

ENERGY TRANSITION IN AFRICA

Thokozani Simelane and Mohamed Abdel-Rahman (eds.) (2011).

Energy transition in Africa.

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There is a story that Walter Bgoya, the renowned former editor of Tanzania Publishing House, recounted to his audience at an African Conference recently. As an 11-year-old boy in rural Tanzania, Bgoya was taught by the colonial missionaries to regularly confess his sins. On one occasion he was struggling to find something to confess, so his uncle tried to help by asking him to use the ten commandments as the marking scheme. Bgoya started crossing off those commandments of which he had not fallen foul: thou shalt not kill (he had not killed); though shalt not steal (he had not stolen); thou shall not covet they neighbour's wife and thou shall not commit adultery were not commandments the young Bgoya understood, so under colonial pressure, he assumed they were the commandments of which he had fallen foul. He promptly confessed these to the missionaries as his sins for the week, much to the horror of the priest who, even though he could have probed deeper to know these confessions were whimsical, promptly accepted them as the sins of the savage black boy, and took steps to isolate Bgoya and treat him like a sinner (Bgoya, 2014). This is a story about colonial prejudice, the coloniser's superficial treatment of issues in a new environment informed by prejudice, the imposition of standards that are not shared or to which Africans have made no contribution, the blind faith in processes and the consequential embarrassment of Africans and Africa.

It is some of these prejudices, the blind faith and embarrassment that this book tries to resolve in the energy sector in Africa. It proceeds on the basis that a fossilised future for Africa is bleak, based on both demand and supply trends in the world



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system, hence Africa and Africans ought to develop other sources of energy which are indigenous to the continent. Crucially, the book puts Africa at the forefront (rather than amongst those taking a back seat) of calls for sustainability, thus breaking ranks with scholarship that suggests that Africa is raw, and hence should be allowed to pollute itself (or be polluted) up to the level of the industrialised countries, before taking the torch of sustainability. In this book, sustainability is central, signalling Africa's quest to stop conforming to the demands, or conferring with, aggressors.

The book is prefaced by a statement of endorsement combining conviviality with objectivity. It was written by Naledi Pandor, South Africa's Minister of Science and Technology, and better known as the granddaughter of Prof. Z.K. Matthews, the great progressive and anti-apartheid intellectual in whose footsteps Pandor seeks to walk. The book 'proper' is divided into seven chapters. The editors set the scene and close the play in the opening and closing chapters. Chapter 2 digs deeper to show the types of, and trends in, energy sources and consumption in Africa. Considering the status of Africa's energy sector today, in relation to the world system, it focuses on the role Africa has played in several renewable energy initiatives, notably: hydropower, biomass, geothermal, wind, solar, and even nuclear, which – for all its controversies – gets a full chapter to itself (see chapter 3). There, the science of nuclear power is explained, followed by a discussion of its uses, Africa's potential to develop this energy source, how South Africa has developed this resource since the days of apartheid, and the 'sabotage of African nuclear power potential' by global forces. The book goes into a careful discussion of the current conditions of energy infrastructure on the continent, and how much improving this state of affairs can cost in monetary terms, ultimately pointing out that this will be substantial. Even more substantial, chapter 4 shows the capacity building needed to plan and manage the human potential involved in harnessing the continent's resources sustainably. Chapter 5 examines electricity in respect of the challenges and prospects on the continent, drawing on the Egyptian experience to show concretely what choices Africa can make. Eco technologies in Africa receive extensive discussion in chapter 6.

The book raises several promising options for Africa's energy needs, making the task of choosing what is right for Africa very difficult. Yet, the editors offer their preferred criteria for 'success': the best choice should not only be based on whether the option is efficient/competitive, but more crucially on whether the options are consistent with local values, meet domestic demand, will build local capacity, and will conserve and replenish the continent's (as well as global) natural resources. Within this framework, a mix of choices can be made. Crucially, such a choice need not be premodern or primordial, or simply based on market or state binaries. Indeed, from these criteria, any reader could arrive at a choice which is radically different from

the editors' preferred bullet points on p. 174. Missing is the modular energy systems advocated in some of the chapters (e.g., pp. 6, 9, 11–13, 17, 124–125, 134, 140), which have the potential for community participation and control (p. 140) not only in terms of generation, but also in terms of refining which is currently weak. As of 2004, only 25 countries had built refineries with a combined production capacity of just four per cent of global refinery strength (see pp. 59–60), yet diverse energy menus. This option applies regardless of which of the many renewable sources of energy on the continent is adopted or adapted. A small-scale, community-by-community energy system involving not only participation but also control by communities, and sustained not only by community management but also by ecological, economic and social struggles to generate and distribute energy, can reduce much of the current pressure on large-scale energy systems. In the latter, the management tends to be top down, inequitable, environmentally destructive and inefficient. Based on the editors' criteria for success, it is the former, community-based option that can more fully be beneficial for Africa and Africans.

In spite of the many strengths of the book under review, it could have clarified whether Africa is really over-reliant on fossil fuel. Africa really over-reliant on fossil? In Chapter 1, the categorical answer is 'no': 'the energy consumptions for oil, natural gas, coal, nuclear and renewable resources were represented as 3.6 per cent, 2.9 per cent, 3.2 per cent, 4.6 per cent and 7.6 per cent of the world consumption, respectively' (p. 2; see also Table 1.6). Indeed, while in 2007 Africa contributed 12.5 per cent of oil to the global pool, it consumed only 3.5 per cent of that pool. There was a slight increase in 2009 consumption levels in Africa, but that was a mere 1.1 per cent (p. 62). In most of Africa, the use of biomass is regarded as 'extensive' (p. 6). Being 'the world's largest consumer of biomass energy', in some African countries, biomass (e.g., charcoal) constitutes as much as 97 per cent of energy supply (pp. 12–13) and Africa as a whole is still reliant on this energy source (p. 173). Yet, in making the case for switching to renewables (chapter 6) the argument seems to be based on the global case for over-reliance on fossil: 'A key factor in Africa's effort to migrate from the *predominant* use of fossil energy to renewable energies is ...' (p. 153, my italics). Sadly, the fundamental case for a switch is never fully and consistently made. In chapter 1, the reason given is that the world is switching, so Africa must also transition, in chapter 5 the reason is that Africa has abundant renewables so it must use them instead of using non-renewables, while in chapter 6 the reason is that Africa is over-reliant on fossil fuel or is currently being deprived of its renewables, so the continent has to claim them back (concluding comments, pp. 173–174). A reader seeking answers to these issues can, therefore, be confounded.

Otherwise, this is an excellent book, highly recommended to readers of this journal and others interested in energy transition in Africa and the world.

REFERENCE

Bgoya, W. (2014). '50 years of independence: Reflections on the role of publishing and progressive African intellectuals', *Africa Spectrum*, vol. 49, no. 3, pp. 107–119.

BIOGRAPHICAL NOTE

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