

Higher education and the acceleration of the sustainable development goals in Africa

Introduction

This special section consists of a set of papers of which the majority was presented at the Symposium “Accelerating the implementation of the Sustainable Development Goals in Africa”, which convened in Pretoria, South Africa from 5 to 6 March 2020. These papers provide examples of the innovative work conducted by higher education institutions (HEIs) in South Africa, Ghana and Zimbabwe towards the achievement of the sustainable development goals (SDGs). The selected papers broadly address the themes of teaching and learning, research, community engagement and campus-related activities and initiatives, and provide a range of illustrative perspectives, examples, approaches and experiences. In addition, the majority of these papers has implications for more than one of the latter themes, and therefore, does not support compartmentalization, but rather integration. This special section contributes to efforts to document the role by HEIs in Africa to the attainment of sustainable development and the SDGs. It is hoped that these papers will address the issue of the apparent lack of contributions by HEIs in Africa in this field of enquiry, as reported by a number of published reviews on this topic over the past eight years (Barth and Rieckmann, 2016; Hallinger and Chatpinyakoop, 2019; Karatzoglou, 2013).

Teaching and learning

Education has been prioritized worldwide for its potential in bringing about sustainable development. Its importance was recognized globally with the establishment of the United Nations Decade for Education for Sustainable Development from 2005 to 2015. With the acceptance of the SDGs in 2015, the importance of education was affirmed with the inclusion of SDG 4 on inclusive and equitable quality education and the promotion of lifelong learning opportunities. Closely related is the adoption in 2014 of the African Union’s Agenda 2063, which provides a framework for the realization of sustainable development and the SDGs in Africa. In this regard learning programmes offered by African HEIs need to empower students to be able to contribute to place-based, contextually relevant and culturally appropriate solutions to the myriad of sustainability challenges faced by the majority of African countries and their communities. A few papers in this special section indeed provides examples of such initiatives taken by African universities, and include reference to skills specific training by HEIs to support economic sustainability of entrepreneurs (paper by Strydom and Kempen). The promotion of pro-environmental behaviour by business owners through customised learning programmes (paper by Christie *et al.*) and fostering of sustainability through implementation of Education 5.0 (paper by Togo and Gandidzanwa) are also documented.

Research

Although research for sustainability at HEIs is frequently conducted in mono-disciplinary contexts, multi- and inter-disciplinary research (with increased interaction and connection between scientists), and trans-disciplinary research (with inclusion of a wider range of stakeholders, role players and actors), is rather required to develop and implement approaches that are suitable to address large-scale sustainability challenges, as those faced by the African continent (Hugé *et al.*, 2016). Such approaches, however, require suitably trained researchers



with a sustainability-oriented mindset, state-of-the-art equipment, laboratories and other infrastructure for research and long-term, adequate funding, but which are often not accessible to African HEIs. Although it is widely acknowledged that academic research on sustainability should preferably not be conducted in a vacuum, this frequently occurs in reality, but can still serve as basis for the development of further actions while moving towards more integrated and contextualized research approaches, despite the challenges being faced. Although all the papers in this special section are indeed research based, the paper by Moyo and Cele is a good example to illustrate how the research conducted by HEIs in Africa can contribute to environmental conservation while fully considering the needs of local communities. Although focused on the educational needs of entrepreneurs and businesses, the papers by Strydom and Kempen, and Christie *et al.*, also clearly illustrate the value of research conducted by HEIs for the achievement of the SDGs in Africa.

Community engagement

While progressively, more HEIs are committing and aligning themselves to the SDGs, one way of doing this is through interactive engagements with their local communities. This commitment is aligned to the United Nations maintains that creating partnerships are pivotal in achieving all the SDGs (Corazza and Saluto, 2021). Many HEIs in Africa have developed their own social responsibility mandates that generally call for closer interaction and partnerships with communities that are mutually beneficial to both parties (Mbah, 2019). While partnerships with communities can be both challenging and rewarding at the same time, they are of benefit to both the HEI and the local community. The paper by Shabala and Ngcwanqu demonstrates how partnerships between HEIs and local communities can, through the sharing of resources, skills and talents, be used to redesign more relevant teaching programmes. They argue that community engagement provide opportunities for HEIs to learn from communities and for communities to learn from HEIs. This reciprocal relationship not only ensures that HEIs can improve the quality and relevance of their education programmes (SDG 4) but that communities can also benefit through opportunities to improve their quality of lives as related to the numerous social and economic SDGs.

Campus greening and environmental awareness

The SDGs provide the basis for a sustainable future for the world, and fundamental to all the goals is the protection of the environment that will provide the basis for more sustainable economies and societies for future generations. Zhu *et al.* (2020) maintain that the incorporation of the protection of the environment in all the SDGs has naturally developed into significant areas of responsibility for all HEIs, and these include environmental education, the development of green campuses and the implementation of greener policies in all their operations. The papers of Adjei *et al.* and Mawonde and Togo provide case studies from HEIs in Africa that address campus greening initiatives in Ghana and a drive towards more environmental awareness of graduates in South Africa. The paper is written by Adjei *et al.* focus on how a residential HEI can implement policy in their operations to enhance the ecological footprint of their graduates. On the other hand, the paper written by Mawonde and Togo highlights the challenges experienced in involving a cohort of postgraduate students at a distance online university in South Africa in a variety of practices that address the various SDGs. Despite the differences in operations, the case studies presented in both papers highlight the need to produce graduates with a sensitive attitude towards sustainable development, based on a sense of conscious knowledge and skills that will enable them to more effectively engage in society as sustainable development ambassadors in their respective communities and future places of work.

Concluding words

The African continent is youthful in terms of its demography, and the present and future youth will increasingly attend HEIs in Africa to obtain their post-school education. This allows HEIs in Africa the opportunity to contribute to the future achievement of the SDGs on the continent. This special section provides a small representation of the practices of HEIs in South Africa, Zimbabwe and Ghana that can pave the way to more sustainability for future generations and their environments. As the papers in the special section illustrate, HEIs can achieve this if they align their core functions to the global drive of eliminating poverty through innovation, problem-solving and technological change and incorporating an awareness of all SDGs into their curriculum, research and interaction with communities. As indicated in the introduction, the literature reports that there is an apparent lack of contributions from African HEIs in terms of the attainment of the SDGs. The papers presented at the symposium in March 2020, and those included in this special section, show, however, that although HEIs in Africa might not appear to draw overtly on the achievement of the SDGs in their core functions, this does not mean that African HEIs have not incorporated SDGs into their education, research and community engagement activities.

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