

Reviewer's Comments on ESD Report "Energy Planning in Developing Countries - Facing the Challenges of Equitable Access, Secure Supply and climate Change"

The report seeks to identify research needs and research entry points for medium to long-term energy planning in developing countries, recognising the potential conflict between three of the major drivers: equity, security and climate. Some other drivers, mentioned but given much less detailed consideration in this study, are:

- External finance, including carbon finance, differentially available through eg the Clean Development Mechanism for certain energy supply options.
- Environmental impacts of different sources of supply, especially the harvesting of biomass.
- Competition for energy-related resources: e.g. land and water for either agriculture or biomass energy production; waterfalls/whitewater for either hydropower or revenues from tourism.
- Energy market liberalisation.
- Relative *costs* and *timescales* of developing different energy supply options.
- Demand-side planning (though this is closely linked to *equity of access*).
- Extent of and potential for grid connection in rural areas, including low-cost options currently under development and trial.
- Reliability of electricity supply as *the* constraining factor determining inward industrial investment.

The selection of Case Study areas was constrained by availability of prior contacts and the short timescale for reporting. It is not clear what was the additionality for including SADC as a Case Study area: the survey indicated that the SADC sub-region did not actually have a coherent, well-developed view on energy policy issues. Further, the quoted IEA projection that the achievement of the MDGs, which will require both a huge shift away from traditional biomass as a primary energy source, and also electricity provision for an extra 500 million people, appears to lie right outside the boundaries of the possible for sub-Saharan Africa. Growing biomass for energy on marginal lands, and effective use of the biomass resource, represent an avenue for development that should be considered.

Significant findings include:

- Planning for the short-term almost always takes precedence over the longer-term view needed to address the challenges of this study's focus.
- Absence of any biomass fuels lobby that could attract investment, drive sustainable production, and ensure efficient end-use.
- The two-way effects between energy production and climate change were unresearched, little understood, and at best seen as a channel for carbon finance. (This is hardly surprising; especially as impacts are felt locally/regionally, as in reduction of rainfall leading to shortfalls in hydroelectric generation; whereas the drivers of climate change are global and only 2% of ghg emissions are generated in Africa outside South Africa. In this context, policies of *adaptation* will always take precedence over those designed for climate change *mitigation*).
- Lack of coherence between national energy planning and investment decisions: the interests of national utilities, industry, private sector investors and treasuries are disparate, and unresponsive to planning dictats.

Survey scope and methodology:

1. *Literature review*: well presented and an extremely useful resource for others working in this field.
2. *Focus groups* were formed by the selection of senior people working in the energy sector, with separate FGs for each country and stakeholder category. The detailed methodology appears sound, and is well-reported and -referenced. Selection based on “seniority and position” makes this more akin to a small-group “Delphi” study. Those selected from “recommendations of other participants” could generate a “like-minded bias” – almost impossible to avoid in the circumstances where in any case participants are nominated by a local consultant. The report nevertheless contains much valuable background information about policy planning and implementation in the countries concerned. The selection of countries and region would also inevitably have skewed the conclusions somewhat: poorer countries and those with negligible export earnings are likely to be even more constrained in their energy planning.
3. *Conclusions*: identification of research needs and research entry points. Tables 4 and 5, which also detail their justification and stakeholder support for each theme and entry point, are particularly helpful.

Conclusion:

In regard to the three main drivers identified, this is a comprehensive and meticulously referenced piece of work which should be made available widely, both to inform policy planners in Africa and also to provide an impetus to research in this key area. The wealth of background material presented in the annexes is itself a valuable aid to planning. The “key points” on pp 164-6 are a particularly useful point of reference. And the identification and dissemination of “best practice” in energy supply, distribution and end-use efficiency could buy time for the development of nationally and regionally-specific policies.

(Table at top of p.82 should read 160g C/kWh !)

