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# Inclusive governance: New concept of water supply and sanitation services in social vulnerability areas

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ABSTRACT

This paper deals with the water access focusing on the impact it has on a vulnerable population. The proposed approach aims at capturing the exclusion conditions of people, and is implemented through stakeholder dialogues to raise social control. The innovation approach was built supported on case studies and participatory processes tested for communities in Brazil. Water and Sanitation access durability is given by the institutionalization of services for the poor, which is achieved through adequate capacity building and transparency. Two essential dimensions were designed to monitor the right to access to water and sanitation services: *inclusive governance* and *inclusive access*.



## 1. Introduction

The Millennium Development Goals (MDG) set in 2002 proposed to halve, by 2015, the proportion of people without access to improved drinking water and sanitation. Several efforts have been made worldwide to accomplish this target, as in the case of the water supply and sanitation (WS&S) services in Brazil. The National Plan for Water and Sanitation – PLANSAB for 2014–2033 proposes the means to attain this aim, including the role of stakeholders' participation, as well as the social instruments and the subsidization required (see Pinto et al., 2015).

According to the literature (see Marques, 2010), countries deal differently with the universal access to WS&S services. Most of them address the issue in their laws, and vary in the way they are set. For example, in Europe, in countries such as Italy, France and the Netherlands, the universal service is compulsory and defined in legislation, but in many others the WS&S services are free to decide on the goal of universal access.

There is a number of mechanisms that are already being used to achieve universal access in essential public services, some of them based on aspects of technological development, others on governance and social participation, and there are also those of economic character. But for the context of the WS&S universal access to the population in vulnerable situations, the choice of a mix of mechanisms is different. For example, the impact in terms of coverage of the subsidization for providing WS&S has stronger externalities related to public health, environmental and social goals, making this a subject of fundamental importance in the definition of public policies for poor settlements (Kayaga and Franceys, 2007). These aspects influence the balance between funding and investments for providing WS&S with universal access and, consequently, the business model to guarantee the right of access to these services. Therefore, it is important to assess the impacts in areas of social vulnerability as input in the financial viability studies.

The technological approach is also a key aspect to be considered. On the one hand, in many countries in Africa and Asia, the citizens use pre-paid meters, yard taps, water kiosks, water tanks, and other types of water supply in which the user will get water and take it home in buckets; and sanitation is still frequently provided by public latrines (WSUP, 2011). But, on the other hand, in countries like Brazil, the users, in general, have demanded direct connections to their houses by means of piped networks, even in slums and isolated communities.

The concept of universal access is dynamic, as presented in Fig. 1, and varies according to the increasing maturity levels of different stages of claim for better services.

When planning for the most suitable and sustainable approach,

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**Fig. 1.** Ontology of universal access to WS&S.

there are clearly different technical and social understandings among the network of stakeholders in WS&S related to the provision of universal access in slums. They bring to light different visions and conflicts. At the end, these controversies highlight the reasons why the traditional mechanisms have been unable to answer properly the present challenges. The context brought by the demand for universal access provision run into legal conflicts, such as property rights (land tenure) versus basic rights (health and survival).

Since the relevant economic development that took place in Brazil at the end of the last century, the country has suffered a disorderly growth in urban areas which intensified the need for WS&S services for socially vulnerable people, often located in irregularly occupied areas. The questions that may arise in this context are: to what extent are these citizens included in the public policies? Is the water services management system prepared to attend them? The challenges of urbanization require innovative mechanisms capable to meet the demands for essential services to populations in vulnerable contexts. For the measurement and visualization of this scenario it is necessary to find innovative concepts, indicators and governance tools able to capture the exclusion of basic conditions of human rights.

Workshops carried out with key stakeholders favored the identification of the key singularities of the exclusion mechanisms present in the provision of WS&S to vulnerable populations. The role of communities and partnerships was particularly highlighted.

This paper aims at proposing an approach to push WS&S universal access in poor settlements for the Brazilian context considering the experiences of the Empresa de Saneamento do Estado de São Paulo – SABESP (São Paulo State Water and Wastewater utility) in the State of São Paulo.

For this purpose, a qualitative methodology was adopted for data collection, which identified the WS&S sector practices in SABESP; documental research was carried out inside SABESP, newspapers, journals and reports on universal access in vulnerable areas in São Paulo Metropolitan Area; questionnaires and field observation on the case study were also used (Denzin, 1970; Quivy and Van Campenhoudt, 2003). The discussions were subject of social and technical mapping controversies based on the Actor-Network-Theory (Latour, 2012).

## 2. Innovation in WS&S to vulnerable settlements

The business model provides the boundaries for value creation, processes and governance of an organization. The collaborative processes contribute to add value to services, improve the management of intangible assets, and develop business performance to predict future problems (Bhatt, 2001; Bose, 2004).

In this sense, the innovation can be implemented in terms of the results and/or regarding the process that comes from the ability to deal with organizational requirements and decision-making (Santos et al., 2012; Crossan and Apaydin, 2010). Some factors such as the methodology, specific market service, internal processes and corporate priorities will lead to innovation. The main factors for decision-making are: innovation environment with internal links and links with the environment in a governance structure. Thus, the main approaches go through the strategy, structure, resources, human and cultural factors and processes (Christensen and Overdorf, 2000).

The corporate strategy, business model and business plan are fundamental to define the boundaries of the company, for value creation, internal organizational structure and governance for the composition and continuity of a business model (Delmar and Shane, 2003; Honig and Karlsson, 2004).

The principles that serve as basis for good governance practices are, among others, transparency, fairness, accountability and corporate responsibility. Thus, proper governance allows creating mechanisms of control and business monitoring, not only by managers but also by shareholders, making it possible to identify and solve conflicts at different decision making levels (World Bank, 1992; Malacrida and Yamamoto, 2006).

Tools for good governance of regulators, municipalities and utilities are required to cover marginal situations and to focus on efforts and resources in order to protect the most vulnerable users and enable the WS&S universal access. These governance practices should guarantee the streamlining of the resources for this purpose, at the same time provide powerful and clear signals about the strategy to address low-income population (OECD, 2008; WHO & UNICEF, 2013).

Experiences of some countries in Africa with similarities to the urban development in Brazil, such as Senegal and South Africa, demonstrated that a new paradigm is being built based on collaboration. Therefore, there is a growing number of partnerships being established between operators of water utilities, municipalities, community based organizations (CBO), non-governmental organizations (NGOs) and public-private partnerships (PPPs). This innovation has been able to lever efforts to provide universal access to services for low-income communities (Brocklehurst & Jan 2004; Cross and Morel, 2005).

The same paradigm in South America, in countries such as Argentina, has resulted in increased access to WS&S to several tens of thousands households in areas of social vulnerability and reduced the frequency and severity of waterborne diseases in children (Almansi et al., 2003; Galiani et al., 2007). Conventionally, low-income users have been seen with low ability to pay for better and more appropriate services (Asia, 1999). At the same time, low-income users have often demonstrated substantial willingness to pay (WTP) more commonly for WS&S (Brocklehurst and Evans, 2001). In fact, in most developing countries the poor pay much more for water than the rich people (see Davis et al., 2008; Amankwaa et al., 2014). Anyway, it is expected that WTP should motivate or flag operators to expand their services to vulnerable areas. This is relevant because the poor users dominate the economy of the low-income countries and consequently their inclusion contributes to a cost recovery regime based on efficiency, effectiveness and sustainability.

According to the Brazilian Census 2010, nearly 3 million households occupied by 11 million people are located in more than 6 thousand slums or other illegal settlements ('favela' is the Brazilian Portuguese term for these areas) in Brazil. Of these, 59.4% of the population lives in 9 metropolitan areas, which include São Paulo, Rio de Janeiro, Salvador and Belém as the largest ones. It is noteworthy that the majority occupies the banks of streams, rivers or lakes/ponds (IBGE, 2011). Studies on migratory dynamics of the country show that from small municipalities to the metropolitan areas, individuals still move towards slums, and an increase of

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