

Domestic Private Sector Participation

Open for Business

Senegal's Rural Water & Urban Sanitation Sectors Leverage Private Sector Participation to Improve Service

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Acknowledgements

Thank you to everyone who made themselves available for interviews and otherwise contributed to this Field Note, in particular John Ikeda and Jemima Sy.

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About the Project

The Water and Sanitation Program (WSP) is a multi-donor partnership created in 1978 and administered by the World Bank to support poor people in obtaining affordable, safe, and sustainable access to water and sanitation services. WSP's donors include Australia, Austria, Canada, Denmark, Finland, France, the Bill & Melinda Gates Foundation, Ireland, Luxembourg, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States, and the World Bank.

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An exciting shift is happening in Senegal's water and sanitation sectors. Long lauded for its successful urban water Public Private Partnership (PPP), which began in 1996,¹ Senegal is now seeking Private Sector Participation (PSP) in its rural water and urban/peri-urban sanitation sectors.

After years of reform and large development programs in rural water and urban sanitation, the sectors still face overwhelming institutional and infrastructure challenges, which serve as the major motivating factors for this new direction. In rural water, the majority of local community consumer associations (ASUFORs), established as part of previous reforms, have side-stepped their management, advocacy and quality control mandates and are instead acting as water operators, distributing directly to customers. The limited professional standards, efficiency, and management skills of the ASUFORs (and commune Municipalities, in the case of urban sanitation) to manage growing multi-village systems is one key reason private operators are being invited into the sector. Another is the huge investment need for renewing and expanding water and sanitation infrastructure, which is not possible within the current financially unsustainable models. The shift to private participation also reflects the Government of Senegal's (GoS) commitment to meeting the country's water and sanitation Millennium Development Goals (MDGs).

The private sector participation trend is gathering momentum. Parliament just adopted a new PPP act, building on the legacy of Senegal's openness to private sector engagement in water and sanitation. Two rural water affermage procurements are already underway and a new model for partnering with private operators is being launched in Dakar's urban sanitation system. Best practices, such as clustering projects to increase their

financial viability, are among the innovations already being applied in these developments.

It is important to note that Senegal has no water and sanitation regulatory authority; both sectors are regulated via contracts. There is ongoing dialogue on the topic in order to address the issue of regulation for the next generation of reforms.

The successful implementation and impact of these PPPs will depend largely on the strength of the new institutional frameworks being established. Senegal's community of partners have a strong role to play in supporting these new institutional frameworks, namely in technical and financial management capacity building for key institutions such as the new Office of Rural Borehole Management (OFOR) and much older Office of National Urban Sanitation (ONAS).

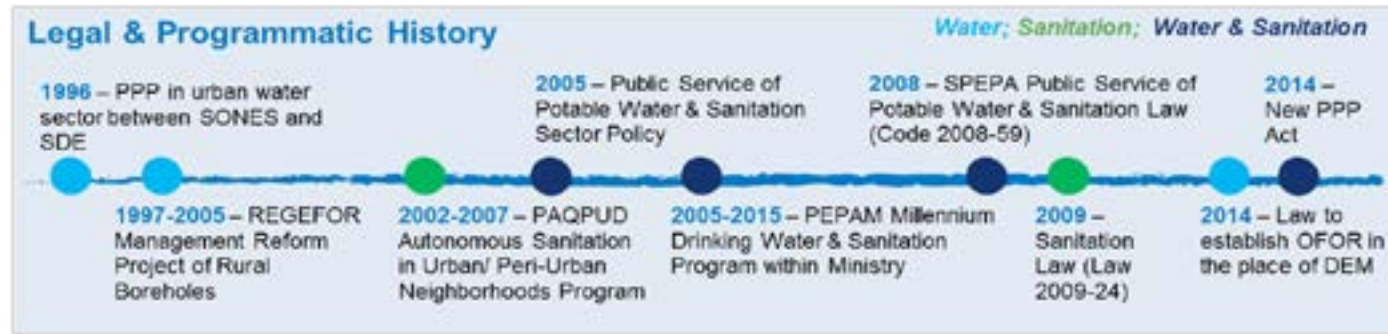
BUILDING ON A LEGACY OF PRIVATE SECTOR ENGAGEMENT

Senegal has a long history of private sector participation in its water and sanitation sectors. Figure 1 illustrates some of the legal and programmatic highlights. The urban water PPP precedent and the emphasis on private sector participation in the REGEFOR and SPEPA policies have paved the way for private actors to enter Senegal's water and sanitation markets. However past participation has been limited due to weak institutions and lack of financially viable PPP opportunities.

The 2014 PPP Act, adopted by parliament on February 10, 2014, reaffirms the GoS's commitment to leveraging private sector engagement and creates an opportunity for increased donor and partner support. The 2014 Act replaces the 2004 BOT (Build-Operate-Transfer) Act and improves on it by enlarging the reach of PPPs to new traditionally 'social' sectors such as agriculture,

1. "If you want a success story of infrastructure privatization in Africa (or elsewhere in the LDCs), Senegal water is a prime candidate," largely due to the institutional strength and agility of SONES, the national water asset-holding company, and the incentive structure created for SDE, the private operator. Source: Jammal, Yahya & Jones, Leroy, Impact of Privatization in Africa: Senegal Water. Boston Institute for Developing Economies (BIDE), October, 2006.
2. Geni & Kebe Law Firm press release "SENEGAL: The New PPP Act Adopted by Parliament," March 2014

FIGURE 1: LEGAL & PROGRAMMATIC HIGHLIGHTS OF SENEGAL'S WATER AND SANITATION SECTORS



education and health.² The PPP Act coincides with the launch of Senegal's economic growth strategy, Senegal Plan Emergent, which includes the establishment of an M&E unit for stronger tracking of investment commitments, and a strategic push to improve the national business enabling environment via the creation of the National Economic Development Bank (BNDE) and strategic investment funds (FONSIS and FONGIP), among other incentive measures.³

LESSONS FROM RURAL WATER PPPS IN DEVELOPMENT

The GoS strategy in rural water is to hire private operators for operations and maintenance (O&M) and bulk supply to ASUFORs. The country is divided into three large geographic zones, North, South and Central, with ongoing transactions in smaller areas like Gorom Lampasar and Notto-Diosmone-Palmarin (GL-NDP) and the Senegal River region.

Lessons can already be gleaned from two rural water PPP procurements underway. The first, GL-NDP, is a cluster of two large multi-villages rural water supply systems of public standpipe and private household connections in two separate areas. GL consists of 13 rural water supply schemes with treatment plants in the Senegal River Delta (North West) and NDP consists of one multi-village system with 4 large boreholes and networks from Thies to Fatick (Central West). The project has a total capacity of 23,000 cubic meter per day and supplies a total population of 350,000 people. The initial investment made by GoS and its partners (BADEA, FSD, and IDB) from 2006 to

NOTE ON TARIFFS:

PPPs are often controversial, especially around the issue of tariffs. Fortunately Senegal has experience creating acceptable and viable urban water tariffs, key features of which include:

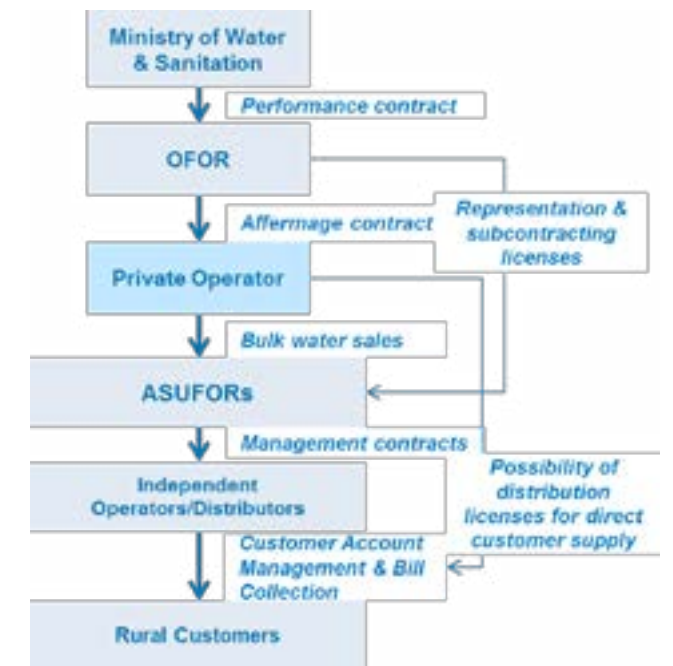
- Annual tariff increase of 2.5 to 3% to achieve the goal of financial equilibrium by 2003. However, there have been no further increases since then for residential, commercial, and industrial customers.
- Cross-subsidized 'social tariff' for poor helped gain public and civil society buy-in.

Social rural water tariffs are currently higher than those in urban sectors and they are flat with no opportunity for cross-subsidies. There is no national rural tariff structure; each ASUFOR has its own rate. Financial proposals from private operators and the establishment of OFOR present an opportunity to assess the situation and establish a standardized rural tariff regime in regional service areas that is both socially appropriate and financially sustainable.

2011 amount to \$50 million.⁴ The second, Central Zone, which represents an estimated investment of \$150 million and will serve a population of roughly 3 million people in rural areas, is still in its very early procurement phase. The Central Zone system consists of 600 boreholes with a capacity of almost 30 million cubic meters per year. In both schemes, private operators will be responsible for O&M tasks, selling water in bulk to ASUFORs, and bill collection.

3. Government of Senegal; Speech by Pape Diouf, Minister of Water & Sanitation at the Workshop on the Transfer of Operations & Maintenance of Rural Motorized Pumps to the Private Sector, 2013.
 4. WSP Senegal Rural Water Sector Reform "Case Study: PPP for 2 Multi-Village RWS Schemes (NDP/GL)," February, 2013

FIGURE 2: NEW RURAL WATER INSTITUTIONAL FRAMEWORK



Use of affermage contracts helps address concerns over tariff increases: Both projects are designed as 10-year affermage operations and maintenance contracts. The GoS decided to use affermage contracts, in which the state owns the assets and designates service to the operator, rather than a full concession out of concern for the impact on tariffs. Similar to the financial model established in Senegal's urban water sector, the GoS plans to adjust rural tariffs only enough to reach a financial equilibrium and is avoiding any perceived pressure from private operators to seek a profit.

ASUFORs have a significant new role to play: In both PPP models private operators will supply water wholesale to local ASUFORs who will then contract out distribution to customers via small, independent, private distribution and management operators (independent operators). One might ask, Why not simply remove ASUFORs to streamline the model? While this institutional framework may seem overly complex, it has been carefully designed based on experience establishing, scaling up, supporting and assessing ASUFORs, which represent both a challenge and a wealth of potential. ASUFORs exist along a range of maturity; some are well managed and belong to regional umbrella associations, others require significant capacity building. All, however, have a significant role to play as community advocacy and management groups in their rural communities, where OFOR and other government institutions have very limited presence. The new role will require ASUFORs to provide technical and financial management with subcontract support from independent local operators. Contracts between ASUFORs and independent local operators will have to align with the performance indicators agreed on between OFOR and private operators.

While the GL-NDP and Central Zone projects have yet to be implemented, their design and procurement processes have the **following key features:**

Clustering to increase financial viability of small rural water schemes: The GoS clustered groups of small projects across neighboring geographical areas with the expectation that this would decrease transaction costs and increase the financial viability of schemes for private operators.

5. \$1 = 500 FCFA

Institutional refresh to support and sustain PPPs: The GoS realized early on that the existing rural water institutional framework was inadequate to sustainably finance and support large-scale PPPs. As a result, the Directorate of Rural Water Operations and Maintenance (DEM) will be replaced by the new OFOR, which will be the GoS's asset holding company and contracting authority in direct partnership with private operators. In order to fulfill its mission of managing the rural water sector's natural and infrastructure assets, managing private operator performance, and building the capacity of ASUFORs and independent operators, OFOR will be equipped with accounting, asset management, monitoring & evaluation, communications/training, and legal resources. The organization will also rely on a market of technical experts for specific tasks (construction, environmental due diligence, etc.) that fall under its purview.

Cost-sharing model to ensure financial sustainability: In contrast to DEM, which was wholly state-funded, OFOR is being structured to gain financial autonomy over

Women collecting water in rural Senegal. (Photo: PSEAU)



the course of 5 years. Currently a 2% water tax is collected from the urban water sector (2 FCFA per cubic meter sold)⁵ to support DEM for operations and maintenance tasks. The new plan for OFOR is based on a financial model and scenario analysis across a ten year period. In the ‘average’ scenario, it is expected that a 16.2 billion FCFA government subsidy will be required to fund 24% of the organization’s operating capital over a period of 4 years. The remainder will come from the private operator’s fee (74%) and the water tax (2%). OFOR, in turn, will be responsible for establishing funds for Access Development, Renewal, System Update, and Electrification.⁶

Cohesive national strategy to align disparate initiatives:

In addition to institutional needs, the GoS is beginning to realize the need to refresh its overall strategy, based on the 2005 SPEPA Policy Letter, which is often not in alignment with developments on the ground, in order for it to serve as a cohesive framework for all rural water activities, including future PPPs. A set of 2014 studies on water intervention options for different areas, including WSP’s study on systems in the Senegal River area and near the Malian border, are expected to serve as a basis for a cohesive national rural water strategy. Senegal’s untapped rural water market represents an estimated \$24 million in average annual revenue for the sector over the next 7 years, representing about 262 FCFA in revenue per cubic meter of water sold, a motivating factor for more proactive GoS management.⁷

6. Semis, “Final Workshop Presentation -OFOR Study,” June 17, 2014
7. Deloitte market sizing model using PEPAM 2012 data

Communication campaign to spread awareness:

Significantly more interest was expressed for the Central Zone Request for Proposal (RFP) than that of GL-NDP after the Ministry of Water & Sanitation hosted an official launch event and used a communications campaign to spread awareness of the opportunity. Specifically, the GL-NDP RFP attracted 5 interested firms, 3 actual proposals, and 2 short-listed bidders while the Central Zone process attracted 20 interested firms, 16 proposals, and 7 short-listed bidders.

The procurement and design of these rural water PPPs also raise several concerns. The **following key risks, challenges and mitigation strategies** have been identified:

Need to streamline and improve the procurement process:

The procurement process for GL-NDP was officially launched by the GoS in November 2012. It took over a year to move from launch through the pre-qualification and Technical phases to the Financial RFP in January 2014. Clearly this lengthy process increases transaction costs for all and can serve as a barrier to interested parties. Public procurement in Senegal is managed by the Direction Centrale des Marchés Publics (DCMP) located in the Ministry of Economy and Finance (MEF) and follows a standard procurement code that determines the process and timeline. In the case of GL-NDP delays were due largely to the procurement entity’s lack of experience with this type of transaction (with bidders much smaller than SDE in urban water sector, but different from the standard construction outsourcing for public agencies). Much time was spent reviewing and adjusting criteria to meet the sector’s needs and reflect the realities of the private operator market. Some of the initial

TABLE 1: RFP CRITERIA FOR GL-NDP & CENTRAL ZONE

RFP Criteria	GL-NDP	Central Zone
Equipment O&M Experience	2 References	1 Reference
Annual Revenue (for previous 3 years)	At least 500 million FCFA	At least 100 million FCFA

GL-NDP eligibility requirements were found to be overly stringent (i.e. unrealistic financial requirements) and some bidders were taken out of the running for insignificant reasons (i.e. light documentation issues). Now that some

of the criteria have been adjusted (see Table 1) to give more weight to the experiences of team members rather than company revenue, stakeholders expect that the Central Zone process will take far less time.

Limited financial capacity to cover large infrastructure needs:

In a recent study, over 300 rural water ‘systems’ (including boreholes, equipment, pipes, etc.) were classified as over 30 years of age and in need of significant repair, not to mention the expansion needs to increase access.⁸ Infrastructure rehabilitation, renewal and expansion will require considerable investments from GoS, its partners and the private sector over the next several years. In order to access commercial finance, the sector’s public institutions must improve the transparency of their internal financial planning and management systems. This is a need from the ministerial level all the way down to ASUFORs.

Private operators are also encouraged to work with ASUFORs in two ways beyond supplying water wholesale:

1) by subcontracting with them to distribute directly to customers and; 2) by partnering with them to propose and execute infrastructure renewal and expansion plans. Both are potentially profitable opportunities for private operators and the latter would provide much-needed infrastructure expansion investment. If successful, these collaborations might also pave the way towards contracts with greater private operator responsibilities (i.e. Concession, Build-Operate-Transfer, Build-Operate-Own, etc.).

PRIVATE SECTOR PARTICIPATION OPPORTUNITIES IN URBAN AND PERI-URBAN SANITATION

Dakar and other major cities in Senegal have struggled to increase access to improved sanitation services to poor urban and peri-urban communities. ONAS provides services to about 15 cities in Senegal, mostly via a traditional system of sewage pipes and household connections. However, ONAS does not have all the necessary means to operate in poorer parts of cities and less structured peri-urban areas, where the lack of infrastructure and planning require less conventional systems.

8. Interview with Babacar Dieng, Consultant for the Water & Sanitation Program, & Bocar Sada Sy, SEMIS 2014
9. ONAS ‘Bous Mag’ July 2014

PROFILE OF PRIVATE OPERATORS:

Previous models attracted small independent operators who could not manage larger-scale contracts. The objective of the GL-NDP scheme was to attract larger, more professional domestic and international firms. However, only a few international operators expressed interest in partnership with local firms. The local market is still young. Key characteristics include:

- SDE (the urban water private operator) is the only operator of its size that can handle national PPP contracts.
- There are many operators in the SME category with previous government contract experience, mostly in construction.
- Most local bidders for the Central Zone scheme are newly created entities. Many are managed by former water sector employees, which may compensate for their limited experience.

Several initiatives are underway to fill this service gap, many of which engage the private sector. For example, as of February 2014, Dakar residents with detached, autonomous sanitation systems can order solid waste removal/desludging for competitive market rates from private operators by phone.⁹ Community municipalities were tasked with providing access to these unserved areas where ONAS isn’t present, but have failed to make significant progress due to their lack of managerial and technical skills.

After a period of unsuccessful community-driven sanitation systems, the sector is shifting to a new semi-collective, small-borehole model to be managed by a partnership between ONAS, community municipalities and private operators. This model, which features narrower pipes for liquid waste and partial connection to the traditional sewage system, is technically more appropriate for the infrastructure-poor urban areas and unplanned shantytowns in city outskirts.

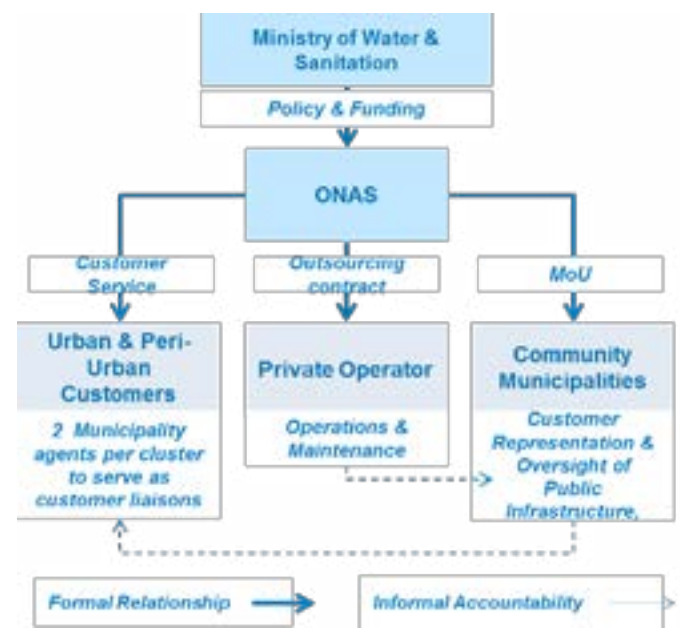
There are currently 9 small-borehole systems in development in Dakar, grouped into three geographical clusters. The systems include 7 pumping and 3 treatment stations, with a total capacity of 5,300 m3 per day serving 11,000 subscribed customers (who represent at least 150,000 people) for an estimated \$21,000 in revenue per month.¹⁰ Memoranda of Understanding have been signed

between eight municipalities and ONAS and RFPs will be launched to identify private sector partners. The new model is expected to have the following benefits for the GoS and the population it serves:

Leverages the professional capacities of private operators: Community-based urban sanitation management, established as part of PAQPUD (Autonomous Sanitation in Peri-Urban Neighborhoods Program) in 2007, was unsuccessful due to lack of technical and financial management capacity of municipalities. The new partnership model allows municipalities to maintain their advocacy and oversight role while allowing private operators to operate and maintain key facilities (i.e. installation of small boreholes, operation and maintenance of pumping stations).

Clarifies financial responsibility of customers: In the community-based model certain financial responsibilities, such as payment for installations on private residential property, were unclear. In the new model, customers will pay for the installation of their residential septic tank and pipe connections. Although customers of this system are among the poorest in urban areas, there seems to be enough demand for improved sanitation services to make

FIGURE 3: NEW URBAN SANITATION INSTITUTIONAL FRAMEWORK



10. HYDROCONSEIL, "Working paper on the new model of consolidated management after GTS # 3," August 2013

Lack of improved sanitation in Dakar's peri-urban neighborhood of Pikine. (Photo: SenMatin, 2014)



the investment for household connections economically viable. This financial contribution from customers is necessary for the financial sustainability of the model, which is the only hygienic alternative to the status quo (open defecation or on-site collection).

While the anticipated benefits of the new partnership model are significant, a few risks and challenges have also been identified. They, along with recommended mitigation strategies, are listed below:

Need for ONAS institutional capacity building: The new institutional model of small-borehole systems depends largely on the organizational capacity of ONAS to manage several relationships and serve as the sector's regulator. The GoS will need to ensure that ONAS is supported with training and appropriate skills to fulfill this crucial role.

Limited funding for financial sustainability and service expansion: This new system will still depend largely on ONAS for funding, which is comprised of subsidies, donor funding, and a small levy on urban water fees. The GoS should consider earmarking funds to ONAS in the form of a special fund for sanitation services as well as explore alternative sources of funding. PPPs in urban sanitation must be accompanied by a redefinition of financial mechanisms for ONAS through a tariff study to identify options for reliable and sustainable funding. This is a necessary condition for ONAS to engage the private sector.

Rural Water Customers in Senegal. (Photo: Ministry of Water & Sanitation, 2013)

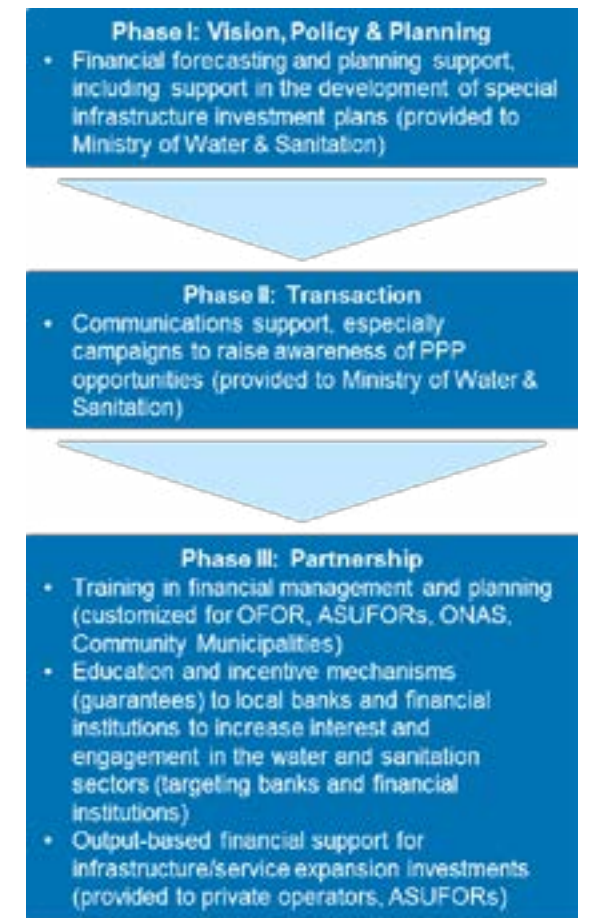


NEED FOR TARGETED AND COORDINATED DONOR SUPPORT ALONG THE PPP LIFECYCLE

The donor community has actively supported Senegal's water and sanitation sectors over the years. The marked increase in private sector engagement via rural water PPPs and the shift to small-borehole partnership-run urban sanitation model represents a strategic opportunity for the sector's partners to improve their support in two key ways: 1) by targeting support to critical institutions or process junctures; and 2) by coordinating support across institutions and along the PPP lifecycle.

The PPP Lifecycle consists of a vision, policy and planning phase, a transaction phase and a partnership phase. The key institutions requiring support in the rural water sector are OFOR, local ASUFORs (perhaps through regional umbrella associations), the market of local private operators, and local banks who have yet to enter the water sector. Key urban sanitation institutions include ONAS, community municipalities, and private operators. Both sectors fall under the umbrella institution of the Ministry of Water & Sanitation. Types of support donors should consider providing along the PPP lifecycle include those outlined in Figure 4. Donors and partners should also consider leveraging institutions such as PEPAM and its coordinating unit, to track and coordinate their support and investments along this PPP Lifecycle for Senegal's water and sanitation sectors.

FIGURE 4: OPPORTUNITIES FOR SUPPORT ALONG THE PPP LIFECYCLE



KEY ACRONYMS:

- ASUFORs: Associations d'Usagers de Forages / User Associations of Rural Boreholes
- DCM: Direction Centrale des Marchés Publics / Public Procurement Entity
- DEM: Direction de l'Exploitation et de la Maintenance / Directorate of Water Operations & Maintenance
- OFOR: Office des Forages Ruraux/ Office of Rural Borehole Management
- ONAS: Office National de l'Assainissement du Sénégal / Office of National Urban Sanitation
- PAQPUD: Programme d'Assainissement Autonome des Quartiers Péri Urbains de Dakar / Autonomous Sanitation in Peri-Urban Dakar
- PEPAM: Programme Eau Potable et Assainissement du Millénaire / Millennium Water and Sanitation Program



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