

Conference Report

Potsdam Spring Dialogues 2013

sef:

Fostering Energy Access in Africa. Challenges and Opportunities for Regional Integration

Sabine Gerhardt

Access to energy is one of the most important prerequisites for economic and social development. Although the gap between energy demand and supply has steadily narrowed worldwide over the past four decades, Africa is on an opposite trajectory. Around 585 million people in Africa still have no access to electricity. In Mauritius, South Africa, Ghana and Côte d'Ivoire, more than half the population has access to an electricity supply, but the figure for countries like Niger, Malawi and the Democratic Republic of the Congo is less than 15 per cent. How can access to sustainable (i.e. renewable) energy be improved? This was the key question addressed at this year's Potsdam Spring Dialogues, organised by the Development and Peace Foundation (SEF) in cooperation with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, the Renner Institute and the journal WeltTrends. The two-day conference focused particularly on decentralised solutions to energy poverty, which is a major problem in rural areas.

Africa has major fossil energy resources. "Every year, countries are discovering new oil and gas deposits," said Professor Abubakar Sambo, Special Energy Adviser to the Nigerian President and the World Energy Council's Vice Chair for Africa, in his keynote speech. As a result, as much as 82 per cent of Africa's electricity is still generated from fossil fuels. However, its abundant renewable energy resources, including wind, hydro and solar energy, make the continent a potential eldorado for renewables. "It's down to the politicians to reverse the current trend," said Professor Sambo.

The German Government is supporting this development, for example through its interdepartmental

Strategy for Africa, said Michaela Spaeth, Head of the International Energy Policy and International Commodity Policy Division at the German Federal Foreign Office, in her keynote speech. Energy plays an important role in the Strategy, she said. She expressed her conviction that "Africa today is not only a key strategic partner but also an attractive and dynamic growth market." Jürgen Stotz, President of the World Energy Council – Germany, had already drawn attention to the region's economic potential. Africa's great resource wealth, coupled with an inadequate energy infrastructure, makes the continent potentially very interesting for German investors. Cooperation with the African countries now takes a variety of forms, Michaela Spaeth explained. The German Federal Foreign Office mainly focuses on bilateral projects, such as the German-Nigerian Energy Partnership agreed in 2008. Similar projects also exist with Angola, South Africa and Mozambique, although the quality of cooperation varies, she conceded. The partner country's governance performance is a key factor determining the success of these initiatives.

Energy from heaven and hell

Unlike the Federal Foreign Office (AA), the German Federal Ministry for Economic Cooperation and Development (BMZ) also cooperates with African regional organisations in the energy sector. Energy has become an increasingly important topic in this context over the past decade or so, said Franz Marré, Head of Division Water; Energy; Urban Development; Geoscience Sector at the Ministry. Since mid

2010, attention has focused mainly on the issue of energy access: “The Sustainable Energy for All (SE4ALL) initiative therefore came at just the right time,” he said. Although Germany does not have an expert in the High-Level Group, the European Commission is represented. In all, 70 countries have already joined the UN initiative. Germany would also like to share its expertise in relation to the energy-food-water nexus and plans to submit a relevant proposal to the new SE4All Secretariat, as the Ministry has substantial experience of working on this issue. The “food vs. fuel” debate which has arisen in recent months due to the increase in biofuel feedstock cultivation is an example of these interlinked challenges. The Ministry is also planning further increases in the amount of financial support that it provides. For example, at a high-level meeting in Brussels in late



Abubakar Sambo, Special Energy Adviser to the Nigerian President and the World Energy Council's Vice Chair for Africa

2012, BMZ announced that it has set itself the goal of supporting African partner countries in their efforts to facilitate access to modern energy services for an additional 100 million people by 2030. German ODA contributions for renewable energies and the energy efficiency sector are therefore set to increase from the current figure of 1.8 billion euros to 3.6 billion euros by 2030.

The partners in the Global South, Franz Marré continued, would appreciate more cooperation in the field of energy efficiency. However, the situation is often ambivalent: it is recognised that many of these countries are unable to dispense with coal-fired power plants at present, but Germany does not necessarily wish to contribute to extending their lifetimes. In the ensuing discussion, however, many of the African participants cautioned against writing off fossil fuels altogether: in order to safeguard an adequate supply, especially during the transitional period, what is needed is a sound mix of “energy from heaven” (such as solar and wind power) and “energy from hell” (e.g. oil and coal), according to Professor Geoffrey

R. John, Chairperson of the Tanzania Renewable Energy Association (TAREA).

Regional integration

Buoyed up by the Sustainable Energy for All initiative, the African countries are also increasingly engaged in improving energy access. Back in 2010, governments which signed the Maputo Declaration committed to drive the development and distribution of renewable energies, in order to provide reliable, affordable and sustainable solutions. In order to support this process, a Conference of Energy Ministers of Africa (CEMA) was established as a central coordinating body for energy policy. Then in 2011, 46 African countries signed the Abu Dhabi Communiqué on Renewable Energy for Accelerating Africa's Development and during All Africa Energy Week last November, reaffirmed their determination to progress their development plans. This commitment was welcomed in principle by the participants at the Potsdam Spring Dialogues, who agreed that clear and ambitious goals are an essential starting point.

In the view of many panellists, however, not enough is being done at present. Energy should be at the very top of the political agenda. What Professor Sambo would like from governments is stronger support for transnational energy projects, such as those initiated by the African Union and NEPAD. Many of the regional economic communities (RECs) have also been working for some years to produce coherent, consistent and reliable development strategies that aim to improve the energy supply. This is very important, in Professor Sambo's view: he pointed out that national governments are often unwilling to listen to their own experts but are responsive to initiatives put forward by the RECs.

Hyacinth Elayo was in Potsdam representing the ECOWAS Regional Centre for Renewable Energy and Energy Efficiency (ECREEE). “The situation in West Africa is particularly difficult compared with other regions on the continent,” he explained. ECREEE's task, therefore, is to promote energy access, energy security and energy efficiency in the region through renewable energy projects. In Hyacinth Elayo's view, these efforts are already bearing fruit: for example, with the adoption of the ECOWAS Renewable Energy Policy (EREP) and the ECOWAS Energy Efficiency Policy (EEEP) in October 2012, the ECOWAS Member States have demonstrated their political will to drive forward “green” energy. The vision of the EREP is “to secure an increasing share of the Member States' energy supplies and services from renewable energy sources in future, to enable the entire region to reach universal access to sustainable energy services by 2030”. Both documents define minimum criteria, objectives and scenarios for the increased use of renewable energies, as well as a broad range of measures, standards and incentives at regional and

national level. ECOWAS has commissioned ECREEE to develop a frame of reference for implementing the policy and to assist Member States in carrying out practical measures, Hyacinth Elayo reported.

The Southern African Development Community (SADC) is also showing a growing interest in renewable energy solutions as a means of improving energy access, according to Odala Matupa, Programme Officer Energy at the SADC Secretariat. This region is also severely affected by energy poverty. In 2010, SADC adopted a Regional Energy Access Strategy and Action Plan, the goal being to endeavour to halve the proportion of people without such access within 10 years. A programme to increase the use of available renewable energy sources was launched the same year. Efforts are now under way to establish an institution that is “comparable with ECREEE”, he said. “A feasibility study has already been carried out, and this will soon be followed up with a roadmap”. The aim is to establish the new institution as “the centrepiece of the Southern African SE4All initiative.” This process is supported by UNIDO, the EU Energy Initiative Partnership Dialogue Facility (EUEI PDF) and Austria.

“The energy sector has played an important role in Austria’s development cooperation for quite some time,” according to Rudolf Hüpfel, Senior Adviser on Energy for Development at the Global Forum on Sustainable Energy (GFSE) in Vienna, who was involved in developing the Austrian Development Agency’s energy policy guidelines several years ago. In its work with Africa, Austria relies entirely on cooperation with regional organisations. Austria was one of the co-founders of ECREEE and is currently supporting similar projects, not only with the SADC but also with the East African Community (EAC) via its Energy and Environment Partnership with Southern and Eastern Africa. “In this context, “regional” means more than simply ‘transboundary,’” as Rudolf Hüpfel made clear, repeatedly emphasising these projects’ important role in building peace.



Potsdam Spring Dialogues 2013: (from left) Geoffrey John, Henning Melber, Franz Marré, Linus Mofor.

From words to action

As well as focusing on the current plans and objectives adopted by individual countries and their regional communities, the Potsdam Spring Dialogues discussed the feasibility and practical implementation of these plans in detail. Delegates drew attention to the lack of resources as a frequent problem in this context. Odala Matupa, for example, urged SADC Member States to provide more resources for regional projects and to give these projects political priority over national initiatives. The institutional capacities of the Secretariat must be strengthened at the same time, for despite the ambitious policy agendas described, the Secretariat currently has just two staff to deal with energy projects: Odala Matupa himself and one other member of the team.

In the view of Dr Linus Mofor, an analyst at the Innovation and Technology Centre (IITC) set up by the International Renewable Energy Agency (IRENA), further efforts need to be made in relation to implementation. For example, in order to breathe life into the Abu Dhabi Communiqué, it is necessary, firstly, to carry out detailed analyses of communities’ needs and circumstances, with reference to their energy requirements; secondly, to create conducive conditions to boost investment at national, regional and continental level; and thirdly, to promote research and development.

More specifically, the two-day conference also looked at instruments such as taxes, subsidies, incentive schemes and feed-in tariffs and legislation, and their potential to achieve a breakthrough for renewable energies. “We need the entire portfolio,” said Hyacinth Elayo. In his view, tax relief schemes are a particularly interesting option. However, it was the benefits of feed-in tariffs that proved to be a particularly contentious issue at the Potsdam conference. Professor Sambo, for example, emerged as a firm advocate of this option, referring particularly to the German model in this context, and his views were endorsed by Franz Marré, for example. However, critics such as Amadu Mahama, founder and chairman of New-Energy, an NGO in Ghana, pointed out that in reality, the payments do not always reach the investors.

Investing in innovation

These cases make it more difficult to secure potential investors – but financing renewable energy solutions for Africa is crucially important. While these solutions are becoming increasingly competitive due to technological advances, renewables still suffer from a “structural disadvantage”, as their initial costs are so high compared with their life cycle costs, explained Michael Franz, Project Manager at the EU Energy Initiative Partnership Dialogue Facility (EUEI PDF) in Brussels. But as Franz Marré had already pointed

out, in a comparison of costs, it is essential to bear in mind that even today, 90 per cent of global energy subsidies go to fossil fuels and nuclear power.

To avoid any over-reliance on a change of policy course happening in the near future, it is essential to secure investment from the “private sector”, according to a call frequently heard at the conference. But who is meant by the private sector? This often requires clarification. For example, Hyacinth Elayo, Franz Marré and many other delegates were in favour of stronger support for local businesses. This is the starting point for the business model pioneered by MicroEnergy International, Berlin (MEI), whose Managing Director, Noara Kebir, was one of the panellists in Potsdam. The consultancy, explained Noara Kebir, has set itself the task of establishing micro-finance systems for clean energy solutions all over the world. MEI takes over the management along the entire project cycle (from planning to implementation and evaluation) in order to ensure that the financial instruments are tailored to the sector’s needs and genuinely benefit end-users.

Another innovative approach to clean energy in Africa was described by Christian Bachmann, Managing Director of “Klima ohne Grenzen”. His company implements climate projects in developing countries in order to offset unavoidable CO₂ emissions on behalf of companies and individuals. As an example, Christian Bachmann described a project in



Potsdam Spring Dialogues 2013: (from left) Hyacinth Elayo, Sebastian Schublach, Odala Matupa, Rudolf Hüpfl..

Tanzania, where “Klima ohne Grenzen” assisted with the refurbishment and return to service of a small hydropower plant, with the aim of providing a power supply for a local hospital. Due to technical defects, the hydropower plant had been unable to provide the hospital with enough power, so the hospital was reliant on diesel generators to provide a back-up supply, which was very expensive as well as being harmful to the climate. Now that the hydropower plant has been fully refurbished, the hospital has access to

low-carbon electricity once more. The hospital has substantially reduced its consumption of fossil fuels, e.g. diesel, kerosene and wood, resulting in significant CO₂ emissions reductions, explained Christian Bachman. In addition to the climate benefits, the project has ensured that there is now a reliable power supply available to operate medical equipment and provide emergency treatment at all times. Reducing the hospital’s dependency on expensive fossil fuels has also freed up resources, enabling the hospital to treat far more patients than before.

German and European companies which require assistance to implement innovative energy projects in Africa together with local partners often approach the Deutsche Investitions- und Entwicklungsgesellschaft mbH (DEG). Its representative at the Potsdam Spring Dialogues, Dr Tobias Bidlingmaier, described the various tools available to DEG, with reference to specific project examples. For companies about to embark on a new business model, for example, DEG can cover up to 50 per cent of total project costs – provided that the project is located at the interface between development cooperation and business. The DEG aims, first and foremost, to “provide impetus for sustainable business activity, especially in the field of rural electrification”. During this phase, DEG can also provide funding for feasibility studies, support measures or climate partnerships. For upscaling, i.e. the expansion of an existing business, DEG offers companies repayable “soft funds”. For projects that are already in the operational phase and aim to become established in the market, long-term loans, guarantees, mezzanine financing and shareholding options are also available.

In his comments, Michael Franz paid tribute to the DEG’s extensive portfolio but pointed out that “financing alone” is not enough. The EUEI PDF supports dialogue and strategy-building processes in order to improve access to energy, and it is often apparent that what is in short supply is not funding but good project ideas.

Decentralised energy for rural regions

A further participant in the discussions in Potsdam was Tobias Zwirner, Managing Director of Phaesun GmbH – one of the companies supported by DEG. Phaesun offers off-grid energy solutions in several African countries, focusing mainly on areas where energy poverty is greatest, i.e. rural regions. As Hyacinth Elayo had already explained, in the 15 ECO-WAS countries, around 20 per cent of the population, on average, has access to electricity but this falls to just 6-8 per cent in rural areas. Grid connections are prohibitively expensive here, so mini-grid or off-grid systems, such as those distributed by Phaesun via its local partners, have an important role to play. Tobias Zwirner explained that stand-alone photovoltaic systems with an output of up to 10 watts are used

by private households (e.g. for lighting or charging mobile phones), public authorities (e.g. for ambient



Potsdam Spring Dialogues 2013: (from left) Noara Kebir, Gerd Harms, Tobias Bidlingmaier.

lighting or ventilation) and commercial enterprises (e.g. to operate refrigerators or irrigation systems). Prices are structured so as to ensure that the invest-

ment is recouped very quickly, also by small businesses. This gives communities in rural Africa the chance to “gain access to electricity using their own financial resources”, as Tobias Zwirner emphasised. In the ensuing discussion, Professor Sambo asked whether manufacturing the solar modules in Africa itself might be more sustainable. According to Tobias Zwirner, however, the pressure of competition in the global photovoltaic market means that this cannot be the way forward. It would be more effective to invest in “battery recycling”.

John Kuteesakwe from the University of Flensburg was another panellist with expertise in decentralised energy solutions. Having worked for GIZ in Uganda for many years, where he was involved in distributing clean cooking stoves, he has come to recognise that often it is not the technology itself that is the problem, but ensuring that it is affordable for the poorest people. “Energy is not an end in itself” – this was one of the core messages expressed at the Potsdam Spring Dialogues. As John Kuteesakwe made clear, energy is there to help people and should be at the heart of every policy and project. In his input, he encouraged participants to focus on the supply side as well. This is often neglected, and yet supporting the providers of clean energy is often a good way of further increasing local value added.

Imprint

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