Evaluating the engagement of universities in capacity building for sustainable development in local communities

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ABSTRACT

Universities have the potential to play a leading role in enabling communities to develop more sustainable ways of living and working however, sustainable communities may only emerge with facilitation, community learning and continual efforts to build their capacities. Elements of programme

Planning and evaluation on the one hand, and capacity building on the other, are needed. The latter entails approaches and processes that may contribute to community empowerment; universities may either lead such approaches, or be key partners in an endeavour to empower communities to address the challenges posed by the need for sustainable development. Although capacity building and the promotion of sustainable development locally, are on the agenda for universities who take seriously regional engagement, very little is published that illustrates or describes the various forms of activities that take place. Further, there is a paucity of studies that have evaluated the work performed by universities in building capacity for sustainable development at the local level. This paper is an attempt to address this need, and entails an empirical study based on a sample of universities in the United Kingdom, Germany, Portugal and Brazil. The paper examines the extent to which capacity building for sustainable development is being undertaken, suggests the forms that this might take and evaluates some of the benefits for local communities. The paper concludes by reinforcing that universities have a critical role to play in community development; that role has to prioritise the sustainability agenda.

Keywords:
Capacity building
University
Sustainable development Community

1. Introduction

The quest for fostering capacity building for sustainable development at universities is not new, although as this paper will argue systematic evaluation of initiatives and programme planning may be either lacking, or ad hoc. As early as 1999 for instance, the Association of University Leaders for a Sustainable Future (ULSF) indicated a variety of areas in which universities could be involved in sustainable development (e.g. management, planning, development, research, operations, purchasing, transportation, design, new construction, renovation, community service and outreach education, or capacity building) (ULSF, 1999 in van Weenen, 2000). Today, capacity building activities are focused on two main areas: activities towards building capacity among students and staff towards a more sustainable university and campus (with training on matters such as energy efficiency, the reduction of waste and CO_2 emissions) and externally-oriented activities aimed at building capacity within a local community, to promote sustainable development amongst a wider group of stakeholders. The latter is the matter of interest and focus of this paper.

One of the main documents encouraging university-community cooperation is the ''University Charter for Sustainable Development'' produced by COPERNICUS. The document points out ''. . . universities' duty to propagate environmental literacy and to promote the practice of environmental ethics in society, in accordance with the principles set out in the Magna Charta of European Universities...and along the lines of the UNCED recommendations for environment and development education ...''. The Charter asks universities ''...to commit themselves to an on-going process of informing, educating and mobilising all the relevant parts of society concerning the consequences of ecological degradation...'' (CRE-Copernicus, 1994).

The original Copernicus document was signed by about 300 European higher education institutions (HEIs), confirming their commitment to the implementation of sustainability concepts within their own universities (University of Rostock, 2014).

Today, most of the activities in the university-community nexus fall within two main areas: educational collaborative models for environmental and sustainability education, and the implementation of projects to identify and promote sustainable and economic development in a community. These two issues may be explored in turn.

In terms of collaborative models for environmental and sustainability education, the community provides the context of the learning environment and may play a central role in the learning process. Through community engagement, students can experience first-hand the inter-connections between environmental issues and develop their understanding of how individuals and communities interact. Furthermore, community sites provide ideal locations for class projects, applied and service learning, and internships (Schmitz, Stinson, & James, 2010), whereas academic institutions, as members of the community, are core to educating citizens, professionals, innovators, and problem-solvers.

In such circumstances universities may further the co-creation of community change by contributing with research, technical skills, human resources, and emerging knowledge. The various Faculties at a given university could offer theoretical, research, and technical knowledge, that would usefully support community members in designing and implementing projects (Schmitz et al., 2010). Universities committed to community engagement might establish reciprocal partnerships that could improve the creativity and responsiveness of both (Boyer, 1996 in Schmitz et al., 2010).

As far as the implementation of projects to identify and promote sustainable and economic development is concerned, a whole community approach is needed, which requires the participation of a variety of organisations and/or the establishment of alliances at the local level. The key constituencies and strategic themes of the partnership may be reflected in a community engagement strategy. In order to succeed, they need to engage the following stakeholders:

Local people, who reside near a University or College, with a particular focus on the area within a 10–20-mile radius;
Local government and regional bodies; locally based voluntary and charitable organisations; local and regional business.

Strategic elements that would catalyse the promotion and enhancement of capacity building for sustainable development at a community level include enabling university facilities to be used by a variety of stakeholders such as the public and local schools, and providing university support for local activities and partnerships, which might represent a move away from the 'Ivory Tower' cliche´, to a situation where the university's contribution is appreciated by a broader range of stakeholders.

Exemplifying how this works in practice, the University of Rostock (Germany), which is a signatory of the COPERNICUS Charta (University of Rostock, 2014), established sometime ago a working team titled ''Agenda 21'' to develop community based capacity building strategies on sustainable development in the following fields:

Coordination of existing Agenda 21-activities at the University of Rostock and interlinking with related activities in Rostock city and region.
Support for sustainable development in the region via knowledge and technology transfer and.
Support of and contribution to additional partnerships with urban and regional institutions.

Activities that were implemented include:

The organisation and implementation of exhibitions on the topics Sustainability and Agenda 21 with regional partners
Organisation and implementation of conferences or symposia – conference series ''The University of Rostock as active partner of municipalities and regions for a sustainable development'' and
Contribution to our banand regional working teams towards the Local Agenda 21.

However, the above illustration appears to be an exception rather than the norm, analysis of available information and published reports shows that despite the fact that a range of activities aimed at increasing the potential of universities to engage with capacity building for sustainable development in communities exists, their frequency is still rather limited. There is a ''relative lack of research focused on the processes by which higher education institutions establish and sustain community partnership'' (Hart, Northmore, Gerhardt, & Rodriguez, 2009, p. 45). The subsequent parts of this paper will seek to explore this trend, outline the situation and propose what needs to happen as a consequence.

2. Capacity building and universities: the need for research

The global issues and challenges facing humanity (population growth, climate change, technological developments, and economic globalization, for example) are extensively referred to in the literature. The impacts of current production and consumption patterns, resource scarcity, growing inequality, and changes in political and environmental dynamics (United Nations, 2012) underscore the need to build capacity for more sustainable development (SD) and to foster the creation of sustainable communities and a sustainable society.

If the goal is to achieve sustainable development, then capacity building is seen as one of the main ways of working towards that achievement (UNEP, 2002). This is explicit in the various declarations on sustainability for higher education, where the importance of learning, communication, and also capacity building for sustainable development (Lozano, Lukman, Lozano, Huisingh, & Lambrechts, 2011; Moore, 2005; Tilbury, 2012) is repeatedly confirmed and writ large. Building capacity for sustainable development in education is also one of the key areas within the international implementation scheme for the United Nations Decade of Education for Sustainable Development (O'Rafferty, Curtis, & O'Connor, 2014). Universities have an important role in contributing to sustainable development through educating their students and preparing them to address the challenges; they also need to build capacity within their own structures and systems so that they operate more sustainably and, finally, they have a role to play externally by contributing (through education and research) to building capacity with stakeholders across their communities.

According to the WRI (2008) building capacity in local communities is becoming more critical in a global world, where resources are becoming scarce and methods and technologies are changing. Merino, Carmenado, and de los (2012) emphasise that building capacity through the community contributes not only to social development, but also to economic growth. These arguments support the need for research that explores how higher education institutions (HEIs) are working within their communities in terms of building capacities for sustainability, but also to show advances and ways forward.

However, capacity building is not an easy concept (Brown, LaFond, & Macintyre, 2001) and is thus, challenging to research. Spoth, Greenberg, Bierman, and Redmond (2004) define capacity-building as the efforts designed to achieve and coordinate financial, human (time, knowledge, skills), technical (equipment, access to databases, data management, materials) and other resources (e.g. space, facilities, leadership support) directed towards ''quality implementation of evidence based, competence-building interventions through public education delivery systems'' (p. 32). Brown et al. (2001) consider that capacity building is a continuous process of improvement within an institution with the goal of maintaining or improving the services provided, i.e., an internal process, which may be enhanced when an external entity assists the institution to improve its functions. Capacity building is a multidimensional concept described in terms of its components, strategies, dimensions, or interventions; outcomes may also be unpredictable – during the learning process several planned and unplanned experiences and activities can occur (Brown et al., 2001).

A literature review shows that the term ''capacity building'' has received increasing interest over the last few years. Some of the studies have focused on definition (Thomas & Day, 2014); other researches have tried to map different interventions (Davison et al., 2014); and a few studies have explored their achievements (O'Raffertyetal.,2014).

Furthermore, there is a paucity of studies that have evaluated the work performed by universities in building capacity for sustainable development at the local level, or which have involved communities at large (Leal Filho, 2010; Nicolaides, 2006). Tilbury (2011) argues (in relation to programme evaluations) that there is a lack of meta-analysis studies or longitudinal research that provides conclusively evaluations of the effectiveness of universities' engagement in education for sustainable development (ESD) per se. There is a need to show how universities can build capacities within communities but according to Tilbury (2011), while there is an abundance of information available about ESD processes and learning on specific projects, generally these are not documented in sufficient detail. There is a lack of data that shows how objectives and outcomes are achieved.

In the scope of university engagement with capacity building in the community, there are some obvious areas where action is evidenced, including service-learning, mentoring, support to elderly people (e.g. University of the Third Age), community arts, and environment and health. Each involves different types of collaborations with different methodologies employed (Northmore & Hart, 2011).

Hart et al. (2009) studied the example of Brighton University where specific programmes relating to capacity building are underway in the community. This university has a CUPP (Community-University Partnership Programme) that provides a service that is developing and promoting engagement activities across the university and sustainable partnerships, with the aim of providing a long-term benefit to local communities and to the university. However, in this example the activities are more related to the area of health and social capacity building, rather than local economic development. Nevertheless according to these authors, university structures to systematically articulate and support capacity building are still relatively rare in the UK (United Kingdom); in American universities (with a long history of ''service learning'') and in Australian universities, such structures are more developed.

Given the importance of ''engagement'' and ''impact'' agendas, universities across the world have been incorporating civic participation and community service into their research and teaching in various ways. However universities have had some difficulties in demonstrating the added value that they bring when addressing complex social problems in partnership with local communities (Northmore & Hart, 2011). Additionally, despite the increase of practical and academic activity in the field of university-community engagement, there is a relative lack of research focused on the processes by which universities establish and maintain community partnerships (Hart et al., 2009).

Sometimes there is a failure to align the institutional needs with the needs of local communities and what in fact happens is that most engagement is focused on either providing students with experiences in the community, or providing university expertise to the community, with less focus given to the benefits that increase from giving members of the community access to a university (Hart et al., 2009) or that accrue as a result of collaborations. As a solution to some of the problems, Alter (2005) suggests that what is required is the development of ''enabling platforms'' that serve to bring community-based experience and academic study together to develop profound mutual understanding – essentially what is required is greater dialogue between the university and the community it serves (or ought to serve).

Other problems relate to the difficulties encountered in evaluations of programmes. The concept of capacity building is intangible. The literature presents several definitions and arguments for why capacity building is important, but discusses less the question of how to measure capacity before or after the intervention; measures to evaluate improved capacity (Brown et al., 2001) may be poorly articulated. According to Northmore and Hart (2011) it is easier to measure the results of occasional collaborative projects, but it is a longer term perspective that is more likely to improve both the quality and impact of community university partnerships.

Shriberg (2002) suggests that to measure sustainability in higher education, it is necessary to develop criteria for cross institutional assessment. He questions the possibility that analysts should develop a ''universal tool'' to assess sustainability in higher education. Such a tool might have benefits in terms of engagement comparisons, however, there is no agreement over whether such an approach is necessary to gather and share knowledge.

As Berke and Conroy (2000) noted in their study, many communities are implementing the concept of sustainability, but their planners may have only a basic understanding of how to translate it into practice, and usually do not take a holistic approach to guiding development and moving towards sustainability, focusing on the more practical aspects of community life. Thus, given the challenges involved in the construction, implementation and evaluation of partnership activities, Northmore and Hart (2011) argue that it is crucial to develop more theoretical models of sustainability that draw on the experience of sustainable partnership working; existing models are either insufficiently explicative or incomplete.

Based on the perceived needs seen from the literature, this paper discusses the gap between theory and praxis of current social learning towards sustainable development in the contexts researched. It also attempts to highlight what might encourage collaboration and foster learning opportunities which contribute to furthering sustainable development. The paper will draw upon examples from four different countries and as an exploratory study, will offer an opportunity to assess what the sampled universities are doing to build capacity in their local communities, to illustrate the range of projects and approaches, and the extent of evaluation. Within this scenario, it is possible to begin to provide a comparative and evaluative overview, to suggest effective processes for building capacity for sustainability, as well as highlighting the challenges.

3. Evaluating Universities' engagement

The evaluation of universities' engagement in capacity building took the form of desk based research, a survey of academic communities who are engaged in taking forward sustainable development within higher education, and further e-mails and telephone interviews with participants who responded. The focus was largely based on the UK but then extended to determine if the UK response was typical.

The approach used in this paper is to bring an overview from countries with different particularities in terms of local sustainability and consequent demand for building capacities with regard to different HEIs. The work entails samples of universities in three EU (European Union) countries (UK, Germany and Portugal) as well as a Latin American country, Brazil, allowing for identification of similarities and contrasts.

The rationale behind this sampling is based on three main factors:

These countries were selected in part for convenience (the authors' countries of residence).

The sample lent itself to a consideration of the issues that might reflect the different stages of engagement in capacity building for sustainable development around the world. For instance, the UK has pioneered sustainable development within higher education with policy development and initiatives across the sector. Germany is amongst the most advanced countries in respect of sustainable development policies and implementation. Apart from strong government emphasis on sustainability, the German population is characterised by quite high environmental awareness, providing a fertile ground for studies and research related to SD. Brazil is one of the world's largest developing countries and its sustainable development policies have evolved in the last few years. Brazil also hosted important conferences related to the future of sustainable development (Rio92 and Rio+20) making Brazil a country where interest in sustainable development is likely to be high and increasing.

The plurality and diversity of experiences in the four sampled countries offer useful insights into the dynamics of sustainability in a higher education context.

The aim and line of thinking adopted by the authors was not to have a representative sample within each country, but to gain responses from as many institutions as possible, based on willingness to participate (a convenience sample). Therefore, it was anticipated that the level of response and depth of the description of the case studies elicited might vary, although attempts were made to elicit as much response as possible.

In each country the researchers sent the questions to several institutions soliciting their involvement. Although the survey is not representative it does, combined with the review of the literature, contribute to building a rough profile of the status of capacity building in each country. Initially to get a feel for the state of play within the UK, an email was sent out via 'SHED-SHARE' (a community network operated through ''jiscmail.ac.uk'' that comprises members working across the UK sector on SD). Participants were asked to respond to the following questions:

1. Could you share any examples of work in the community that your University is doing to build capacity for sustainability – i.e. how are you developing a sustainable community?
2. Have you evaluated your building capacity work and what measures you have used for impact?
3. Is building capacity for sustainability in the local community part of a coherent over-arching University wide strategy?
4. In relation to the latter (point 3) the hunch is that many individual academics will be undertaking individual projects but few universities will have a strategy for building a sustainable community as part of their local/regional strategy. Is this the case?

Emails were also sent to colleagues at other universities. Although almost thirty UK institutions were targeted only nine respondents from UK institutions provided full comments on the questions. As several respondents suggested talking to the National Union of Students (NUS), who have been co-ordinating capacity building activities across higher education (within the UK), the same questions were also posed to the NUS. Similar questions were then posed to institutions in Germany, Portugal and Brazil; in each country almost twice as many institutions were contacted than the total responding with an aim of getting a comparable sample to the UK; eliciting responses was more challenging and thus, the number of institutions finally represented from these countries, is smaller (see Table 1).

4. Responses from the UK

The responses were enthusiastic and often listed (and many ''show-cased'') a range of projects that universities were undertaking. General observations and examples of responses from nine institutions are represented.

Many initiatives featured student volunteering in the community, student projects (applied and research) and student internships. Overall there is strong

evidence that universities are actively encouraging their students to participate in a range of local campaigns related to activities that fall under the broad umbrella of sustainable development, from students helping local business in audits of their sustainability credentials (University of Southampton, for example) to ''clean up'' campaigns and local conservation projects. Although not all respondents evidenced student volunteering, several of those that did, referred to the link between the introduction of student community engagement programmes and the development of employability skills. It might be argued that the need to enhance ''employability skills'' within the UK (an agenda reinforced by Government) has been a greater driver for student volunteering, than the motive to build sustainable communities quite often such volunteering activities could fall under the banner of building capacity for sustainable development but are not explicitly acknowledged as such.

Several respondents were from institutions that are either known for their sustainability credentials (through the People & Planet, Green League table), or had recently taken part in the Higher Education Academy's ''Green Academy'' (see Luna & Maxey, 2013), as such their responses often included links to their strategic plans where their universities' sustainable development ambitions were clearly articulated; some of these strategy documents referred to sustainable communities but generally (beyond a bold ambition), provided little detail on how they would

Table 1
Universities involved in the study.

Country	Number of universities	Universities
UK	9+NUS	University of Southampton, Bournemouth University, Plymouth University, Gloucester University, Edinburgh University, Worcester University, De Montfort University, University of Wales Trinity St David, Manchester University, National Union of Students
Germany	5	Hamburg University of Applied Sciences, Leuphana University, University of Bremen, University of Kiel, University of Hannover
Portugal	5	University of Lisbon, University of Beira Interior, Institute of High Studies of Fafe, Polytechnic Institute of Guarda, Polytechnic Institute of Porto
Brazil	5	University of Sa˜o Paulo, Passo Fundo University, Federal University of Rio Grande do Sul, Federal University Fluminense, State University of Roraima

build capacity, or evaluate such. The University of Worcester's Strategic Plan 2013–2018, for example, includes as an area of distinction that they will seek to ''promote principles of sustainability in their broadest sense. Through our teaching, research and knowledge exchange activities we will promote sustainable communities, services, businesses and the use of physical resources. We will foster a culture that values sustainability in arts and culture and promote social enterprise in the region'' (University of Worcester, n.a).

The Director of Environmental Sustainability at Worcester outlined several practical community initiatives and highlighted a number of collaborative community projects, the most notable being ''The Hive'' – a joint public and University library which houses five services within a very sustainable building. Other examples included recycling and behaviour change campaigns with the City Council and the City, County Council energy projects, ''Worcester Energy Pioneers'', ''Energise Worcester'', and the ''Our Space Your Place'' enterprise competition. They also work closely with the ''Local Enterprise Partnership'' (LEP), where environmental sustainability is a cross cutting theme and they are developing the concept of social sustainability.

As far as ''monitoring'' endeavours, work is ''at an early stage of developing metrics to measure the impact on the community''; they are also developing metrics to evaluate their digital publishing project ''www.susthingsout.com'' as a vehicle for bringing together academics, expert practitioners, students and the community which also supports teaching, learning and research in sustainability (Raghubansie, Corbett, Boom, & Weaver, 2015).

A response from the University of Gloucester (an institution consistently high in the Green League) provided a range of illustrative examples of building capacity for sustainability in the community. These included:

> ''10,000 h Campaign' – recorded 10,000 h of voluntary community service by students and staff in local communities
> 25+ years of distance learning courses in community development (CD) to mainly part-time students scattered around England and Wales – 1000+ grads engaged in working with communities in public and voluntary sectors
> Publications and action research with & for local communities around aspects of sustainability – internships, placements, live project assignments, community and graduates contributing back into teaching; latest research funding is focused on students learning from real world exposure/projects, etc.''

Their evaluation of capacity building ranges from recording ''voluntary hours input to community and the sustainability service to local communities, and the nature of that volunteering e.g. charitable trustees, teaching youth how to play soccer, etc.''

They also noted in their response: ''Individual module evaluations and assignments – recording student internships and impacts; dissertations related to live sustainability/community topics'' and, suggested that there was ''a lot more to add''.

In response to the question of coordination of the endeavour as part of a coherent over-arching University strategy, they referred to various sections of their ''Strategic Plan 2012–17'' (University of Gloucester 2014) which states ''We are dedicated to creating sustainable futures across the communities we serve'' (p. 7) and that they will ''Support the activities of the United Nations University Regional Centre of Expertise in Sustainability to build strong partnerships across the Severn region'' (p. 16). There is a staff member responsible for outreach activities and their ambitions in this area are embedded in the University's strategic plan as well as their Sustainability Strategy. ''Activities and progress are discussed and interrogated annually, via the Sustainable Development Committee and reported in the University's annual report''.

It might be expected that those universities who are UNU accredited Regional Centres of Expertise (RCE) in ESD will undoubtedly be doing more to build capacity – their purpose is to focus on the engagement and capacity building of stakeholders in the regions they serve. RCE is a network of existing formal, non formal and informal education organisations, mobilised to deliver ESD to local and regional communities (see Wade, 2013). RCEs aspired to achieve the goals of the UN Decade of Education for Sustainable Development (DESD, 2005–2014), by translating the objectives into the local community context in which they are situated. The ''RCE Severn'' facilitates workshops and seminars as well as convenes discussion groups and staff and student placements with the 110 organisations which form part of this consortium. It is one of six active RCEs in the UK.

In terms of their impact some are critical, Scott (2012), for example, comments negatively on RCEs ''All rather disappointing, given that they promised so much – especially to themselves'' however their potential for the development and mobilisation of communities working towards sustainability is quite clear (Wade, 2013) and although little impact has been felt in the UK, that may not be the case elsewhere.

A respondent from Edinburgh University commented on the history of the university's engagement in sustainability externally:

> ''As long ago as the late 1990s members of the University of Edinburgh contributed to and participated in a Lord Provost's Commission on Sustainable Development; since then the University has been represented on the Edinburgh Sustainable Development Partnership – one of seven Partnership bodies under the framework of the Community Planning Partnership which subsumed the LA21 mechanisms''. However it was also suggested that such bodies might be perceived as ''mere talking shops'' that may not have ''really gained any traction for the sustainability agenda''.

The respondent agreed that ''there will be many academic and support staff colleagues who quietly serve in many different ways – possibly more on the national stage than local community'' although it was ''difficult to identify appropriate metrics''. Some of the ways that individual academics and staff make a contribution to building capacity is further expanded by Higgins, Nicol, Somervell, and Bownes

(2013, pp.200–202) but is general rather than specific, and reinforces that while there may be many areas of engagement, they are largely ad-hoc.

At the University of Manchester a ''Living Lab'' (University of Manchester, 2014) approach aims to contribute to, ''developing the University of Manchester campus as a site for applied teaching and research around sustainability and low carbon'' (http:// universitylivinglab.org). Their website provides ''a platform for collaboration between researchers, students, external stakeholders and the Directorate of Estates and Facilities to deploy and monitor new technologies and services in real world settings'' and although it is not yet substantially populated, the project has produced an Interim Report (University of Manchester, 2013). A respondent from Manchester University suggested that the University records the number of employees serving on School Boards as a measure of community contribution under ''Social Responsibility''. The same respondent commented that it might be interesting to ''compare HE to FE, as latter has much greater implicit obligation to respond to local needs'' which perhaps carries the connotation that some higher education institutions might be less responsive to local needs than Further Education.

Plymouth University responded that (despite the institution being consistently in the top three of the Green League) there was ''not an overarching view of community projects specifically related to work to build capacity for sustainable communities''. There were however a couple of recent projects that might be considered:

Plymouth Growing Futures – is an innovation in sustainability education. The Project Coordinator has led a number of collaborative curriculum projects between university students and community groups, using the Physic Garden and spaces around campus as learning resources for sustainability learning. Projects include Social Work students working with local learning disability service users, and 3D Design students working with Plymouth in Bloom community group to create a public garden space in the city.

The Listening Post – an initiative from the Student Counselling and Personal Development Service that has engaged members of the local University of the Third Age to train as volunteers listeners for any student wanting an immediate drop-in listening service. Research is being conducted through this project into the links between personal well-being and sustainable and resilient communities.

Although there was no formal collation of community projects, ''Plymouth had conducted a ''Sustainability in the Curriculum Review'' in 2012, where one of the questions asked Programme Leaders about the extent of community partnerships in their programmes''.

An exceptionally detailed response was provided from the University of Wales Trinity Saint David (UWTSD) where it is quite obvious that sustainable development is a driving ambition central to planning. Although Education for Sustainable Development and Global Citizens has been compulsory in Wales since 2006, UWTSD since 2012, has established ''The Institute of Sustainable Practice, Innovation and Resource Effectiveness (INSPIRE)'' and has sought to go further than many institutions in centralising this endeavour. The University's Strategic Plan articulates the vision: ''The University will have an equally important role in advocating global citizenship and education for sustainable development'' (University of Wales, 2013, p. 1). The institution had made ''a commitment to contributing to sustainability in the region and through partnership aims to provide strong community leadership for sustainable development in Carmarthenshire; a pledge between the University and Carmarthenshire County Council has been drafted. Capacity building will be centrally coordinated but monitoring and evaluation evidence is in development''.

At Bournemouth University (BU) capacity building has included a variety of innovative projects, many led by individual academics, others led by local bodies such as Bournemouth Borough Council, the County Council, local schools and the Local Enterprise Partnership that have included university membership. A significant project has been work with the Bournemouth Borough Council (the only UK local authority to have endorsed the Earth Charter) to implement the Earth Charter Principles and to embed these across council operations and within the community (see Bournemouth Borough Council, 2014). This work has been led by a steering group that has included university membership. Projects have included a ''symposium on air travel'' (with a particular focus on the ''Bournemouth Air Festival''), re-generation, community cohesion activities, recycling, transport planning, perma-culture, and several others. The impact of such work has been largely qualitatively evaluated with the obvious exception of work to gain ''Fairtrade Town'' status (chaired by an academic), where accreditation requires more quantitative measures.

Academics at BU have also undertaken applied research particularly in the areas of conservation, ecology, forestry and the marine aspects of the environment, although most of this has not been centrally co-ordinated and has arisen out of individual interests and opportunities for funding. The ''Poole and Purbeck Portal'' http://www.pooleandpurbeckportal.co.uk/news/ serves as a community repository that connects students, staff and community but has not been evaluated. The most recent project involves the University working with local stakeholders as part of the ''Bournemouth and Poole Sustainable Food City'' project. The latter has been University sponsored and as such is more centrally coordinated with the direct aim of capacity building. However the project is still struggling to articulate appropriate evaluation measures. Capacity building overall is not monitored centrally within the University.

Within the UK, a big driver and contributor to capacity building has been the National Union of Students (NUS) which deserves a mention. The student body has been instrumental in driving change and engaging with capacity building projects within their institutions and within the broader community. The NUS runs a number of sustainability opportunities for students outside of their university/college campus. This has included:

''Supporting students' unions to have a positive impact on their local communities, facilitating everything from wildlife garden creation in schools to providing recycled computers and IT training for local unemployed people.

Utilising behaviour change programmes developed in HE/FE in off-campus settings, enabling widespread engagement with the sustainability agenda in hospitals, charities, fire stations, police stations, museums, shops, schools etc. whilst providing volunteering opportunities for students to add capacity to these organisations and programmes (sometimes these voluntary opportunities are part of their curriculum).

Supporting research projects for students into the feasibility of new projects, the impacts of existing projects, analysis of methodologies used, etc.

Encouraging knowledge transfer between organisations running sustainability work in local communities.''

A respondent from the NUS stated ''Obviously the Student's Union is not an FHEI but it is part of our longer term strategy to continue and expand this work – enabling students' unions to become green hubs in their communities, normalising sustainability, and creating graduates who leave education with the skills, tools, knowledge and commitment to sustainability that will enable them to be part of the future solution to sustainability rather than continuing to being part of the problem''. Evaluations of projects, for example ''Green Impact'' are usually undertaken through surveys that are ''generally based on reflections of what has worked well, and what hasn't, about their participation in the programme''.

Finally, a respondent from De Montfort University where sustainability is a central feature of University Strategy, suggested that there is ''little in the way of systematic process for incorporating it into the 'culture' or 'fabric' of the organisation; when this does occur there is very much an environmental focus and little explicit attention paid to capacity''.

The respondent went on to agree that it is likely that many individual academics will be undertaking individual projects but few universities will have a strategy for building a sustainable community as part of their local/regional strategy. Suggested hurdles for building capacity for sustainable development and evaluating universities' contributions to such were identified as:

''An environmental rather than a holistic vision of sustainability. Physical and procedural boundaries between HE and its environment – for a number of reasons e.g. where staff live.

Environmental sustainability becomes less central where there are competing economic priorities.

Sustainability is seen as a product – outcome rather than a process; this is to a large extent a problem generated by academics and researchers.

Other competencies for contributing to sustainability appear under other banner s.e.g. social and human capital, economic capital, etc.''

5. Responses from Germany

The systematic implementation of sustainability at German universities has a rather short tradition, with many ad hoc initiatives taking place in a recent past. This is because of the fact that, prior to the late 1990s, the emphasis was not on sustainability, but on environmental conservation and environmental protection at universities. The line of thinking adopted then, was that as large organisations, universities had to become more environmentally friendly. The Association of Rectors of German Universities (HRK) started in 1996 a scheme titled ''Environmental Protection at Universities'', whose emphasis was on the use of environmental management systems at higher education institutions to reduce energy consumption, handle wastes and use water resources more rationally.

In 1997, a ground breaking event was organised at the University of Luneburg (the previous name of the Leuphana University), congregating many of those universities in Germany who had an interest on elements of environmental management on the one hand, and sustainability on the other, to present their initiatives and exchange experiences. The event subsequently led to a publication titled ''Environmental Conservation and Sustainability at German Universities: Concepts and Implementation'' (Leal Filho, 1998), which opened the way for further work in this field.

An intensification of efforts towards making sustainability more prominent in German universities occurred after; actions were often associated with operations, and less with curriculum and research, although the trend has progressively changed. The first example of a formal and long-term institutional commitment was given by the Hochschule Zittau-Go¨rlitz, situated at the eastern most part of Germany, which in 1999 became the first German institution of higher education having successfully undergone the full cycle of EMS requirements – including validation and registration – as specified in the EC regulation 1836/93 (EMAS) which is the European equivalent of the international ISO 14001 standard. Particular concern in Zittau was shown for the active involvement and participation of students and employees during all individual phases of the environmental management system (Delakowitz & Hoffmann, 2000).

Since then, many German universities have joined the sustainability movement, and have been very active in respect of the introduction of sustainability at the institutional level, in operations, teaching, research (or a combination of all) in various ways and formats. There is now a vibrant sustainability scene in Germany, whose size was exemplified by the nearly two hundred delegates who attended a seminar on sustainability at universities, called by the German Council on Sustainable Development (Rat fu¨r Nachhaltigkeit) a non-governmental organisation, set up to provide advice to the German government on matters related to sustainable development.

The survey that was undertaken as part of this paper started from the premise that, even though many universities engage in sustainability in one way or another, it would be difficult to gather responses from them; quite often the people who may be able to provide information show little interest in taking part in such studies.

The goal was to gain responses from a sample of 10 universities in northern Germany (to match the UK response). Only five institutions responded: Hamburg University of Applied Sciences (Hamburg), Leuphana University (Lu¨neburg), University of Bremen (Bremen), University of Kiel (Kiel) and University of Hannover. They form the basis of this analysis. An additional explanation for the limited level of responses obtained is the fact that a certain amount of survey fatigue exists within German Institutions. As a result, many staffs are not interested in participating in surveys, only the most motivated tend to respond.

When asked to share any examples of work in the community that their University is undertaking to build capacity for sustainability (i.e. how are they developing a sustainable community), the Leuphana University (former University of Lu¨neburg) responded by stating that students at the first semester (from all disciplines) participate together in seminars that are trans-disciplinary and work together with local communities on relevant challenges. Topics might be ''bicycle lanes, community participation, exchanges on political issues such as migration issues and others''.

Other examples are trans-disciplinary research initiatives where for instance a sustainability assessment approach was developed together with a local fruit juice producer and a bakery, to improve their sustainability performance. HAW Hamburg replied that its sustainability projects all involve local stakeholders and the community at large, who are invited to become partners or associates with its projects. The rationale here is that, by means of an inclusive approach, members of the local community, and especially but not only NGOs, are able to benefit from the projects and take advantage of the capacity building works performed as part of them. Hannover University stated that it occasionally offers training and further education activities targeted to local organisations, whereas the universities in Bremen and Kiel stated they only have ad hoc approaches which involve capacity building at the local level.

In respect of whether they have evaluated their building capacity work, and what measures they have used to measure their impact, the Leuphana University stated that there is a longitudinal study that has been running for several years investigating the capacity development among students in the fields of sustainable development.

This has however no community focus. HAW Hamburg, in turn, processes feed-back from participants from its activities, and is hence able to keep an accurate record of the effectiveness of the training it offers. At Kiel University there seems to be no real emphasis on measuring impacts, but this aspect is important at the University of Hannover, where records of the training initiatives are kept, partly because it is a requirement from funding bodies. In Bremen the emphasis is on the level of satisfaction of attendees, who are regarded as customers.

As far as building capacity for sustainability in the local community is concerned, and whether this part of a coherent overarching University wide strategy, all universities provided a clear yes.

It is worth noting that the activities performed by the sampled universities mostly focus on urban communities and settings. It appears that only at HAW Hamburg and at the Leuphana the structures through which community capacity can be enhanced, are being at least partly explored. And in none of them were serious considerations given to the natures of the partnerships involved between local governments, communities, and universities themselves. These are regarded as important, but there seems to be no evidence of a systematic approach towards them.

6. Responses from Portugal

In seeking to evaluate capacity building further in Europe, responses were elicited from five universities in Portugal; the lack of responses might be explained by the reality that Portugal has lagged behind other EU countries in relation to sustainable development with national level strategies and engagement not emerging until 2006 (Shiel& Pac¸o, 2012). As the responses were very limited and lacked the descriptive detail that respondents gave from the UK they are summarised and presented in Table 2. Securing responses was particularly challenging because for the most part, the institutions did not even understand the nature of the questions – in part this is reflective of the policy context at a national level but also because the activities of Portuguese universities in capacity building in local communities have more traditionally been related to entrepreneurship and knowledge transfer.

The results show that occasionally the institutions who responded are making some efforts to build sustainable relations in the community, but such efforts might be considered minimal and largely not strategically planned. Compared to the UK students unions have only just started working for the community in Portugal.

7. Responses from Brazil

The implementation of sustainability in Brazilian universities does not compare with the European universities (Leal Filho, 2010) nor with North American universities (Barlett & Chase, 2013). Although there are some examples of engagement that could be cited and an evident evolution of the theme in recent years, initiatives are still largely ad-hoc. Sustainability actions are isolated and sometimes guided by ideologies, resulting from teachers, students and staff projects (Brandli, Leal Fillho, Frandoloso, Korf, & Daris, 2015). This scenario (a lack of institutional approaches to sustainability) sets the context for the results in relation to capacity building in Brazilian universities.

The analyses performed in Brazil, was based on five universities, although twice as many were contacted to take part. Most of the initiatives to build capacity are in the area of education and involve the development of new skills and experiences to support more sustainable forms of development. The University of Sa˜o Paulo recorded the following projects:

Development and dissemination of educational publications for solid waste management and environmental education;

Table2
Synthesis of the responses from Portuguese HEI.

Institution	1. Examples of work in the community that your University is doing to build capacity for sustainability	2. Have you evaluated your building capacity work?	3. Is building capacity for sustainability in the local community part of a coherent over-arching University wide strategy?
Un. Lisbon	- Project aiming to collect non-perishable food supplies and distribute them amongst Solidarity Institutions	No	Yes. They plan annually some activities and are involved in a network aiming to develop social and environmental solutions for community
UBI	- Health screening and treatment programmes in several villages of the region - Promotion of activities related to Public Health. E.g. active ageing programmes with the municipality, sex educational projects with the schools - Organising students' volunteering for institutions - Project aiming to promote sporting activities to get the development of social capital. Some actions were directed to children who are in foster care and children attending the primary school - Support to entrepreneurship education programmes implementation in secondary schools	No	No
IESF (Fafe)	- Consultancy for small businesses	No	No
IPG	- Help in the creation and certification of a brand to promote the regional products	No	No
IPP	- Workshop organisation for people with disabilities (help blind people to find a job)	No	No

Preparation and publication of technical and scientific materials about wildlife management in urban areas, sustainability in the curriculum, research and extension in the university;

Extension projects in environmental education and composting in public schools in local community;

Training of environmental leadership among the employees of the university – programa imstocapacityenvironmentally 17,000 technical and administrative staff (2012–2015);

Courses for the external community in environmental education and composting areas.

Other examples were also cited by the remaining universities surveyed: training for correct destination and rational use of medicines; education and citizenship, training in managing finances, professional training in information technology and waste management, projects in local knowledge and practices related to agriculture, food and craft. The Federal University Fluminense responded by stating they have specific courses with emphasis on sustainability, such as a masters degree and PhD. The building capacity work in this university is concentrated on developing their students and their professional performance (rather than community engagement that fall soutside of the institution).

The State University of Roraima stated that actions in building capacity involve ''community quality of life (indigenous and fishermen), collective health and preservation of the environment (water quality, solid waste management, construction of septic system, separation of organic and inorganic materials, use of natural compost for soil fertilisation, ecotourism)''.

There are also capacity building projects to support economic development and changes to local practices. A response from University of Passo Fundo shows projects in different areas:

''Assistance to cooperatives the solid waste management;
Support to public use in conservation units;
Development of sustainable regional tourism;
Support to implementation cleaner production in small organisations;
Support to production of biodiesel with used oil''.

The Federal University of Rio Grande do Sul gave two examples of capacity building with impacts in economy and well being community. One of them is the support for a group of women from the Island of Pintada who make crafts with scales and fish leather as income generation, helping to develop new products to sell. The second, a project for development of social and educational activities with communities and teams from the Island of Pintada and Cruzeiro do Sul. The project enables the community to plant garden crops, to use these plants for therapeutic purposes and involves exchange of information about human health.

There are projects with the intention of providing services to the local community, for example, in relation to health assistance like dentistry, physiotherapy for visually impaired, motor activities for autistic, physical fitness for healthy living. All these projects have involvement of students allowing them put into practice what they learn. The possibility to work with community provide capacities for students not only in the technical way, but also the ability to deal with a range of real situations and contexts and develop other capabilities like problem solving, communication, ethical values and other range personal attributes. Furthermore, the community benefits, especially poor families.

In relation to the evaluation of building capacity work, and measures used to assess the impact the universities stated that there is not an institutional evaluation. However, the State University of Roraima commented that some projects have parameters, criteria and indicators that contribute to evaluating whether the proposed objectives were achieved. Also, the University of Passo reported the use of participatory methodology, action research, specific measures for projects results (e.g. kg. recycled waste) and perception of behaviour changes.

In summary, the projects undertaken by the universities involved are the result of individual initiatives and do not emanate from a university wide strategic approach; the concern is with local initiatives with a specialist focus, that address the needs of particular communities.

8. Discussion

Much of the literature on capacity building relates to health and social care, community development and social cohesion rather than building capacity for sustainable development within local communities. There are however numerous projects and examples of case-studies across the HE sector in the UK, Portugal, Germany and in Brazil, that suggest that universities are developing a variety of actions within their local communities to enhance sustainability, as well as undertaking research for local stakeholders that will undoubtedly contribute to capacity building, as the examples captured for this paper demonstrate.

However, as observed, the extent to which universities are engaged in capacity building for sustainable development within local communities is still somewhat patchy and not uniform across the world, or even in Europe. In comparison to the other countries explored in this study, the UK sample demonstrates greater advancement with capacity building projects specifically related to sustainable development and this has been supported by the activities of the NUS. In contrast,

Table3
Factorsthatinfluencecapacitybuildingonsustainabledevelopmentatuniversities.

Factors	Implications
Stafftraining–staffaretrainedforeducationandresearch, trainingin partnershipworkandcapacitybuildingneeds tobeprovided	Impactsthepotentialtoscaleuplocalengagementandcapacitybuildingprocesses
Localrelationshipsbetweenpartsoftheuniversity/individual academicsand multiplestakeholdersarevariousandneed tobemapped	Betteraccess/communicationwithstakeholders;lessadhocactivity,duplicateefforts andtime-wasting
Needsassessment	WithoutafullneedsassessmentthataddressSDinbroadterms,deliveryofcapacity buildingmayfallshort
Evaluationtools–areunder-developedornon-existent	Moreeffectivetoolswouldestablishthedegreeofsuccessofinterventions
Existenceoflocalchampions	Focusescapacitybuildingactivitiesondifferentareasbutwithoutsupportfor championsandinfrastructure, projectsmaybe‘‘one–offs’’

Portugalhasbeenslowtoengage withthesustainabilityagendaandthuscapacity buildingexamples arefew,andelicitingdatawasthereforemorechallenging.

The universities sampled in Brazil and Germany demonstrate different approachestobuildingcapacity,someofthemhavebeen moreinvolvedinprojects with the community than others; the Brazilian examples involve a number of projects with a human development focus rather than a generic sustainable development focus. However, the intention is not so much to compare the countriesbuttoidentifytheextenttowhichtheiruniversitiesare

Providing direction in the development of capabilities related to sustainability. Most of the capacity building projects illustrated are concerned with local initiatives, have a specialist focus, and aim to address the needs of particular communities.

Even though the sample is too small to allow results to be extrapolated to each country researched, these trends are symptomatic of the need for a more systematic approachtolink universitiesandlocalcommunitiesinrespectofcapacitybuilding for sustainable development. As Northmore and Hart (2011) point out, universities throughout the world need to more actively demonstrate the added value they bring when addressing complex social problems in partnership with local communities; a morecoordinatedapproachmightsupportgreaterengagement.

Nevertheless, a common trait can be observed across the generality of the cases: very often projects related to capacity building originate as individual projects (the few exceptions lie within UK institutions). Such projects are frequently led by individualsorsmallgroupsofstaffandarenotnormallydriven centrallybutareoften inspiredbyindividualacademic interests. Assuchtheymayendeitherwhenfunding sourcesdecline,or whentheindividualprojectchampionmoveson,orlosesinterest. A furthercommonalityacrossthesampledinstitutions(againwith asmallexception in the UK) is that there is generally a lack of evaluation of programmes and implementation.

Even within those institutions within the UK where projects seem more substantial and are specifically related to sustainable development, evaluative measuresareintheformativestagesof development.Thereisverylittleevidencethat such activities are fully captured or centrally coordinated; they are unlikely to be systematicallyevaluated.BeingpartofaUNRCEmeansthatthere islikelytobemore capacity building activity but it does not necessarily follow that RCEs have greater impact,orbetter evaluationmeasures.Eveninthoseinstitutionswhereevaluation of capacity building was on the agenda, respondents were in the early stages of developing measures to evaluate their efforts; many suggested that they were struggling to come up with sufficiently robust measures. The majority of institutions havenoteven 1 considered addressing this area of activity.

Typicalmeasurescurrentlydeployedinclude:

Case study descriptions of projects (the most common measure). Number of student/staffhours.

Number of community stakeholders/participants involved (often recorded as attendanceatevents).

Specific indicators (reporting the project results). Behaviour changing(qualitativeapproach).

Noneoftheinstitutionsthatrespondedofferedanythingmore sophisticatedatthis point. There was no explicit evidence of longitudinal studies (although in Germany, Leuphana University highlighted a potential example); there was no evidence of rigorousattemptstocapturebefore/aftermeasures.

This is hardly surprising given that many universities have concentrated their efforts on greening their estates, and have then fought hard to secure ESD within the curriculum. This might mean that they have so far given less attention to a more strategic endeavour to build capacity for sustainable development in their regional community. It may also be the case that this third area of activity has had less priority but will be the next stage of a work-in progress. It is also understandable given the difficulties of monitoring and evaluating capacity building, highlighted (although not in the context of sustainability actions) by Brown et al. (2001): benchmarking the starting point is important if you want to evaluate success but ‘‘before’’ and ‘‘after’’ measuresare challengingtocaptureandrequiretimeandresources.Brown

. etal.(2001)usefully draw attention to the difficulties:capacity andcapacitybuildingare neverstatic;itisdifficulttocapture meaningful data,toknowwhattomeasure(giventhe multidimensionalnature);developmentoccurs instageswithamultitude ofenvironmentaland contextualfactorsthatinfluenceboth capacity andperformance;effectsarenotfully understoodand capacitymayactuallydecline (Brownetal.,2001,p.37).Such complexities mightbepartiallyresponsiblefortheapparent deficit.

Further, although some of the lack of monitoring and evaluation evidenced in the sampled institutions, lies within the methodological challenges, in large measure it alsorelatestothelack of acentralisedfunctionwithinuniversitiestocapturetherange ofactivitiesthatindividualacademicsengagewithacrossthe community.Thisalso offers a partial explanation as to why eliciting data for this study was difficult. The complicated nature of universities' engagement with stakeholders at a variety of levelsmeansthatitisunlikelythatinstitutionswillhavean overviewofwhatisgoing on. Regarding the latter, knowing who is interacting with whom in the external environment, becomes an almost impossible task without good knowledge management andinformationsystems.

Institutional barriers contribute to the lack of monitoring and evaluation of capacity building. Some obstacles include a lack of interest and institutional commitment; absence of adequate resources for monitoring (mostly financial and human resources); lack of knowledge about how to monitor and evaluate capacity building(typesofapproachesandmethodologies);andthenature ofengagementwith stakeholdersandpartners.

Theevaluationofcapacitybuildingisthus,quiteachallenge; universitiesneedto determine how they intend to measure the change and consider this in the context of timeandresources available.Whereresourcespermitablendoftools,methodologies and approaches, should be deployed to provide a picture of what is changing (or not). Also, findings should be triangulated by involving different stakeholders in the evaluationprocesses (Simister&Smith,2010).

Table3outlinessomeofthevariablesthatappeartoinfluence capacitybuilding for sustainabledevelopmentatuniversities.

Very few institutions develop staff capability in partnership work, or capture the multiplicity of partnerships in play, that might build capacity; very few institutions havethestructuresand enablingplatformstoenhancedialoguewiththecommunityto collaborateincapacitybuilding,atthispointintime.

9. Lessons learned

In terms of lessons learned, evaluating universities' contributions to sustainable development in areas that move beyond campus greening and curriculum development to embrace external efforts to build sustainable communities, presents a number of challenges. Institutions themselves have paid very little attention to capturing the multiple ways that staff interact with external stakeholders in general, let alone with specific regard to sustainable development and initiatives to build external capacity.

Just as there is no single recipe or model to foster sustainability in countries and one has to take into consideration a country's political setting on the one hand, and the different priorities given to sustainability in higher education on the other, there is also no single way that academics engage with capacity building. In addition, since within countries the institutional level of emphasis on sustainability varies considerably, it is not possible to generalise about how higher education is contributing towards sustainable development through capacity building.

Evaluative measures do not generally exist at the institutional level for assessing overall the impact of building capacity; at the project level outputs are often represented by case studies, evaluative measures are largely in the formative stages which, in part, reflects the methodological challenges of the concept. Thus, capturing data to gain more than a descriptive overview of universities' initiatives is difficult.

The construction of a benchmarking instrument containing a set of good practices that would promote capacity building towards sustainability might be helpful. This instrument should include a set of measures to evaluate different types of engagement which as a starting point may simply involve crude measures such as, number of activities, number of events, number of supported projects, etc.

Finally, one of the lessons learned from this paper is the perceived need to document and promote countries experiences, so that developments over time can be monitored, and assessments made as to whether improvements within the community took place (or not).

10. Conclusions

This paper has argued that building sustainable communities is an important aspect of achieving sustainable development. Evaluation and programme planning on sustainable development are thus of great relevance. Universities have a key role to play within communities to engage with stakeholders and to contribute to capacity building, as demonstrated in the PROSPER (promoting School-community-university Partnerships to Enhance Resilience) partnership model referred by Spoth et al. (2004), and in the University of Brighton's Community-University Partnership Programme (CUPP) presented by Northmore and Hart (2011) and Hart et al. (2009).

Even though a much larger sample would be needed to allow definitive conclusions, the responses collected from institutions across four countries demonstrate that although there are a variety of projects that are undoubtedly contributing to capacity building, these are largely ad hoc, and most are not effectively evaluated. A partial explanation (although not directly related to external capacity building) is suggested by Shriberg (2002): most assessment tools do not afford mechanisms for comparing campus efforts and most valuations neglect why initiatives began and are kept.

Capacity building within communities (externally facing projects) appears to have lagged behind universities' internally focused initiatives such as campus greening and seeking to embed ESD within the curriculum. Those universities, particularly within the UK who have made a strategic commitment to sustainable development and who already have highly regarded green credentials, are likely to be doing more externally but may not necessarily have a co-ordinated approach to capacity building. Further, measures for evaluation and programme planning on sustainable development with a focus on capacity building, if they exist at all are in the early stages of development.

The results suggest the importance of management and information systems to capture initiatives, as well as strong leadership to co-ordinate capacity building activities. Universities should ensure that skilled and adequate technical and human resources are developed to guarantee that the right collaborative learning skills are nurtured and that enabling platforms are developed to facilitate collaboration. Additionally, a continuous dialogue with community stakeholders and government (local and national) is also crucial to feed investment into projects aimed at capacity building between HEIs and community and to support collaborations. This is necessary because, as Berke and Conroy (2000) suggest, planners responsible for engagement may have only a superficial understanding of how to translate the concept into practice, and interest groups may be sceptical about the outputs of capacity building.

In the future if universities are to maximise their contribution towards sustainable development, it will be important to expand their externally facing efforts to build capacity for sustainable development within local communities. Future research needs to consider how to capture and develop synergy from the range of activities and approaches that individual academics undertake and to develop tools to capture impacts but also to consider how to more critically evaluate processes. At the same time, it would be useful to measure the extent to which these projects contribute to research within universities (and are valued as such), as well as the extent to which they enhance learning and practice within communities.

More sophisticated measures to evaluate capacity building are undoubtedly needed but within the consideration that the need to enhance capacity for sustainable development is an urgent issue; too much time spent on measures may mean less time spent on actions. What seems more important at this time is to develop understanding further of the processes that secure the greatest engagement and the highest perceived positive outcomes. Further case study research should aim to show how enabling mechanisms, human resource development and particular processes, support collaborative learning for sustainability within communities. Universities have a critical role to play in contributing to sustainable development; they will fall short in that role if they do not prioritise learning with community stakeholders and contributing to local change for sustainable development.

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