

Universities and sustainability: a review of recent literature

Jean-Baptiste Meyer,
IRD, UMR Ceped, Paris, France

Background

Around the world, the academic community has been instrumental in shaping sustainable development and related concepts. The emergence of sustainability science and education for sustainable development in the mid-2000s led to the formal adoption of the SDGs in 2015. For the first time, the international community, with considerable expertise and diplomatic effort, had developed an agenda that was informed by global academic thinking. However, little is known about how this agenda is applied today, either to academia itself or – through it – to the wider society that uses its knowledge. This review of the literature clarifies this situation.

Contact

jean-baptiste.meyer@ird.fr

Further reading

LEAL FILHO W., TORTATO U., FRANKENBERGER F. (eds.), 2020 – *Universities and Sustainable Communities: Meeting the Goals of the Agenda 2030*. Springer.

Approach: identifying and monitoring the work undertaken by university stakeholders for sustainability

The aim is to assess how the academic community applies the principles of sustainability and the SDGs to its own activities, and how it works to bring them to society through its core functions (teaching, research and innovation). To do this, we consulted the stakeholders involved. We systematically collected details about their work on sustainability, including references not only from the academic world, but also from the users of its knowledge for sustainable development. This bibliographical study provides an insight into how universities go about implementing sustainable development within their own walls and beyond them. It also provides information on how this process is followed up and monitored on a global level.

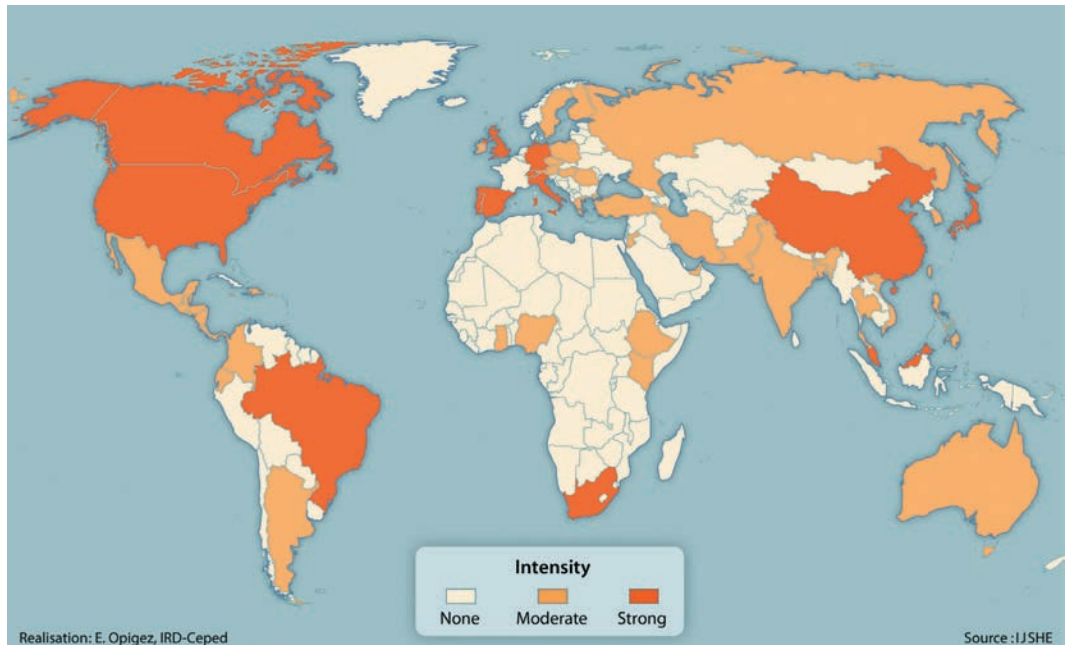
Initial results: abundance and diversity of collected material

We identified 1,100 documents that refer to sustainability in universities. This included primarily academic literature of 800 articles in peer-reviewed journals, 250 chapters of specialised books from about 30 published volumes and several dozen institutional and grey literature documents, mainly online. This wealth of material indicates that university systems are working hard to implement sustainability in their own institutions. It is a field of knowledge cultivated by authors from all geographical, thematic, disciplinary and institutional

backgrounds. Major scientific publishing houses and the most eminent journals are very well represented, but never exclusively. Sustainability at universities is very much part of the mainstream in terms of material, but remains highly dispersed in terms of content.

A wealth of disparate content

If we look at the key words used to describe these publications, we see that they cover a wide range of subjects, often immeasurable but extremely valuable. Measuring the carbon footprint on campuses, analysing student behaviour, transforming teaching curricula, introducing new teaching methods, using ICT, introducing educational serious games, reflecting on promoting cross-cultural values or on raising awareness through meditation – all aspects are covered, whether they are metrological, technical, economic, artistic, political, metaphysical or spiritual! By categorising the references according to the sectors from which they come, the activities to which they apply, the areas of the world to which they relate and the priority they give themselves, several findings emerge. The publications come mainly from and are aimed at the academic sector and are therefore peer-reviewed in keeping with the academic tradition. Teaching and research are on an equal footing when it comes to sustainability; the authors do not favour one over the other. Any distinction between the northern and southern hemispheres is dropped in favour of a global view of sustainability issues. Lastly, sustainable development as a whole, and not just its social



Global breakdown of publications on sustainability in universities between 2000 and 2020.

or environmental aspects taken separately, is given pride of place. The much-maligned “great divide” of Western modernity – nature/society and the developed North/developing South – seems to melt away while respecting the canons of the academic institution.

The SDGs for and by universities

First of all, universities set themselves the SDGs as strategic goals. These include reducing their carbon footprint and using environmentally friendly infrastructures (SDGs 13 and 9) and setting an ecological example internally so that

they are credible when passing on their values through consolidation of their own institutional capacity, thereby guaranteeing stability (SDGs 4 and 16). In addition, universities see themselves as producers of sustainability through, in particular, the creation and dissemination of knowledge on the environment and society (SDGs 14 and 15), on health and hygiene (SDGs 3 and 6) and on innovation and local development (SDGs 8, 9 and 11). More importantly, universities strive to produce future global eco-citizens and, to this end, are developing active teaching tools (learning through research, problem solving, critical approach, etc.) that break with traditional education (SDGs 4, 5, 10 and 12).

Emerging countries lead the way, French-speaking countries lag behind

The BRICS countries are leading the way in this growing tide of thinking (graph). For their academics, sustainability is emerging as a vehicle for promoting their institutions to the top rankings in the world. French-speaking countries (apart from Switzerland and Canada), on the other hand, have been left behind in this trend until recently. Their institutions are setting up programmes, but their visibility is limited for the moment.

Looking ahead: the need for transformation

The Covid-19 pandemic and lockdowns have had a major destabilising effect on French

higher education systems. Private institutions collapsed because students were unable to enrol. Others have seen the principle of universal access undermined by the reality of distance learning. A consensus is now emerging on a real paradigm shift, prompted by a sea change in framework conditions and accelerated by these events. The most recent statistical projections clearly illustrate the phenomenon. The combination of demographic change and higher education enrolment rates leaves no doubt that there will be a rapid and marked increase in student numbers in the developing world, particularly in sub-Saharan Africa. The pressure on institutions in the short to medium term threatens their very existence. The sustainability of universities is at stake at a time when their wider societal role is more crucial than ever.

KEY POINTS

A review of the literature reveals unambiguously that transdisciplinarity and partnership (SDG 17) are the benchmarks of sustainability, recognised universally across the academic world. They are foundational principles of IRD's work, both in terms of research and cooperation, and are now being brought to life within knowledge communities. Support for doctoral training seems to be a major issue in meeting the challenges of sustainability. It fits with IRD's dual mandate of research and capacity building and at the same time responds to the need to increase the capacity of universities to support growing student numbers, while developing the practice of active pedagogy, tailored to the major issues of the 21st century.

SUSTAINABILITY SCIENCE

UNDERSTAND, CO-CONSTRUCT, TRANSFORM

Collective thinking coordinated
by Olivier Dangles and Claire Fréour

French National Research Institute for Sustainable Development
Marseille, 2023

Peer review board

Valérie Verdier, IRD Chairman and Chief Executive Officer

Corinne Brunon-Meunier, Deputy General Director

Isabelle Benoist, General Secretary

Philippe Charvis, Deputy Director of Science

Marie-Lise Sabrié, Director of the Scientific and Technological Culture Mission

Cover photo: Rock painting, Cueva de las Manos, Argentina.

© IRD/O. Dangles – F. Nowicki/*Une Autre Terre*

Photo p. 14: “Understand”: Survey work, Kenya.

© IRD/S. Duvail

Photo p. 40-41: Observation and sampling, Burkina Faso.

© IRD/M. Barro

Photo p. 62: “Co-construct”: Participatory mapping workshop on coastal cultural heritage, Marquesas Islands.

© IRD/P. Ottino

Photo p. 88-89: Participatory work with local people, Madagascar.

© IRD/M. Léopold

Photo p. 110: “Transform”: Schoolchildren’s fresco on the theme of the Pachamama, Ecuador.

© IRD-CNRS/S. Desprats Bologna

Photo p. 136-137: Children playing on a beach in Salango, Ecuador.

© IRD/O. Dangles – F. Nowicki/*Une Autre Terre*

Editorial coordinators: Corinne Lavagne and Marie-Laure Portal-Cabanel

Cover, design and layout: Charlotte Devanz

IRD, Marseille, 2023