



The Government-led initiative for LPG scale-up in Cameroon: Programme development and initial evaluation[☆]



Nigel Bruce^a, Rachel Anderson de Cuevas^a, Jessie Cooper^b, Bessem Enonchong^c, Sara Ronzi^a, Elisa Puzzolo^{a,d}, Bertrand MBatchou^e, Daniel Pope^{a,*}

^a Department of Public Health and Policy, University of Liverpool, UK

^b HSRM Division, School of Health Sciences, City, University of London, UK

^c Global LPG Partnership, Cameroon and Kosan Crisplant, Cameroon

^d Global LPG Partnership, New York, USA

^e Douala General Hospital, Douala, Cameroon

ARTICLE INFO

Article history:

Received 27 February 2018

Revised 26 May 2018

Accepted 29 May 2018

Available online 9 July 2018

Keywords:

LPG market development

Investment

Regulation

Affordability

Safety

ABSTRACT

In 2016, the government of Cameroon, a central African country heavily reliant on wood fuel for cooking, published a Masterplan for increasing primary use of LPG from 20% to 58% of households by 2035. Developed via a multi-sectoral committee with support from the Global LPG Partnership, the plan envisages a 400 million Euro investment program to 2030, focused on increasing LPG cylinder numbers, key infrastructure, and enhanced regulation. This case study describes the Masterplan process and investment proposals and draws on community studies and stakeholder interviews to identify factors likely to impact on the planned expansion of LPG use.

© 2018 The Authors. Published by Elsevier Inc. on behalf of International Energy Initiative. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

Background

Cameroon is one of several Sub-Saharan African countries whose governments have set ambitious goals for scaling-up use of LPG as a cooking fuel (Van Leeuwen, Evans, & Hyseni, 2017). For Cameroon, the target is to take primary LPG use from around 15% in 2014 to 58% by 2035, resulting in 18 million more Cameroonians gaining access (GLPGP, 2016c). Several reasons underlie this decision, including forest protection, health improvement, and economic and energy development in line with regional policy (CEEAC, 2014).

With the support of the Global LPG Partnership (GLPGP – see Box 1), the government had by September 2016 approved a detailed ‘LPG Masterplan’ for investment and regulatory enhancement, designed to

meet the target. Implementation of the plan is now underway, led by a multi-sectoral ‘Investment Committee’ established in early 2017.

Contemporaneously with this national level planning, a programme of mixed-methods, community-based research, the ‘LPG Adoption in Cameroon Evaluation’ (LACE) studies, were being conducted in rural and peri-urban areas of the South West region, near Limbe (Pope, 2017a, 2017b). The objectives were to (a) determine enablers and barriers to adoption and greater use of LPG for cooking, (b) test interventions (consumer micro-loans for start-up costs, pressure cookers for saving gas) to mitigate these barriers, and (c) assess health risks through air pollution measurement.

Cameroon is the first sub-Saharan African country to develop a comprehensive ‘Masterplan’ for rapid and substantial expansion of its LPG market. This case study describes the plan and its investment proposals and compares these with the population’s experiences of adopting and using LPG for cooking from the LACE studies and stakeholder interviews to make recommendations.

Methods, sources and approach

We drew on a range of data sources, including national surveys and energy policy reports, Masterplan documentation, stakeholder interviews and the LACE studies, for which sources and methods are summarised below.

[☆] **Authorship note:** International and in-country representatives of the Global LPG Partnership (GLPGP) were involved in the process of developing the Cameroon Masterplan. They (BE and EP) are included on the author team as they played a key role in ensuring the complex and politically sensitive role of the ongoing process in Cameroon, including the negotiations for the implementation of investment recommendations, are accurately and fairly represented. The GLPGP is a not-for-profit public-private entity, backed by the UN, which provides expert advice on the development of LPG markets to governments which have made a policy decision to expand access to this fuel for the household sector.

* Corresponding author.

E-mail address: danpope@liv.ac.uk (D. Pope).

Box 1

The Global LPG Partnership.
[Source: www.glpdp.org]

The GLPDP is 'a United Nations (UN)-backed Public-Private Partnership formed in 2012, under the UN Sustainable Energy for All initiative, to aggregate and deploy needed global resources to help developing countries transition large populations rapidly and sustainably to liquefied petroleum gas (LPG) for cooking.'

Box 2

GLPDP staff interviewed

- President and Chairperson
- Chief Financial Officer
- Chair of International Institutions
- Chair of the Policy, Regulation & Development Advisory Group
- Director of Research, Monitoring & Evaluation
- Country Director for Cameroon.

National and regional reports and secondary data

We obtained information on regional and national assessments of energy use, prospects, and policy, from the following reports in order to understand the context of the Cameroon LPG scale-up (Table 1).

Masterplan documentation

In order to describe the aims, drivers, process, recommendations, and implementation of the masterplan, we referred to the Cameroon LPG Masterplan Executive Summary (GLPDP, 2016a, 2016b)^{1,2}, the Masterplan full report (not in the public domain and obtained from the GLPDP), and Investment Committee minutes (MINEE, 2017).

*Qualitative interviews with key stakeholders, meetings, and field visits**GLPDP experts in sustainable LPG market development*

In order to understand the role of the GLPDP and expertise brought to the Masterplan's development, we undertook group and individual interviews (via conference calls, telephone, and correspondence) with six GLPDP staff between June and August 2017 (Box 2). These participants were selected for their knowledge of (i) the Cameroon and other early stage LPG markets, (ii) international policy and regulatory reform and (iii) the relationship between gender, poverty, and energy access.

Stakeholders in Cameroon

Qualitative methods were used to understand the processes involved in developing the national LPG Masterplan and key factors likely to influence market growth in Cameroon, including: key informant interviews; informal discussions; observations; and field visits to the LACE research project sites. Field work took place between 28th August and 6th September 2017. Interview participants were purposively recruited from research group contacts within the fields of energy, LPG supply, and public health. We held seven face-to-face, semi-structured interviews with representatives from a government ministry and a public-private partnership involved in LPG scale-up, both sitting on the national Masterplan Committee; financial and microfinance institutions at national and regional levels; and community leaders. Interviews lasted approximately 1 h and were conducted in French or English. We held informal discussions with five other stakeholders involved in LPG scale up; a marketer, a cylinder supplier, and a financial institution and NGO supporting community micro-loans. Discussions centred on household energy and LPG use in Cameroon, and the Masterplan process and plans. We also visited the LACE study sites and an LPG filling plant to observe infrastructure relating to oil production, importation, refinery, bulk storage, and distribution.

¹ [French version of Executive Summary]: <https://static1.squarespace.com/static/5633c4c2e4b05a5c7831fbb5/t/597a3870d2b857fc8796219f/1501182066543/Cameroun+Executive+Summary+du+Master+Plan+GPL+-+FR.pdf>

² [English version of the Executive Summary]: https://drive.google.com/file/d/0B_7990ZuSp8bU1adnUzNORHMVU/view

We digitally recorded, transcribed, and translated all interviews, and data were anonymised. We analysed interview transcripts, meeting records and field notes thematically (Braun & Clarke, 2014), and organised findings using Framework analysis (Ritchie & Lewis, 2003).

LACE studies

The LACE studies were conducted in peri-urban and rural communities near Limbe, SW Cameroon, January 2016 to October 2017, Table 2:

Full methodologies are available in on-line protocols for LACE-1 (Pope, 2017b) and LACE-2 (Pope, 2017a). A comparison of LACE and national data (MINPROFF, 2012; NIS, 2014, 2015a), available on request, showed that the LACE sample had lower poverty levels than in the country overall, but that education, reliance on solid fuel use and access to clean water were similar.

Synthesis

A national LPG market can be viewed as a 'complex system' (Jackson, 2003). Logic models offer a way of describing these as part of evaluation, and we have previously described one such model (Rosenthal et al., 2017). We developed this from literature review (Puzzolo, Pope, Stanistreet, Rehfuess, & Bruce, 2016; Rehfuess, Puzzolo, Stanistreet, Pope, & Bruce, 2014) and experience from the GLPDP. For this case study, we used the model to systematically organise information and compare the Masterplan recommendations against the issues, challenges and opportunities identified from the other sources.

Primary data collection through stakeholder interviews was covered by LACE-1 ethical approval obtained from the Cameroon National Ethics Committee (2015/12/653/L/CNERSHP/SP) and the University of Liverpool (RETH001035).

Findings

Situated in central Africa, Cameroon has a population of 23.9 million (2016), expected to reach around 31 million by 2030 and 34.5 million by 2035 (MINEE, 2015). Most of the population are Francophone (including the administrative centre, Yaoundé), the rest Anglophone; Douala is the main commercial city and port (Fig. 1).

Table 1

Regional and national reports.

- Millennium Development Goals (MDG) Reports for Cameroon (2015) (English). These provide a review of progress with the MDGs over varying periods from around 2000 to 2014. (NIS, 2015a, 2015b).
- Livre Blanc de la CEEAC et de la CEMAC: Politique régionale pour un accès universel aux services énergétiques modernes et le développement économique et social 2014–2030 (French). (CEEAC, 2014)
- Situation Energétique du Cameroun (2015 Edition). Ministère de l'Eau et l'Energie (Ministry of Water Resources and Energy) (French). (MINEE, 2015).
- Presentation of the First Results of the Fourth Cameroon Household Survey (ECAM 4) of 2014. National Institute of Statistics, Cameroon (English). (NIS, 2014)
- Femmes et Hommes au Cameroun (2012); Ministère de la Promotion de la Femme et de la Famille (MINPROFF) (French). (MINPROFF, 2012)

Download English Version:

<https://daneshyari.com/en/article/7453467>

Download Persian Version:

<https://daneshyari.com/article/7453467>

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