

# SAMSET

Supporting Sub-Saharan Municipalities with Sustainable Energy Transitions



**Welcome** to another edition of the SAMSET newsletter.

SAMSET is now in an interesting phase of modelling future energy scenarios and identifying sustainable energy opportunities in the six partner municipalities. In this newsletter we reflect on experiences on the process of collecting local level energy data, and highlight the emerging energy consumption picture in two partner municipalities in Uganda. We also introduce the new SAMSET android app. We hope you find it of interest.

*The SAMSET Team*

## SAMSET project info

### About

SAMSET is a 4-year project (2013-2017) supporting Sustainable Energy Transitions in six urban areas in three African countries – Ghana, Uganda and South Africa. A key objective is to improve ‘knowledge transfer frameworks’ so that research and capacity building efforts are more effective in supporting this challenging area.

### The Team

The project team includes a leading university in each of the three African countries – [University of Ghana](#), [Uganda Martyrs University](#) and [University of Cape Town](#) - as well as an NGO in South Africa, [Sustainable Energy Africa](#). In addition, the team includes two leading universities in the UK – [Durham University](#) and [University College London](#), and a UK consultancy, [Gamos](#).

### Project funders

This project is co-funded by UK aid from the UK Department for International Development (DFID), the Engineering & Physical Science Research Council (EPSRC) and the Department for Energy & Climate Change (DECC), for the benefit of developing countries.

Project ref: EP/L002620/1

The views expressed in this project are not necessarily those of DFID, EPSRC or DECC.

[More info: see the SAMSET website \(click here\)](#)

## The A-Z Journey of the State of Energy Survey in Ga East and Awutu Senya East Municipalities, Ghana

by *Dr. Simon Bawakyillenuo (SAMSET Lead Researcher: Ghana) and Innocent S.K Agbelie*, both at the Institute of Statistical, Social and Economic Research, University of Ghana.

Lack of **municipal level energy data** impedes local authorities in formulating sustainable energy strategies for their municipalities. In the light of this, the Ghana SAMSET team, in collaboration with Ga East Municipality (GEM) and Awutu Senya East municipality (ASEM), undertook State of Energy (SoE) survey across a number of sectors in the respective municipalities. The intention of the energy surveys was to provide an **evidence-base** to inform the development of a **sustainable urban energy strategy**. Data for the SoE in GEM and ASEM was gathered in two phases. Phase one involved scoping and review of relevant existing data. This phase revealed the paucity in energy data for the municipalities thereby forming the basis for phase two activities. Phase two involved the collection of data on energy supply and demand across various sectors in the municipality through the use of questionnaires and focus group discussions (FGD).

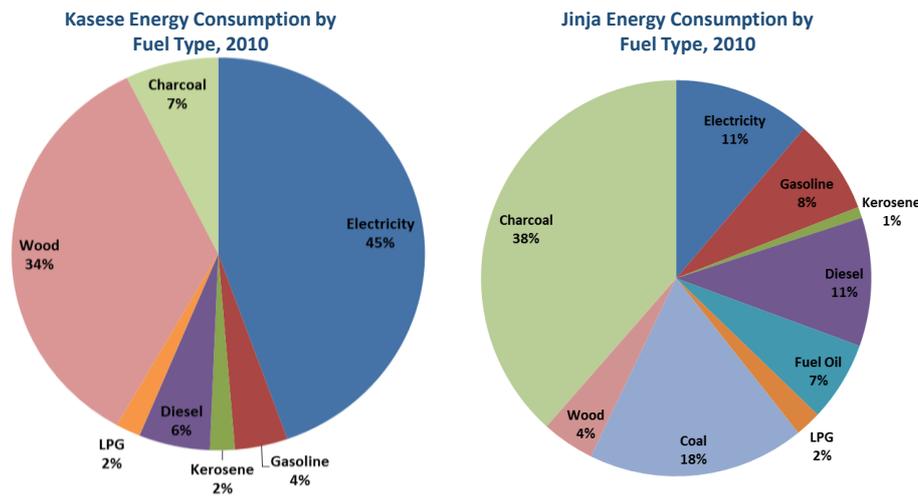
Population data for GEM was obtained from Ghana Statistical Services (GSS) but the agency couldn't provide similar data for ASEMA. Consequently, municipal partners in ASEMA tasked assembly members belonging to various electoral areas to do headcounts of households in their municipality. Information on commercial and industrial operations in each municipality was obtained from each municipal partner. The survey made use of enumerators trained on urban energy in the appropriate local languages to administer the questionnaires in all the target sectors. The field activities of the enumerators were regularly monitored by the SAMSET team in Ghana. FGDs were held with key stakeholders from the transport, local government, energy resources and fuel generators in the municipalities. The FGDs were meant to build a comprehensive energy picture in these sectors. Data collected from these exercises

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was used in the preparation of SoE reports for the 2 municipalities. Further analysis of the data shall be used for the preparation of the **Energy Futures Report** for the 2 municipalities.

## The emerging energy picture from Ugandan partner municipalities

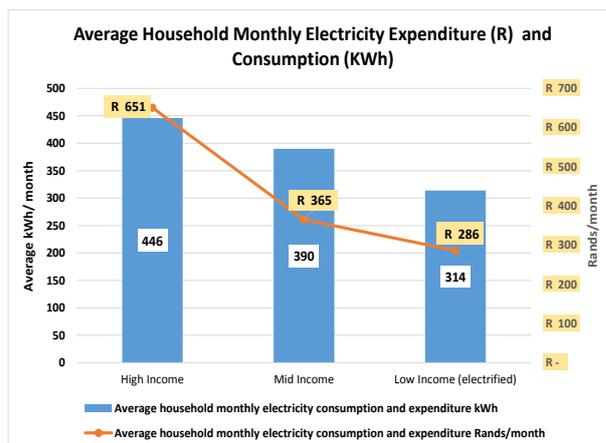
The SAMSET project has produced State of Energy reports for its partner municipalities. Below we highlight the emerging picture from Ugandan partner municipalities (see **SAMSET Outputs** on subsequent pages to download these reports).



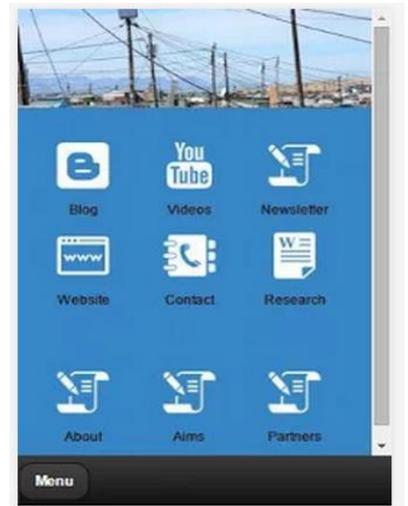
In Kasese the two dominant energy sources are electricity (45%) and wood (34%). Charcoal is the dominant energy source (38%) in Jinja due to its use not only in the residential sector but also by the steel mill located within the municipality. Use of biomass in both municipalities is high especially for cooking purposes. Provision of access to cleaner modern energy and energy efficiency are of utmost importance and the energy strategies of these two municipalities will have to focus on these two areas.

## Household Energy Consumption in and around Polokwane

SAMSET has been supporting one of its partner municipalities, Polokwane, in implementing its energy and climate change strategy. A household energy consumption survey was conducted in this municipality to help generate household energy use data that would be useful in modelling the energy picture in this municipality. Experience in modelling the energy picture in South African cities over the past decade has revealed that household energy use is poorly understood hence the need for such surveys. The graph above presents an example of the results of this survey. For more on the survey's findings visit **SAMSET Outputs**.



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### SAMSET Research App for Android Released

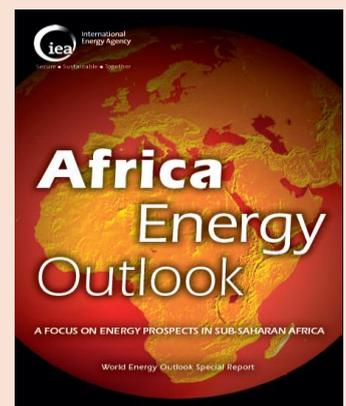
Gamos has released SAMSET's first Android app, available for download in the Google Play store.

The SAMSET Research app provides a fast and convenient way to follow the work, blogs and output from the SAMSET project.

Go to the Playstore and load 'The Samset Project' app (Android Only)

### Featured publications

#### Africa Energy Outlook: A Focus on Energy Prospects in Sub-Saharan Africa



The first of its kind report that provides a comprehensive picture of today's African energy sector and its future prospects in a global context – it underlines the acute shortage of modern energy services in most countries (International Energy Agency, 2014)

## Featured articles

### Benefits of SAMSET partnership to the Ga East Municipal Assembly

by Mr. Alex Amoah (Deputy Planning Officer) and Mr. Felix Ameyaw-Boachie (Assistant Director), Ga East Municipal Assembly

Partnering with the SAMSET project has created a number of opportunities for the Ga East Municipal Assembly ranging from capacity building to knowledge transfer. Listed below are some of the benefits that have been realised from being part of this project:

- SAMSET has afforded the Assembly an opportunity to contribute to the recent Urban Policies Workshop organized by the Institute of Local Government Studies;
- It has contributed in building the local energy data picture which is important for planning purposes within the Assembly;
- Learning experience shared about other municipalities through SAMSET has given us an opportunity to appeal to communities within the municipality to help increase revenue generation and to support and own projects and programmes being implemented in their respective communities;
- SAMSET has also afforded the Assembly an opportunity to consider the possibility of introducing building regulations/by-laws that will make it mandatory for developers within the municipality to incorporate energy efficiency interventions when designing their buildings.



Participants at the Energy and Sustainable Urban Development in Africa Continuing Professional Development (CPD) course held at the Graduate School of Business, University of Cape Town, South Africa

### Energy and Sustainable Urban Development in Africa: Capacity Building & Training



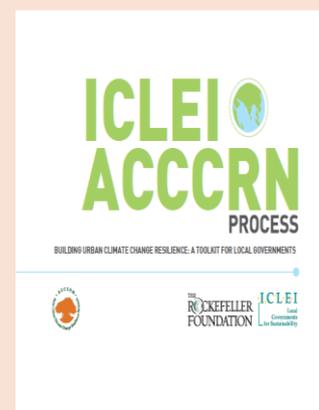
Cartoon by **Andy Mason**, the rapporteur for the CPD course

Cities have been identified as key drivers for sustainable energy implementation in an energy transition. Central to this is a redesign in terms of city approaches to energy and urban form in order to ensure future energy security, sustainability and equity. This would include changes in transport and settlement patterns, urban infrastructure and design, and energy supply and demand.

To drive this transition a new breed of leaders and managers are required in local government, business and civil society to implement sustainable solutions in the urban environments of Africa. To that effect a continuing professional development (CPD) course on energy and sustainable urban development developed and

### Featured publications...

**ICLEI ACCCRN PROCESS**  
Building Urban Climate Change Resilience: A Toolkit for Local Governments



The toolkit aims to enable local governments to assess their climate risks, formulate and implement corresponding resilience strategies (ICLEI South Asia, 2014)

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coordinated by **Sustainable Energy Africa** was held at the University of Cape Town's Graduate School of Business 17 – 21 November, 2014.

The course content covered the global, national, regional and local energy pictures, noting the energy challenges and opportunities, from a local government perspective in particular. The course explored local government mandates, powers and functions relating to energy and climate responsiveness in different contexts, along with barriers and potential avenues in an energy transition. Course participants included SAMSET municipal partners, local government from a range of South African municipalities, councillors, and people from the private sector among others.

## SAMSET Outputs and key dates

### SAMSET recent outputs [\(click here](#) for these and previous outputs)

1. **Energy Futures Report for Cape Town**
2. **Household Energy Use in Selected Areas in and around Polokwane** (Synthesis Paper)
3. **Energy and Urbanisation in SAMSET Countries: Synthesis of Three Reviews of Context and Literature** (Report)
4. **The potentials of carbon markets for infrastructure investment in sub-Saharan urban Africa** ([paper](#))

### Forthcoming outputs

- *State of Energy & Energy Futures Reports* for:
  - Jinja and Kasese municipalities (Uganda)
  - Awutu Senya East and Ga East municipalities (Ghana)
  - Polokwane (South Africa)
- *An Applied Methodology to Support African Municipalities* (Journal article)
- *The shift from traditional window systems to new window designs in Ghana: Sociological and Energy Efficiency Issues in Ga East and Awutu Senya East Municipalities* (Journal article)
- *Knowledge Exchange Framework* (Journal article)

### Key SAMSET dates

|  |  |
|--|--|
| Next Network Meeting ( <i>internal to project team and municipal partners</i> )  | 18-21 May 2015 (Uganda)                          |
| Continual Professional Development courses:<br><b>Sustainable Energy and Urbanisation</b>  | 16 – 20 Nov 2015 (Ghana)<br>Feb 2017 (Uganda)    |
| <b>Regional Sustainable Energy Transitions workshops</b> ( <i>open to relevant organisations and municipalities involved in sustainable energy and urbanisation challenges</i> ) | 18 – 19 Nov 2015 (Ghana)<br>Jun/Jul 2017 (Ghana) |

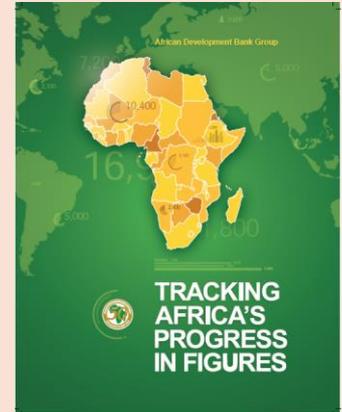
### Other Key dates



The United Cities and Local Governments of Africa (UCLG Africa) 7th Edition of the Africities Summit will be held from **29 November to 3 December 2015** in Johannesburg, South Africa. For more information on the summit visit the summit's website.

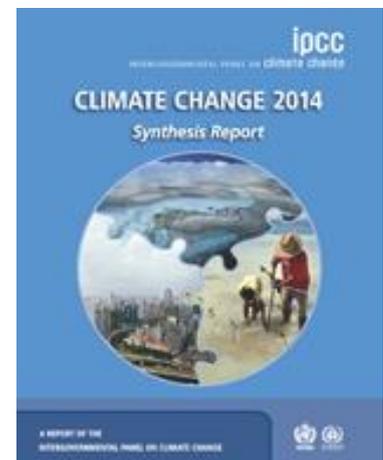
## Featured publications ...

### Tracking Africa's Progress in Figures



The African Development Bank's **Tracking Africa's Progress in Figures** publication looks at the megatrends of the last few decades that will shape Africa's future (African Development Bank, 2014)

### IPCC's Fifth Assessment Report (AR5)



The IPCC's Fifth Assessment report reflects the importance of understanding urbanisation and the role of local governments in addressing climate change and the actions required at a local level (IPCC, 2014)

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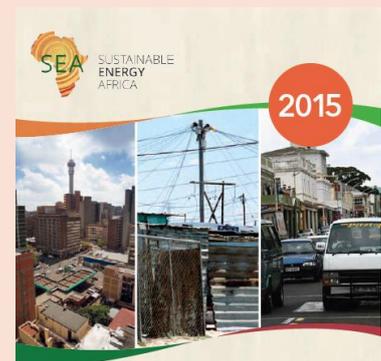
SAMSET is a part of the Low Carbon Energy Development Network which links the twelve projects currently funded under the DFID/DECC/EPSC "Understanding Sustainable Energy Solutions" programme.

The LCEDN is to become a central point of information for UK-linked research projects in the field of low-carbon energy, and energy for sustainable development. The LCEDN currently offers a database of low-carbon energy development research spanning the last decade through their website:

<http://lcedn.com/>

## Featured publications ...

### State of Energy in South African Cities 2015



### STATE OF ENERGY IN SOUTH AFRICAN CITIES

This third State of Energy in South African Cities report examines the sustainable energy development path of 18 key cities in South Africa. It builds on the data collection and analysis work of the first two reports dated 2006 and 2011. (Sustainable Energy Africa, 2015)

### [SAMSET blog \(click here\)](#)

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