SAMSET NEWSLETTER 4
(September 2015)

SAMSET
Supporting Sub-Saharan Africa's Municipalities with Sustainable Energy Transitions

SAMSET PARTNERS MUNCIPALITIES

ABOUT US:

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 Africa 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.

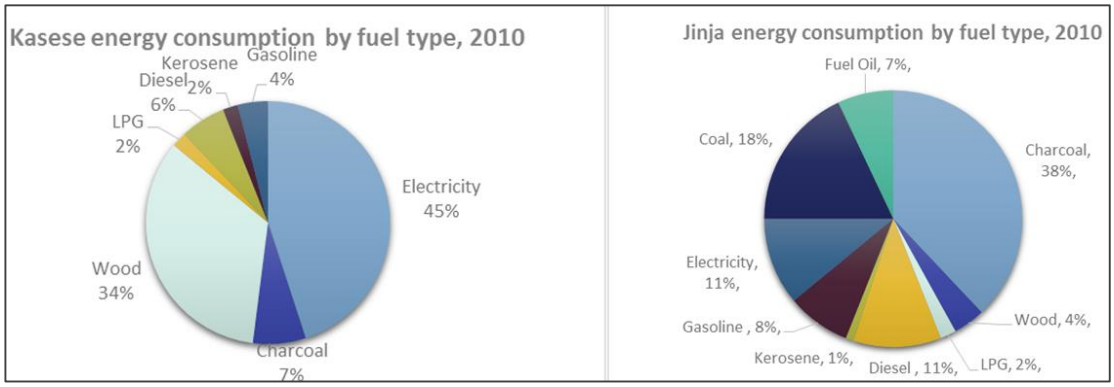
WELCOME TO THE 4TH EDITION OF THE SAMSET NEWSLETTER

SAMSET partners are finalising the modelling of future energy scenarios so that Sustainable Energy Strategies can be developed during the coming months. This newsletter shows some of the results emerging from this work. We also highlight useful publications and events as usual. Of particular significance is SAMSET's participation in the Africities 2015 Summit in Joburg later this year. We hope you find something of interest herein.

THE SAMSET TEAM

DEVELOPING A CITY ENERGY PICTURE AS A STEP TOWARDS IDENTIFYING RISKS, VULNERABILITIES AND OPPORTUNITIES FOR SUSTAINABLE ENERGY TRANSITION

Improving economic growth and people's wellbeing is closely linked to an adequate supply of sustainable energy. This is expressed in the new Sustainable Development Goal to ***ensure access to affordable, reliable, sustainable, and modern energy for all***, which is in line with the global Sustainable Energy for All targets set for 2030. For Sub-Saharan African countries this is a critical focus because of high-levels of energy poverty, and is a particular challenge for cities like Jinja and Kasese (Uganda), Awuntu Senya East and Ga East (Ghana) and Polokwane (South Africa) which are currently faced with fast urbanization and a predominance of unhealthy and unsafe energy use: coal, charcoal, paraffin and wood. This was revealed in the State of Energy reports produced by the SAMSET country teams (see ***SAMSET Outputs*** to download the reports).



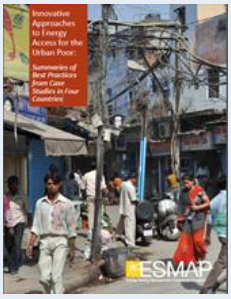
The figures illustrate the reliance on biomass in Ugandan cities

Global Atlas pocket

The International Renewable Energy Agency (IRENA) recently launched a new mobile app based on the online version of Global Atlas portal. The app has been designed to enable users to be able to access free reliable data on renewable energy worldwide (1000 maps from 67 governments and 50 data centres). The app will assist in bringing more investment in the renewable energy sector. Click for here for more details.

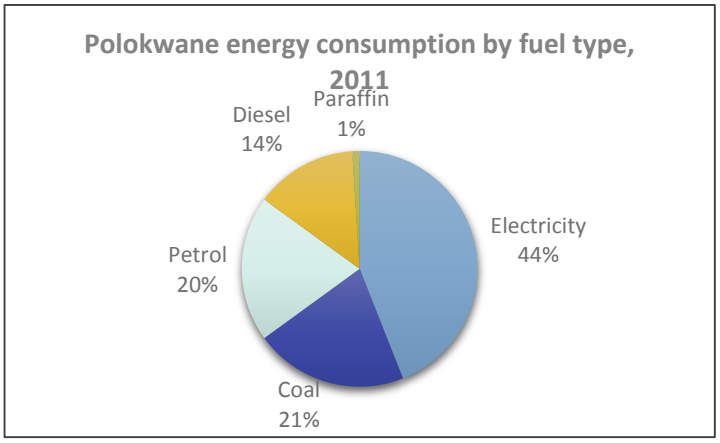
Featured publications

Innovative Approaches to Energy Access for the Urban Poor: Summaries of Best Practices from Case Studies in Four Countries



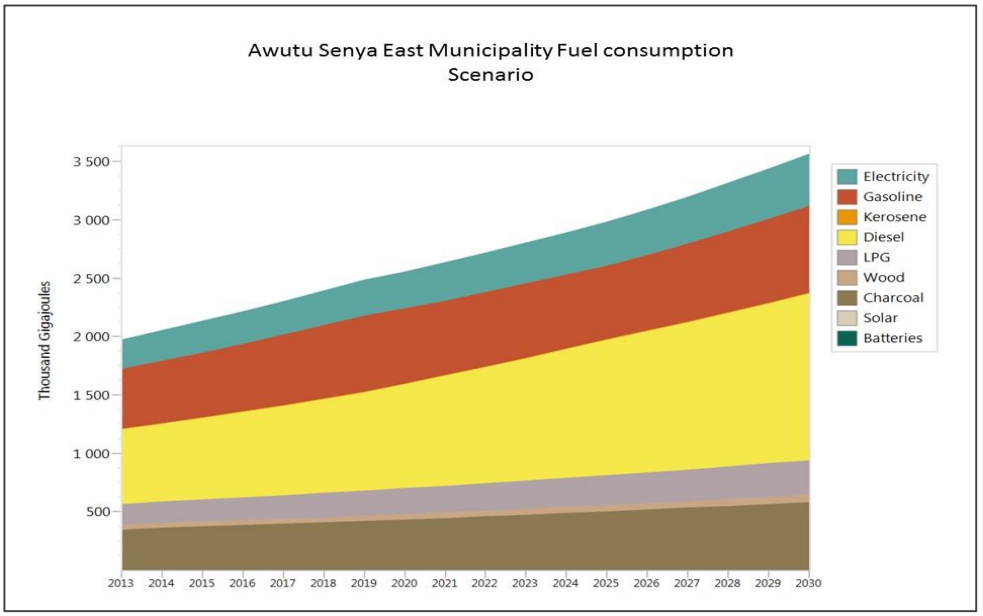
This study demonstrates several common barriers and highlights diverse ways to overcome them. It shows that success depends on several enabling factors working together, such as stakeholder collaboration and community empowerment. Sustainable initiatives that have the potential to be replicated in other urban poor communities depend on the continued commitment of stakeholders, and the presence of strong financial and institutional mechanisms (Energy Management Assistance Program, 2015).

More info: see the SAMSET website **(click here)**



Polokwane fuel sources indicate high use of coal, electricity and transport fuels (petrol and diesel)

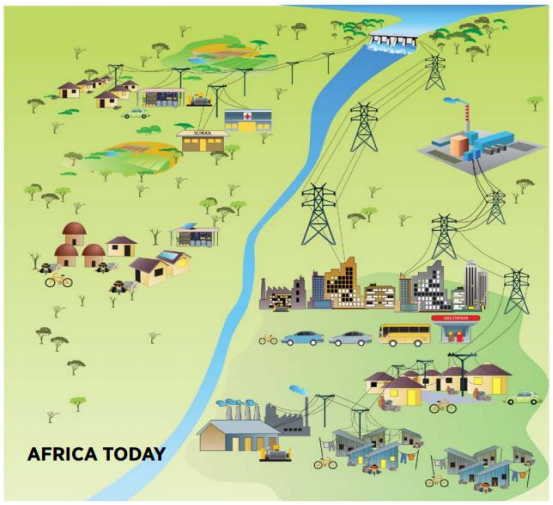
The State of the Energy reports also identify key challenges such as lack of resources, awareness raising and staff capacity which constrain sustainable energy progress. In the coming months SAMSET will be working on Sustainable Energy Strategies for these and other cities.



Modelling work under SAMSET shows that Awutu Senya East Municipality business as usual energy consumption to 2030 trajectory indicates exponential growth of dangerous and polluting solid fuels

AFRICA'S RENEWABLE FUTURE: THE PATH TO SUSTAINABLE GROWTH

Report by International Renewable Energy Agency (IRENA)



Africa's population is expected to grow rapidly in the next decade and this will further increase the demand for energy. More than 50% of the people in Africa in 2010 had no access to electricity. This is a challenge for a continent whose economic growth is on the rise. This paper highlights the work Africa has done to provide clean energy, but it further highlights the work that is still needed to be able to achieve the Sustainable Energy for All objectives. Sustainable Energy for All has three ambitious but achievable objectives to be realized by 2030:

Upcoming Key Event

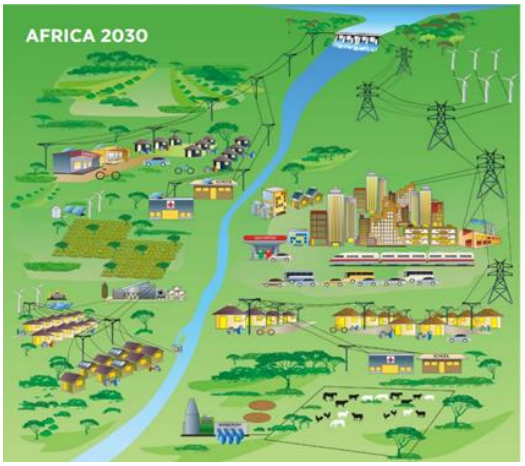
The United Cities and Local Governments of Africa (UCLG Africa) 7th Edition of the Africities Summit from 29 November to 3 December 2015 at Sandton Convention Centre, Johannesburg. For more information and registration visit the summit's website.

OPEN SESSION:
Sustainable Energy in Urban Africa
SAMSET will be hosting an Africities Open Session on the 30th of November 2015 from 15:00 to 18:00. The session will gather a panel of experts discussing challenges and opportunities regarding Sustainable Energy in Sub-Saharan Africa's cities. Field trips are also being organized by SAMSET to various sustainable energy installations.

Featured publications

POWER PEOPLE PLANET Seizing Africa's energy and climate opportunities

This report explores the links between energy, poverty and climate change. It also provides an agenda for change and a call to action directed not just to Africa's leaders, but to the wider international community (Africa Progress Panel, 2015).



to ensure universal access to modern energy services; to double the global rate of improvement in energy efficiency; and to double the share of renewable energy in the global energy mix. The paper also highlights the need for leadership from government and partnerships between government and the private sector, as well as the need for financial support to advance the energy sector in Africa. The pictures tell a story of how Africa can look in 2030 if all three objectives are achieved. Read more here.

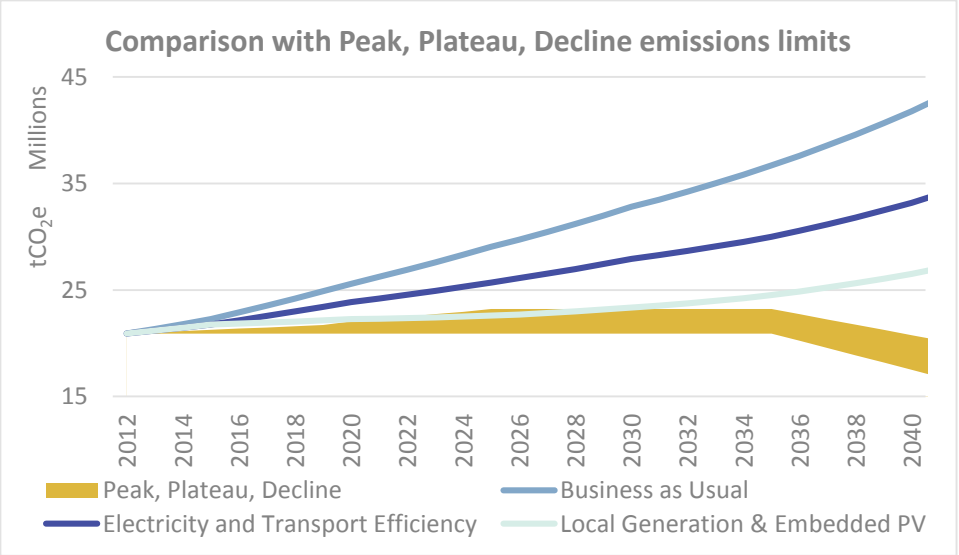
HOW DO WE GET TO A LOWER CARBON - AND LOWER COST – FUTURE?

The City of Cape Town is one of the SAMSET partner municipalities. Over the past decade, the City has made important progress around sustainable energy strategies and interventions. The following have been the **key challenges** the city has faced:

1. significant growth in energy use and increased emissions
2. inefficient transport systems, excessive transport cost and increase in commute time
3. steep increase in energy cost
4. financial burden on the poor due to high prices

However, the city is also presented with **great opportunities** to improve their future and modelling data points to the following key areas:

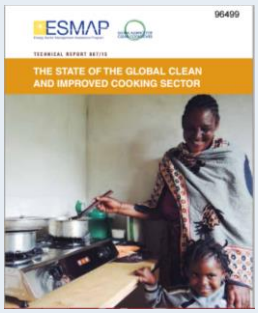
1. promote more appropriate, denser spatial form to enable more efficient public transport
2. pursue renewable energy options e.g. rooftop solar PV
3. aggressive energy efficiency programs in the commercial, residential and local government sector
4. behavior change to increase private vehicle occupancy, as well as a modal shift to public transport
5. increasing access to electricity to the poor



The figure indicates different energy efficiency interventions that Cape Town can implement to improve their sustainable energy profile and reduce carbon emissions (Peak, Plateau, Decline is the national govt set desired carbon trajectory) (see SAMSET Outputs to download the full report).

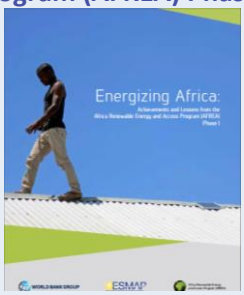
Featured publications

THE STATE OF THE GLOBAL CLEAN AND IMPROVED COOKING SECTOR



The report provides the first global baseline for clean and improved cooking, including analyses of fuel and stove penetration, end-user segmentation, and industry structure. It offers lessons and recommendations that can guide key stakeholders in developing increasingly effective interventions to help billions of people who still rely on biomass for their cooking needs (Global Alliance for Clean Cookstoves and Energy Sector Management Assistance Program, 2015).

Energizing Africa: Achievements and Lessons from the Africa Renewable Energy and Access Program (AFREA) Phase I



This report provides a retrospective overview on AFREA Phase I achievements and lessons learned on the key regional programs that were supported: Lighting Africa, the Biomass Energy Initiative for Africa (BEIA), Africa Clean Cooking Energy Solutions (ACCES), the Gender and Energy Program, and the African Electrification Initiative (AEI) (Cities Alliance, 2014).

SUSTAINABLE DEVELOPMENT GOALS: ENERGY ACCESS A WORLDWIDE PRIORITY

As of 25th of September during the UN Summit new Sustainable Development Goals have been adopted that are aimed to end poverty and achieve sustainable development by 2030. In total there are 17 goals with 169 targets that national governments are mandated to achieve. Goal 7 addresses the issues of energy access; with 1.1 billion people in the world without access to electricity and a further 2.9 billion using unsafe cooking fuels. Read and find out more here.

SAMSET OUTPUTS AND KEY DATES

SAMSET recent outputs (click here for these and previous outputs)

1. ***'Theatres of technology innovation': supporting local government in sustainable energy transition in South Africa, Ghana and Uganda*** (*paper*)
2. ***The potentials of carbon markets for infrastructure investment in sub-Saharan urban Africa (paper)***
3. ***Smart Metering: Overview and Considerations for South African Municipalities (report)***
4. ***City of Cape Town State of Energy and LEAP technical report (report)***
5. ***Policy brief for SAMSET***
6. ***Survey Data from Namuwongo Household Energy Research – 2015***
7. ***Briefing Note: A mid-project review of knowledge exchange in the SAMSET project***

Forthcoming outputs

- *Update of Polokwane Energy Strategy*
- *Decision makers report for City of Cape Town*
- *State of Energy & Energy Futures Reports* for: Ghana, Uganda and update of 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)
- *Collaboration as a delivery model for energy transition: investigating the drivers of energy transitions between communities, local governments and NGOs. Ndibwami, A., and Candia, H., D.* (Journal article)
- *Knowledge Exchange Framework* (Journal article)
- *Energy modelling and its applications to sustainable energy transitions in African cities* (Journal Paper)
- *An exploration of energy mandates in local government in Sub-Saharan Africa, with particular focus on Ghana, Uganda and South Africa. Euston-Brown M, Bawakyillenuo S and Ndibwami A.* (Journal article)
- *Waste Management Concept Note. Dr Xavier Lemaire and; Daniel Kerr* (Journal article)

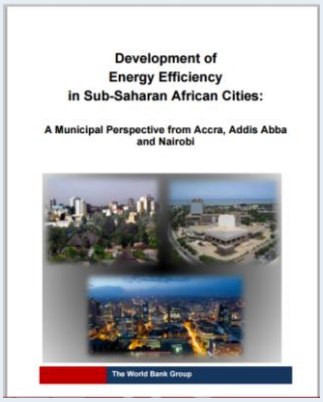
KEY SAMSET DATES

Next Network Meeting (*internal to project team and municipal partners*)	25 – 28 November 2015 (Polokwane, South Africa)
Africities 2015 Summit	29 November - 3 December 2015 (Johannesburg)
Continual Professional Development courses: ***Sustainable Energy and Urbanisation***	Nov 2016 (Uganda) May/Jun 2017 (Ghana)
Regional *Sustainable Energy Transitions* workshops (*open to relevant organisations and municipalities involved in sustainable energy and urbanisation challenges*)	May/Jun 2017 (Ghana)

Farewell…

SAMSET team recently bid farewell to one of its valuable team members - Melusile Ndlovu. Melusile has been part of the project since its inception and part of Sustainable Energy Africa since 2009. He will be missed. The SAMSET team wish Melusile happiness and success.

Development of Energy Efficiency in Sub-Saharan African Cities: A Municipal Perspective from Accra, Addis Abba and Nairobi



This report aims to provide understanding how city governments can work towards supporting local energy efficiency initiatives (The World Bank Group).

SAMSET blog (click here)
(on the blog page click "Follow" to receive the blog by email)

SAMSET TEAM CONTACTS

SUSTAINABLE ENERGY AFRICA
Mark Borchers (Project Manager)
mark@sustainable.org.za
Hlengiwe Radebe (Project Coordinator)
hlengiwe@sustainable.org.za
Sustainable Energy Africa, Cape Town
South Africa, +27 21 702-3622
www.sustainable.org.za

UNIVERSITY COLLEGE LONDON:
Energy Institute
Dr Xavier Lemaire (Project Manager)
x.lemaire@ucl.ac.uk
UCL Energy Institute, London
+44 20 3108-5906
http://www.bartlett.ucl.ac.uk/energy

UGANDA MARTYRS UNIVERSITY:
Faculty of the Built Environment
Alex Ndibwami (Lead Researcher)
andibwami@umu.ac.ug
Uganda Martyrs University, Kampala, Uganda
+256 79 323-1010
www.umu.ac.ug

GAMOS LTD
Dr Simon Batchelor (Lead Researcher)
simon@gamos.org
Gamos Ltd, Reading, Berkshire, UK
+44 118 926-7039
www.gamos.org

UNIVERSITY OF GHANA:
Institute of Statistical, Social and Economic Research
Dr Simon Bawakyillenuo (Lead Researcher)
bawasius@isser.edu.gh
ISSER, Legon (Accra), Ghana
+233 0302-501182
www.isser.edu.gh

UNIVERSITY OF DURHAM:
Department of Geography
Prof Simon Marvin (Lead Researcher)
simon.marvin@durham.ac.uk
University of Durham, Durham, UK
+44 191 33 41873
www.dur.ac.uk/geography

UNIVERSITY OF CAPE TOWN:
Energy Research Centre
Adrian Stone (Lead Researcher)
adrian.stone@uct.ac.za
UCT, Cape Town, South Africa
+27 21 650-3230
www.erc.uct.ac.za