Public-Private Partnerships in Madagascar: a promising approach to increase sustainability of piped water supply systems in rural towns

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The Alarming State of Rural Water supply in Madagascar

- 21 million inhabitants, of which 70% live in Rural Communes

- Madagascar is a **low income country:**
  - GDP Per capita: $467 (2011 World Bank)
  - 80% of population live on less than $1.25 per day

- 34% rural water supply coverage rate (WHO, 2012)

- Functionality of existing systems?
  - **90%** for boreholes according to 2009 RWSN report
  - **20%** according to 2010 baseline survey of the USAID-funded *RANO HamPivoatra* Project
  - Actual functionality rate is likely between **40 – 50 %** nationally
Legal framework of Madagascar’s rural water sector

• The Water Code, January 1999
  ➢ Set the groundwork for decentralization of the Madagascar rural water sector
  ➢ Communes are the owners/contracting authority for public water supplies
  ➢ Water from improved source is to be paid for
  ➢ Encouraged private sector investment

• The Ministry of Water, October 2008
  ➢ 18 of 22 Regions now have a Regional Director and small number of support staff
In Practice…

- The Ministry of Water is poorly funded, understaffed, limited presence in rural areas
- Regulating Agency does not exist
- Inexistence of accurate database of existing water points
- Misconceptions as to the roles of local government vis-à-vis management of infrastructure in most communes
The emergence of Public-Private Partnerships (PPP) in Madagascar’s rural water supply sector

The first PPP in the rural water supply sector was launched in 2005 between *Sandandrano* and the commune of Ambohijanaka, 20km south of the capital, Antananarivo.

- Goal: Construct and manage a piped water supply network serving 6,000 persons
- Funding: Material support from the World Bank and 60% private funding from Sandandrano
- Engagement: 25-year management contract
- The system has spawned a number of micro-enterprises dependent on the water supply
PPP: An emerging paradigm

• Today there are an estimated 25 piped water systems managed through PPP in rural Madagascar. (Note that some PPP systems have not been officially registered in the national database)

• Recognized PPP serve ≈100,000 persons, or less than 2% of the total number of water points that exist in rural areas.

• ≈20 service providers are engaged in PPP (the majority of which are private companies)

• Evolution in numbers:

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• Association of Private Sector Water Distributers

• Recent USAID, EU and Water Aid funding supporting the development of PPP

• PPP has increased local private investment in the sector since the 2009 political crisis.
PPP are now operating in most regions of Madagascar
Case Study: VELO/Anivorano Est

- Community of 5,200 people
- Supported by the USAID-funded RANO HamPivoatra (Water for Progress) Project implemented by CRS/MG and CARE/MG
- The commune awarded VELO a 10-year contract to manage the system in March 2011 (service began in September 2011)
- 58 private connections, 82 social connections, and two public water points
- Water pricing (per cubic meter):
  - Household connections: 1,000Ar ($0.50)
  - “Social” connections: 800Ar ($0.40)
  - Public water points and WASH facilities: 700Ar ($0.35)
Metrics from Anivorano Est

Monthly Water Consumption patterns in Anivorano Est

Average daily water usage (L/pers/d)

Social Connection : 21.3  Private Connection: 41.6
Discussion: Key Factors for Success

1. **Political Will:**
   - Collecting a levy on a public service is risky for even the most popular politicians.
   - The provocative decision to engage in a PPP is rare in Malagasy politics.

2. **Size and Geographic Location:**
   - Populations of more than 3,000 people
   - Situated within less than 50km from a major urban center.
   - Emergence of a middle class with increased capacity to pay for professional services
   - Cellular phone networks exist
   - Public services (health centers, primary and secondary schools, bus stations,...) are functional
3. **Latent Demand for Modern Services:**
   - *Choice of service levels according to personal preferences and willingness to pay.*
   - Higher services required a level of technical and managerial complexity that justified the need for a professional service provider.

4. **Donor Support:**
   - Financial support for the construction and/or rehabilitation of the system.
   - “Soft side” i.e. to cultivate an “enabling environment” within the commune.
Demand: What the rural consumer wants
(slide adapted from Richard Carter, WaterAid)

Access: Proximity and social dimensions

Quantity: only available with improved access

Reliability: Predictable and Permanent

Management Burden

Affordability

Quality: But only one of six aspects
Evidence of Ownership

Personal Investment (beyond the initial connection costs) in amenities related to the water service
Going Forward

1. Expand **Private** Sector Participation in Rural Water Supply
   - Encourage a new generation of entrepreneurs to participate in PPP
   - Offer specialized training and ongoing support to increase professionalism
   - Support the expansion of the Association of Private Sector Water Distributers
   - Reduce the tax burden on the private sector

2. Increase **Public** demand and support for water service providers
   - IEC campaigns to increase demand for modern water services.
   - Increase the capacity of the MoW at the local, regional and national levels to monitor, regulate PPP
Going Forward

3. **Target Large Rural Towns**
   - Focus on large rural centers with between 2,000 and 10,000 people.
   - Hundreds of towns in rural Madagascar fit this profile; an estimated collective population of at least 5 million.
   - “Low hanging fruit” to rapidly increase rural water coverage rates over the next decade.

4. **Emphasize Service Delivery and Inclusion**
   - High demand for private and social connections.
   - Offer multiple service options and pricing structures.
   - Increased water use leads to healthier populations and livelihoods benefits.
Obstacles to overcome

1. **Contracting and Regulation?**
   - Contracts for existing PPP arrangements are not standardized
   - The MoW currently lacks the capacity for formative oversight and regulation

2. **Long term profitability?**
   - # of connections per service provider is low compared to other countries (e.g. Cambodia)
   - To keep tariffs low, CapManEx is not typically included in business plans

3. **Equity?**
   - Do the most vulnerable have access?
   - Financing mechanisms to extend services to new customers.

4. **Technical Design?**
   - Water use patterns and design parameters
   - Balancing future demand with budget constraints and project goals.
Acknowledgments

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