Benchmarking Sustainability Research: A methodology for reviewing sustainable development research in Universities (0303)

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Introduction

The transdisciplinary nature of sustainability research aside (Lang et al, 2012), White (2014) indicated that the growth in sustainability research is evidenced by the appearance of more dedicated journals, specific research funding andcalls for 'impact' assessment by funders. The call to engage with sustainable development in research is traced by Wright (2002), who reviewed international frameworks for environmental sustainability in higher education noting "...the encouragement of academic research related to sustainability..." This included *The Tblisi Declaration*(UNEP1977) which stated:

"...scientists and technicians whose specialized research and work will lay the foundations of knowledge on which education, training, and efficient management of the environment should be based." (Clause 8, UNEP, 1977)

The Talloires Declaration (AULSF, 1990) called for a "culture of sustainability" and "interdisciplinary research" to "move toward global sustainability" and the Kyoto Declaration (UNFCCC, 1997) Wright said"...implores universities to undertake research and action in sustainable development." (Wright, 2002). However, for some authors, research based on knowledge generation has been regarded as "...in sharp contrast to our real needs" (Orr, 2004), which are seen as the application of knowledge to benefit society. Indeed, the calls for high quality research continue: the UK Government's 'Stern Review on the Economics of Climate Change' focused on the growing need for high quality research relating to sustainability noting that:

"In preparing to manage the severe risks of climate change, the world needs the very best researchers to work on the crucial challenges." (Stern, 2007).

The Research Councils UK (RCUK), stated in the House of Commons Environmental Audit Committee Inquiry that the:

"Research Councils will use the Sustainable Development Goals to inform research questions in existing and future joint activities to help ensure the evidence, tools and solutions are available to those implementing the new goals." (Research Council UK, 2014).

In addition, the Research Excellence Framework (REF), stated that:

"The REF is used to identify research of the highest quality and benefit to the environment, society and the economy, broadly defined. The introduction of impact assessment into the REF will, therefore, explicitly reward research that has sustainability benefits." (REF, 2014).

The REF attempts to assess the impact of research outside of academia, that is the extent to which research has "an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia". (HEFCE, 2014).

Measuring Sustainable Development Research

Indicators for measuring progress on sustainable development research are only just emerging and require further research (Bullock and Wilder 2016). Most pertinent to this study is the proposal of 13 indicators by Lozano (2006), which included "percentage of faculty doing research in sustainability issues" (RE3).

This desk-based study is a first attempt by the authors to establish a practical, minimally-resourced, replicable methodology to engage with emerging indicators for sustainable development research. The object was to capture and report the existing contributions to sustainable development research and to make an initial assessment of its current impact and contribution towards research excellence at the university.

Like the majority of universities in the UK, sustainability forms an important focus of the university's overall vision and strategy 'Led by Learning' (Kingston University, 2012), with three of the objectives being directly associated with its delivery, one relating to research:

"2.6 - We will demonstrate the economic, social and cultural impact of our research and how it benefits individuals, the community and the environment."

Research Question and Methods

The research question is to assess the extent to which sustainable development research is being carried out across the university, based on publicly available web-based information. The research method was therefore chosen to enable the analysis and interpretation of a large quantity of written text and to quickly provide a

benchmark that could be replicated in future years and by other institutions. A combination of Content Analysis (Krippendorff, 2013) and Thematic Analysis (Patton, 2002) was employed. The main limitations of the research methodology are two-fold: the subjectivity of interpretations of keywords and their application to the data sources; and the reliance on the availability, accuracy and framing of web-based information which varied between faculties in a single institution and excluded new research staff and projects since been posted to the website.

Data Analysis

Data analysis focused on the degree to which the data showed evidence of three external viability factors: Research Impact (research that has "an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia" (HEFCE, 2014b); Knowledge Transfer (activities to support mutually beneficial collaborations between universities, businesses and the public sector); and Sustainability Content (defined via the identification of keywords from the UN Sustainable Development Goals and KU Sustainability Policy summarised as: Economic; Social; Environmental; Global and Future Equity).4,136 Subject Areas and 465 researchers was reduced to 321 areas and 159 researchers which were then grouped into three categories of sustainable development research (SDR) shown in Table Five.

Table Five- Ratings of researchers by university faculty

Faculty	'High Profile' SDR	'Potential' SDR	'Links to SDR'	total	
FADA	17	3	7	27	17.0%
FASS	6	0	26	32	20.1%
FBL	10	15	24	49	30.8%
FHSCE	1	0	10	11	6.9%
FSEC	20	1	19	40	25.2%
total	54	19	86	159	100.0%
	34.0%	11.9%	54.1%	100.0%	

Source: Authors

Conclusions and Recommendations

The study identified that many academics are already contributing to sustainable development research, albeit under different discipline areas due to a range of factors including: the relative immaturity of sustainable development as a recognised research area; emerging monitoring; differing awareness and values. The result appears to be a missed opportunity in existing research contributing to the international sustainable development research agenda.

The study has provided the sector with a quick and reliable, replicable methodology to establish a baseline of existing sustainable development research and to make an initial assessment of impact. The next stages for this research include: sharing initial findings to stimulate internal debate. Qualitative interviews will gather input from key stakeholders on how they choose to communicate about their research and how engagement with sustainable development research can be measured.

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