



# Institutional barriers to a ‘perfect’ policy: A case study of the Senegalese Rural Electrification Plan



Rebecca Mawhood\*, Robert Gross

Imperial College Centre for Energy Policy and Technology, Imperial College London, United Kingdom

## HIGHLIGHTS

- Factors influencing the Senegalese Rural Electrification Action Plan are investigated.
- 26 Stakeholder interviews inform a review of the Plan after 10 years of operation.
- The Plan has attracted extensive finance, but installations are severely delayed.
- The delays are found to be largely the result of institutional and political barriers.
- These barriers mirror the experiences of electrification initiatives across Africa.

## ARTICLE INFO

### Article history:

Received 19 March 2014

Received in revised form

7 May 2014

Accepted 28 May 2014

Available online 20 June 2014

### Keywords:

Rural electrification  
Institutional barriers  
Power sector reform

## ABSTRACT

This paper investigates the political and institutional factors that have influenced the success of the Senegalese Rural Electrification Action Plan (*Plan d'Action Sénégalais d'Électrification Rurale*, PASER). PASER is of interest because its innovative design attracted extensive offers of finance from donors and independent power providers, however it has had limited effect on electrification levels. This paper examines PASER's progress and problems in detail, with the aim of informing rural electrification policy internationally.

An extensive literature review was combined with 26 semi-structured stakeholder interviews, to produce a snapshot of the Plan's status after its first decade of operation. PASER's experiences are compared with other reform-based rural electrification initiatives across Sub-Saharan Africa.

PASER has faced significant institutional and political barriers, with delays arising from organisational opposition, inconsistent ministerial support, protracted consultations and the inherent challenges of implementing an innovative policy framework in a country with limited institutional capacity. The development of human and institutional capacity has been compromised by inconsistent political commitment. Such experiences mirror those of electrification initiatives across Sub-Saharan Africa. Whilst PASER's successes in garnering external support and fundraising are noteworthy and won praise from early reviews, in terms of delivery the Plan has failed to resolve common institutional barriers.

© 2014 Elsevier Ltd. All rights reserved.

## 1. Introduction

Sub-Saharan Africa (SSA)<sup>1</sup> has some of the lowest levels of energy access and human development in the world (UNDP, 2012; IEA, 2011), with inadequate electricity services considered a primary barrier to socioeconomic development in the region (Onyeji et al., 2012; Gelb et al., 2007). Expenditure on

electricity is insufficient to maintain reliable services within the existing infrastructure, let alone extend provision to the whole population (AfDB, 2010). Spending across the region's entire power sector was \$11.6 billion<sup>2</sup> in 2010 (Foster and Briceño-Garmendia, 2010). Estimates from the IEA and the African Development Bank suggest that additional investment of the order of \$20 billion per year is needed to meet existing and future needs, and to realise universal access by 2030 (IEA, 2011; AfDB, 2010).

\* Correspondence to: Centre for Environmental Policy, Imperial College London, London SW7 1NA, United Kingdom.

E-mail address: [rebecca.mawhood11@imperial.ac.uk](mailto:rebecca.mawhood11@imperial.ac.uk) (R. Mawhood).

<sup>1</sup> This article uses the following non-standard abbreviations: ASER, Senegalese Rural Electrification Agency; PASER, Senegalese Rural Electrification Action Plan; RE, rural electrification; SSA, Sub-Saharan Africa.

<sup>2</sup> \$ refers to USD throughout. The following conversion rates have been applied to sums referenced in other currencies: 1 CFA franc=\$0.00199955; €1=\$1.31024 (XE, 2012).

Public funds currently account for 78% of global investments in energy access and 89% of investments in the Sub-Saharan African electricity sector (IEA, 2011; Foster and Briceño-Garmendia, 2010). However many analysts stress the importance of increasing *private* investment in energy for developing countries. IEA (2011) suggests that the proportion of private investment needs to increase from 22% to 31% to achieve universal energy access. Moreover, many of the poorest countries rely heavily for power sector investment on finance and support from the World Bank and the IMF. Since the 1990s these organisations have often conditioned their financial support on structural changes and/or privatisation (Massé, 2010; Wamukonya, 2003). As part of such reforms many countries have created a Rural Electrification Agency and/or Fund (Massé, 2010; Wamukonya, 2003). These are semi-autonomous organisations responsible for managing multi-year funds across projects implemented by numerous actors (Mostert, 2008). The creation of these new institutions, independent from incumbent electricity companies and partially independent of governments, represents a significant departure from the historically dominant model in the region: most rural electrification initiatives have instead been implemented by the national electricity company, usually a vertically integrated state monopoly. It is important to note that the conventional model of incumbent-led, largely state-subsidised rural electrification programmes has continued to be applied in several countries with considerable success (Boubou et al., 2010; Massé, 2010).

This paper investigates in detail experience to date with one approach devised to enhance private sector investment and engagement in electrification in SSA: the Senegalese Rural Electrification Action Plan (*Plan d'Action Sénégalais d'Électrification Rurale*, PASER). PASER was established in 2002 as a result of electricity sector reforms (Massé, 2010; Sow, 2006). Early reviews of PASER considered it an exciting, innovative and well-supported scheme, which had succeeded in attracting unusually high levels of private sector finance and therefore offered a hopeful model for rural electrification (hereafter referred to as RE) elsewhere. More recent updates note that PASER's implementation has been slow but do not explain the causes of the delay (AFD, 2012; World Bank, 2012a; DECRS, 2009; Gühr, 2009). This paper provides a thorough-going review of PASER's progress and explores the causes of delays and difficulties experienced, with the aim of informing the development of RE policy internationally.

The rest of the paper proceeds as follows: Section 2 describes the methodology; Section 3 details the results of the literature review, providing background on the Senegalese electricity sector, the historical development of PASER, the aims and structure of the Plan, and the first decade of PASER's operation; Section 4 provides the results of the stakeholder interviews regarding the nature and impacts of barriers to PASER; Section 5 compares the experiences of PASER with other RE initiatives in SSA; Section 6 provides conclusions and policy recommendations.

## 2. Methods

The study presents the findings of an extensive critical review of published and unpublished literature combined with 26 semi-structured interviews with key stakeholders in PASER. The following provides further details of the methods employed.

### 2.1. Critical literature review

The critical review was conducted in the following three phases:

- A narrative review of academic and grey literature provided contextual information on rural electrification in Sub-Saharan Africa and the specific situation of Senegal.
- A survey of published documentation about PASER established the existing lack of consensus about the Plan's success or otherwise. Sources were selected based on the following inclusion criteria: explicit coverage of PASER's achievements; explicit assessment or opinion of PASER's progress and/or effectiveness; availability through Imperial College's library catalogue or the internet.
- An investigative review of Senegalese grey literature provided the basis for the review of PASER's design and achievements and helped to identify issues for exploration in interviews as well as potential interviewees. Much of the literature is not available in the public domain but was gathered directly from stakeholders.

### 2.2. Semi-structured interviews

Semi-structured interviews were the primary data collection method used to investigate PASER's progress and the causes of its delays. The interviews were used to verify factual data about PASER's design and achievements, and to gather qualitative information about interviewees' experiences. In particular interviewees were questioned about their views of: PASER (as a concept and in practice); the extent and rate of installations realised; the difficulties and successes experienced by the Plan, and the causes thereof. The semi-structured interview method is well-suited to these aims because it allows the exploration of matters resistant to direction observation, the reconstruction of events, and broad coverage of individuals and situations. Further the method's inherent flexibility allows questions to be tailored to interviewees' responses, enabling iterative collection and analysis of data during the interview (Bryman, 2008).

#### 2.2.1. Interview technique

Twenty-six key stakeholders of PASER were interviewed, of whom twenty were selected by purposive sampling and six by snowball sampling. The interviewees include representatives of the following stakeholder groups, referenced throughout this paper with bracketed keywords: international and national government agencies (Government); donor organisations (Donor); independent power providers and installation coordinators (Business); independent consultants and researchers (Consultant); and beneficiaries. To minimise bias a minimum of two representatives were interviewed from each stakeholder group, responses of interviewees were triangulated with each other and with the literature, and the interviewees were provided anonymity.

Questions were tailored according to the interviewees' involvement in PASER and the organisation they represented. Interviews with representatives of the different stakeholder groups were conducted in a purposefully jumbled order, allowing different perceptions of key issues to be captured in early interviews for exploration with representatives of the other stakeholder groups in subsequent interviews. This aspect was very important due to the lack of publically-available information about PASER (the premise of the study), which impeded the identification of key issues in the early stages of research.

All the interviews were conducted face-to-face. Twenty-one were held in French and two in English. Three interviews were conducted in languages of African origin with the aid of an interpreter.

### 2.3. Data analysis

Data were analysed qualitatively using the three-step process described by Jupp (2006): rationalisation of data; presentation of data to be relevant to the research objectives; identification of key

Download English Version:

<https://daneshyari.com/en/article/7402043>

Download Persian Version:

<https://daneshyari.com/article/7402043>

[Daneshyari.com](https://daneshyari.com)