Energizing Rural Africa
Which way to take ?

Two billion people worldwide do not have access to such a well known commodity as electricity. In sub-Saharan Africa at least 400 million people lives "unplugged" in rural areas.

Poor people pay more relatively rich

Despite any connection to electricity their monthly energy bill takes a really big portion out of their already low income. It is not uncommon that many poor people pay as much as 20-30% of their monthly earnings just for fuelwood, charcoal, kerosene or dry cells.

Lack of modern power in many developing countries also serious impact on every-day life. For example, at Kisizi hospital in southwestern Uganda, a nurse was recently given opportunity to attend a course in Kampala. However, due to lack of telephone/power service the nurse had to take a taxi to the capital, a return drive of 600 km with hotel overnight, just to get the information of what she should bring to the training course three weeks later. The cost of that "communication" was about 20.000 Ugandan Shillings (US$ 14), representing four days of salary for a well paid nurse.

Many "poor" sits on gold mines - who will dig them out ?

In Nebbi area of the prosperous agro-district of West Nile in the northern Uganda, tons of ripe mangos rotten away instead of becoming nutritious juice also because lack of power. In nearby Arua tobacco is sent to other curing plants far away without much added value for the region. Fish that could be processed and sold to nearby Congo and Sudan are still swimming unfished in the West Nile. The same applies to rural coastal areas in Mozambique where high prized giant shrimps not can be deep-frozen and exported.

Power will get the wheels spinning and boost economical growth

Small enterprises in Africa still struggle with simple hand tools and productivity can not improve much more. Demand has to stand back. For brick makers, tea manufacturers, carpenters, welders and many other small enterprises, the cost of energy many times dominate their overall production cost. Sometimes 30-50% of their totals.

In the remote rural areas access to drinking water is limited to hand pumping and much of every days work for rural households is just spent for water and wood fuel collection. Obviously, the basic need of power is just what is required to get the wheels spinning and promote an increased income generation. Not for all but for the business, local industries, shops etc. Those who can afford electricity, employ and serve the rest. Bringing power to schools and health facilities will indirectly serve also the poorest people.

Many schools complain all over rural Africa that without modern energy as electricity it is very hard to attract educated teachers. Not to speak of giving education that requires electricity, like workshops, science- and telecom education, information retrieval etc. Not many well educated teacher wants to go out in the dark !

How then to energize the rural communities in poor countries? Haven't already everything been tested and mostly failed ? Billions of dollars have since long been poured into Africa. Thousands of tons of paper presented in how to make a change, thousands of aid workers been on mission.

Well maybe not everything has been tested. If now large scale programs have been less successful, there might be hope for the ongoing energy sector reforms. In a recently started program by the World Bank a new concept is tried out related to replication of successful small-scale activities.

Building the load of many small users rather than a giant supply to a few

The Africa Rural and Renewable Energy Initiative (AFRREI) is designed to start from the users. Based on the productive usage of modern fuel, of which electricity is the main but not only one, AFRREI seeks to build load rather than simply provide generation.

The electricity acts in many African countries now makes it possible for small electricity distribution companies to be formed. Cost based tariffs and light-handed regulations for at least small generation (typically below a few megawatt) enables now businessmen and communities to establish their own local utilities. The time were rural populations have to wait for the power lines to come is now gone. Local initiatives will instead bring up their own generation, distribution and service as their needs require.

Energizing rural Africa now seems to be just what it says. Created by the urgent need for power, people in the rural villages will now more energize them selves in bringing up new service providers and that is not only restricted to electric power. It merely links up with telecom and information access, improvement in the schools and health clinics, better access to drinking water and sanitation and energy improvement in small industries.

Educate, educate and educate

The World Bank AFRREI program therefore have to work much different. Trying new innovative paths the educational part also becomes more obvious. There are needs for:

- Training businessmen in productive use of electricity.
- Educating bankers in how to lend money for small energy projects.
- Transfer of low cost technologies to meet affordability
- Local manufacturing of components for a broader rural electrification
- Investments in local assembly plants of e.g. imported solar PV systems.

AFRREI just now concentrates on Uganda where an ambitious program is focused on bringing rural electrification up from today's 1% to at least 10% in 10 year and at the same time develop Uganda's renewable resources by 70 MW. A lending program of 375 million USD is now under preparation for the energizing of rural Uganda. Hopefully more will come in nearby countries like Zimbabwe, Mozambique etc. in the near future.

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