faso, Mali and Senegal. Project implementation goes hand in hand with capacity building of local organisations and with knowledge exchange on a global scale. RAIN focuses on regions where other sources of water supply are not viable or available, using low-cost and simple technologies which are adapted to local conditions.

##### Institutional capacity building around rainwater harvesting

There are lots of often isolated experiences in the practice of domestic RWH everywhere, but a major framework for legal and policy issues, and thus for the mainstreaming and integration of Rainwater Harvesting in public water supply is still missing (Hartung 2010). At the same time it is critical to analyse the current water institutional framework and management mechanisms within the context of Integrated Water Resource Management (IWRM) and climate change. Building and strengthening an institutional setting focusing on RWH in combination with IWRM and climate change adaptation is essential for ensuring successful and sustainable RWH implementation. A multiplier effect is achieved when there are strong linkages among education and research institutions, NGOs and public and private extension services (Wanjohi 2006), working together to manage and coordinate implementation activities, promote knowledge exchange, optimise technologies and practices and ensure integration of RWH into policies and plans. In order to build the institutional framework for RWH, RAIN and its partners establish Rainwater Harvesting Capacity Centres (RHCCs) in each country under the RAIN programme, overseeing project implementation, but also coordinating promotion and lobby activities at a national level. One of the aims is the inclusion and recognition of RWH in national water policies as a viable solution to help achieve Millennium Development Goal 7. The centres involve and bring together key players within the sector through workshops and more day-to-day consultations about RWH policies, water source mapping, water quality testing, monitoring, impact measurement, and alike. Related activities of RAIN in collaboration with the RHCCs are training- and awareness sessions, exchange visits, regional workshops, and capacity building of communities to stimulate local management and encourage financial self-sufficiency of users.

##### Programme implementation

For programme implementation, RAIN and the RHCCs identify priority intervention areas at a national level and contract NGO's already working within these regions. The RHCC and RAIN train these partnering NGOs in RWH and monitor and evaluate project implementation. The centres also play a central role in learning and knowledge exchange, systematizing best practices and experiences. User manuals have been developed in English and French, as well as rainwater quality guidelines. Most NGO's have been able to achieve ambitious construction targets despite the remoteness of some of these sites. In-country capacity development has increased the number of trained and experienced NGOs, technicians, masons and trainers in the RWH technology, as well as community-based water committees and households in management of the RWH systems. Extension workers support households and water committees to manage water distribution and payment schemes, and to maintain water quality and hygiene.

##### Challenges

To ensure the sustainability and continuity of RWH at country level, it is essential to define what capacities

are required at different levels to maintain a RWH institutional structure on the long run. Which financial mechanisms can be further developed, based on entrepreneurship, microfinance etc.? How can rainwater for drinking purposes be transformed into an interesting business case? Furthermore, there is the matter of upscaling. The strength of RWH lies in the fact that these are often small-scale solutions, not being adopted in agendas or large IRWM projects. How does one plan upscaling? How do you convince decision makers of its vast potential and integrate it into their mindset and programmes? How do you promote RWH as a sustainable, low-cost and demand driven solution to the water problem – turning it into a national policy? Various solutions can be brought up, which form a rich base for discussion.

## Key lessons

Throughout the years, RAIN has learned that the key success factor is to ensure and manage on a long-term large-scale implementation of RWH by:

- Optimising technologies and providing low-cost options;
- Adapting RWH to local needs and integrating it into local practices;
- Encouraging local market development and making rainwater harvesting a financially attractive option;
- Building up and strengthening (local) capacities for implementation, management, operation & maintenance, and knowledge exchange on RWH;
- Integrating RWH into policies and programmes.

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## The Challenges of CBOs and Absence of Post Construction Support in Indonesia

Jemima T. Sy & Deviariandy Setiawan [WSP, Indonesia]

**Stream: Governance**

### Summary of presentation

CBOs have been a useful vehicle for village project implementation – the literature on community-driven development attributes a number of positive outcomes from this approach, including increased ownership for the project, lower project costs, more equitable sharing of benefits, etc. Their performance in post-project infrastructure management, however, is not as conclusive, but indicative of opportunities.

A study conducted of a sample of 171 CBOs in 5 districts in West and East Java found that they provide a far-reaching service – catering to an average of 1,200 persons (300 households) per organization, or a total population of over 200,000. The total number of CBOs operating in these 5 districts could be serving up to 800,000 people, representing about 7% of the total population in those districts. Most CBOs are able to provide 20-24 hours service (70%) seven days a week (85%), but nearly all rate the adequacy of pressure to be ‘less than adequate,’ indicating underperformance of the system.

A large majority (70%) of CBOs generates revenues sufficient to cover their operational expenses. But, considering CBOs are fundamentally cash-based organizations, the fact that a number of them have collection periods (i.e. annual accounts receivables in equivalent months of operating expenses) of 1 month and above, indicates that they face some commercial challenges.

Significant levels of assets are presently in the charge of these grassroots organizations. They manage water production, conveyance and storage systems, office buildings and own land. In fixed assets alone, CBOs in these provinces are managing assets worth millions of US dollars. However, many CBOs do not adequately record the value and status of their assets. This constrains their ability to even begin to understand their base positions, to plan for replacement and expansion and may have implications on their accountability.

CBOs operate within a rapidly changing environment. Economic and population growth (urbanization) in formerly rural communities often give rise to an associated increase in demand for better levels of service as incomes grow. In theory, CBOs would be able to operate the initial water supply infrastructure throughout a larger portion of the system’s design life (typically, 10 years) and expand services to those yet unserved. In reality, other factors come into play, which affect their ability to do so:

- *Limitations on commercial management systems* – Expansion requires more sophisticated management solutions beyond what CBOs might be able to currently arrange. An increase in the numbers of customers, for example, will require improved billings and collection practices, better customer registries, and improved financial recording.
- *Technical design and implementation constraints* – Engineering designs and construction require expert inputs that are either not readily available in, or not tapped by, the community. The public sector is often slow to respond to these needs, and so CBOs tend to make system improvements without such inputs. Faulty design and expansion can often threaten the technical integrity of the system.
- *Access to capital finance* – CBOs are presently reliant on grants and internally-generated cash (IGC) to fund improvements. Grant funding is frequently highly discretionary and therefore, unpredictable; while reliance on IGC constrains CBOs from the timely funding of larger value projects as they would have to save over a number of years. Very few CBOs have any kind of relationship with banks – only 9 have any experience in borrowing for investments and only 20% maintain deposit accounts with banks.

### Legitimacy of Community Based Water Organizations as Water Operators

Big bang government decentralization in Indonesia, which started since 2001, has allocated primary responsibility for water supply (and under 15 others public services) to local governments. Under government regulation (PP 16/2006), CBOs operate a regulated activity at their behest. To operate water supply systems as a business (in contrast to operating for self-provision), there are two main requirements: the operator must be in possession of a 'special license' to provide water supply and the operator must be a legal entity, meanwhile majority of CBOs do not take the form of a legally recognized entity that would allow them to exist, transact with or seek support from other institutions under clear, rule-based frameworks.

In relation to obtaining a license to operate, PP 16/2006 contemplates a 'competition through a tendering process' where a state- or region-owned enterprise seeks the involvement of private sector, cooperatives or community groups. However, CBOs existing today have not gone through such tendering and received authority to operate through project-creation and accompanied by some formal recognition by the head of local government.

Thus, the articulation of the mutual rights and obligations of CBOs vis-à-vis local governments is still work in progress. As they are only just beginning to understand and take responsibility for water supply, many local governments have taken a hands-off approach to the post-project development and supervision of CBOs that were formed through national programs. This has often left a vacuum for CBOs to access much needed technical and management support. At the same time, CBOs are less accountable for poor performance in managing public infrastructures.

### Key lessons

- Water supply through community-based organizations continues to be a relevant strategy for increasing water supply coverage where Government, national and local, is looking to invest more and a great many people will continue to rely on them, for better or worse.
- The first generation of project investments focused on building systems and organizing CBOs where there was none before. It is quite complicated, so understandably, these were formed to a minimum level of viability. CBOs are increasing in numbers, looking for ways to cope.
- Firm links between local governments (LG) and CBOs are needed **in order** to clarify **obligations and responsibilities** between them in local water supply development. A model local regulation, which will provide examples of governance structures, detail roles, rights and responsibilities of CBOs and their associations within the local government's long-term water supply development strategy can be introduced as a way to achieving more rational sector development and mutual accountability.

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## **Sanitation and Water for All: A Global Framework for Action. Prospects for improved harmonization at global and national levels**

Tom Slaymaker (Senior Policy Analyst, WaterAid, UK)

### **Stream: Harmonisation**

#### **Summary of presentation**

It is increasingly recognised that the current slow rate of progress towards water and particularly sanitation MDG targets is holding back progress across all of the other MDGs.

Sanitation and Water for All: A Global Framework for Action (SWA) is a global partnership between developing countries, donors, multi-lateral agencies, civil society and other development partners working together to achieve universal and sustainable access to sanitation and drinking water.

The first SWA High Level Meeting on April 23<sup>rd</sup> 2010 will bring together Finance Ministers from developing countries and Development Ministers from donor countries to agree measures to improve aid effectiveness and accountability in the WASH sector, with a particular focus on achieving the MDGs in the most off-track countries.

WaterAid has actively supported the development of SWA. This presentation will give an overview of progress and achievements to-date and discuss some of the challenges faced in operationalising the SWA concept in practice and maximising its potential to improve access to water and sanitation services in rural areas.

SWA has emerged in response to the following major impediments to progress on WASH: 1) the lack of political will; 2) the lack of viable sector programs; and 3) the lack of strong, country-led processes to coordinate support for the implementation of these plans and strategies. Experience shows that when countries have taken the steps necessary to prioritize access to basic water and sanitation services for their people, develop investment-worthy programs and strategies, and coordinate external support then real gains have been made.

SWA partners are currently engaged in intensive discussions on how general principles of aid effectiveness agreed in Paris and Accra (country ownership, harmonisation, alignment, predictability and untying, results focus, and mutual accountability) can be effectively operationalised within the WASH sector.

While SWA provides an important global platform whereby donors and developing country governments can hold each other to account for commitments they have made, there is an ongoing discussion about how global level processes can most effectively support and strengthen national level processes.

The success and added value of SWA will ultimately depend on its ability to provide, on a flexible basis, a broad spectrum of capacity building support adapted to the specific challenges faced in individual countries and focused on the development and strengthening of national sector programmes.

## Key lessons

- Slow rates of progress towards water and particularly sanitation MDG targets are symptomatic of a lack of political attention to WASH issues at international and national levels. Securing high level political support beyond the sector is essential in order to resolve otherwise intractable problems of poor performance within the sector.
- Experience from global initiatives in other sectors shows that there is considerable value in establishing a platform where donors and recipient governments can hold each other to account for commitments made, but that establishing strong country-led national processes to coordinate external support is key to effective scaling up of sector investments on a sustainable basis.
- The success and added value of SWA will ultimately depend on its ability to provide, on a flexible basis, a broad spectrum of capacity building support adapted to the specific challenges faced in individual countries and focused on the development and strengthening of country-led national sector programmes.

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## Coordination of financial flows at the intermediate level, case study from Benin

Smet, Michiel, PROTOS, Benin

**Stream: Sector wide approach for the funding of rural water supply**

### Summary of presentation

#### Objectives

This presentation aims to discuss the implementation of a sector wide approach in relation to rural water supply funding in Benin. It takes a particular interest in the roles and responsibilities of the intermediate (provincial) and local (municipal) level in the coordination of financial flows.

#### Water supply and decentralisation in Benin

Since 1992 national strategies have oriented water supply, hygiene and sanitation interventions. The latest version of this strategy dates from 2007 and covers the period 2006 to 2015 and has adopted the millennium development goals as the basis of its intervention (MMEE, 2007). One of the core values is its commitment to the decentralisation process that truly came into effect in 2003 with the instatement of the first elected municipal councils and mayors (Hilhorst and Adjinacou, 2007). Decentralisation introduced two new levels of government in Benin: (i) a deconcentrated level, provincial directorates (12); and (ii) a decentralised level, municipalities (77). As for many other sectors, strategic decision making powers have officially been transferred to municipalities in order they assume responsibility for water supply to their communities. The transfer includes policy making, budgeting and procurement of public works, goods and services. The provincial level has been mandated to assist municipalities with their strategic planning and assure they respect national guidelines, principals and norms.

#### Objective oriented budgeting

The national water department adopted objective oriented budgeting in 2002 which is based on five objectives such as expanding sustainable rural water supply; promoting integrated water resources management; and improving sector efficiency. Objective oriented budgeting increases transparency and alignment to national strategies and has largely contributed to the effective transfer of funds to the provincial level (Hilhorst and Adjinacou, 2007). Since 2005 a significant proportion of the total sector budget, in particular external donor funds, has been allocated to the provincial level (see table 1). Until now central government transfers only very limited funds to municipalities. The sector budget for rural water supply for 2010 amounts to roughly 21 million euros of which only 6% (all external donor funds) will be transferred to municipalities (MEE, 2010).

(millions EUR)	2005	2006	2007	2008
Sector budget	21.80	23.48	33.17	31.92
Prov. allocation internal funds	7%	6%	9%	10%
Prov. allocation external funds	18%	37%	28%	43%
Prov. allocation total budget	15%	29%	24%	38%
Prov. consumpt.	59%	0%	69%	52%

*Table 1: Intermediate level annual budget allocation and consumption (MEE, 2009)*

#### Financial flows from non-state actors

Set aside funds budgeted through the national budget as described above, municipalities may also acquire funds from non-state actors. International organisations such as PROTOS, PLAN, GTZ and UNICEF have significant rural water supply programmes funded by international donors. Other donors include so called decentralised development cooperation from European municipalities and regions. Furthermore municipalities and users contribute to initial investment, maintenance and extension costs of water services. PROTOS and many of the decentralised cooperation initiatives have been effectively transferring funds directly to municipalities. From a decentralisation point of view these initiatives have allowed municipalities to get on hand experience in strategic planning, procurement of public works, goods and services. However provincial and national administrations

have not been able to monitor and regulate these initiatives effectively. Neither has the national water department been able to include these financial flows in its annual reporting nor the physical impact of this cooperation.

#### Coordination of financial flows at the intermediate level

Benin has chosen to mobilise decentralisation in order to improve rural water services to its citizens. However coordination and reporting of financial flows to decentralised administration has proven to be difficult. A number of challenges need to overcome in order to allow the provincial level to coordination and monitor all financial flows. *Mistrust*: in Benin the relationship between intermediate and local level government is often one of mistrust. Due to its continuing procurement activities local government often sees the intermediate level as an obstacle in the full implementation of the decentralisation process. A strict application of the roles and responsibilities of each level of government is therefore needed. *Objective oriented budgeting*: at present objective oriented budgeting is only applied on national and intermediate level. Application of this budgeting system on local level is ongoing and may improve coordination on intermediate and local level among different donors. *Civil society*: corruption remains problematic and the private sector gets an increasingly important role in the management of rural water services. Fora on local and intermediate level should include civil society groups and federations in order to assure transparency of financial flows (ISW, 2009).

#### Key lessons

- The objective oriented budgeting has improved transparency and alignment of interventions whilst increasing financial flows towards the intermediate level, local level needs to follow.
- A strict application of the roles and responsibilities of each level is needed in order to allow the intermediate level to coordinate financial flows to local level government.
- Local and intermediate government should actively seek to create fora through which all actors intervening in the sector exchange experiences and contribute to transparency in the sector.

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## Strengthening transparency and accountability in community-based management in Honduras

Smits, S. & D. Suazo [IRC, the Netherlands & RASHON, Honduras]

### Stream: governance

#### Summary of presentation

IRC and RASHON (Water and Sanitation Network of Honduras) are engaged in a 4-year collaborative programme to strengthen capacity for local WASH governance in Honduras. Within this programme, one of the areas of work has been “transparency and accountability”. This paper presents an overview of the approach taken to address the topic.

The Honduran water sector has a programme dedicated to addressing sustainability of rural water supply services (see Rivera and Godoy, 2009). In this programme, so-called Operation and Maintenance Technicians (TOMs) provide continuous support to water committees, who are ultimately responsible for managing rural water supply schemes. To this end, TOMs have a broad curriculum of issues they address in their interactions with water committees, including, amongst others, issues such as operation and maintenance, accounting and book keeping and catchment protection.

One of the issues that hadn't been explicitly addressed in this programme, was transparency and accountability. Surely, the module of accounting and book keeping dealt with some of these, but not in a structured way. In view of the above, RASHON, through its resource centre, decided to undertake work on the issue. This started in 2008 with a study to assess the policy framework, problems and good practices in transparency and accountability in community management of rural water supply systems. This study consisted of a review of the policy framework and field assessments in 7 communities in rural Honduras. This revealed the following:

- The water sector policy framework contains a specific section on transparency and access to information. Amongst others this specifies that all service providers, including rural water committees, must provide open access to information on their operations to consumers. It also specifies that rural water committees need to provide accountability to their users, as well as to the Local Control and Supervision Unit (USCL) of their municipality. This acts as the local branch of the sector regulator (called ERSAPS).
- Two types of corruption risks can be identified at community level: corruption by community members and contractors during the implementation phase (e.g. inappropriate use of implementation funds, collusion by material suppliers, etc), and risks for petty corruption during the operation and maintenance phase (bribes for connections, misuse of money by water committee, etc).
- For each of the types of corruption risks, good practices were identified that can help reducing them.
  - o FHIS (the main government agency responsible for implementation of water supply and sanitation projects) has adopted an approach called PEC (Projects Executed by the Community). Under this approach, the community is responsible for leading and overseeing the implementation process. So they would for example, procure materials, carry out an assessment of the quality of the construction and oversee the accounts. This provides an incentive for the community to fulfill its control function, as they would have an important stake in ensuring that the funds are well-managed. To this end, the community needs to have a series of simple tools, such as checklists for management of stocks of material and guidelines for procurement. One of the risks of this approach though is that communities tend to go for the cheapest option in procurement processes, which is not always the best quality. Communities need adequate training to use the various tools, and to know how to assess price and quality in procurement. Yet, importantly, interviewees in the study indicate that in general this is an important approach to reduce corruption risks.
  - o During the operation and maintenance phase, water committees use a range of methods to provide accountability to users on their work. Community meetings are the standard approach,

but also more innovative approaches were found. In multi-village schemes and larger systems, water committees use local radio and other media to share relevant information to users. A main weakness identified is that accountability seems to be mainly directed towards users, and not to the USCL and other regulatory bodies. Nor do the latter actively engage rural water committees, or monitor them.

Based on these findings, a module on transparency and accountability was then developed, geared towards TOMs, as well as to field staff of other sector players. This module is to be used by TOMs and others in their engagement with communities, to help set-up mechanisms for transparency and accountability in community management. Municipal staff from the USCL are also an important target group for this, so as to strengthen collaboration between municipalities and rural operators. Currently, TOMs are being trained in the use of this module, so they can replicate it in their areas of jurisdiction. In addition, a module is developed, specifically targeted at water committees themselves. Also other information products, such as a series of field notes, has been developed to support water committees in this theme.

### Key lessons

- It is important to distinguish between corruption risks in the implementation and operation and maintenance phase, as the transparency and accountability measures to reduce these risks are different for the two phases as well.
- Transparency and accountability are often sensitive issues that communities do not always feel comfortable with dealing themselves. Outside support from a facilitator, like the TOMs, can help in devising appropriate measures.
- In Honduras, much of the emphasis in transparency and accountability is placed at the community level itself, particularly in terms of the relation between water committee and users. As important is the relation between water committee and the municipality, or with outsiders like contractors and material suppliers.

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## Self Supply – A blind Spot?

Sally Sutton, (RWSN/SKAT United Kingdom)

### Stream: Service Delivery Models

#### Summary of presentation

By definition, those living in rural areas which are not covered by a communal protected supply are usually counted as un-served. In Africa, despite enormous public investment, the number of un-served has increased significantly since 1990. The un-served are generally regarded as a uniform mass with real needs for water, and yet none of them is without access to a supply and many of them have done much to alleviate their own problems. One Triple S coordinator reflected a common view when he said “I’ve never given them (the supplies used by the ‘un-served’) much thought, except as a gap that government must fill”. Not having curiosity about how people are supplied when they do not officially have access to or equally importantly, do not choose to use conventional public supplies is a significant blind spot in service provision because -:

1. There is scant recognition of the wide variations in circumstances of those who are not served by conventional supply. Many have developed their own supplies which will be preferred until levels of public service reach in- yard or house connections. Many also require water for a range of different purposes. As a result blanket rural water supply solutions (which are the norm) may not always be taken up or sustained according to plan.
2. As much as 30% of rural people may live in scattered households or remote communities. No government can fill all gaps in coverage. However, alternative strategies are rare in developing countries to cater for these gaps, which are most difficult to cover sustainably. In the developed world it is usually acknowledged that in large rural areas of low population density, people will often have to provide their own supplies (Yukon 2009). In the USA, 40 million rural dwellers get their drinking water from 15 million private wells (American Groundwater Trust 2010), Do developing countries need to recognise that to reach universal coverage, not all communities can be covered sustainably by public supplies?
3. In much of South Asia, despite very high theoretical coverage with conventional supplies, large numbers of people elect to use their own (often sub-standard) supplies for drinking and other purposes (RWSN 2009). This raises the question of whether service design should pay more attention to consumers’ priorities and attitudes to avoid wasting substantial public investment, rather than expecting consumer views to bend to conform with accepted international norms.
4. Private investment in water is significant but not recognised. Could it not be encouraged and harnessed to work more effectively alongside public investment, especially where there are significant funding shortfalls to reach MDG targets?

The sector produces lots of analyses on costs, designs, management structures, efficiency and sustainability of supplies but all for conventional public supplies. If we don’t equally understand what people already have, the dynamics of moving up the ladder, the market forces which lead to ownership, pride, potential for income generation and economic return from water, are we not leaving out many significant factors in the equation for ensuring long term sustainable services for all? The pre-occupation with technology and standardisation tends to suggest we are asking the people to fit the solution, not the solution to the people. In India Ellery estimates that almost half of those with access to conventional protected rural water supplies effectively choose not to use them (Ellery 2009). In Cambodia and Vietnam (Salter 2003) IDE facilitated water supply services to 320,000 people with 80% of program funds spent on market development, tailoring systems and market strategy to the target groups, encouraging their own investment (total cost \$7 US per head).

In sub-Saharan Africa it is estimated there are some 350,000 communally -owned handpumps (Harvey 2008), but at least six times as many traditional family wells (fast growing number), shared with neighbours. Large parts of Africa have one traditional well for every three to five households, providing a very convenient and easily

managed system (Sutton 2009). Trying to introduce a communal supply which may be 300 metres or more away from the house, with queues for water and regular payments needs different marketing and/or different solutions to that in areas where water is scarce and water collection may take several hours. Yet promotion of conventional systems, and approaches to their financing, management and technologies tend to follow very similar lines throughout. The growing recognition of problems being met with the sustainability of rural supplies in Africa and in usage of public supplies in much of Asia call for greater vision of what consumers do and aspire to. It also requires a move away from the 'one size fits all' approach which assumes uniformity among the officially un-served.

### Key lessons

- The developed world has many examples of combined public , private and household investment in water, and often builds into policy that scattered rural properties will provide their own supplies in perpetuity. Is it appropriate for developing countries to consider this option too?
- Many, often a majority, of rural people in South Asia provide their own water supplies, and there is much we could learn from them but their systems are largely ignored, or at least little documented.
- In sub-Saharan Africa many rural people are responding to the inadequacy they find in public service delivery by improving their own supplies. Yet there is little exploration of how public and private sector/ individual investment might be combined to speed up progress and provide more cost effective solutions.
- If private investment is to play a part in rural water supply in developing countries, we need to understand it much better. This means learning from how public and private supplies coexist, obtain finance and technical advice and fit into regulatory systems, both within societies where household investment is already well developed and where it is struggling to develop.

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## **Presentation of national program for water supply and sanitation and sector budget support for water and sanitation**

THANOU Ousséini DGRE, Burkina Faso & BORO Toro

### **Stream: Finance**

#### **Summary of presentation**

Burkina Faso has engaged with the international community at the Millennium Summit on Development in 2000 and the World Summit on Sustainable Development in 2002 to halve by 2015 the number of people without adequate access to drinking water and sanitation in 2005. To do this, the Government of Burkina Faso has adopted in December 2006 the National Program for Water Supply and Sanitation (NP-WSS). The NP-WSS is:

- In rural areas

Infrastructure to achieve water and sanitation to provide adequate access to drinking water to 4 million people (by increasing the access rate of 60% in 2005 to 80% in 2015) and provide adequate sanitation to 5.7 million people (by increasing the access rate of 10% in 2005 to 54% in 2015). It also has a component "unified framework for intervention" that includes all procedures for implementation and measures of capacity building for (i) effective management of WSS sector (ii) the establishment of an enabling environment for sustained development of water infrastructure and sanitation and (iii) a sustainable water service.

- In urban zones

Infrastructure to achieve water and sanitation to provide adequate access to drinking water to 1.8 million people (by increasing the access rate of 74% in 2005 to 87% in 2015) and provide adequate access to sanitation to 2.1 million people (by increasing the access rate of 14% in 2005 to 57% in 2015).

The program (cost estimate of 543.8 billion CFA francs or 829 million Euros) is the instrument by which Burkina Faso, in accordance with its Strategic Framework for the Fight against Poverty; want to achieve the Millennium Development Goals (MDGs) in the field of Water Supply and Sanitation. It runs in three phases: 2007-2009, 2010-2012; 2013-2015. The Government and the Technical and Financial Partners (TFP), which are the main providers of funds pledged to seek joint funding mechanisms of the program. These mechanisms are based on the following 3 methods of support: Sector Budget Support (SBS), the common fund (or "common basket", "pool funding") and supports "Project").

From 2010, three TFP (Sida, Danida, DCE) consider providing as Sector Budget Support (SBS) their contribution to water and sanitation sector and thus contribute to improving aid effectiveness in to reduce poverty. This support amounted to 68.5 billion CFA francs (104.43 million Euros) over 2010-2015, and the installment for 2010 is an amount of 5.67 billion CFA francs (8 65 million Euros) shared between 6 regional directorates and 5-central.

During the 2010-2012 phase, this support must be implemented by the Regional Directorates of Agriculture,

Water and Fisheries Resources coordinated by the General Directorate of Water Resources and General Directorate of Sanitation Wastewater and Excreta in rural areas and by the National Office of Water and Sanitation in urban areas.

### Eligibility of NP-WSS to SBS

The NP-WSS will be eligible for the SBS, if available:

- A macro-economic and fiscal stability
- Policies and sectoral strategies translated into annual business plans: the NP-WSS
- A system for planning and budgeting financial medium term the budget program objectives for the sector (BPO)
- Political dialogue (the joint review) and a coordination system (the National Steering Committee (NSC) and Regional Steering Committee (RSC) of NP-WSS) controlled and managed by the Ministry of Agriculture, Water and Fisheries Resources
- A monitoring and control of sector performance: the matrix of performance indicators of water and sanitation sector, developed jointly by the Government and TFP

### Challenges to the SBS

The existence of a budget program objectives (BPO) year rolling, validated by all stakeholders, approved by the National Steering Committee and accepted by the Ministry of Economy and Finance.

The implementation of a financial management software and appropriate budgetary likely to learn about accounting, financial and analytical management at central and regional level and over time.

A system of monitoring and evaluation of NP-WSS to be effective to enable periodic measurement of the achievement of results and the relevance, effectiveness, efficiency and sustainability of actions. The monitoring and evaluation system must allow a better understanding of the conditions of public access to water and sanitation.

A good dose responsiveness at all stages of public expenditure. This requires technical services:

- anticipation in placing orders
- good control mechanisms of the SBS and tools of implementation

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## **Non –Government organization (NGO) Participation in District Level planning process**

Doreen Wandera, UWASNET

**Stream: Harmonisation and coordination**

### **Summary of presentation**

Local Governments are required by law to formulate three year rolling development plans. The plans should incorporate priorities and plans of lower Councils, the Village and Parish Executive Committees are also mandated to initiate, participate in self help projects, and mobilize people materials, technical assistance to monitor projects and other activities implemented in their areas. It is therefore imperative that a bottom up participatory planning involving these Councils, all agencies working in communities and donors come together to discuss on an action or strategy for a common good. This participatory planning process ensures better consultation among stake holders for better decision making, harmonized activities, good working relation ship, sharing resources and expertise; rational use of community time and ultimately leads to better co-ordinated plans and ownership of interventions that enhance services delivery and sustainability at all levels of district structure.

The Planning process of local governments is guided by local government Planning and budgeting cycle, the latter is governed by the local Government FY which runs from 1<sup>st</sup> July to 30<sup>th</sup> June. The process has enabled District move from spontaneous and subjective projection of activities based on past experience to a much more deliberate, systematic and objective process of mobilizing information and organizing resources that serves and relate to the needs of the society at all stages of planning.

### **NGO Participation in District Planning Process:**

In order to promote participation of various stakeholders the process is kept simple, practical, affordable, and flexible. It is learning oriented aimed at feeding into local councils plans within which NGOs and other actors intervene

Effective participation therefore calls for involvement of all stakeholders including Civil Society Organisation (NGOs & CBOs), in case of UWASNET there are 165 NGO members operating country wide these are grouped into 9 regions under one coordination for effective planning and operation.

**Participatory Planning Process :** This bottom up participatory planning approach has various players at each Local Council level there are organs mandated with responsibility of planning and budgeting. The NGOs together with other stakeholder at various planning levels of the district structures undertake the following process:

- Carry out analysis of existing situations
- Determine a desired future situation
- Decide on appropriate action and implementation strategies
- Discuss and agree on roles and responsibilities
- Agree on appropriate time schedules and mile stones

### **Specific roles and responsibilities of NGOs/CBOs**

NGOs are key allies of local government in development planning and delivery of goods and services to the

communities. They have skilled personnel, logistics, and experience working with communities as well as their own resources for service delivery. In order to foster collaboration and complementarity NGOs play the following roles among others in district development planning:

#### **1. Village planning level:**

There are three structures: Village Council ; Village Executive and Project Management Committee. The CBOs operating in the area sends one representative to the Project Management Committee, whose role is to :

- Mobilize community contribution for project implementation
- Organize meetings for project implementation
- Organize community operation, management and maintenance

#### **11. Parish Planning Level:**

Has three structures: Parish Council, Parish executive committee and Parish Development Committee. The latter is made up of 13 members of which 4 are representative of NGOs: Roles include:

- Regularly update parish information/data
- Identify parish development potentials/opportunities, development challenges and priorities
- Formulate parish vision and development strategies
- Intergrate village proposals into parish proposals
- Appraise parish proposals with the sub-county Technical planning committee
- Identify and recommend to Parish Council priorities to be implemented using the available resources and those be forwarded to sub-county Council for funding
- Facilitate village level consultation meetings

#### **111. Sub-county and District planning levels:**

- Bring in expertise to facilitate the process
- Contribute funds/logistics towards Local Council Planning and Budgeting process
- Make available their plans and budgets for integration into the District Plans and bud gets

#### **Challenges**

- The plans are developed and shelved for most of the time due to lack of funds for implementation.
- In some instances the local government fail to hold this activity from grassroots due to limited staff and funds
- Information Management Systems are poor to keep records, and give feed back at various levels of key players.

## Decentralized rural drinking water service management: Case study from Burkina Faso

Denis ZOUNGRANA, 2IE, Ouagadougou, Burkina Faso

**Stream: governance**

### Summary of presentation

#### 1. Background

Burkina Faso is located in the heart of West Africa. It has an area of 274 000 km<sup>2</sup>. Climate change and human pressure involved accelerate the degradation of its already limited natural resources. Regarding water resources, the country is facing a downward trend in rainfall, low water productivity of the area covered by the crystalline basement, which represents 82% of its territory, and a high evaporation resulting in a loss of 2/3 volumes stored in reservoirs and lakes.

Burkina Faso had 14 017 262 inhabitants in general census of population and housing in 2006 (GPHC, 2006). Women accounted for 51.7% of the population. The rural character of the country was confirmed with 77.3% of the population located in the rural areas. The main activity is agro-pastoralism of which 85% of the population gets his income. The Gross National Income is estimated at U.S. \$ 472 per capita in 2008 and is ranked 177th on the 182 with a score of 0,389 (DHD report, UNDP, 2009). Investigations on the living conditions of households conducted in 2003 showed a trend towards the development of the poverty. Indeed the proportion of the population living below the poverty line (82 672 FCFA/person/year) rose from 45.3% in 1998 to 46.4% in 2003. Its growth in rural areas is confirmed, 51.3% in 1998, 53% in 2003. Water is has a very small place in the structure of household expenditures.

Burkina Faso is returned to democracy since the adoption of the constitution of the 4th Republic June 2, 1991. It has put in place a legislative power, executive power and judicial power, all regularly renewed since then. These institutions are supported by a pluralistic press and active civil society. Administratively, decentralization is the choice of Burkina Faso for the country management. All the local government was fully established after the local elections in April 2006. The exercise of democratic governance faces several difficulties related to the weaknesses of the means transferred to exercise the responsibilities now devolved to municipalities, regulatory failures to regulate the stakeholders who often have different and sometimes contradictory agendas.

#### 2. Performance of water sector in rural areas

Under the Millennium Development Goals, Burkina Faso has set a challenge to increase the rate of drinking water coverage in rural areas by 52% in 2005 to 76% in 2015. According to the criteria and standards for access to drinking water adopted in 2007, a person living in a rural or semi-urban area is covered if his residence is located within 1 km of a modern water point (PEM) or a service delivery of a small water supply network. On this basis, the performance of rural water sub-sector has been calculated to have the following results:

Year	1999	2005	2006	2007	2008	2009
Rural coverage (%)	-	52	52.76	54.11	55.4	56.63
Functionality of PEM (%)	80	77	-		76.68	81.78
Functionality of AEPS / PEA (%)	-	66	-	-	66	65.68

PEM= Borehole with hand pump, AEPS= small water supply network, PEA= autonomous water point

### **3. The reform of rural water supply infrastructures management**

The management of rural water has been a pendulum swing. It was first the entire responsibility of the state and its branches since the accession of Burkina Faso to national sovereignty in 1960 until 1980. From then until 2000 it was fully decentralized and was theoretically managed by the communities. Each water point is operated by an organization of its users under various names: CPE / CGPE/CGES (Water point Committee/Water Point management committee/ Solar equipment management committee). The new reform was designed in 2000. A pilot project took place from 2007 to 2009. The lessons are about to be drawn.

This reform centralizes again the management of the service delivery, not at the state level but at the local governments level (The commune). They have the ownership of the water supply infrastructures. They contextualize and implement the public-private partnerships through leasing contracts (French affermage) for the management of AEPS/PEA and delegate the management of PEM to the Association of water Users (AUE). In each village an Association of Water Users (AUE) will be created. The capacity of the growing private sector will be used in performing the service. This is where the experience of the association ADAE is interesting.

### **4. ADAE experience in managing drinking water services in rural areas**

ADAE is an association of water professionals whose goal is to support the maturation of water market in rural and semi urban areas through a public-private partnership extended to associations of civil society and NGOs. She has designed a model called shared management that takes into account the low sales volume and the limited capacity of AUE's for the management or the control of the service. It relies on voluntary pooling of management and equipment through horizontal integration of few processes. The objective is to reduce transaction costs or make feasible the activity by a private operator.

The three main processes that are integrated and pooled are:

1. Management process through the Management Center (CDG)
2. The maintenance process through contracting with a private operator
3. The service control process through contracting an accountant audit firm

The operation of the service and cost recovery are a person living in the village concerned. This business model is applied on 41 centers center for ten years. The only salaried workers are those of the Management Center (CDG). Their role is to secure the collected money, to provide inputs for the proper issuance of service and monitor the implementation of contracts. All others are paid either by the contracts (audit, maintenance), or proportionally to the quantities of water sold and the money recovered. ADAE, the engine of this experience is positioned as the driver of a capacity building body. It uses the legitimacy of various structures like the Federation of water users association of Bobo-Dioulasso (FAUEREB) region or the CDG to support and to raise funds for systems development.

### **Key lessons**

- The contracting of processes targeted and pooled is an effective method to reduce transaction costs in the drinking water service delivery in rural and semi-urban areas. It limits the risks in this non matured market;
- Coaching (Learning by doing) is an effective way to build sustainable capacity of water stakeholders in the municipalities;
- Inadequate funding of non-market activities (social marketing, mechanisms of access to service) limits the service development.
- The research to find the most appropriate scale for the processes pooling must be pursued.

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