



The BRICS and Africa's search for green growth, clean energy and sustainable development[☆]

Jing Gu^{a,*}, Neil Renwick^b, Lan Xue^c

^a IDS, Brighton BN1 9RE, UK

^b Faculty of Arts and Humanities, Coventry University, Priory St., Coventry CV1 5FB, UK

^c School of Public Policy and Management, Tsinghua University, 30 Shuangqing Rd, Haidian District, Beijing 100084, China



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ABSTRACT

The BRICS group of countries is widely held to offer the prospect of a new approach to sustainable development, renewable energy and green economic growth in Africa. This paper examines the BRICS' approach to renewable energy cooperation. It argues that, following a robust declaratory intent, implementation has taken time to achieve but there are signs of this coming on-stream. The New Development Bank can provide an effective intervention mechanism for the BRICS in Africa. New BRICS' policy initiatives suggest a more accelerated approach on renewable energy investment and technological cooperation. However, for the foreseeable future, individual members will be the drivers of the transfer process, particularly China and India. In terms of policy, the BRICS need to elaborate a specific strategy for renewable energy cooperation for both intra-BRICS and extra-BRICS development. Policies should also prioritise their pro-poor rationale and intent to widen energy access, achieve energy equity and overcome energy poverty. China and India have a significant existing and growing capacity to help move this forward.

1. Introduction

The BRICS economies (Brazil, Russia, India, China and South Africa) generated almost 23 percent of the world's GDP in 2015 and contributed over half of global economic growth since the group began its dialogue in 2006 (BRICS, 2017). Given this growing importance, this paper addresses the question 'How are the BRICS countries contributing to Sub-Saharan Africa's aims to increase its clean energy, extend access to energy, and create 'green' economies through renewable energy?' This article explains and evaluates the role of the BRICS countries in Africa's search for clean energy, sustainable development and green growth and transformation. This study focuses on the contribution of the BRICS as a collective grouping and on its individual members to Africa's sustainable development through renewable energy technology transfers. It explains and evaluates the BRICS approach to sustainable development, the work the group is developing on renewable energy technology and transfer cooperation inside the BRICS and, at the level of the individual members, outside the BRICS to the economies often referred to as the 'Global South'.

The aim of the paper is to contribute to the energy policy literature by providing a closer understanding of the role and impact of the BRICS

group of emerging economies in the renewable energies (RE) sector and green transformations in Africa. The paper examines the contribution of BRICS to energy as "an enabler to achieve the Sustainable Development Goals and Agenda 2063 in Africa" (AMCEN, 2017), considering central policy interests of financing; technology; knowledge transfers; and capacity-building. One component of this enabling process is 'green growth', "the promotion and maximization of opportunities from economic growth through building resilience, managing natural assets efficiently and sustainably, including enhancing agricultural productivity, and promoting sustainable infrastructure" (AfDB, 2016). However, the context for fully realising the potential contribution of the BRICS to Sub-Saharan African green transformation and sustainable development is complex and multifaceted, involving significant issues about access to energy, energy poverty and equity, the linkage of energy and particularly REs, to inclusive green growth and development, and implications for pro-poor strategies, strengthened human security in terms of health and food.

In order to examine these issues and answer the central research question, the paper applies a Human Security analytical perspective, detailed in Section 3. However, by way of introduction, Human Security focuses upon the ways that economic, socio-cultural and political

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* Corresponding author.

E-mail addresses: j.gu@ids.ac.uk (J. Gu), n.renwick@coventry.ac.uk (N. Renwick), xuelan@tsinghua.edu.cn (L. Xue).

barriers operate as mutually-constitutive factors limiting development and realisation of individual human potential and upon the emancipatory interventions necessary to overcome these by increasing ‘capabilities freedom’.

The present study argues that achieving green growth and green transformation requires a holistic approach. The BRICS can help contribute to this aim. The BRICS group is seeking to turn declaratory intent into action to maximise the potential of collaboration between members and beyond to Africa. The BRICS countries have been in dialogue since 2011 to establish institutionalised working groups and tangible goals that will further develop the internal collaboration on renewable or clean energies and form a longer-term basis for wider, external South-South cooperation (BRICS, 2012). Individual BRICS members, most notably China and India, are investing heavily in RE technology and its application.

This paper is structured around five sections. Section 1 is this Introduction. This has set out the parameters of the study, identifying the central research problematic. Section 2 examines the context of this study. This includes a short review of the literature on BRICS and Africa, background on the Intergovernmental Panel on Climate Change, and the emerging notion of South-South cooperation. Section 3 details the Human Security analytical approach. Section 4 explains and assesses the BRICS’ evolving approach to climate change and renewable energy technology cooperation. This part of the discussion considers the group’s collective response and that of China and India as case studies. Section 5 draws conclusions and identifies policy recommendations.

2. Literature review and background

2.1. Literature

Reflecting the increasing economic and political significance of the BRICS, there is an extensive and growing literature on the BRICS group itself as well as the group’s development assistance role and its relations with Africa. The arrival of BRICS as a substantive and substantial element in the global economic and political systems has attracted widespread interest and assessment, with one early commentator arguing that there was a “silent revolution in development assistance” (Woods, 2008). Initial analysis focused on the formation and evolving development of the BRICS group itself. A useful review of the literature up to 2013 is that of Younis et al. (2013). As the group demonstrated increasing solidity and durability, a growing literature has focused upon the implications of the emerging powers for the international development community and traditional development assistance system (Gu et al., 2016; Chenoy and Joshi, 2016; Li and Carey, 2014; De Renzio and Seifert 2014; Watson, 2014; Rodrik, 2013; Mawdsley, 2012; Stephen, 2012; Chandy and Kharas, 2011; Phillips, 2008). An important strand of thought emerging in this literature is the idea of ‘challenge’ or ‘convergence’ and ‘divergence’; evaluating the extent to which the BRICS offer a distinctive approach to international development assistance and differ in their aims, interests, practices and attitude to the traditional system, its foundational principles and the workings of its central institutions (Gu et al., 2016; Browne and Weiss, 2014; Li and Carey, 2014; Rowlands, 2012; Weinlich, 2014). Consideration of the BRICS’ difference in approach has also included evaluation of the role of South-South Cooperation (Risen, 2015; Stuenkel 1992; Quadir, 2013), the post-2015 sustainable agenda and Sustainable Development Goals (SDGs) (Constantine and Pontual, 2015; Hackenesch and Janus, 2014), and its contribution to the Global Partnership for Effective Development Cooperation (Constantine et al., 2015). A further central strand of analysis of the BRICS focuses on the group’s emerging role and impact in financing development and the new multilateral development banks, (Dixon, 2015; Prado and Salles, 2014; Qobo and Soko, 2015; Griffith-Jones, 2014; Chin, 2014; Schablitzki, 2014; Watson et al., 2013), the G20 (Wang 2017; Callaghan and Hubbard, 2016; Humphrey et al., 2015; Reisen, 2015; Kawai 2015; Chin and Quadir 2012; Chin

2012; Kharas, 2010; Chaboud 2008). Beyond the initial focus on the BRICS as a solidifying grouping in international relations, there is increasing attention to the significance for the group’s evolving profile and development of the differences between the economic and political trajectories of the respective members (Gu et al., 2014, 2016). This perspective on the BRICS includes the literature on the individual member economies, for example, Brazil (Alden, 2017b; Costa Vaz and Inoue 2007), India and Africa (Mawdsley and McCann, 2011) and Brazil and China (NIU 2014), and the role of CSOs and think tanks in transforming the contributions of “rising powers” to sustainable development (Shankland and Constantine, 2014).

Overlapping this extensive literature on the BRICS is a burgeoning body of analytical writing specifically on China and African development (Bräutigam, 2010; Alden et al., 2017a); Chinese aid and African development (Bräutigam, 2015, 2011, 2009); “Exporting Green Revolution” (Bräutigam, 1998); the distinctive character of Chinese ‘foreign aid’ (Bräutigam, 2010); the factors driving Chinese firms “going out” to Africa and their corporate experiences (Gu, 2009, 2011); “industrial capacity cooperation” (Abdenur, 2014); China and the 2030 Agenda (King, 2014); triangular cooperation (Gu, 2017); China’s role in environmental innovation (Urban, 2015) and low carbon transitions in developing economies (Urban, 2014); China’s regional forum diplomacy (Alden and Alves, 2017); and specific country studies such as South Africa’s foreign relations with China (Alden and Wu, 2016); energy and technical transfers (Best and Husar, 2013).

2.2. Background

BRICS has actively championed the need to include developing countries centrally within the global economy, providing multilateral infrastructural finance through its New Development Bank. In addition, all members provide international development assistance centred on financial and technical assistance; with China, India and Brazil increasingly prominent as development partners for African economies (Lesley and Chijioke, 2013). As the BRICS group has increased in economic and political importance, expectations have also risen that the group can make a decisive difference to African states aspiring to develop green economies, especially through renewable energy technology transfers and cooperation (Lesley and Chijioke, 2013).

‘Green transformation’ has been defined as aiming at “creating an inclusive prosperity while maintaining the sustainability of natural ecosystems, connecting green transformation requirements to national economic development, bringing about a fundamental shift in the way people live, and promoting collective social ideas” (CCICED, 2015). Renewable energy is defined as including bioenergy, direct solar energy, geo-thermal energy, hydropower, ocean energy, and wind energy (IPCC, 2011). The Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) —AR5—identified Africa is the most vulnerable and exposed region in the world to the adverse impact of climate change, but has the least capacity to effectively combat the sheer enormity of the challenge (IPCC, 2014a, 2014b: 1204).

The present study relates this emerging strand of South-South Cooperation to Africa’s strategic aspiration of creating national and regional green economies. As the Economic Commission for Africa has argued, “Green technologies offer Africa a chance to “leapfrog” from carbon-intensive development characterised by wasteful and unsustainable technologies and systems as used by developed countries, by directly transitioning to cleaner and renewable energy sources needed to achieve sustainable development” (UNECA, 2014: 12). This study adopts the definition of a green economy as “one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities” (UNEP, 2011). Africa’s own statement of intent, embodied in its emotive vision and roadmap *Africa 2063: The Africa We Want*, specifies the continent’s desire to grow African green economies (UN, 2015). However, reservations remain with regard to the full realisation of the potential

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