

Can the Education Sector Fiddle while the Planet Burns?



Professor Asha Kanwar,
President and CEO,
Commonwealth of Learning

Four of the top carbon-emitting countries in the world are Commonwealth Member States, and some of the world's lowest emitters, the Small Island Developing States (SIDS), are also in the Commonwealth. But unprecedented floods, droughts, heatwaves and natural disasters are common to all. However, many small states are the most vulnerable, facing an existential threat. The urgency of the crisis requires urgent action from all stakeholders, including the education sector.

The climate crisis has a major impact on education. The recent cyclone in Mozambique and Malawi disrupted education, destroying entire schools, leading to thousands of displaced students. Critical data and student

records were wiped out entirely, leading to the collapse of systems.

The education sector also contributes to both direct and indirect emissions, causing environmental degradation. Komatsu and Rappleye (2018)¹ observed that countries with “better” education tended to have more detrimental impacts on climate change. While education can lead to development, we must remember that economic development tends to be associated with higher rates of construction, consumption, and energy use. As Bill Gates (2021)² points out, cement, steel and plastic, which are essential for construction, are the biggest emitters of carbon. More brick-and-mortar institutions could add to the growing carbon footprint of the education sector.

Few countries are preparing present and future generations with the knowledge, skills and behaviours





“// While education can lead to development, we must remember that economic development tends to be associated with higher rates of construction, consumption, and energy use.”

required to mitigate and adapt to the impacts of climate change. How can the education sector play a more proactive role, and what do the Nationally Determined Contributions (NDC) indicate? The NDC is a country’s strategy to reduce greenhouse gas emissions and is prepared every five years by environment ministries. While 79 per cent of the Commonwealth countries reference education in their NDC, only 29 per cent refer to climate change education as a strategy. (COL, 2022, pp. 9-10)³. Some Commonwealth countries have taken specific actions: Antigua and Barbuda, the Maldives and St. Lucia have ‘green school’ initiatives, the UK and Vanuatu propose to develop green skills through climate change education (COL, 2022, p. 11) and Guyana Environmental Protection Agency seeks to mainstream climate change education into the country’s technical and vocational training institutions. (COL, 2022, pp. 10-11).

In the past three decades, several initiatives have emerged to promote sustainability in higher education.

As Caird and Roy (2019)⁴ sum up, these are related to greening the campus, greening the curriculum and using distance and online learning. For example, the Australian National University has strategies in place to green up the campus and reduce emissions through adopting renewable energy and promoting resource conservation. Canada’s public colleges and institutes have pledged to contribute to the country’s aspiration of achieving Net Zero emissions by 2050. They will achieve this by reducing energy consumption and greenhouse gas emissions, enhancing the reliability of on-campus systems and providing opportunities for community leadership and integration with teaching and learning (Colleges and Institutes Canada, 2021).⁵

How can distance and online learning contribute to reducing emissions? The Open University assessed the environmental impacts of different modes of delivery in higher education in the UK. The findings showed that online and blended ICT-enhanced distance teaching models

had significantly lower environmental impacts than face-to-face teaching modes (Caird et al. 2013;⁶ Caird et al. 2015).⁷ The Commonwealth of Learning (COL) conducted a similar study in Botswana, which found that the average carbon footprint of distance learning students is nearly three times lower than that of their campus counterparts. Within the overall carbon footprint, emissions from travel were by far the greatest contributor to this disparity. This suggests that distance or blended modes can decrease emissions by reducing face-to-face contact hours.

COL’s experience shows that by leveraging technology for learning, we can reach larger numbers at speed, scale and lower costs. In addition to increasing distance learning, technology is known to address issues of equity by reaching the most marginalised, remote and rural communities, persons with disabilities as well as women and girls.

It is estimated that more than 11 million girls will not return to school following the pandemic. For example,



“ Climate change education needs to affect a paradigm shift from prioritising individual achievement to accomplishment that contributes to the prosperity of people and the planet.”

four out of every five people displaced by climate change are female. Girls with education can help families handle climate-related risks, and in Nepal and India, women’s involvement in forest management yielded better forest results. There is evidence that providing 12 years of quality education to each girl leads to development outcomes. Open schooling is a flexible and cost-effective means of ensuring access to secondary schooling.

Climate change education needs to affect a paradigm shift from prioritising individual achievements to accomplishments that contribute to the prosperity of people and the planet. Studies have shown that countries with stronger individualist orientations tend to have higher per capita CO₂ emissions. Adger et al. (2013)⁸ and Chuang et al. (2016)⁹ reported that people having “interdependent selves” were more likely to engage in pro-environmental behaviours than “independent selves”. Sharing resources and working collaboratively can help build the

resilience of institutions. COL’s Virtual University for Small States of the Commonwealth (VUSSC) facilitates collaboration amongst all 32 small states of the Commonwealth. Several needs-based programmes, such as sustainable tourism and disaster preparedness, have been developed. Leafaitulagi Vaelua is one of the graduates of the VUSSC diploma in sustainable agriculture from the National University of Samoa and is contributing to national development. COL’s Massive Open Online Courses (MOOCs) on Business for Sustainable Development and the Blue Economy were offered in partnership with universities in Mauritius and Seychelles to raise awareness and build skills in these fields.

The skills sector recognises the need to develop a ‘transition-ready workforce’ for careers in environmental sustainability. The green skills required relate to clean technologies and soft skills for the changing world of work. In Western Canada, where the fossil fuel industry

is one of the region’s major sources of employment, there has been a push to develop policies and plans to re-skill or ‘upskill’ workers in emerging green technologies. Teachers can be key champions of climate mitigation and adaptation strategies. Over three-fourths of the teachers surveyed expressed a strong desire to teach climate change, and many believed they did not have the appropriate training to do so (UNESCO & Education International, 2021).¹⁰ COL supported the development of a Green Teacher programme in Nigeria which has helped thousands of teachers to inculcate environmental concerns among learners from a very early age.

Political will is critical to addressing issues of climate change. COL (2022) presented a report to the Commonwealth Ministers of Education entitled Transforming Education for Climate Action. This report provides a road map for how ministers of education can climate-proof education systems, implement a green learning agenda that builds skills for blue and

green economies that would help make the transition to a low-carbon economy, and promote education for climate action. The recommendations also focus on the important issues of quality, equity, and justice. Ministries can mainstream education for climate action through policy, strategies and finance. To achieve impact, there needs to be better coordination between education, environment and finance ministries for a ‘whole of government approach’. Institutions can strengthen their resilience by promoting research and climate literacy, and building the capacity of staff to implement a green learning agenda. Individuals need to be empowered at every level of education to change their behaviours and become powerful champions of environmental

conservation and climate justice. Harnessing the potential of our youth would be key as “on any given day, more than a billion children are enrolled in primary or secondary schools. Imagine if these children could understand the main causes and consequences of climate change and what they, their families and communities can do to be better prepared for climate change and embrace a low carbon lifestyle. Today’s children are tomorrow’s business leaders, decision makers and consumers. Therefore, education plays a key role in responding to climate change.” (UN CC: Learn, 2013).¹¹

This untapped potential remains unrealised. The education sector cannot fiddle while the planet burns. It is the time for action, and the time is now. ■



“ The skills sector recognises the need to develop a ‘transition-ready workforce’ for careers in environmental sustainability.”

1. Komatsu, H., & Rappleye, J. (2018). [Will SDG4 achieve environmental sustainability? Center for Advanced Studies in Global Education \(CASGE\) \(Working Paper #4\)](#). Arizona State University.
2. Gates, B. (2021). [How to avoid a climate disaster: the solutions we have and the breakthroughs we need](#). Knopf.
3. COL (2022). [Transforming Education for Climate Action: Report to Commonwealth Ministers of Education](#). Commonwealth of Learning.
4. Caird, S., & Roy, R. (2019). [Sustainable Higher Education Systems](#). In W. Leal Filho, ed. *Encyclopaedia of Sustainability and Higher Education* (pp.1-11). Springer.
5. Colleges and Institutes Canada (2021). [Colleges and institutes commit to achieving net-zero emission campuses](#)
6. Caird, S., Lane, A., & Swithenby, E. (2013). [ICTs and the design of sustainable higher education teaching models: an environmental assessment of UK courses](#). In S. Caeiro, W. Leal Filho, C. J. C. Jabbour, & U. M. Azeiteiro. (Eds.). *Sustainability Assessment Tools in Higher Education Mapping Trends and Good Practices at Universities round the World* (pp.375-386), Springer.
7. Caird, S., Lane, A., Swithenby, E., Roy, R., & Potter, S. (2015). [Design of higher education teaching models and carbon impacts](#), *International Journal of Sustainability in Higher Education*, 16 (1), 96–111.
8. Adger, W. N., Barnett, J., Brown, K., Marshall, N., & O'Brien, K. (2013). [Cultural dimensions of climate change impacts and adaptation](#), *Nature Climate Change*, 3, 112-117.
9. Chuang, Y., Xie, X., & Liu, C. (2016). [Interdependent orientations increase pro-environmental preferences when facing self-interest conflicts: The mediating role of self-control](#). *Journal of Environmental Psychology*, 46, 96-105.
10. UNESCO & Education International (2021). [Teachers have their say: motivation, skills and opportunities to teach education for sustainable development and global citizenship](#). UNESCO.
11. UN CC: Learn (2013). [Integrating Climate Change in Education at Primary and Secondary Level - Interactive Version](#).



BAYERO UNIVERSITY, KANO

AND ABOVE EVERY POSSESSOR OF KNOWLEDGE, THERE IS THE ONE MORE LEARNED

VISION

To lead in research and education in Africa.

MISSION

Committed to addressing African Developmental challenges through cutting-edge research, knowledge transfer and training of high-quality graduates.

HIGH CORE VALUES

- Humanity and Sacrifice
- Discipline and Commitment
- Integration and Active Learning
- Professionalism and Good Governance
- Innovation and Creativity

OUR STRATEGIC GOALS

Responding to Needs, meeting aspirations, Leading in Research and Innovations, Achieving best practices in University Governance, meeting infrastructural and municipal requirements, becoming a leader in ICT research and services, taking the university to the community, maintaining highly motivated personnel, expanding funding base producing leaders, influencing development.

The Ahmadu Bello College was established in 1960 and housed within the School for Arabic Studies (SAS) in Kano's old city, which served as the foundation for Bayero University Kano (BUK), the first university in Kano State.

The University became fully independent in 1980. Dr. Mahmus Tukur, the former principal of the University College, later served as its first Vice-Chancellor and oversaw the group that laid the groundwork and started the process that led to the creation of the university's permanent location and helped mould it into what it is today.

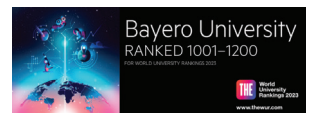
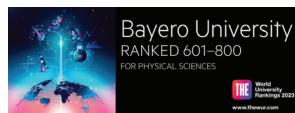
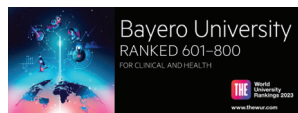
Bayero University has evolved from a small college running Advanced Level training programmes to one of the most respected Nigerian Universities recognised beyond the borders of the country. In 2023, within the 17 Faculties are over 80 departments running more than 90 undergraduate degree programmes and a further 120 postgraduate programmes, encouraging alumni to realise their full potential and pursue their academic goals.

Ranked fourth best university in Nigeria by Times Higher Education World Ranking 2023, Bayero University is Nigeria's leading academic institution for Cultural studies with over 30,000 students and 4,000 staff across three campuses.

At BUK, you have the power to shape your education and build your foundations for a brighter future.



Professor Sagir Adamu Abbas, Vice Chancellor



FACULTIES IN BAYERO UNIVERSITY

- Agriculture
- Arts and Islamic Studies
- Allied Health Sciences
- Basic Medical Sciences
- Clinical Sciences
- Communications
- Computer Science and Information Technology
- Dentistry
- Earth and Environmental Sciences
- Education
- Engineering
- Law
- Life Sciences
- Pharmaceutical Sciences
- Physical Science
- Social and Management Sciences

www.buk.edu.ng