A Commentary on *Barriers and Drivers to Renewable Energy Investment in Sub-Saharan Africa*

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Renewable energy offers Africa the potential to replace expensive, dirty, dangerous, and environmentally destructive fuels such as wood, charcoal, diesel, and kerosene with clean, decentralized electricity.

Africa has an abundance of renewable energy resources, and has huge unmet energy demand. The technologies for renewables are increasingly proving effective and are coming down in price. Why then is Africa not leapfrogging to renewable energy systems, despite so many targets and high-level statements in recognition of the opportunity?

Fischer, Lopez, and Suh from the United Nations Environment Programme Finance Initiative (UNEP FI) Climate Change Team, in their paper on "Barriers and Drivers to Renewable Energy Investment in Sub-Saharan Africa," diagnose the problem (unsurprisingly) as a matter of finance: specifically, as the mismatch between risks and returns for investors contemplating renewables projects in Africa.

As they point out, renewable energy projects are more capital intensive than nonrenewables. Investments are riskier because of the relative immaturity of the industry and its dependence on specific policy interventions for a kick-start. Furthermore, concern about the stability and reliability of public policy implementation, regulation, and enforcement make investments in Africa riskier still. This triple whammy means that there is an investment gap for energy in Africa, and an even wider investment gap for green energy in Africa.

The authors conclude that ultimately "serious public commitment is needed at the local level" and that local and international communities need to understand how private investment works in order to develop smart public interventions to mobilize it.

To say that *more political will is needed,* however, is not so much an answer as the start of another question: How?

The authors touch briefly on the political economy dimensions of why it has so far been impossible to get the policy measures needed to attract investment to the industry in Africa, despite countless high-level declarations. For example, they note that proposals to introduce carbon taxes run up against objections for undermining economic competitiveness, energy access, and poverty reduction.

In fact, each of the four potential smart polices that the paper catalogues—national targets, feed-in-tariffs, renewable portfolio standards and carbon prices—will, if effective, result in more of a country's electricity supply being drawn from clean-but-relatively-expensive sources in preference to dirty-but-cheaper sources. Unless there is public (international or national) funding, the incremental costs will be passed on to local consumers and industry.

As the UNEP FI paper notes, it is wise for policy makers to understand how private investment works in order to develop smart interventions. However, it is also crucial to understand the political barriers and drivers, so as to identify which public policies will work in practice.

While both investors and governments increasingly recognize in principle that it makes long-term sense to build up a renewables industry rather than to lock-in to dirty power supplies, in practice the incentives are leading both in the opposite direction. This is not a problem unique to Africa.

Just as investors will put their capital up only if they view the risk as justified by the returns within their decision-making horizon, government ministers and officials have their own hurdle rate for supporting policy measures. The calculation involves "gain-minus-pain" discounted over the make-or-break horizon of their careers. At best, this is measured against their particular ministerial priorities, and at worst, against their own personal enrichment.

Furthermore, potential costs and benefits are not evenly weighted since constituencies with the most to lose are able to mobilize political pressure more effectively than those who would benefit from change. Existing industries with large workforces have stronger lobbies than the industries of tomorrow whose workforces are not yet recruited. Meanwhile rural women and children, who spend hours a day collecting firewood and suffer the health effects of smoke-filled homes, barely register on the political agenda.

The policy interventions needed for renewable energy projects to thrive do not fit neatly into the way that public institutions, designed for the carbon age, are organized. Energy policy reforms, incentive measures, public investments, and capacity building are spread across national planning, finance, energy, industry, and environment ministries, and are linked to decisions by local planning authorities, education authorities, state-owned energy companies, and regulators. Each institution has its own gain-minus-pain calculation and specific priorities —be they keeping public costs down, keeping the lights on, maintaining jobs, creating new ones, or by doing the institution's national bit to stabilize greenhouse gases.

The UNEP FI paper describes one part of a vicious circle. Lack of political support means that policy measures and reforms are not carried out with conviction, and investors therefore apply a risk premium, which prevents large-scale investment from flowing to renewables.

The other side of the loop is that, in this environment, renewables investment will at best offer only ad-hoc development of turnkey facilities, resulting in little increase in local employment or skills development. Such an outcome provides no basis upon which to build a critical mass of support amongst those who must champion effective policy implementation and challenge vested interests in this new and complex area.

Such vicious circles are not helped by being embedded in a dysfunctional international discussion about funding for mitigation and adaptation in which the balance between domestic costs, international support, and private sector risk appetite is often seen as a zero-sum game. Smart national policies and smart international mechanisms are needed to break the vicious cycle and overcome the two linked deficits—of willing investors and political will.

As the paper's authors point out, smart policies must be *cost efficient* and *effective*, but the political economy discussion highlights two further crucial criteria—they must be *implementable* and they must *deliver local benefits*. The smartest policy may not be the one that delivers carbon mitigation at least cost on paper, but the one that can actually be put into practice by the people who have a stake in the country's development. This means policies that enable African countries to use their domestic demand and natural resources as a springboard for industrial development in this latest industrial revolution.

One country, outside the paper's scope but with regional significance, that is seeking to develop such a smart mechanism is the Government of South Africa, through it's South African Renewables Initiative (SARi).[*]

Through SARi, the South African government is seeking to develop a financial mechanism that would enable the country to procure renewables at a scale whereby national benefits would be significant. The financial mechanism being developed blends international climate grants, low cost loans and risk mitigation products, and a program of national public policy reforms as part of an international partnership.

While the financial mechanism itself seeks to improve the risk-return rate by overcoming the barriers well described in the UNEPFI paper, it is embedded in an approach to

[*] For more information, see www.sari.org.za. Note: I am part of the team supporting the South African Government in developing this initiative.

addressing the linked set of political economy obstacles. The aim is not to optimize the policy for least-cost greenhouse gas mitigation, but to catalyze green growth.

Such an approach draws, in the first instance, on funding from developed countries that have committed to funding climate change mitigation ("Annex 1" countries in the climate change jargon). However, other potential sources of patient finance are also interested in developing the next generation of infrastructure in Africa, in particular from China. Chinese companies have only just begun to invest in renewables development and manufacturing in Africa (aside from hydro); however, the model used for other infrastructure investments, which draws on low-cost loans from the Export-Import Bank of China and development banks and a lower cost structure than that of multinationals from mature markets, could well be transferred to this sector. China's government is encouraging its companies to pursue renewables in Africa through the China-Africa Development Fund (CADFund) and has said that its main priority sectors in Africa include renewable energy.

Renewable energy could bring economic as well as climate benefits in Africa. But dependence on external capital flows, whether from western development finance institutions and financial markets, or from new emerging market powerhouses, makes it harder to develop a coherent approach based on domestic industrial policy objectives. The danger is that, as with previous generations of externally invested infrastructure development in Africa, the political will to make it happen could be found by mobilizing a small group of rent-seekers, rather than a wider population that would benefit from industrial development. In this case, even if the risk-return prospects are made more attractive for investors, Africa may end up being a subsidized market for renewables technology exports rather than a competitive place for their production.

Fischer, Lopez, and Suh's analysis of the financial barriers and drivers determining whether individual projects will be viable is a useful contribution toward developing smart policy. But it also needs to be joined with analysis of the balance of economic costs and benefits that would make development of an industrial policy for renewables politically viable.

Biography

Maya Forstater has worked for over fifteen years in the field of sustainability and the role of the private sector, investors, and public policy makers in transforming production and consumption systems toward sustainability. Her work includes leading research and

advising organizations in developing strategic responses to issues ranging from climate change to supply chain labor standards.

Maya has worked with major corporations, multi-sector partnerships, and business groupings in the energy, ICT, apparel, mining and minerals, and mobility sectors, and has written extensively on a range of issues related to sustainability and the private sector. She is currently involved as part of the international team supporting the South African Government to develop the South African Renewables Initiative.

Among the numerous publications she has authored and contributed to are "Low Carbon Growth Plans: Advancing Good Practice" (Project Catalyst); *Unlocking South Africa's Green Growth Potential* (SARi/DTI); "Responsible Business in Africa: Chinese Business Leaders' Perspectives (Harvard); *Mobility for Development* (WBCSD); *The Practitioner's Handbook on Stakeholder Engagement* (UNEP/AccountAbility)*; The Materiality Report* (AccountAbility); *Corporate Responsibility: Implications for Small and Medium Enterprises in Developing Countries* (UNIDO); and *Business and Poverty: Bridging the Gap* (IBLF) . She can be reached at www.hiyamaya.wordpress.com or through Twitter as @MForstater.